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The Imi	oact of	Learning	Contracts	on Eating	Habits	Groups
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By Jose Jones

A Dissertation submitted to the Education Faculty of Lindenwood University

In partial fulfillment of the requirements for the

Degree of

Doctor of Education

School of Education

## The Impact of Learning Contracts on Eating Habits

## By Jose Jones

This dissertation has been approved in partial fulfillment of the requirements for the degree of

## **Doctor of Education**

at Lindenwood University by the School of Education

Dr. Roger 'Mitch' Nasser, Jr.

Date

| 1/- 2-18 |
| Dr. John Long | Date

| Dr. Sherrie Wisdom | Date

## **Declaration of Originality**

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Jose Antonio Jones

Signature:

Date: 11-2-18

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### Abstract

The purpose of the study was for the researcher to explore adult education techniques and tools that could be used to explore eating habits within research study groups. The participants enrolled in the research study groups brought their own way of thinking on eating habit discussions based on their unique experience in life. The researcher explored different techniques that could help improve the participants' quality of life and other positive solutions to benefit the participants.

This research study explored the impact of learning contracts on participants with eating habit research-based study groups. The study explored the degree to which learning contracts may be a beneficial tool to positively impact eating habits. Pre and post-surveys were administered within the research groups that participated. The purpose behind the study was to learn the impact learning contracts could have on eating habits. In addition, the study explored differences, positive impacts, benefits, and outcomes for participants utilizing learning contracts on eating habits.

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## **Chapter One: Introduction**

## **Background of the Study**

In 2015, the United States Department of Agriculture Dietary Guidelines for Americans issued a report on the then-current eating patterns in the United States. According to the report, the eating patterns failed to align with the Dietary Guidelines, when compared to the Healthy U.S.-Style Pattern (as cited in Rodgers, 2015). According to the U.S. Department of Agriculture (USDA, 2015), about three-fourths of the population implemented an eating pattern that was low in vegetables, fruits, dairy, and oils. More than half of the population either met or exceeded the recommendations for total grain and total protein foods, while failing to meet the recommendations for the subgroups within each of these food groups. Most Americans also exceeded the recommendations regarding added sugars, saturated fats, and sodium (Rodgers, 2015). In addition, the USDA (2015) stated,

Calorie intake over time, in comparison to calorie needs, is best evaluated by measuring body weight status. The high percentage of the population that is overweight or obese suggests that many in the United States overconsume calories. More than two-thirds of all adults and nearly one-third of all children and youth in the United States are either overweight or obese (as cited in Rodgers, 2015, p. 57)

The author of this study aimed to explore eating habits of participants, while implementing learning contracts. Furthermore, participants in eating habits groups could bring their unique and genuine experiences into their eating habits discussions groups.

According to O'Halloran and Delaney (2011), students in counseling programs varied in

terms of work and life experiences, family and cultural differences, and socio-economic status, as well as time attendance status. Furthermore, they had a wide range of other commitments and may differ from younger, traditional students in their motivation, experience, self-direction, and self-opinion. There were several intervention program, classes, and groups that could help individuals be aware of bad habits and improve the quality of healthy eating.

### Andragogy

Andragogy, the art and science of helping adults learn, provided a conceptual model of learning and instruction, which incorporated the concept of independent study, individualized instruction, and self-directed and lifelong learning into a comprehensive theoretical framework (Knowles, 1986). As stated by Henschke (2011), Andragogy is "the art and science of helping adults learn." (p. 1). Andragogical concepts demonstrated a long and rich history that shaped the understanding of adult learning and continued to impact the way adults learned.

Andragogy recognized adults acquired information as co-learners through a wealth of experiences and knowledge. This field discussed six assumptions about adult learners which strengthen student participation through self-directed learning, increased learner awareness as the individuals knew what they wanted to learn, helped identify educational needs, solved problems, embraced shared experiences, inspired transformation, and created trusting learning environments. Andragogy was instrumental in transcending boundaries, such as student-teacher interaction into student-facilitator relationships. As a result, these principles promoted trust between the student and the instructor, as well as enhanced self-awareness in students (Chan, 2010).

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One of the techniques often used in andragogy included the use of learning contracts. Learning contracts occurred between the learner as an individual, a learner and an instructor, an employee and a supervisor, or an individual within a group (Knowles, 1986). A learning contract addressed the learner's knowledge, understanding skills, attitudes, value, and interests they aimed to acquire through their learning experiences (Henschke, 2011, p. 3). For the facilitator to know if a learner met each component of the learning contract, the development of learner objectives occurred. The objectives determined how the learner met each designated objective, as well as determining if the learner accomplished the objective using individualized resources and strategies. The learning contract also included the target date for each scheduled accomplishment, a formal presentation of evidences demonstrating how the learner accomplished the objectives, and the final scoring of each piece of evidence (Knowles, 1986).

The use of learning contracts operated as a self-directed method tool through the development and implementation of an andragogical learning contracts. Each learner created a willful and voluntary document outlining the activities in which the learner pledged to complete as they work towards making scholarly progress. This document was marked by the student, the facilitator, and the parent, if necessary. The advantages of every contract provided the learner with a scholarly structure and support, spurred battling learners by having them vow freely to take part in meeting their desired objectives and included positive investigation and learning practices (Frank & Scharff, 2013).

This mixed-method study explored the use of learning contracts on each participant's eating habits. Learning contracts operated as the tenet of andragogical

practice. Andragogy, the art and science of helping adults learn, allowed each participant to develop a conceptual model of learning and instruction and incorporated the concept of independent study and individualized instruction, as well as self-directed and lifelong learning within a comprehensive theoretical framework. This study aimed to create a similar group of participants, in addition to the use of andragogical principles and learning contracts.

## **Purpose of the Study**

The purpose of this study examined the impact of learning contracts on eating habits and determined if any differences, positive impacts, benefits, and outcomes for participants utilizing learning contracts in relation to their eating habits existed. The researcher implemented quantitative and qualitative methodologies to monitor the participants' changes. The researcher incorporated learning contracts at the beginning of the study and discussed them at the end of the study. The researcher used the Emotional Eating Scale (EES) instrument as a pre-and posttest during the research study (Appendix A). The researcher facilitated a focus group at the end of the research study.

The results of this study may add to the research base of the EES and the development of a measure to assess coping with negative eating habits and the use of learning contracts. The EES study suggested emotional subscales including Anger/Frustration, Anxiety, and Depression. All three subscales correlated and provided evidence of construct validity (Arnow, Kenardy, & Agras, 1992).

#### Rationale

One effective way of organizing the needs, goals, objectives, assignments, and evaluations of a population in a collaborative way occurred through the development of a

learning contract. A learning contract was a willful and voluntary document that laid out activities the learner guaranteed to take in a course, lifestyle, or decision process to make progress. This document was marked by the student, the facilitator, and the parent (if applicable). Studies showed using learning contracts in counselor education classrooms appeared to particularly meet the needs of adult learners in counselor education classrooms (O'Halloran & Delaney, 2011).

According to Chan and Chien's (2000) study on the use of learning contracts in mental health nursing clinical placement, students' autonomy and motivation in clinical learning increased using learning contracts. The study reported an increased sharing between students and teachers, and the quality of teaching and learning improved.

Furthermore, the study concluded that contract learning should integrate into the curriculum of nursing education as a learning strategy for nursing students.

According to Chyung (2007), students demonstrated an increase toward self-direction and motivation during opportunities, which included contract learning.

However, what they preferred the most included the ability and allowance to select assignments relevant to their interests and needs. Therefore, there was motivation for the exploration on the impact of learning contracts toward eating habits through a collaborative approach between the student and the facilitator/researcher.

A study by Holmes and Abington-Cooper (2000) aimed to explore the benefits and outcomes for participants using learning contracts. Although andragogy increased in popularity within and outside adult education circles and andragogical approaches commonly employed in adult education, nursing, social work, business, religion, agriculture, and even law, it included opponents, as well as its proponents (Holmes &

Abington-Cooper, 2000).

## **Research Questions**

Research Question 1: How do learning contracts impact eating habits?

Research Question 2. How can differences in scores (pre-and posttest scores) in the Emotional Eating Scale be explained?

## **Hypothesis**

Hypothesis 1: There is a difference between participants' Emotional Eating Scale scores during the pretest and the posttest?

## **Limitations within the Study**

One limitation of this study included the use of only an assessment instrument, which included the EES. The authors, Arnow, Kenardy, and Agras, of this assessment tool developed the document in 1992, and it appeared there was no other assessment tool available at the time of this study. A limitation of learning contracts may not include appropriate content, as the learner may view the components as complex and unfamiliar. Introducing a learning contract as a new concept would require some rethinking of learning in the minds of some participants. They may need time to adjust and understand the concept, which leads to another limitation.

The implementation of learning contracts occurred within a group of participants attending programs at a small boxing fitness gym. As such, the results of this study may not generalize to a larger population. Therefore, further research of this type at additional centers, institutions, and organizations would possibly demonstrate additional advantages leading to an increased understanding of the impact toward learning contracts in habits/disorders groups. The impact of this limitation had on this study occurred due to

the results demonstrating an increased level of engagement within the participants in the study. The study occurred in a small setting, which promoted discussion and engagement within the participants. Another limitation included the diversity of the class. Working with a diverse and cultural group could be a limitation, due to the fact that not every participant had the same knowledge and background regarding the use of learning contracts. Participants in the study reported positive feedback, while creating and using the contract. However, a limited amount of time dedicated to discussing the content of the learning contract existed.

### **Definition of Terms**

Learning contract: A learning contract was a willful and voluntary document that laid out activities the learner guarantees to take in a course of action to make scholarly progress. This document was marked by the student, the facilitator, and (alternatively) the parent. The advantages of every single such contract, nonetheless, were that they give scholarly structure and support, spurred battling learners by having them vow freely to take part, gave positive investigation and learning practices, and filled in as a vehicle to convey to educators and students the concessions to which course objectives were imperative and how to accomplish them (Frank & Scharff, 2013).

**Emotional eating**: Emotional eating was utilizing food nourishment to address depression. It was eating to fulfill emotional needs, as opposed to fulfilling physical craving (Smith, Segal, & Segal, 2017).

**Eating habits**: When behavior was sufficiently and satisfactorily repeated, a habit may develop. Habits could be considered as automatic acts, because these were operating outside our awareness and were cognitively efficient (Verplanken & Faes, 1999, p. 594).

**Principles of Andragogy**: Andragogy was the "art and science of helping adults learn" (Clardy, 2005, pp 4). There were six principles that represented the foundation of andragogy.

The Need to Know: "Adults spend a significant amount of time attempting to comprehend the new material. Adults self-directed to find the meaning for their learning" (Houde, 2006, p. 94).

The Learner Self Concept: Andragogy stated that adult educational learning needs include self-direction. This observation occurred due to old social progression recollected from learning as a child. The infringement of this rule can affect the learner, by helping the andragogy clarify high dropout rates among adult learners. (Houde, 2006, p. 94)

**Role of Learner Experience**: "This principle recommends that adults have more experience and more assorted understanding than children. As an outcome, the learner's experience demonstrated a significant asset in the classroom" (Houde, 2006, p. 94).

**Readiness to Learn**: "Andragogy ideology relate to the experiences an adult holds within their lives while learning. Life circumstances may lead an adult to organize their personal learning in different scenarios" (Houde, 2006, p. 94).

*Orientation to Learning*: "The field of andragogy recommends for adult learners to act in a problem-centered manner rather than content-oriented toward their approach in dealing with life issues" (Houde, 2006, p. 94).

*Motivation*: The assumption about adult learners in this principle include "the most significant motivators are internal motivators (the desire for increased

job satisfaction, self-confidence, self-esteem and quality of life)." (Knowles, Holton & Swanson, 1998, p. 68)

Emotional Eating Scale: The EES assessment tool include a 25item scale with three factor analytically derived subscales: anger, anxiety and
depression. Participants rated the extent to which certain feelings lead to the urge
to eat using a 5-point Likert Scale ranging from a score of zero points identified
as "no desire to eat" to a score of five points identified as "an overwhelming urge
to eat." (Arnow et al., 1992, p. 1)

### **Summary**

Chapter One introduced learning contracts and eating habits, as well as the framework developed for this study. It also provided an explanation of the purpose and rationale of the study. Finally, the chapter included a brief explanation on creating and incorporating learning contracts in self-directed eating habit discussion groups.

The purpose of this study included the examination regarding the impact of learning contracts on eating habits and explored if there were any differences, positive impacts, benefits, and outcomes for participants utilizing learning contracts in relation to their eating habits. The USDA identified the eating patterns of residents in the United States as a highly concerning issue. As such, more than two-thirds of all adults and nearly one-third of all children in the United States were either overweight or obese (Rodgers, 2015).

Learning contracts allowed facilitators and students to collaborate to accomplish goals, because they promoted and encouraged responsibility for their own learning and needs. They also allowed students to enhance their learning through this responsibility

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and through exploration of their own interests and needs. In addition, learning contracts allowed students to concentrate on self-directed learning, rather than worrying about a specific curriculum. Furthermore, learning contracts gave students more flexibility and provided more solutions that could ultimately assist students in balancing their academic, professional, and personal responsibilities.

Chapter Two contains a literature review of prior research conducted in the areas of andragogy learning theory, learning contracts, eating habits, and eating disorders.

Chapter Three discusses the research design method of this study, while Chapter Four presents the results derived from the data analysis. Finally, Chapter Five provides a discussion regarding the researcher's findings, limitations, implications, and conclusions for future research within the fields of andragogy, learning contracts and eating habits, including the result of the impact of learning contract on eating habits discussions.

### **Chapter Two: Literature Review**

The literature review in Chapter Two supports the purpose of this study and discusses then-current research related to andragogical concepts, as related to the initiation and implementation of learning contracts on eating habit groups. In this discussion, the researcher discusses the andragogical assumptions. The researcher also discusses the history behind pedagogy and andragogy.

Andragogical assumptions included characteristics of adult learners that were different from the assumptions toward child learners. Based on his own observations, Knowles (1986) developed a set of five assumptions which enveloped his concept of andragogy. According to Blondy (2007), the andragogical concepts contrasted sharply with the assumptions of pedagogy, which viewed learners as having dependent personalities who brought little or no experience to the educational activity. Although pedagogy stated learners were dependent, andragogy beliefs included the fact that learners were independent and had control of their own experiences.

Next, the researcher reviewed literature discussing the idea of learning contracts and the methodology toward applying learning contracts within multiple settings. Third, the literature review examines the use of discussion groups and how discussion groups could provide help to adults in different settings. Fourth, the researcher discusses adult eating habits and explored several research studies, which helped the understanding of eating habits. Lastly, the researcher explores and discusses eating disorders as a consequence, leading to adults sustaining bad eating habits.

## **History behind Pedagogy and Andragogy**

According to Ozuah (2005), pedagogy came before andragogy. Pedagogy derived

from two words 'paid' meaning 'child' and 'agogus' meaning 'leader of,' which in turn referenced the art and science of teaching children (Ozuah, 2005). The roots of pedagogy traced back to 7th century Europe, during the introduction of ordered education at monastic schools, also known as cathedral schools. The model of pedagogy arose at this time and initiated several assumptions about learners. These assumptions would later have an impact on the design of the educational model.

The first pedagogical assumption included the dependent personality of learning, which implied that the learner not only did not know, but could not know his or her own learning needs (Ozuah, 2005). The second assumption instituted a belief that learning needed to be subject-centered, which promoted the development of instructional syllabi and included a systematization toward learning around subjects, such as mathematics and geography (Ozuah, 2005). The third assumption underlined extrinsic motivation as the most vital driving force for learning, defining learners as individuals who demonstrated motivation with prizes and punishment (Ozuah, 2005). The final assumption focused on the importance of prior experiences, which may be irrelevant to the learner (Ozuah, 2005).

In the 18th and 19th centuries, as secular and public schools developed in mass numbers, adaptations to pedagogical concepts occurred as educators viewed them as the only existing educational model at the time. At the time of this writing, numerous theorists contended the entire educational system was frozen in the pedagogical approach, ever since the initial application of pedagogy in the 18th century (Anderson, Boud, & Sampson, 2016; Blondy, 2007; Chan, 2010). Pedagogical concepts primarily promoted a teacher-centered model, where the teacher determined the information learned by the

students, how the students learned the information, when the students learned the information, and if the students learned the information as demonstrated through the use of assessments (Ozuah, 2005).

Ozuah (2005) found in his research that a German grammar school teacher named Kapp coined the term 'andragogy' in 1833. Kapp used the word to describe the educational architype employed by the Greek philosopher, Plato. According to Ozuah (2005), Lindeman, in 1926, wrote tremendously about andragogy describing his theory of adult learning (p. 1), Lindeman stated,

The approach to adult learning will be via the root of problem solving, not subjects. I am conceiving adult education in terms of a new process by which the adult learns to become aware of and to evaluate his experience. To do this, he cannot begin by studying "subjects" in the hope that this information will be useful. On the contrary, he begins by giving attention to situations in which he finds himself, to problems which include obstacles to his self-fulfillment. Facts and information from the differentiated spheres of knowledge are used, not for accumulation, but because of need in solving problems. In this process the teacher finds a new function. He is no longer the oracle who speaks from the platform of authority, but rather the guide, the pointer-out who also participates in learning in proportion to the vitality and relevance of his facts and experiences (as cited in Ozuah, 2005, p. 83).

In 1959, when Knowles expanded on the work of Lindeman, Knowles and other educators did extensive work and developed new assumptions about adult learners (as cited in Ozuah, 2005). The first assumption revolved around the fact that adults needed

to know the utility and value of the material they planned to learn prior to embarking on learning experiences (Ozuah, 2005). The second assumption related to the individual selfconcept of the adult learner as self-directing and autonomous, which explained why adults had a deep psychological need to have others see and treat them as being capable of implementing self-direction (Ozuah, 2005). The third assumption dealt with the role of the learner's prior experience, because adult learning consultants believed that prior experiences were the richest resources available to adult learners (Ozuah, 2005). The fourth assumption described the individual's willingness to learn as the skill leads to the learner becoming reliant towards an appreciation of relevancy regarding the topic (Ozuah, 2005). The fifth assumption pertained to an adult learning theory focused on problem-centered, task-centered, or life-centered skill, leading to adults feeling driven to learn and perceive knowledge that would help them accomplish tasks or solve problems related to real life experiences (Ozuah, 2005). Lastly, the sixth assumption addressed the motivation to learn, because adult learners became driven by internal pressure, enthusiasm, and the yearning for self-esteem and goal fulfilment (Ozuah, 2005).

### Andragogy

Andragogy is the art and science of helping adults learn. The conceptual model of learning and instruction incorporated the concept of independent study, individualized instruction, and self-directed and lifelong learning into a comprehensive theoretical framework (Knowles, 1986). Knowles believed this theoretical framework established the core of the andragogical movement. According to Knowles (1988), the first educational model included pedagogy; however, after adult education began to be

organized systematically during the 1920s, teachers of adults started experiencing several problems with the pedagogical model.

In contrast to pedagogy, the andragogical practice treated the learning-teaching transactions as the mutual responsibility of learners and teacher (Clardy, 2005). Henschke (2015) stated "that in the U.S. andragogy has its origins in the work of Malcolm Knowles" (p. 4). Andragogy recognized adults acquired information as co-learners with a wealth of experiences and knowledge. The learner and the facilitator had responsibilities to themselves and to each other. The learners received the encouragement to feel and accept the responsibility in planning, completing, and assessing the results of their learning activity, within their relationships with associates, peers, and tutor (Burge, 1988). Knowles' conception of andragogy established a basis, in part, on beliefs about human nature, and the relationship between individual and society (Pratt, 1993).

This field included a five-andragogical-assumptions model about adult learners that strengthened student participation through self-directed learning, encouraged learners to be aware and know what they wanted to learn, helped identify educational needs, solved problems, embraced shared experiences, and created trusting learning environments (Chan, 2010). Andragogy was instrumental in transcending boundaries, such as learner-teacher interaction into learner-facilitator relationships. As a result, these assumptions promoted trust between the learner and the instructor and enhanced self-awareness in learners (Chan, 2010). According to Knowles (1984a, 1984b), there were five assumptions that represented the foundational core of the andragogical model. The assumptions in the andragogical model were described as:

The learner self concept: According to Thompson and Deis (2004), self-concept moved from one of being a dependent personality toward one of being a self-directed human being, as being responsible and accountable for its own learning. Adults typically wanted to choose what they wanted to learn, when they wanted to learn it, and how they wanted to learn (Knowles, 1984a). This may seem to suggest that adults' ability to self-direct learning could make them be less dependable in life.

Henschke (2006) suggested teachers of adult learners needed to know and utilize the strategies produced for helping adults to make a fast change from considering themselves dependent learners to become self-directed learners. Educators of adult learners needed to know and use the strategies developed for helping adults make a quick transition from seeing themselves as being dependent learners to becoming self-directed learners.

Blondy (2007) suggested that adults would enter educational settings with the assumptions from their past experiences (p. 3). Specifically, they would review educational situations in which they were treated as dependent beings and where they were taught information predetermined by others as important to know. "Knowles believed creating an environment that encouraged learner input and fostered sharing of ideas was conducive to learning" (Blondy, 2007, p. 3).

Role of learner experience: This principle suggested that adults had more understanding and more assorted understanding than children. Subsequently, the learner's understanding was a valuable resource in the classroom. This principle was not directly correlated to motivation the way the other principles of andragogy were. Nevertheless, the allegations of ignoring this principle had significant influence on an adult learner's

motivation. This implication was one that Knowles called elusive, because it encompassed experience as a part of the person as a while, rather than in its own regard. Knowles recognized that children had experience as well, but the relationship between adults and their experiences was more diverse than the relationship between children and their experiences. Adults stem self-identity from their experiences, where a child's distinctiveness tends to come from social connections. Because of the essential nature of previous experience to the identity of the adult learner, when their experiences are overlooked or undervalued, adults distinguish this as discarding not only their experiences, but discarding themselves as persons (Houde, 2006, p. 4).

Thompson and Deis (2004) believed the learner experience accumulated a growing reservoir of experience that turned into an expanding asset for learning and claimed that adults could be an asset for their own learning and the learning of others. "Adulthood was viewed as a matter of degree, which did not necessarily correspond with age" (Blondy, 2007, p. 6). According to Henschke (2006), adults began their educational lives with a volume of expertise, in contrast to the youth. A study by Blondy (2007) supported that learners should feel free to discuss their experiences in relation to the course content and in terms of andragogical assumptions to the adult online learning environment.

Readiness to learn: According to Houde (2006), andragogy ideology was that adults were experiencing their lives while learning. Life situations led adults to adjust and organize their own personal learning in different scenarios. Adult readiness to learn became self-directed and self-oriented, increasingly to the development tasks of social roles. According to Knowles (1984b), the andragogical model assumed that adults

became ready to learn when they experienced a need to know or do something; to perform more effectively in some aspect of their lives. Knowles recognized the significance of consolidating both the requirements of learner and those credited by institutions and society (as cited in Blondy, 2007).

Orientation to learning: According to Houde (2006), andragogy recommended that adult learners were problem-centered, rather than content-oriented, in their way to deal with life situations. Knowles (1984a) suggested adults were motivated to learn after they experienced a need in their life situation. They entered an educational activity with a life-centered, task centered, or problem-centered orientation to learning. Adult learners were problem oriented. Knowles (1984a) believed adults ordinarily did not seek learning just for the sake of learning, but because of their need to quickly apply what they were learning to life-current circumstances and situations. A study of online learning environments assumed that curriculum should be a process-based content versus content-based to enable learners to create content in accordance with their needs (Blondy, 2007).

Motivation to learn: The assumption about adult learners in this principle was that "the most significant motivators are internal motivators; the desire for increased job satisfaction, self-confidence, self-esteem and quality of life" (Knowles et al., 1998, p. 68). According to Knowles (1984b), the andragogical model predicted that the more effective motivators were internal self-esteem, recognition, better quality of life, greater self-confidence and self-actualization.

According to Blondy (2007), adults were best motivated to succeed with their learning objectives when they were appreciated and acknowledged their individual contributions and commitments to the class. Henschke (2006) discussed a last assumption

for the andragogical model called the 'why to learn.' It was discussed that adults had a need to know, a reason that made sense to them, as to why they needed to learn something.

## **Learning Theory**

Ozuah (2005) stated, "Learning theories have been described in the education literature and may serve as useful vehicles for understanding some aspects of adult learning" (p. 3). There were five main learning theories:

**Behavioral theory**. In using behavioral theory, the goal of learning was a change in observable behavior. The instructor would write down the learning objectives, deliver the stimulus, ask for replies and provide assistances to the learners (Ozuah, 2005).

**Cognitive theory**. In using cognitive theory, the goal of learning was the acquisition of usable knowledge and problem solving. The instructor assessed the learner's skills and provided guidance and examples for the learner (Ozuah, 2005).

Constructivist theory. In using constructivist theory, the goal of learning was the attainment of a shared understanding and the development of the process of knowledge attainment. The instructor developed the objectives, along with the learners and grounded the learning in practical experiences (Ozuah, 2005).

**Humanistic theory**. Humanistic theory assumed that there was a natural tendency for people to learn and that adult learning would flourish, if wholesome and reassuring environments were provided. In this theory, the learner developed the learning objectives and the instructor reacted to the learners needs and integrated the learner's experiences into the learning exercise (Ozuah, 2005).

**Developmental theory**. Developmental theory had the goal of achievement by each learner of his or her maximum potential. The learning objectives were based on norms and appropriate behavior, skills, or knowledge for specific levels or stages of development (Ozuah, 2005).

Each learning theory had some form of application in adult learning. For example, according to Ozuah (2005), "Humanistic theory lends itself to problem-based learning and self-understanding, whereas behaviorism seems to be more relevant in the teaching of practical, specific skill" (p. 3).

In the article, *First There Was Pedagogy and Then Came Andragogy*, by Ozuah (2005), a table was provided that summarized the principles of adult learners that showed some of the same concepts of learning contracts.

#### Table 1

## A Summary of Principles of Adult Learners

## Adults learn best:

- When they want or need to lean something
- In a non-threating environment
- When their individual learning style need are met
- When their previous experience is valued and utilized
- When there are opportunities for them to have control over the learning process
- When there is an active cognitive and psychomotor participating the process
- When enough time is provided for assimilation of new information
- When there is an opportunity to practice and apply wheat they have learned
- When there is a focus on relevant problems and practical applications of concepts
- When there is feedback to assess progress towards their goals

Note: Source - (Ozuah, 2006, pp. 62)

## **Learning Contract**

A learning contract was a willful and voluntary document that guaranteed to make scholarly progress. This document was marked by the student, the facilitator, and alternatively the parent. The advantages of each contract, nonetheless, were that they gave scholarly structure and support. Learners vowed freely to take part, give positive investigation, learning practices, and to fill in as a vehicle to convey the educators and students to concession to what course objectives were imperative and how to accomplish them (Frank & Scharff, 2013).

Studies showed using learning contracts in counselor education classrooms appeared to particularly meet the needs of adult learners in counselor education classrooms (O'Halloran & Delaney, 2011). According Chan and Chien's (2000) study on the use of learning contracts in mental health nursing clinical placement, students' autonomy and motivation in clinical learning increased when using learning contracts. The study reported that there was more sharing between students and teachers and the quality of teaching and learning improved. Furthermore, the study concluded that contract learning should be integrated into the curriculum of nursing education as a learning strategy for nursing students. According to Chyung (2007), students felt more self-directed and motivated when developing learning contracts; but what they really liked was being able to select assignments that were relevant to their interests and needs. Knowles (1986) discussed learning contracts as a valuable tool for providing instructional, basic social work values. A study of introducing contract learning at the Department of Social Work University of North Dakota recognized contract learning and the importance of individuals' rights to self-determination, respect, worth, and dignity

(Knowles, 1986). According to O'Halloran and Delaney (2011), the use of learning contracts in the education classroom indicated that participants found the learning contract to be useful and allowed the students to be more self-directed and connected with their work. Learning contracts were also a tool that allowed students to focus on their strengths and interests and gear their learning to their individual learning styles and needs; other concepts that were transferable to practice with our client population (Knowles, 1986). This type of instruction encouraged self-responsibility and creative problem solving - valuable assets in pursuing their academic and professional careers. A learning contract was a recent development in Knowles' time. One of the earliest studies of over 250 students found that 46% evaluated the learning contract as superior to traditional methods, 26% rated it as somewhat better, 13% as comparable, and only 2% as somewhat inferior (Knowles, 1986).

According to Henschke (2006), in field-based learning particularly, there was a strong possibility that what was to be learned from the experience would be less clear to both the learner and the field supervisor what work was to be done. There was a long tradition of field experience learners being exploited for the performance of menial tasks. Adult learners preferred task to be clear for them to have a greater experience. The learning contract was a means for making the learning objectives of the field experience clear and explicit for both learner and field supervisor. Conducting adult learning experiences required both knowledge and skill in how adults learned. Competence in subject matter traditionally served as enough qualification for individuals who taught adults. Results of teachers having subject matter competence often led to participants dropping out of the program. At the time of this writing, the rapidly changing

technologically oriented society created the necessity for teachers and trainers whose competence also reflected understanding and concern for the unique needs of the adult learner, whatever the subject matter (Henschke, 2006).

In traditional education, the learning activity was structured by the teacher and by the institution. The learner was told what objectives they were to work toward, what resources they were to use and how and when to use them, and how their accomplishment of the objectives would be evaluated. This imposed structure conflicted with the adult's deep psychological need to be self-directing and may induce resistance, apathy, or withdrawal. Learning contracts provided a vehicle for making the planning of learning experiences a mutual undertaking between a learner and his or her helper, mentor, teacher, and often, peers. By participating in the process of diagnosis needs, formulating objectives, identifying resources, choosing strategies, and evaluating accomplishments, the learner develops a sense of ownership of the plan (Knowles, 1986). Henschke and Cooper (2006) stated that they began using learning contracts in 1975 and continued using them during the remainder of their educational career. The structure Henschke most regularly used was Knowles.

According to Knowles (1986) structure consisted of five columns: (1) What are you going to learn (objectives), (2) how are you going to learn it (resources and strategies), (3) time span of when you will learn (schedule), (4) how will you know that you learned what your objectives specified (evidence of accomplishment), and (5) what standard will be used and who will validate that you learned what you indicated (proving that you learned what you said you would learn) (p. 38)?

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In the Learning Contract course, the participant's responsibility was to develop and implement a learning contract. According to Knowles (1984a), the procedure for helping learners design and execute the learning contract was: (1) Each Learner translated a diagnosed learning need into a learning objective that described the terminal behavior to be achieved or the direction of improvement in ability, (2) the learner next identified, with the facilitator's help, the most effective resources and strategies for accomplishing, and (3) finally, the learner specifies how this evidence will be judged or validated.

Learning contracts yielded many practical benefits. It allowed the learners to become more involved in their own learning. Once they passed through the stage of confusion and anxiety that they typically experienced in the beginnings stages of learning contracts, they started to get excited about carrying out their own plans (Knowles, 1984b). According to Knowles (1984), at the time of his writing, with increasing student-teacher ratios, it was impossible for nursing educators to directly guide and supervise each learning activity for each student. Self-directed learning enabled teachers to make learning more creative and satisfying for greater numbers of students, while making teaching more creative.

According to Clardy (2005), learning contracts were used as a strategy to motivate adult students in identifying their goals and desired outcomes for the course. As self-directed learners, students could choose activities, assignments, responsibilities, and resources to support their process of learning. They could also use learning contracts to optimize the likelihood of success by choosing assignments that fit their learning styles.

Learning contracts could look different, depending on the instructor and the content of the course. For example, a learning contract may include a choice of

assignments. After discussing learning styles with students, an instructor could help students choose assignments based on their strengths and goals for the course. Learning contracts could include an agreement on goals for the course, a commitment for participation, or simply a signed contract (O'Halloran & Delaney, 2011)

According to Clardy (2005), the use of learning contacts may provide a tangible introduction to counselor education students preparing to take responsibility for lifelong learning, and professional development.

Discussion group. According to Snider (2016), small group discussions were defined as any group of students engaged in purposeful talk about one text. These group discussions may be student led, teacher led, or a combination of both. Fisher and Ellis (1990) explained that most definitions of a group pointed to the significance of members sharing around perceptions, motivations, and/or tasks. Both definitions were relatively similar, with both referring to small groups as members sharing perceptions, information, and text, etc. Learning contracts and group discussions could be held in different formats with different topics. A person could do a learning contract in a class individually or work with large and small discussion groups. Small group discussion could be completed with a variety of topics.

Snider's (2016) study discussed a small group literature discussion as an approach to support more rigorous standards, leading to student experiences that provided higher-level abilities to interpret, question, discuss, and synthesize literature, with benefits for students across a range of literacy abilities and cultural backgrounds. Graves (2010) stated that in literature groups, when children read together, they compared and considered various view points and engaged in community-generated meanings. This is

just an example of the variety, when it came to small group discussions and how discussion groups could help. Ross-Gordon (2003) stated adults brought a vast reservoir of experience to the learning situation that should be capitalized on. They also valued learning through direct experience. This was one of andragogy assumption regarding the role of the learner's experience.

Why is a discussion group so effective? Hebabi (2016) stated that it was rare for a single individual to hold all the answers to a given problem; groups of individuals must share their knowledge and expertise and work together to accomplish tasks, solve problems, and make decisions. Knippenberg and Sitkin (2013) proposed that diversity mindsets were more effective if they were shared; one could argue that consensus was, in effect, a shared mindset and that listening was an essential behavior to achieving a shared mindset. Therefore, an effective group discussion could be created by diversity mindsets sharing knowledge and expertise. Henschke (2006) discussed that learners could share in small groups what they perceived their needs and interest to be, regarding the acquisition of understanding, skill, attitude, value, and interest in each content area of the course. It was possible to induce a deeper and more specific level of awareness by having learners diagnose their own need.

According to Snider's study (2016), teachers' perceptions of their students was a strong motivational factor for their choice to use, or not use, small group discussion. Hebabi (2016) realized the importance of older individuals, especially those considered to be middle-aged, with mentoring individuals of a younger generation. Benefits of this concept included the opportunity for older individuals to nurture younger individuals, as well as feel as they were influential and contributing to the younger person's life.

According to Hebabi (2016), members of interactions of relationally generative groups expressed themselves; they stated their positions more tentatively, agreed, and built on each other's ideas more often, and did not interrupt or speak over each other as much as the members of the other groups. Hebabi (2016) suggested that some groups were better than others at working with their identity and perspective differences, and that their patterns of interaction were more clearly linked with success than the differences themselves.

#### **Eating Habits**

Verplanken and Faes (1999) conducted a field experiment that demonstrated the forming implementation intentions was effective in altering complex behavior, and this was established with a healthier diet. Their study was a precise plan designed around implementation intentions for when and how to act. The implementation intentions were pitted against individual differences in unhealthy habits. The unhealthy habits in this experiment were known as counter intentional habits. The effects of these unhealthy habits were independent, which suggested to the researchers that implementation intentions did not break the negative influence of unhealthy habits. Implementation intentions were tangible plans of action that laid down when, where, and which actions should be taken to accomplish an envisioned goal. These implementations were connected to specific behavioral responses and specific cues within a specified time and spatial frame (Verplanken & Faes, 1999). In the study, implementation intentions took the form of "I intend to do X when I encounter situation Y" (Verplanken & Faes, 1999, p. 593); for example, eating an apple instead of chocolate when you feel famished. Empirical evidence validated the power of forming implementation in the process of

turning a goal intention into action to help achieve that goal (Verplanken & Faes, 1999, p. 593).

According to Verplanken and Faes (1999), a habit may develop when a behavior was sufficiently and satisfactorily repeated. Furthermore, habits were functional in obtaining certain goals or end states. Habits thus were specific behavioral responses to specific cues in the environment. Just like implementation intentions, habits went along with a convergent cognitive orientation, which concentrated attention on one behavioral selection, and thus increased the probability of acting at specified times and places. However, there was a difference between habits and implementation intentions, habits were fashioned through satisfactory repetition of behavior and implementation intentions were fashioned by deliberate planning. According to the study, implementation intentions and habits were links between cues in the environment and behaviors that related to these cues. While such a cognitive orientation was referred to as an implemental mind-set in the case of implementation intentions, in the case of habits a person might think of a habitual mind-set with very much the same properties as an implemental mind-set.

The Verplanken and Faes (1999) study demonstrated that implementation intentions to eat healthier were effective in establishing a healthier diet. Participants who planned in detail one healthy eating day ate healthier during a five-day period, according to post-hoc judgments of an independent professional dietician, than participants who did not form implementation intentions. Implementation intentions were incremental to the prediction of healthiness of eating by behavioral intentions. There was no substantial interaction between behavioral intentions and the implementation intentions manipulation, which might be ascribed to the fact that all participants envisioned to eat

healthily. The effect of implementation intentions was also independent of previous unhealthy eating behaviors.

Adams (2013) reviewed childhood eating habits that were associated with race and gender. Adams (2013) collected nutritional data of 8,945 children that were surveyed by California Health, and the children varied in race, sex, family income, and education. The children ranged from 6 to 12 years of age. Studies from California Health were evaluated and suggested that childhood obesity was growing in disturbing numbers throughout the United States. The numbers were directly attributed to nutrition and absence of physical exercise (Adams, 2013).

According to the study done by Adams (2013), childhood obesity had become a major national health concern in the United States. The number of obese children increased significantly since the 1970s. Then-currently, childhood obesity accounted for 15% of the population between the ages of 6 and 19 (Adams, 2013). According to the study, the environment of the child played a momentous role in childhood obesity. If the child lived in an environment that did not encourage healthy eating habits or some sort of activity at all, the child would likely become obese and eventually become an obese adult. This may also cause a lot of stress during childhood and later in adult life, due to the lack of motivation. Motivation was one of andragogy's six principles; and according to andragogy, adults responded better to internal motivators than external motivators.

Grizzle (2009) studied the relationships among occupational stress, obesity, and diet habits. The aims of her study were to determine the associations of personal factors related to gender, age, race, ethnicity, marital status, and shift assignment. Cognitive factors that showed the benefits of healthy eating, the barricades to healthy eating and

dietary self-efficacy with occupational stress, personal and cognitive factors with fatrelated diet habits, and personal factors with fat related diet habits and occupational stress, with body composition comprised of body mass index and waist circumference (Grizzle, 2009).

The study was a non-experimental, correlational study, with a convenience sample of 289 sworn police officers that completed a job stress survey, diet habits questionnaire, eating habits confidence survey, and healthy eating benefits/barriers scale instruments. Grizzle (2009) concluded that the independent variables were personal factors consisting of gender, age, race, ethnicity, marital status and shift assignment. The cognitive factors examined as independent variables consisted of dietary self-efficacy, barriers to healthy eating, benefits of healthy eating, and occupational stress. The dependent variables consisted of fat-related diet habits and the multivariate construct of body composition. The results of the study were driven from the personal factors, cognitive factors, and dependent variables. The study explored the nature of relationships among factors. Among the sample were police officers from Birmingham, Alabama, who were 22 to 65-years-of-age (Grizzle, 2009).

According to Grizzle (2009), dietary efficacy, eating habits, and body composition in police officers were affected by the most frequently reported occupational stressors for police officers, which were inadequate salary, insufficient personnel that could not handle an assignment, poorly motivated coworkers, fellow coworkers that were not doing their jobs, and lastly inadequate or poor-quality equipment. Inadequate salary, insufficient personnel that could not handle an assignment, and poorly motivated coworkers contributed to a higher perceived lack of organizational support. Discussing

eating habits could be stressful; but, it could also be done as a group or unit in an informal way.

Based on the study by Grizzle (2009), the relationships between occupational stress, personal factors, cognitive factors, diet habits, and body composition in police offers played different roles. As stated, inadequate salary, insufficient personnel that could not handle an assignment, and poorly motivated coworkers contributed to a higher perceived lack of organizational support. Black officers had a lower level of occupational stress than White police officers, dietary self-efficacy was significantly negatively correlated with occupational stress, barriers to healthy eating were significantly positively correlated with occupational stress, there was no significant relationship that was found between occupational stress and fat related diet habits, Black officers tended to have higher fat-related diet habits than White police officers did, and there was no significant relationship between fat-related diet habits or occupational stress and body composition consisting of body mass index and waist circumference (Grizzle, 2009).

Wansink (2002) studied reducing consumption barriers prior to providing consumption incentives that would frame and integrate selected studies conducted during World War II. He discussed how the implications found could be used for social science research and for encouraging lifestyle and diet changes. The sources of Wansink's (2002) research study came from six different sessions from the Committee on Food Habits, and from the Quartermaster Food and Container Institute for the Armed Forces, Chicago, Office of the Quartermaster General, and the Bulletin of the National Research Council (Wansink, 2002).

According to the study by Wansink (2002), the two factors that influenced a

food's acceptability of whether it tasted good enough or whether it was served in a familiar form. The study also found that food preparation and serving methods could influence the acceptability of food items. The focus of Wansink's (2002) study was the promotion of organ meat. Wansink (2002) found that the promotion of organ meat consumption was interrupted by the end of World War II. He found that the organ meat research became disjointed because of inadequate circulation. With the lost lessons used to enhance protein deficient diets during the war, the lessons could still be pertinent today, at the time of this writing, in the publicizing of nutritional products and an individual's efforts to alter lifestyles.

Parker, Lee, and Reiboldt (2013) investigated the perceptions of youth with all forms of diabetes, and their parents and or guardians, about issues related to the eating habits of youth with diabetes. She also looked at the relationships between treatment factors, lifestyles, daily care factors, youth characteristics, and the eating habits of youth with diabetes. Her study likened the insights that youth with diabetes had about eating-related issues and their own eating habits to the observations parents and or guardians had about eating-related issues and youth eating habits (Parker, Lee, & Reiboldt, 2013).

According to Parker et al. (2013), practitioners may help improve the eating habits of youth with diabetes mellitus by offering family-centered nutrition interventions that inspire strong parent youth relationships. The interventions would stress the need for family change, encourage eating at home rather than eating out, and institute parent involvement in youth diabetes mellitus management. It would be followed by careful transition to independent self-care as youth with diabetes mellitus grew older and more independent. The interventions would focus on helping older youth with diabetes

mellitus, especially older girls, by instructing them with making wise food decisions.

Lastly, Halloran and Delaney (2011) researched an overview of different learning styles and characteristics of adult graduate students and explored the degree to which learning contracts may be a valuable instrument to positively influence student learning. They administered pre-and post-participation surveys and found that the participants found the learning contract to be useful. The learning contract allowed the students to be more self-directed and connected to their work (Halloran & Delaney, 2011).

In conclusion, it is extremely important to understand the consequences on bad eating habits and that they could lead to eating disorders. Adults needed to know what the consequences for eating disorders were, and how eating habits could lead to them. If they could know and understand these consequences, then in the long run they might be able to prevent them. Adult learners benefited from being self-directed, from work that reflected their unique experiences, and from learning that addressed their intrinsic motivation that was organized around their goals and interests (Halloran & Delaney, 2011). They also benefited from diverse approaches to instruction, increased accountability for learning, and collaboration around learning goals (Halloran & Delaney, 2011). Discussing eating habits by utilizing an andragogical format was a different approach to instruction and learning that increased accountability and collaboration in such a general and complex topic. Eating disorders were a life-threatening situation and could certainly start with bad eating habits and bad nutrition. However, it was treatable with the right care and the right services.

### **Eating Disorders**

Matz and Frankel (2014) pointed out that in civilized societies, there was a

continuous prizing of thinness, more than previous to their writing. Occasionally, almost everyone was watchful of their weight and their eating habits. Individuals with an eating disorder took extreme measures to ultimately shift their mode of eating. This abnormal eating pattern threatened their lives and their well-being. Four out of 10 individuals had either experienced eating disorder problems or knew of an individual who had the problem (Ulijaszek & Eli, 2014).

According to Laser and Watson (2011), eating habits could lead to bad eating disorders. Parents played an important role in the development of children's food habits and preferences. Many parents attempted to influence their children's food intake with rules about which foods may be eaten and at what times. Some rules may restrict access to foods, while others encouraged eating or were designed to elicit desired behaviors (e.g., You will get an ice cream if you finish your homework early). The impact of these rules on future eating behaviors had important implications for parents who were striving to help their children develop healthy eating behaviors. This type of implications could later have negative consequences on a child and could cause an eating disorder.

Schag (2013) tested the relationship between eating disorder symptoms and a range of family food-related experiences/habits among adolescents. The family food experiences measure included several items that specifically addressed family rules about eating. A positive relationship was found between reported bulimic symptoms and having family food rules where food was used to reward success and good behavior. This suggested a link between growing up with food used as a reward for good behavior and a later preoccupation with food and increased risk of binge eating or other eating disorder.

According to Grange (2013), binge eating disorders were linked to obesity. BED

was related to various medical complications; this included hypertension, non-insulindependent diabetes mellitus, and heart disease. Other further complications related to
BED were more profound, discontent to physical health, and led to severe psychiatric and
psychosocial difficulty. Grange (2013) further stated, BED increased risk of metabolic
abnormalities, which were attributed to eating disorder patterns. For example, taking a
huge amount of food in an irregular period was interrelated to decrease glucose tolerance,
high insulin secretion, elevated serum lipids and increased levels of fasting glucose.

Metabolic syndrome frequently seen in BED patients was contributed to significantly by
irregular eating patterns.

Grange (2013) pointed out that statistics showed the prevalence of the eating disorder was vast among the obese adult population. The approximate rate of problems related to BED was quite high. The demographic profile showed that chances of women having BED were 1.5 times likely than men. Therefore, gender was less pronounced as compared to other disorder,s such as bulimia nervosa and anorexia nervosa, where women were more likely to have the diagnosis than men.

According to Kramer and Cohn (2013), eating and nourishment were so necessary as it was the first innate impulse when a child was born. Throughout life, eating became part of life for family, cultural, and social setup. Hunger was a pure physically-felt sensation that was satisfied with the modest amount of food. However, taking food has been mistaken as an attempt to ease away upset and worries of life. It made sense that people eat food for nourishment and self-soothe stressful situations. Food has become a source of temporary comfort.

Ornstein et al. (2013) examined childhood memories about food and whether

certain childhood eating behaviors were related to dieting status among obese and average weight adults. Obese individuals provided substantially more comments about food rules than any other weight group, and the most commonly cited food rule was to "clean your plate at each meal" (Fisher et al., 2014, pp. 49-52). There was a correlation between eating habits and eating disorders. Abraham (2016) pointed out that data suggested that childhood food rules to eat beyond the point of fullness may influence the likelihood of overeating as an adult. There was a connection between eating disorders and eating habits, but it could also be triggered by an emotional state. Meany, Conceição, and Mitchell (2014) discussed impulse-buying tendency was strongly associated with snacking habits, which in turn was related to eating disturbance propensity. The study discussed impulse buying, though a pleasurable activity, seemed driven by feelings of low self-esteem and dispositional negative affect.

According to Reel (2013), eating disorders were continually misapprehended as all about food and eating. However, there was more to that, as the dysfunction bore from emotion, concealing a flawed relationship with food, physical exercise and oneself.

Persons with eating disorders conveyed fault-finding, bad eating habits, poor self-esteem, and intense body discontent. These behaviors could lead to extreme distress of gaining weight, purging through use of laxatives, vomiting and binge eating episodes.

The eating disorder categories, such as Bulimia, Anorexia Nervosa, and other eating disorders were classified according to symptoms. However, eating disorder behaviors existed along a wide range and should be identified according to emotional and psychological characteristics which were interconnected with bad eating habits. Thus, there should be an adequate emphasis placed on creating a more positive relationship

with one's own eating habit Reel (2013).

According to Knightsmith (2012), younger generations set immense importance on their body shape and weight. When they were faced with overeating disorder which affected their physical appearance, it led to low self-esteem, which may cause grave mental ailment. There were some misconceptions about eating disorder, which needed to be addressed; they included:

**Eating disorders would pass**. This was false myth, there were low chances of an eating disorder to be cured without support. The delay in assistance of waiting and watching could prove to have a grand damage Knightsmith (2012).

There is a confusion between dieting and eating disorder. Some may think they were dieting, but in a real sense, the condition they were setting themselves in was more of an eating disorder Knightsmith (2012).

The misconception that one is just doing fine. It was a mentality that one was just fine, even though the person was showing signs of an eating disorder. It was unknown to many that the young generation with overeating disorders were obsessed with perfectionist personalities. For example, they may spend most of their time studying throughout the night or going without meals just to attain that perfect grade. That was not healthy, as chances were high for them to develop eating disorders Knightsmith (2012).

An eating disorder will be an epidemic when we start to talk about it. The statement was false, eating dysfunctions were complicated and should be well understood through raising awareness on ways to address and educate individuals about eating disorders (Harris, 2013).

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What causes eating disorders? Herrin and Larkin (2013) stated that there had been endless discussions of what caused eating disorders. No one had full information about how eating disorders occur, but some elements must merge before an eating disorder appears. Herron and Larkin (2013) showed that there was no single source, but multiple and complex sources. There were bad eating habits, personality traits, and psychological factors that may made one vulnerable to eating disorder. Individuals with eating disorder suffered from feeling helpless, low self-esteem, and intense dissatisfaction with their appearance. Different situations hastened eating disorder among susceptible individuals. Friends or members of the family may continuously tease the vulnerable individuals about their bodies. Pessimistic traumas or emotion, such as abuse, the death of loved one, and rape also contributed to the disorder. People may engage in sports and gymnastics not to get healthy, but with the aim of having a body image or low weight. The eating problem starts once they engage in the abnormal eating behavior. As the cycle continues with the aim of getting rid of psychic pain and excess calories, the eating disorder condition worsens.

Numerous factors contributed to different levels of eating disorder. These factors were classified according to psychological or emotional causes and physical or physiological causes. These factors could interconnect with bad eating habits. Complex conditions that led to an eating disorder arose for different potential reasons. Some of the known causes of eating disorders were predisposing factors.

According to Rohde, Stice, and Marti (2015), predisposing factors were factors for a specific disorder to occur. These were things that already existed in the environment or the individual before the development of overeating disorder. The factors did not

trigger or hasten the problem, but they must be present to have an effect of producing the eating disorder. Some of the predisposing conditions that could trigger eating disorder were:

# **Physiological/ Physical Factors**

**Overweight**: People who were predisposed to overeating disorder were more likely to be obese than non-predisposed. What should be noted, was the weight came before the manifestation of the dysfunction. The possibility of those who suffered from bulimia to be overweight were higher than anorexic individuals (Rohde, Stice, & Marti, 2015).

Genetics: There was a strong affirmation that genes could be contributing factors to the eating disorder. One way of determining the genetic contribution was through the study of the identical and non-identical twins. Identical twins have uniform genetic makeup while non-identical twins do not. In case of any disorder, it was presumed it would manifest in the identical twins. Hence, when one showed sign of eating upset, chances were the other twin would exhibit the same problem. In case of bulimia disorder, there may be an account of depression, alcoholism, and obesity within the victim's family lineage (Rohde, Stice, & Marti, 2015).

**Early adolescents**: When children enter puberty before their friends, this leads to uncomfortable feeling as one gets a perception that he/she looks older. What followed was dieting as one tried to get rid of the new weight gained, which mostly led to bulimia. (Dabone, Delisle, & Receveur, 2013)

### **Psychological/Emotional Factors**

**Perfectionism**: This was a trait defined by setting high standard performance, critical evaluation and striving to be flawless. The excessive personal expectation could lead to eating disorder (Rohde, Stice, & Marti, 2015).

**Ineffectiveness**: Indicated the dimension of feeling insecure, inadequacy, and worthlessness (Rohde et al., 2015).

**Body dissatisfaction**: Body dissatisfaction reflected the extent to which one was displeased with the body image. The person took measures to make things right by engaging in an eating disorder (Rohde et al., 2015).

**Bulimia**: Bulimia is the episodes of overeating which were uncontrollable (Keel & Forney, 2013). What follows was the drive to purge through vomiting.

**Drive for thinness**: This was the pursuit of being slender. There was great concern about dieting and concentration on weight (Keel & Forney, 2013).

**Personality**: Individuals in every perspective of life were under pressure of perfection, either personal, social, or work life. The unrealistic high standard set may be unattainable, and may lead one to feeling a failure; what followed was an adverse effect on self-esteem. Low self-esteem led to a low perception that may cause eating disorder (Keel & Forney, 2013).

**Achievers**: They were those with outstanding traits characterized by higher performance. Those with these characteristics yearned to please friends and family members. The pleasing nature went to an extent where the individuals were afraid of hurting or upsetting others. They often drove their worth according to how others took them (Keel & Forney, 2013).

Interceptive awareness: Interceptive awareness was the lack of confidence in accurately recognizing and identifying different emotion experienced. For example, one could mistake anger emotion as sadness. So, how to react to emotion could prove to be complex. It was observed in eating where one could not differentiate when he was hungry or not (Allen, Gibson, McLean, Davis, & Byrne, 2014).

#### **Social Related Factors**

**Poor communication**: Individuals who were vulnerable to eating disorder often had poor communication patterns with the family members. All negative emotions they faced were not talked about, but bottled in (Westerberg & Waitz, 2013). To add, the parents may be overprotective hence not allowing the kids to explore their freedom in turn their confidence goes down.

Over nurturer: These were children who had been taught responsibility since a younger age; they learned that they were more of caregiver to everyone but themselves. This responsibility instilled in them may add up to stress levels (Westerberg & Waitz, 2013).

**Concern**: Family members may be concerned with nutrition, fitness, and dieting. The children grew up holding to those values, and they may want to take it to a higher notch which turned to be harmful (Westerberg & Waitz, 2013).

#### **Cultural Contributing Factors:**

The media stereotype of beauty: The media, such as television, magazine, internet, and social media depicted the one who was beautiful as being thin, tall, and possessive of a perfect body. This standard of beauty was emulated, and one may go extra levels to achieve it, in which it may cause suffering in the process (Mizes, 2013).

**Sports craze**: There was much emphasis on fitness to look good rather than on general health; this acted as driving tools for those who wanted to lose weight. Much of exercise and less of eating led to eating disorders (Mizes, 2013).

Youth equated with beauty: The society glorified youth by connecting them with elegance; this made people do what they could to remain young. They ended up getting wrong information from the internet on how to stay young. Most ended up practicing eating disorder (Mizes, 2013).

**Thinness is the norm of the current civilization**: This made everyone in society believe that to be accepted as beautiful, a person needed to be thin.

# **Biological factors:**

Biological abnormality, such as defects in the endocrine system affect the glands that secrete hormones that regulate appetite, and the result leads to unbalanced hunger.

Lack of some vital nutrients, such as magnesium and zinc may cause eating disorder (Mizes, 2013).

Brain minor fault may send misleading information to the rest of the body, what follows is the imbalance of what the body needs and the intake rate (Mizes, 2013).

#### **Risk factors**

Risk factors did not directly cause eating disorders, but they were factors that contributed to eating disorder development. Some risk factors were distinct to the inception of disorders, while others forecast the growth of an eating disorder. Some of the risk factors that predicted eating disorder were body dissatisfaction, dieting, thin-ideal internalization, family support deficits, low esteem, solitary eating, parental separation, social problems, negative comments on diet, and social pressure for thinness (Tasman,

Kay, Lieberman, First, & Riba, 2015). Factors that related to Anorexia Nervosa were premature birth, cephalohematoma, childhood eating disorder, having struggled with eating and imperfection crisis. Other factors that led to Bulimia Nervosa included body dissatisfaction, negative aspect, thin-ideal internalization, dieting, and social pressure for thinness (Gianini, White, & Masheb, 2013).

These listed risk factors were modifiable through a change of psychological, social-cultural and environmental. These elements that could be modified were:

**Low self-esteem**: Researchers identified low-esteem as a significant risk factor for eating disorder development. Positive self-esteem was highlighted as vital for psychological well-being and reinforcing the capability to resist peer and cultural pressure (Gianini et al., 2013).

**Body dissatisfaction**: Perception of body image increased chances of impaired physical and mental health. Body discontent may lead to the feelings of sadness, shame, and anger which could steer to utmost weight control behaviors that ended up leading to eating disorder. The prevalence was high among the teenagers. Having a positive outlook on oneself body was an excellent step to solving the eating disorder (Gianini et al., 2013).

There is an adoption of thin socio-cultural ideal: People who believed, adopted and internalized a culture, such as the Western beauty ideal about thinness, hade higher chances of developing an eating disorder. By first accepting oneself and seeing the culture of the West as just way of living, eating disorder could be overcome (Gianini et al., 2013).

**Extreme weight loss behavior**: Eating disorder was a disturbed eating formula or pattern where there was restricted dieting, meals skipping, fasting, elimination of food

groups, and purging behavior, like self-induced vomiting and laxative abuse. Dieting was good when done with moderation, but when done to a more significant extent could cause an impact on physical and mental health. With right dieting, as advised by the dietitian, eating disorder could be the thing of the past (Gianini et al., 2013).

### **Perpetuating Factors**

Perpetuating factors were factors that made eating disorder last or endure, and caused it to extend on; as a result it could worsen. Various factors maintain or preserve abnormal body weight. Cultural pressure for slimness, especially among ladies, caused them to starve themselves to achieve the desired results directly. However, increased starvation led to a drastic increase of desire for food. During the process of body starvation, anger, irritability, depression, and anxiety could takes over. Once the people involved in an eater disorder embarked on eating, they found it hard controlling their desire of eating as they engaged in enormous feeding, as they often felt abnormal hunger even after eating (Gianini et al., 2013). The following were some of perpetuating factors:

# **Physiological/Physical Factors:**

Weight change: When there was inconstancy of weight, then there was a serious condition that needed urgent addressing. However, it did not mean that only fluctuation in weight should be taken seriously, but also any changes should be noted. So, one should stop figuring out the condition considered severe, as some illness may not show up immediately. This meant that every situation should be handled with a lot of attention (Gianini et al., 2013).

**Endorphin**: Due to binge/purge cycle or starvation, there may be a higher production of endorphin than usual from the anorexic. This was triggered by the release of morphine in the brain (Gianini et al., 2013).

### **Emotional/Psychological Factors**

Unhappy about weight: Is a psychological factor where one became discontented about her weight as she felt she was not thin enough. Even more severe, after realizing how skinny she became, she still wanted to lose even more weight. They ended using diet tabs and cutting down the calorie by taking low-calorie food.

Dissatisfaction never ends. Illness started commencing more when the person affected started engaging in high-calorie food as they overate more than was needed (Prevention of Eating Disorders, 2011).

Admittance/Denial: The distorted perception of the body image kept one wanting to lose weight even further. The thought of being happy with a slim body surpassed the reality. The individual remained adamant about having a problem. In fact, there was no point of feeling thin enough, and the dieting process continued. Others may admit they have a problem, but due to feeling ashamed, they would not seek help right away (Prevention of Eating Disorders, 2011).

Withdrawal/Sociable: Those suffering from eating disorder ended up withdrawing from family and friends just because they saw them as an interference with their strict dieting. In the real sense, they felt hopelessness, depression, and suicidal (Prevention of Eating Disorders, 2011).

**Solution to the problem**: It is when the starvation takes control of the person as he/she loses control over it (Prevention of Eating Disorders, 2011).

#### **Social and Cultural Factors**

Confusion: Teenagers indulging in eating disorders were often misunderstood by families and friends as they were often not open about their lives. This led to confusion as those close to them did not know a better way to help. Whatever they did seemed not to help; eventually the actions they took ended up worsening the situation even further (Strumia, 2013).

**Pressure**: The individuals with an eating disorder got a feeling of stress and pressure when close people tried to make them eat. It seemed to them like everyone was against them; this caused them to put pressure on themselves so as increase perfectionism (Strumia, 2013).

# **Precipitating Factors**

Precipitating factors were factors that caused patients to have difficulty with physical changes and coping with the emotion (Strumia, 2013). Cultural and social were more significant contributors to an eating disorder. Some of the factors were:

**Stressful Event**: Stressful situations trigger the manifestation of the illness. A stressful event, such as drug abuse, alcoholism, serious illness, and death which gets out of hand brings a lot of tension (Strumia, 2013).

Change: Environmental or situational change can be stressful. For example, moving to the new neighborhood and leaving behind old friends can be very upsetting (Mickalide, 2014). Another instance that triggered prompts to an eating disorder was when children were separated from the parent or if the parents were divorced; instances that proved to be very traumatic. Stressful situations can lead to eating disorders.

**The motion vs. food**: This is where, for one to cope with tension and problems, he or she turns away from food (Mickalide, 2014). By withholding food, the stress level increases.

### **Summary**

The purpose of this literature review was to explore the impact of learning contracts on eating habits. The literature summarized in this chapter shows a compelling definition of andragogy, learning contracts, discussion groups, eating habits, and eating disorders. As stated throughout the chapter, there is a positive connection between andragogy learning contracts and eating habits discussion groups. Even though the literature focused mainly on the definition of terms, this research may help the reader interconnect and understand andragogical factors/assumptions facilitating adult learning experiences. The literature supported the rationale of the study of the relationship between the andragogy learning contract, group discussions on eating habits, and eating disorders (Culbert, Racine, & Klump, 2015).

# **Chapter Three: Research Method and Design**

As stated in Chapter One, in 2015, more than two-thirds of all adults and nearly one-third of all children were either overweight or obese. The researcher's purpose in this study was to learn about the impact of learning contracts on eating habits. Based upon the research discussed in Chapter Two, the researcher used the EES instrument and created several focus group questions, included in the methodology. Chapter Three examines how the study was run and provides a description of the participants.

#### **Research Question and Hypotheses:**

The purpose of this study is to explore how the researcher developed two research questions regarding the study and the one hypothesis. The researcher found that there is a difference between participants EES scores during the pretest and the posttest.

#### **Research Questions**

Research Question 1: How do learning contracts impact eating habits?

Research Question 2. How can differences in scores (pre-and posttest scores) in the Emotional Eating Scale be explained?

# **Null Hypothesis**

Null Hypothesis 1: There is no difference between participants Emotional Eating Scale scores during the pretest and the posttest?

#### The Research Site

The research was conducted at a local gym in the Midwest. The site was selected based on a purposeful convenience sampling. The researcher met with the owner of the facility to secure permission to conduct the study there. The average population at this location was open to males and females over 12 years of age. The local gym provided

free boxing fitness classes for youth and families in the community. The gym was a public gym that looked to create an impact in the community by utilizing the sport of boxing. This gym brought families together to participate in family work out, as a new way to promote family bonding and engagement. The minimum age required of participants was 21.

# **Participants**

Twelve people participated in the study. Six participants identified as male and six identified as female. Participants attended a two group sessions that lasted 45 minutes each. At the end of the second session, the participants concluded the research by participating in a focus group to discuss the impact and their experiences with learning contracts. The focus group session was recorded, and the focus group conversation was transcribed and coded

All 12 participants showed up for both sessions. All 12 participants attended the focus group, as well. The age ranges were 21 to 29 and 30 to 39. The group for the ages 21 to 29 included five participants. The group for the ages 30 to 39 included seven participants. The ethnicity of the participants identified by the participants included Caucasian, African American, and Hispanic. There were five participants that identified themselves as Caucasian. Three identified themselves as African-American. Four identified themselves as Hispanic.

Table 2 summarizes the demographics of the participants.

Demographics of Study Participants

Table 2

Demographics		Study Participants (%)
Males		50%
Females		50%
Age Range	21-29	5
	30-39	7
Ethnicity	Caucasian	5
	African-American	3
	Hispanic	4

*Note*: The table provides the participants demographics and the stats.

# Research Design

The research design was mixed methods. It involved a quantitative and qualitative analysis. According to Muijs (2011), quantitative research was explaining phenomena by collecting numerical data that were analyzed using mathematically based methods (statistics). Muijs (2011) stated, "The quantitative view is 'realist' or sometimes 'positivist'" (p. 1).

The quantitative portion of the study utilized the EES develop by Arnow et al., in 1992. The EES was a 25-item scale with three factor analytically derived subscales: anger, anxiety, and depression. Participants rated the extent to which certain feelings led to the urge to eat, using a 5-point Likert scale ranging from 'no desire to eat' to 'an overwhelming urge to eat' (Arnow et al., 1992). The researcher gained permission to adjust the use of the scale for the criteria of this study. The EES was used twice as a preand post-instrument. A total score of the two sessions was created for the pre-and

posttests during the study to reflect a participant's overall performance on the EES Instrument. Then, a total of two means (pre and post) were calculated. The researcher ran a *t*-test for difference in means and Chi Square Goodness-of-Fit test on the two means to test the hypotheses

The EES instrument was used and cited in several research studies and articles. The use of the EES was recorded in more than 20 research studies and was cited more than 597 times. According to Tanofsky-Kraff et al. (2007), the EES instrument had convergent and discriminant validity and test-retest reliability for assessing emotional eating in children. Furthermore, the Waller and Osman (1998) study stated the EES had good levels of validity and showed high levels of internal consistency and specific associations with eating disorders.

The researcher used the Emotional Eating Scale (EES) instrument as a pre-and posttest during the research study. The researcher facilitated a focus group at the end of the research study. The study added to the research base of the EES, the development of a measure to assess coping with negative affect by eating, and the use of learning contracts. The EES study suggested anger/frustration, anxiety, and depression subscales. All three subscales were correlated and provided evidence of construct validity (Arnow et al., 1992).

Learning contract. Column #1 consisted of the individual's eating habit goals.

Column #2 included the resources and strategies. Column #3 included the individual's target date for adjusting the eating habits. Column #4 consisted of the evidence that showed that the individual was moving forward with the goals. Column #5 included how the individual would know that the goal were accomplished.

The advantages of every single such contract, nonetheless, were that they gave scholarly structure and support, spurred battling learners by having them vow freely to take part, gave positive investigation and learning practices, and filled in as a vehicle to convey educators and students to consensus with regard to what course objectives were imperative and how to accomplish them (Frank & Scharff, 2013).

The qualitative portion of the study utilized data from focus group discussions. According to Baxter and Jack (2008), the qualitative case study was an approach to research that facilitated exploration of a phenomenon within its context, using a variety of data sources. This guaranteed that the issue was not explored through one lens, but rather a variety of lenses, which allowed for multiple facets of the phenomenon to be revealed and understood.

Two weeks after the first session in the study, participants came back to the boxing gym to take the EES again. Later, participants developed a focus group to discuss the impact and their experiences with learning contracts. The focus group lasted 45 minutes and was an open dialogue. The questions were semi structured questions that were discussed. The focus questions used in this study were: (1) How they felt about the learning contracts; (2) what was useful about the learning contracts; (3) how do you feel about your first session of group discussion; (4) how do you feel about your second session of group discussion; (5) were there any impacts or differences with the implementation of the learning contracts; and (6) what kinds of improvements have you made in your own work because of seeing others 'work? (Learning contracts, through discussion, feedback).

The focus group sessions were recorded, and the researcher transcribed and coded

the focus group conversation. According to Bradley, Curry, and Devers (2007), coding provided the analyst with a formal system to organize the data, uncovering and documenting additional links within and between concepts and experiences described in the data. According to Snider (2016), small group discussions were defined as any group of students engaged in purposeful talk about one text. These group discussions may be student led, teacher led, or a combination of both.

Fisher and Ellis (1990) explained that most definitions of a 'group' point to the significance of members sharing around perceptions, motivations, and/or tasks. The definitions were relatively similar, with both referring to small groups as members sharing perceptions, information, and text, etc. Henschke (2006) discussed that learners could share in small groups what they perceived their needs and interest to be, regarding the acquisition of understanding, skill, attitude, value, and interest in each content area of the course. It was possible to induce a deeper and more specific level of awareness by having learners diagnose their own need.

### **Learning Contract Method**

The learning contract document was marked by the student and the facilitator (the researcher) and was divided into five columns.

In column #1, the researcher asked the participants to state the objectives of their learning contracts. For example, a participant could write that his/her goal was to eat stop eating after 7:00 p.m. The participant objective was the goal to his/her learning contract.

In column #2, the researcher asked the participants to state the resources and strategies of their learning contracts. For example, a participant could write that his/her

goal was to make sure to eat a big meal at 5:30 p.m., following up with a small snack at 6:30 p.m. Also, a participant could explore snack resources and create a self-diary.

In column #3, the researcher asked the participants to state the target date of the learning contract. For example, a participant could write that his/her target date was a week and a half, one week, or two weeks from the beginning of the learning contract.

In column #4, the researcher asked the participants to state evidences of their learning contracts. For example, a participant could write that his/her evidence was that they discontinued eating at 7:00 p.m., and that they would feel less hungry.

In column #5, the researcher asked the participants to state their knowledge of validation of their learning contracts. For example, the participant could write that his/her knowledge of validation was by receiving feedback from peers and facilitator and a self-diary.

The learning contracts were completed during the study and the participants brought their learning contracts for the second part of the study, as well. After the participants shared and discussed their learning contracts, focus groups were conducted for the qualitative part of the research. The focus groups were recorded; and then, the researcher transcribed the entire focus group sessions. The researcher read aloud and discussed the following questions to the focus group participants. The questions discussed were as follows: (1) How did you feel about the learning contracts, (2) what was useful about the learning contracts, (3) how did feel about your session in eating habit discussion groups (4) how did feel about your second session of eating habits discussion groups, (5) did you experience improvements, and please explain, and (6) what kinds of improvements have you made because of observing others in the groups.

#### **Research Procedure**

Prior to collecting data, the researcher met with the owner of the St. Charles Boxing Gym. The purpose of the meeting was for the owner and researcher to talk about the parameters of the study and to get the approval to create and post a flyer inside of the gym to recruit participants for the study. At the end of the meeting, the owner was able to send the researcher an email, authorizing him to create and post the flyer inside of the gym.

The researcher scheduled a meeting with all the participants at the boxing gym. Participants were given the informed consent form, and the researcher explained the study. Participants submitted forms; those participants who submitted approval for informed consent were given the EES instrument as a pretest. The researcher used letters instead of the real names of the participants, to protect the identity of each participant. Each participant had an assigned letter at the beginning of the study. There were 12 participants: Participants A, B, C, D, E, F, G, H, and I, etc. The researcher facilitated a one-hour discussion on then-current eating habits after completion of the EES. After discussion, the researcher explained learning contracts to the participants, who then completed the learning contracts in the session. The researcher explained that a learning contract was a willful and voluntary document that laid out activities the learner guaranteed to take in a course, to make scholarly progress. This document was marked by the student and the facilitator (the researcher). The advantages of every single such contract was that they give scholarly structure and support, spurred battling learners by having them vow freely to take part in particular activities, give positive investigation and learning practices, and filled in as a vehicle to convey educators and students to

concession to what course objectives were imperative and how to accomplish them (Frank & Scharff, 2013).

The learning contract method was based on eating habits and displayed five different columns that participants were asked to fill out, based on their own eating habit experiences. The five columns were: Column #1, your eating habit goals; Column #2, resources and strategies; Column #3, when is the target date for you to adjust your eating habits; Column #4, what evidence would show that you are moving forward toward your goals; and Column #5, how would you know you accomplish this goal?

The learning contracts was completed during the study, and the participants brought their learning contracts back for the second part of the study. Participants kept their contracts, so they could track any changes on their eating habits. The researcher made copies of each participant's learning contract, coded them, and had them on a secured file, in case someone forgot to bring back his/her learning contract. The researcher continued to maintain confidentiality, as numbers were used to refer to participants. The researcher selected all participants' numbers. The secured file was stored in a locked cabinet, within the researcher's private practice. The researcher had accessed to the secured data, and the completed data was set will be destroyed three years after the study is complete. Every effort was made to keep the participants' information secure. Only members of the research team were able to see any data that may identify a participant.

Two weeks after the first meeting, participants returned to the boxing gym and took the EES for the second time. After taking the EES, they participated in a focus group and discussed the impact and their experiences with learning contracts. The focus group

session was recorded, and the researcher then transcribed the focus group session and looked for common themes.

#### Reflexivity

The researcher has a counseling background and worked with individuals with eating habits, previously. The researcher had a possible perceived bias, because of his experience in that area. The researcher may aid researchers, because it allows the researcher to explore a little deeper in this area, rather than other areas. Because of his background, the researcher connected with the goal of the study

However, research suggested that reflexivity was a positive outcome. According to Walker, Read, and Priest (2013), reflexivity was often regarded as a useful tool for ensuring the standard of qualitative research. Reflexivity provided transparent information about the positionality and personal values of the researcher that could affect data collection and analysis, and perhaps it could encourage the researcher to subconsciously ask questions that other researchers would not asked.

#### **Data Collection**

The mixed method data collected during this research were as follows: informed consent, the EES instrument, the learning contracts, and audio recording tape from the focus groups. The participants were treated with respect and the researcher always acknowledging their integrity and value to the study. The information collected was kept strictly confidential.

Participants' identity and private information was not being shared with anyone.

The identity of participants will remain confidential and identified as 'Participants A-C, and etc.' Any participants who decided they did not want to participate in the study were

free to withdraw from the study. The researcher insured the participants that their privacy would be protected and that information would not be included to make them identifiable in any publication or presentation. Any information collect was stored by the researcher in a secure location. The audio recording was kept by the researcher in a locked filing cabinet. The researcher would have access to these tapes and they would be destroyed three years after the study. Every effort would be made to keep the information secure.

**Data analysis**. The quantitative data of the Eating Scale Instrument was scored as follows. First, a total score was created of the pre-and posttests during the study to reflect a participant's overall performance on the EES instrument. Then a total of two means (pre-and-post) were calculated. The researcher applied a *t* test for difference in means and a Chi square Goodness-of-Fit test on the two means to test the hypothesis.

Quantitatively, the researcher used a *t* test for difference in means and Chi-square test to analyze the research study. For this study, the researcher used these two tests to analyze the results, and in part I used the two tests, due to the participation numbers. The qualitative data recorded the focus group discussion; then, the researcher transcribed the discussions and looked for common themes.

### **Summary**

Using a mixed-methods research design, the researcher explored the impact of learning contract on eating habits groups. Chapter Three outlined the complete analysis of the mixed method research study. The methodology within this chapter was divided into seven sections: (1) Research Question and Hypotheses, (2) Participant Discussion, (3) Research site, (4) Research design, (5) Reflexivity, (6) Data collection, and (7) Data analysis.

### **Chapter Four: Results**

#### Introduction

The purpose of this study was to examine and explore the impact of learning contracts on eating habits discussion groups through a mixed method quantitative and qualitative study of participants in a small discussion group. The key areas of interest for this study included small discussion group effectiveness, the impact of learning contracts, and participants' feedback on the benefits of using learning contracts in conjunction with eating habits groups. The researcher coded and analyzed the data sources to create qualitative data results.

### **Research Questions**

Research Question 1: How do learning contracts impact eating habits?

Research Question 2. How can differences in scores (pre-and posttest scores) in the Emotional Eating Scale be explained?

## **Null Hypothesis**

Null Hypothesis 1: There is no difference between participants Emotional Eating Scale scores during the pretest and the posttest?

Chapter Four discusses specific results for analysis of the hypothesis and the analysis of the research questions. Tables and figures are presented representing the impact of each of the total scores from the pre-and the post-test of the EES instrument. Descriptive statistics will also be presented for the data collected for the hypothesis analyzed. Also, this Chapter Four recaps participant demographic and summarizes the qualitative data of the study.

# **Participants and Setting**

The researcher administered pre and posttests on February 17,2018 and March 3, 2018. A total of 24 EES questionnaires were completed. The setting was a boxing gym. The researcher recruited participants who were members of the facility. The researcher recruitment process consisted on creating and posting a flyer inside of the gym to recruit participants for the study.

The study included 12 participants. Six participants identified as male and six identified as female. The age ranges were 21 to 29 and 30 to 39. The age range 21 to 29 included five participants. The range 30 to 39 included seven participants. The ethnicity of the participants was identified by the participants themselves as Caucasian, African American, and Hispanic. There were five participants that identified themselves as Caucasian. Three identified themselves as African-American. Four identified themselves as Hispanic.

Both pre and posttest EES questionnaires and the focus group were conducted at the gym. Participants participated in a focus group after taking the EES and discussed the impact of and their experiences with learning contracts. The focus group session was recorded, and the researcher then transcribed the focus group session and looked for common themes. Each transcription was reviewed multiple times for accuracy before the completion of the qualitative analysis. The researcher used responses from participants to support findings. These responses were edited to remove additional words and improve the quality of the transcript. After themes were reviewed, the findings were arranged in order by corresponding research question one and research question two.

### **Research Quantitative Methodology**

With this study, the researcher created a quantitative methodology comparing the pre and posttests. This study included one null hypothesis. To examine this null hypothesis, the researcher had participants complete the EES at two different points during the study, once at the beginning of the study and once after the learning contract intervention. The researcher examined the null hypothesis by running the instrument twice, once before and once after the test. To determine whether the distribution of the scores in the Emotional Eating inventory was different after the intervention the researcher used the Chi Square Goodness-of-Fit test. Also, to determine whether the total Emotional Eating scores decreased after the intervention, the researcher used a dependent sample *t*-test for difference of means. The analysis revealed that the distribution was significantly different after the intervention,  $\chi^2(4) = 459.51$ , p < .0001; hence, the null hypothesis was rejected and the alternative hypothesis was supported. There was a significant difference between participants Emotional Eating Scale scores when comparing the pretest and the posttest scores.

Figure 1 measures and represents the total score before use of the learning contract.

Figure 2 measures and represents the total score after use of the learning contract.

Individual responses were measure from 0 to 4. Scores ranged from (0) no desire to eat to (4) an overwhelming desire to eat. Column 0 was no desire to eat, Column 1 was a small desire to eat, Column 2 was a moderate desire to eat, Column 3 was a strong desire to eat, and Column 4 was an overwhelming desire to eat. Scores improved after the intervention, in a descriptive way, as well as being supported statistically by the rejection of the Null

Hypothesis.

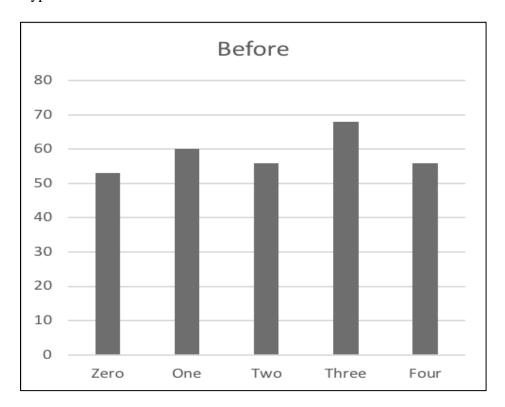


Figure 1. This figure represents EES scores before the learning contract intervention.

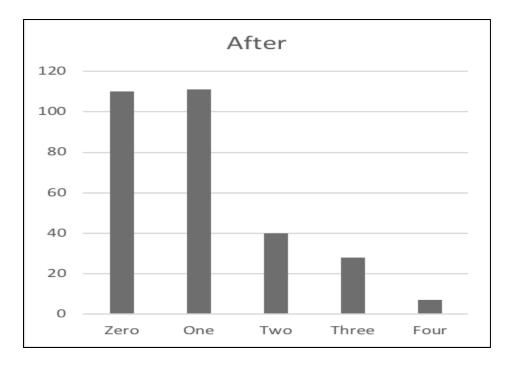


Figure 2. This figure represents EES scores after the learning contract intervention.

A dependent sample t-test for difference in means was conducted to determine whether the Total Emotional Eating scores decreased after the intervention. The Null Hypothesis was rejected and the alternative Hypothesis was supported. The analysis revealed that the scores after the intervention were significantly lower than the scores before the intervention (M = -24.75, SD = 16.71); t(11) = -5.132, p = .0002). These results are illustrated in Table 3.

Table 3 represents the *t*-test result of the analysis of the difference in the means of the Emotional Eating Scores. Table 3 shows the *t*-test results of EES scores after use of the learning contracts were significantly lower than the scores before the learning contract intervention.

Table 3

Results of Hypotheses 1: T-test for Difference in of Means

Difference					
	n	M (SD)	d.f.	t-Score	p-Value
Difference in Emotional Eating Scores	12	-24.75 (16.71)	11	-5.132	0.0002

The result shows a *t*-score of -5.132 and a standard mean deviation of-24.75. The *t*-test for difference in means and Chi Square Goodness of Fit test results showed that the numbers were different; so therefore, the distribution was different. The researcher rejected the null hypothesis because there was a change in the second test (the posttest).

According to the study, there was a change between the two EES results taken by the participants, at the pre-and posttest sessions. In the *t*-test for difference in means, the

test value number was greater than the critical value. The data supported a statistically significant difference between pretest and posttest scores on the EES.

According to Bluman (2013), a *t*-test was an analysis of two independent means and was used to test the difference between means when the two samples were independent and when the samples were taken from two normally or approximately normally distributed populations. Samples were independent when they were not related. The Chi Square Goodness of Fit was used to see if the distribution was different or if it changed from the pre to the post. While conducting the Chi Square Goodness of Fit, at first the distribution of the scores and the total distribution was evenly upfront, but then the distribution changed in the second test. The Chi Square Goodness of Fit was a test that was used to test frequency distributions and the independence of two variables. The chi Square test was applicable to many situations in which experimental frequencies were compared to theoretical frequencies, based on a hypothesis.

According to Bluman (2013), a Chi-Square Test could also be used to test the normality of a variable. The researcher ran both tests (the Chi Square and the *t*-test), because the participant numbers were a little bit lower than the usual sample size to which the tests were applied. Since the participant numbers were below 15, the researcher decided to run two tests, the Chi Square Goodness of Fit and the *t*-test for difference in means, to find out whether the weaker Chi Square test would be supported by the stronger *t*-test for difference in means. Both tests proved to be the same result, which increased the validity of the conclusions for this study.

## **Research Qualitative Methodology**

This qualitative study investigated the impact of learning contracts on eating

habits groups. The two research questions. The research questions of the study were the following: To examine and explore the research questions, the researcher had the participants participate in a focus group at the end of the study.

The focus group session was recorded and the researcher then transcribed the focus group session and looked for common themes, to determine thematic responses to the research questions. The review of coded themes addressed the reliability of the qualitative data analysis. Themes emerged, suggesting the positive impact of learning contracts; also, it was noticed an increase in participant intellectual/personal growth and a decrease in stress. Participants coded themes, discussed, and suggested key components that helped them improve their personal/professional and everyday lives, thanks to the impact of the learning contracts. Also, participants discussed the impact of small group discussion and the benefits of discussion groups.

### **Qualitative Research Results**

Research question one asked, how do learning contracts impact eating habits? In response to Research Question 1, participants were asked if learning contracts impacted their eating habits? Every response content varied from participant to participant, but several key themes emerged. These themes included: gain (as in knowledge, understanding, relationship, and awareness), and stress (as in decreasing personal stress, professional stress, and organizational stress). Participants responded positively regarding the learning contracts and the impact they had on them. Themes were described as below.

#### **RQ1** Theme 1:

Gain (as in knowledge, understanding, relationship, awareness). The code,
Gain, was defined as the understanding of something desired, to acquire, increase or to

add. Participants reported experiencing several Gain sources (knowledge, understanding, relationship, awareness), as they associated the code of Gain with their learning contract and participation in the focus group. The researcher created this code due to the connection that it had among the participants during the focus group. Due to the different answers related to code of Gain, the researcher created four different sources of gain.

These sources of gain were: gain in knowledge, gain in understanding, gain in relationship, gain in awareness).

Gain in Knowledge: Seven participants consecutively reported they developed a gain in knowledge after creating and using their learning contracts. Gain in knowledge was described as adding/increasing more knowledge in relation to their own eating habits and their own learning contracts. According to the participants and regarding gain in knowledge, the learning contract and the EES instrument were a factor that ultimately helped them gain more knowledge during the study.

Jo and Le seemed to agree on a gain in knowledge and understanding. Jo viewed gain as 'an increase of understanding of my negative emotions and the eating routines' meanwhile Le mentioned, 'It has helped me aware of what I eat.'

C and Co viewed gain as in knowledge. C stated, 'There is always a lesson to be learned" Co stated, 'Knowing this instrument has increased my understanding of my habits.' Similarly, P and K seemed to increase their knowledge on habits. P mentioned, 'I am able to identify my bad eating triggers.' Lastly, K stated, "I know what is best for my body"

Gain in understanding: Eight participants consecutively reported they developed a gain in understanding after creating and using their learning contracts. Gain in

understanding was described as adding/inferring meaning in relation to someone's own eating habits and learning contract. Gain in understanding was reported by eight participants, and according to them, they gained more understanding on their eating habits routine. All eight participants credited the learning contract and EES for that. Eight participants consecutively reported they developed a gain in knowledge after developing their learning contracts and participated in the focus group.

A, C and Co seemed to agree on gain as a gain in knowledge and understanding. A viewed gain as 'an increase my knowledge and understanding of my own eating habit routine;' C mentioned, 'It has helped me to understand the connection between my negative mood and my desire to eat.' In similar fashion, Co viewed gain as "both the learning contract and the emotional eating scale helped me understand and become alive regarding my bad eating habits.' N mentioned, 'Before I was not aware of my eating habits but now I am in a better place.' Ju and R viewed gain as an understanding, as a key factor, as well. Ju mentioned, 'It feels good to understand your own eating habits a little better.' Lu felt almost the same and stated, 'Understanding and listening to other experiences was quite inspiring.' Ju and Lu viewed gain in understanding as key. Ju added, 'What a great way to understanding your thoughts" Similarly R stated "my new beginning started with understanding my own body.'

Gain in relationship: Eight participants consecutively reported they developed a gain in relationship after developing the learning contract and participated in the focus group. Gain in social relationship was described as forming relationships within the study; connecting with others inside the group. Gain in social relationships was reported by eight participants, and according to them, they formed relationships within the group,

and that ultimately created empathy for one another. All eight participants credited the learning contract and EES for that.

P and K viewed gain as a positive source in gaining relationships. P mentioned, 'I have been lucky that not only have I formed relationships, but also friendships within this research study.' K felt almost the same and stated, 'I formed close relationships and unique empathy. Z and R viewed gain in relationship as a plus. Z added, 'nice group of people. R mentioned, 'We walked in here as strangers but now we are a big family.' Similarly, A and C viewed gain in relationship as a common ground. A stated, 'Learning from others make feel like family.' C stated, "'Learning contract format promoted empathy and genuine in relationships.'

Lastly, Ju, and Lu felt the same on gaining relationships. Ju stated, 'It feels good to know such a great group of people.' Lu added, 'Life experiences has bringing us together and truly hope to maintain contact with everyone in this group.'

Gain in awareness: Gain in awareness was described as adding knowledge/
perception to a situation in relation to someone's own eating habits. Gain in awareness
was reported by eight participants, and according to them, they gained a better
understanding on their eating habits routine. Participants credited the learning contract,
focus group, and EES for raising such awareness.

Ju and Lu seemed to agree on gain as a gain in awareness Ju viewed gain as 'the new beginning of understanding a healthier life.' In a similar way, Lu viewed gain as 'enhancing my knowledge and understanding on eating habits.' Jo viewed awareness as a positive tool, 'I am aware of what I put in my mouth, and I have control of it.'

R, N, and Z also agreed on gain in awareness, as well. R viewed gain as 'now, I realized that creating awareness is the first step.' N mentioned, 'My awareness has changed completely.' Z stated, 'The learning contract increase my awareness twice as much.' P and K similarly developed an awareness, especially when it came to their food. P stated, 'I am aware now of the ingredients I eat.' K stated, 'Food awareness has been key to my changing habits.'

# **RQ1 Theme 2:**

Stress (as in personal stress, daily stress and professional/occupational). This code was defined as a physical or emotional factor (internal/external) that could produce discomfort and disruption. Participants in the research study reported experiencing several types/sources of stress (personal stress, daily stress, and professional/occupational), as they associated the code of stress with the impact of the earning contract and the focus group.

The researcher created the code of stress due to the connection that it had among the participants during the focus group. Participants reported a decrease in their day to day life stress after the research study. Due to the different answers related to code of stress, the researcher created three different sources of stress. The sources of stress were: personal stress, daily stress, and professional/occupational stress

**Personal stress**: Eight participants consecutively reported they developed a decrease in their personal stress after creating and using their learning contracts. Personal stress was described as an uncomfortable response to an inappropriate level of pleasure in relation to their own eating habits. According to the participants, regarding personal

stress, the learning contract was a big factor that ultimately helped them experience a decrease in their own personal stress.

C and Lu seemed to agree on stress as a decrease at a personal level. C mentioned, 'The main sources of stress have to deal with the attempt to balance my personal and professional life and that leads me to have a bad eating routine and the learning contract made a huge impact.' L added, 'The learning contract made me realize that my personal stress makes me eat more and makes me forget about developing a good eating habit.'

Le, Jo, and N seemed to have a decrease in their personal eating life. Le reported less stressful episodes when talking about his eating habits. Jo mentioned, 'I feel less stressful when I go to the grocery store.' N mentioned, 'I can make less stressful decisions.' K, A, and Ju reported feeling in control and less stressful about their eating. K stated, 'I developed a great sense of control over my anxiety.' A mentioned, 'I am in a better place that makes me have less stress.' Ju stated, 'I felt very good about myself and my progress,'

**Daily Stress**: Daily stress was described as a result response to an uncomfortable daily activity or task. According to the participants, regarding the daily stress, the learning contract appeared to cause participants to slow down and be more aware of eating alternatives before making a quick decision. Nine participants consecutively reported a decrease of stress on their daily lives.

P and K seemed to agree on stress as a decrease on a daily level. P said, 'Learning contract took away some stress and helped me organized my life,' while K mentioned that 'learning contracts works great, my daily stress arises from the lack of personal goals and my contract was about creating a good positive goal.' Similarly, Lu mentioned that

'having an actual goal is what makes it easier for him.' On the other hand, N viewed,
'The learning contract as a tangible and valid document that is easy to follow and change
ultimately helping me cope with my eating routine.' Le mentioned, 'Both the focus group
and learning contract helped created a positive outcome on my daily eating habits.'

Similarly C stated, 'My stress is not the same as before. I feel much better after
developing my contract.' A stated, 'I am able to manage my stress a lot better.' C and P
both agreed on feeling more confident about their management of their stress. C
mentioned, 'The learning contract has impacted my daily stress in a positive way.'

Similarly, P mentioned, 'It is a powerful contract that created an instant impact in my
life.'

# **Professional/Occupational Stress**

Occupational stress was described as an uncomfortable response to an event or situation at work, related to their own eating habits. According to the participants, regarding occupational stress and their eating habit routine, the learning contract was a big factor that ultimately helped them being aware of their eating habit routine. Eight participants reported a decrease in their occupational stress, related to their eating habits after creating and using their learning contracts.

A, C, and Ju seemed to agree on experiencing less occupational stress. A expressed, 'learning contract help me with my eating habits at work.'" C mentioned, 'Cravings at works is no longer a problem.' Ju stated, 'Being able to concentrate better at work.' Jo reported being 'more aware of what he prepares and eat for lunch." P stated, 'Being able to concentrate more at work.' Z reported, 'I have been blessed to use this document everywhere I go.' R and Lu had similar responses. R viewed occupational

stress as 'one of the main reasons he was able to gain weight.' and L stated, 'being able to use the learning contract has created a new awareness.'

In response to Research Question 2, participants were asked how can differences in scores (pre-and posttest scores) in the Emotional Eating Scale be explained? Every response content varied from participant to participant, but several key themes emerged. These themes included: Growth (as in professionally and mentally), Intellectual (as in learning, knowledge). Participants responded positively and showed differences in scores in the EES. Themes are described/explained as below.

#### **RQ2** Theme 1:

Growth (as in professional, mental, social). The code growth was defined as Increasing Developmental Stages (professionally and mentally). Participants reported experiencing several types/sources of growth (professional, personal, socially). They associated the code of growth with their learning contracts and participation in the focus group. The researcher created this code, due to the connection that it had among the participants during the focus group. Due to the different answers related to the code of growth, the researcher created three different sources of growth.

These sources of growth were: professional growth, personal growth, and social growth.

Professional Growth: Professional growth was described as increasing or adding to someone's own professional life in relation to someone's own eating habits and learning contract. Professional Growth was reported by three participants, and according to them, learning contracts helped growth professionally. All of the 10 participants credited the learning contract and EES for that. Five participants consecutively reported

they developed a professional growth after creating and using their learning contract.

R and A seemed to agree to have professionally growth. R added, 'I feel much better at work.' A mentioned, 'I used the learning contract to help me with my eating schedule at work and that made a huge impact in my job performance.' Z and Lu added, 'works both personally and professionally.' Lu added, 'I feel it is a part of my job now to keep adding and reviewing my contract. Meanwhile, K stated, 'It is my daily task.' Jo reported a professional growth, especially at his new job. K stated, 'I have been able to stay on task at my job.' N reported, 'I have increased dramatically when it comes to my job performance.' Ju and Le had similar responses. Ju stated, 'I have more energy and my motivation has changed positively.' Lastly, L stated, 'adding professional goals to my learning contract.'

Personal/Mental Growth: Personal growth was described as evolving as a person in relation to someone's own eating habits and learning contract. Personal growth was reported by six participants, and according to them, they were able to evolve mentally and raised awareness related to their eating habits.

Eleven participants consecutively reported they developed a personal growth after creating and using their learning contracts. Co and Jo seemed to view growth as personal. Co reported, 'The best part for me was being able to work on my learning contract and see some improvement,' and Jo viewed growth, 'I am more cognizant of my own eating habits routine and I feel a positive energy.' Z and P seemed to view growth as a source of personal growth. Z stated, 'I have been looking ever since for more eating habits scholarly articles to keep me motivated.' P saw growth as 'a positive tool for developing better internal and external relationships.' A added, 'The learning contract had a huge

effect on my personal eating growth.' N added, 'I feel more educated and more informed about my own personal eating habit.'

Lu, C and R seemed to agree on experiencing a personal growth in a way. Lu stated, 'Learning contract help me understand and develop a good diet.' C mentioned, 'Learning contract help me boost my confidence,' and R added, 'It is definitely boosting my knowledge regarding my bad habits.'

C mentioned, and Ju stated, 'Being able to concentrate better at work.' J, C, and K had similar responses. C viewed his growth as personal. K added, 'This is a very small but powerful document that can helped me understand and see my eating habits different from finding solutions to my bad habits to sharing my experiences with other participants has definitely view a better and more positive outcome in my personal life.'

Social growth: Social growth was described as the ability to increase relationships and create empathy towards other. Social growth was reported by participants, and according to them, they were able to create and learn from others in the study groups.

Participants reported they created long lasting relationships outside of the groups.

Ten participants consecutively reported they developed social growth after participating in the study and using their learning contracts. Le and C seemed to agree growth as a source of social growth. Le stated, 'My best time in this research study have been learning from other participants' contracts.' C added, 'I have growth significantly thanks to the different perspectives on eating habits expressed by other students.' In a similar fashion, R stated, 'I have been able to feel better about myself, and I enjoyed talking and working out with my friends, we love to share routines and we are looking to create a group learning contract.' P and Jo stated, 'This is a team journey." Pat stated,

'Thanks for being part of my growth,' meanwhile Jon stated, 'Teamwork makes the dream work.'

Jo, Co, and Z also agreed on a social growth, as well. Jon added, 'I am constantly connecting with other participants, because I feel connected to them. That connection makes me feel grounded and keeps my striving to get better.' Co mentioned, 'being able to rely on other for feedback is something that I never thought will benefit my life and I am thankful for being part of this study.' Z stated, 'Learning from others was definitely inspiring and I will love to continue to share my experiences with this group.' J and L similarly developed a social growth. Ju added, 'this group has been very special, and I feel that I learned a lot about me just by listening to others in group." Lastly, Lu stated 'This team experienced is very unique and I am trying to promote this type of social growth within my family members.'

### **RQ2** Theme 2:

Intellectual (as in learning, knowledge). This code was defined as a person who engaged more interests in logic, thoughts, and reflection related to their own thoughts. Participants in the research study reported experiencing several types/sources of intellectual improvement (as in learning, knowledge), as they associated the code of intellectual with the impact of the learning contract and their response to the research study.

The researcher created the code of intellectual due to the connection that it had among the participants during the focus group. Participants reported an intellectual improvement in learning and knowledge. Due to the different answers related to code of intellectual, the researcher created two different sources of intellectual.

The sources of intellectual were: intellectual improvement in learning and intellectual improvement in knowledge.

Intellectual Improvement in learning: Improvement in learning was described as intellectual learning and as engaging more interest in learning in relation to their own eating habits. According to the participants, regarding intellectual learning, the learning contract was a big factor that ultimately helped them gained more learning related to their own eating habit.

Eight participants consecutively reported they developed an intellectual improvement in learning, due to the learning contracts, in relation to their eating habit. Lu, N, C, Z, and Le seem to agree on intellectual learning. Luis mentioned, 'My eating intellectual has changed.' N mentioned, 'My engagement with my body and my routine has increased.' In similar fashion, Co reported intellectual as 'my independent and critical thinking skills,' and Z added, 'some of the participants who are attending the discussion groups have all served to increase my intellectual understanding, as well as intellectual growth throughout the research study.' Jo, Ju, and N agreed on having more intellectual learning related to their habits, as well. Jo mentioned, 'Learning from other experiences has been key to my learning progress.' Ju stated, 'The learning contract brings more learning than anything.'

Intellectual Improvement in Knowledge: Improvement in knowledge was described as intellectual knowledge and as engaging more interest in knowledge in relation to their own eating habits routine. According to the participants, regarding intellectual knowledge, the learning contract was a big factor that ultimately helped them gain more knowledge related to their own eating habits.

Eight participants consecutively reported they developed an intellectual Improvement in knowledge, due to the learning contract in relation to their eating habits. K and Le, R seemed to agree on intellectual knowledge. K stated, 'The level of engagement the researcher has demonstrated during the research study has increased my willingness to learn more about eating habits and eating disorders.' Le added, 'I am more knowledgeable overall.' Lastly, R stated, 'My knowledge has changed my eating habit.' Z, N, Jo, and C seemed to agree on intellectual knowledge as a great source of personal growth. Z stated, 'I enjoyed being part of this research, and I am more knowledgeable about my own eating habits.' No stated, 'Listening to other stories was very inspiring;' and Jo and C added, 'They have growth significantly and are motivated to learn more about healthy eating habits.' Co reported, 'The best is yet to come and educating myself utilizing a contract is an advantage.'

## **Additional Results**

There was a separation based on experience, age, and cultural background. Six out of seven of the participants, ages 30 to 39, reported experiencing a connection between their own experiences and their learning contracts. The researcher found participants 35-years and older gave better feedback on the usage of the learning contract. These individuals seemed to support the idea that learning contracts would essentially be helping them with moving forward with working on their goals. The participants 35-years and older stated below:

N, Ju, and Lu agreed that leaning contracts are great for their age. N stated, 'Learning contracts are easy to use.' Ju added that the learning contract was a practical and editable document. Lu added that 'the learning contract is a personalized document for all ages and it fits perfect for himself and his own self experiences.'

Similarly, Z, Jo, and C mentioned the learning contract was a life time document that you could work on and change. Z stated, 'I am using this document for my own personal goals.' Jo viewed the learning contract as a perfect document that people could share and discuss daily. C mentioned, 'Is very genuine and open-minded document and is well made for my age group.'

The result differed from participants that were below 30 years of age. These participants reported finding the learning contract helpful and practical. Four out of five participants are reported below:

Le, A, Co, and P agreed on the fact that learning contracts were helpful and very easy to use. Leo stated, 'It is very easy to use.' A added, 'I can used this for my daily goals.' Co mentioned, 'I can rearrange my contract at any time.' Lastly, P stated, 'It is an easy document to edit if I wish to change my goals.'

On the other hand, participants that identified as different racial backgrounds seemed to suggest and reported being engaged with the contract, but stated they were unsure if they would keep using the learning contract. Four out of 12 participants described themselves as being Hispanic and living in a Hispanic environment for their entire life. Hispanic participants reported being engaged with the contract, but stated they were unsure if they would keep using the learning contract and recommended a translation version in Spanish.

A mentioned, 'My first time using this document was very practical.' N stated, 'I would like to try this again, but it would be better if I can translate it to Spanish.' and 'I can use this document more if I can actually have more time off work.' J stated, 'I created

a learning contract twice a year and hope to continue to use and develop from them.'

The result differed from participants that were born and raised in the United States. Z, Jo, and N mentioned that learning contracts could always be used. Z stated, 'I can take this document anywhere I go.' Jo viewed the learning contract as a perfect document that people could share and use daily. Nor mentioned how she could use the learning contract to achieve personal goals.

Furthermore, participants who were ages 30 to 39 or older took the learning contract more seriously than the younger participants, which seemed to suggest that they would continue using the learning contract and continue to work on their personal goals. Six out of seven of the participants reported as follows: Lu, J and N agreed that learning contracts were great for their age.

Lu stated, 'Learning contracts are well for my age group.' Ju added that the learning contracts could be practiced even at an elder age. No added that the learning contract was the right instrument for his age. Similarly, C, Z, and Le mentioned that the learning contract was perfect for their age and their lifestyle. C stated, 'The document was easy to use.' Z viewed the learning contract as 'a lifestyle fit.' Le mentioned, 'It is good for my age.'

The result differed from participants that were age below 30. This participant reported finding the learning contract being beneficial/easy to use, rather than fit for their age. Four out of five participants reported below:

Le, A, Co, and P agreed on learning contract being helpful and very easy to use.

Le stated, 'It is every easy to use.' A added, 'I can use this for my daily goals.' Co
mentioned, 'I can rearrange my contract at any time.' Lastly, P stated, 'The document is

easy to edit.'

# **Summary**

A mixed method of qualitative and quantitative analysis was a basis for this study. The researcher used quantitative and qualitative methodologies to monitor the participants' changes. The researcher incorporated learning contracts at the beginning of the study and discussed them at the end of the study. The researcher used the EES instrument as a pre-and posttest during the research study. The researcher facilitated a focus group at the end of the research study. The interpretation of the data will be presented in Chapter Five. Conclusions and recommendations for further study will conclude Chapter Five and the dissertation.

# **Chapter Five: Discussion**

Chapter Five provides a deeper analysis of results, interpretations, and recommendations for practice and future research. The intent of this research study was to explore the impact and use of learning contracts on eating habits discussion groups. The literature, current at the time of this writing, revealed that learning contracts had a positive impact on eating habits of adult groups. Studies showed using learning contracts in counselor education classrooms, mental nursing clinical programs, and other school setting programs appeared to particularly meet the needs of adult learners.

According to Chan and Chien's (2000) study on the use of learning contracts in mental health nursing clinical placement, students' autonomy and motivation in clinical learning increased when using learning contracts. The study reported that there was more sharing between students and teachers and the quality of teaching and learning was improved. Furthermore, the study concluded that contract learning should be integrated into the curriculum of nursing education as a learning strategy for nursing students.

Students felt more self-directed and motivated when developing learning contracts; but, what they really liked was being able to select assignments that were relevant to their interests and needs. The purpose of this study was to examine the impact of learning contracts on eating habits and explore if there were any differences, positive impacts, benefits, and outcomes for participants utilizing learning contracts in relation to their eating habits.

The researcher used quantitative and qualitative methodologies to monitor the participants' changes. The researcher incorporated learning contracts at the beginning of the study and discussed them with participants at the end of the study. The researcher

used the EES instrument as a pre-and posttest during the research study. The researcher facilitated a focus group at the end of the research study. To provide a more nuanced understanding of the impact of learning contracts, the researcher first gathered data from EES and the focus group, then statistically quantitatively and qualitative analyzed the responses of the participants who participated in the research study.

Research conducted in this study quantitatively analyzed whether differences existed between the two total scores, as measured by the *t*-test and the total distribution as measured by the Chi Square Goodness of Fit test. In addition, eating habits were measured by EES and the impact of the learning contracts measured by the focus discussion groups. The focus group session was recorded, and the researcher then transcribed the responses given during the focus group session and looked for common themes to determine thematic responses to the research questions. After codes themes were reviewed and complete, the thematic result was also in favor of rejecting the null hypothesis. Those common themes were Gain, Growth, Intellectual, and Stress.

According to the study participants, learning contracts were efficient. One participant labeled the learning contract as, 'It helps me gain knowledge.' Another participant said, 'It has changed my eating intellectual.' Someone else said, 'I am more cognizant of my own eating habits routine and I feel a positive energy.' The literature review supported the efficiency of learning contracts in different settings.

This study addressed two research questions and one null hypothesis statement, which addressed each variable. The research questions and hypothesis addressed in this analysis were:

# **Research Questions**

Research Question 1: How do learning contracts impact eating habits?

Research Question 2. How can differences in scores (pre-and posttest scores) in the Emotional Eating Scale be explained?

### **Hypothesis**

Hypothesis 1: There is a difference between participants Emotional Eating Scale scores during the pretest and the posttest?

The researcher was interested in the relationship between the pre-and posttest results of the EES; and therefore, the researcher used a Chi Square Goodness of Fit and a *t*-test for difference in means to determine if the distribution of the scores was different. First, a Chi Squared Goodness-of-Fit test was conducted to determine whether the distribution of the scores in the Emotional Eating Inventory was different after the intervention. The analysis revealed that the distribution was significantly different after the intervention. The researcher rejected the null, because there was a significant change in the second test (the posttest).

Lastly, a dependent sample *t*-test for difference in means was conducted to determine whether the total Emotional Eating scores decreased after the intervention. The analysis revealed that the scores after the intervention were significantly lower than the scores before the intervention. The *t*-test for difference in means and Chi Square Goodness of Fit results showed that the numbers were different; therefore, the distribution was different. The researcher rejected the null, because there was a significant change in the second test (the posttest). In other words, the researcher does not accept the null hypothesis.

The learning contract was based on eating habits and included five different columns that participants filled out based on their own eating habit experience. The five columns of the learning contract were described as follows: Column #1, your eating habit goals; Column #2, resources and Strategies; Column #3, when is the target date for you to adjust your eating habits; Column #4, what evidence would show that you are moving forward toward your goals; and Column #5, how would you know you accomplished this goal? Research suggested that learning contracts supported people in moving towards a goal, and the focus group data contributed to four different codes that participants identified during the focus group discussion.

Focus Groups Questions were described as follows: (1) How did you feel about the learning contracts; (2) What was useful about the learning contracts; (3) How did feel about your session in eating habit discussion groups; (4) How did feel about your second session of eating habits discussion groups; (5) Did you experience improvements, and please explain; and (6) What kinds of improvements have you made because of observing others in the group? The focus group session was recorded, and the researcher then transcribed the focus group session and looked for common themes to create qualitative data results and determine thematic responses to the research questions. After theme codes were reviewed and complete, the thematic results answered the research questions and indicated support in favor of rejecting the null hypothesis.

In response to Research Question 1, participants were asked if learning contracts impacted their eating habits. Every response content varied from participant to participant, but several key themes emerged. These themes included: Gain (as in (knowledge, understanding, relationship, awareness) and Stress (as in decreasing personal

stress, professional stress and organizational stress). Participants responded positively regarding the learning contracts and the impact they had on them.

The code Gain was defined as the understanding of something desired, to acquire, increase, or to add. Participants reported experiencing several Gain sources (knowledge, understanding, relationship, awareness), as they associated with their learning contract and participation in the focus group.

In addition to gain, participants in the research study reported experiencing several types/sources of Stress (as in decreasing personal stress, professional stress and organizational stress) associated with the impact of their learning contract. Participants reported several specific sources for their decrease in stress.

In response to Research Question 2, participants were asked how differences in scores (pre-and posttest scores) in the Emotional Eating Scale could be explained. Every response content varied from participant to participant, but several key themes emerged. These themes included: Growth (professionally and mentally) and Intellectual (learning, knowledge). Participants responded positively concerning differences in scores in the EES. The code intellectual was defined as a person who engaged more interests in logic, thoughts, and reflection; related to the field of mental and cognitive. In addition to that, the code growth was defined as Increasing Developmental Stages (professionally and mentally). Participants in the research study reported experiencing several types/sources of positive growth (personal, professional, socially) that they associated with the EES.

#### Additional Research

According to Anderson, Boud, and Sampson (2016), learning contracts provide a way of structuring learning and assessment. O'Halloran and Delaney (2011) indicated in

her research that learning contracts have a way of helping students become more selfdirected, motivated, and confident. She also showed that learning contracts were used as a strategy in motivating adult students in identifying their needs and desired outcomes.

As mentioned, learning contracts were explored by researchers, educators, and other participants to encourage self-directed learning and individual autonomy.

Schwarzer, Kahn, and Smart (2000) did a research project on the area of ESL writing in an academic setting. The class was designed as a whole language writing workshop. The class implemented learning contracts as a way for the participants to explore individual autonomy and self-directed learning. At first, during the researcher's project, the students seemed confused with the learning contracts; however, the students were committed to their academic interests and implemented different learning contracts based off their personal learning styles. In the end, the learning contracts proved to bring positive outcomes and student objectives became more specific and concrete.

Learning Contracts proved to be a good foundation for adult learners in developing self-directed learning and individual autonomy. It allowed for self-growth, developing certain learning styles, and pursing goals. According to Bone (2014), "learning contracts can aid the development of employability skills, such as objective setting, negotiation, review and evaluation of one's work and acceptance of responsibility for outcomes" (p. 1).

#### **Summary of Findings**

Figure 1 and Figure 2 display the scores before and after implementation of learning contracts by displaying resulting scores on the EES instrument. The Figures show that the result of the emotionally eating scale dramatically change. The first scale,

displayed in Figure 1, shows a very high number of participants displaying high negative emotions related to their eating habits. The second scale, indicated in Figure 2, shows the participants' negative emotions number dramatically change after developing their own learning contracts.

A dependent sample *t*-test for difference in means was conducted to determine whether the total Emotional Eating scores decreased after the intervention. The analysis revealed that the scores after the intervention were significantly lower than the scores before the intervention. These results are illustrated in Table 3. The result shows a *t*-score of -5.132 and a standard mean deviation of-24.75. The *t*-test for difference in means and Chi Square Goodness of Fit results showed that the comparison of scores, before to after the learning contract intervention, were significantly different; so therefore, the distribution of scores was also different. The researcher supported the hypothesis, because there was a change in the second test (the posttest).

According to the study there was a change between the two EES results taking by the participant at the pre-and posttest. In the *t*-test for difference in means the test value was greater than the critical value. The *t*-test for difference in means showed that the numbers were different, which supported that the distribution was different.

After themes codes were complete and reviewed, the thematic result was also supportive of rejecting the null hypothesis. The focus group responses supported the rejection of the null hypothesis. The review of transcriptions coded themes addressed the reliability of the qualitative data analysis. Themes emerged, suggesting the positive impact of learning contracts; also it was noticed an increase in participant intellectual/personal gain growth and a decrease in stress. Participant coded themes

discussed and suggested learned key components that helped them improve their personal/professional and everyday lives, thanks to the impact of the learning contracts. Also, participants discussed the impact of small group discussion and the benefits of discussion groups.

The thematic codes described in the study results were:

- a) Gain (as in knowledge, understanding, relationship, awareness)
- b) Stress (as in decreasing personal stress, professional stress and organizational stress)
- c) Growth (as in Professionally and Mentally)
- d) Intellectual (as in learning, knowledge)

The code, gain, was defined as the understanding of something desired, to acquire, increase or to add. All the participants reported experiencing several gain sources (knowledge, understanding, relationship, awareness), as they associated the code of gain with their learning contracts and participation in the focus group. The researcher created this code, due to the connection that it had among the participants during the focus group. Due to the different answers related to code of gain the researcher created four different sources of gain. These sources of gain were: gain in knowledge, gain in understanding, gain in relationship, and gain in awareness.

Gain in Knowledge: Seven participants consecutively reported they developed a gain in knowledge after creating and using their learning contracts. Gain in knowledge was described as adding/increasing more knowledge in relation to their own eating habits and their own learning contracts. According to the participants, regarding gain in

knowledge, the learning contract and the EES instrument were a big factor that ultimately helped them gain more knowledge during the study.

Gain in understanding: Eight participants consecutively reported they developed a gain in understanding after creating and using their learning contracts. Gain in understanding was described as adding/inferring meaning in relation to someone's own eating habits and learning contract. Gain in understanding was reported by three participants, and according to them, they gained more understanding on their eating habits routine. All three participants credited the learning contract and EES for that.

Gain in relationship: Eight participants consecutively reported they developed a gain in relationship after developing the learning contract and participated in the focus group. Gain in social relationship was described as forming relationships within the study/connecting with others inside the group.

Gain in social relationships was reported by two participants, and according to them, they formed relationships within the group, and that ultimately created empathy for one another. All eight participants credited the learning contract and EES for that.

Gain in awareness: Gain in awareness was described as adding knowledge/
perception to a situation in relation to someone's own eating habits. Gain in awareness
was reported by three participants, and according to them, they gained a better
understanding on their eating habits routine. Participants credited the learning contract,
focus group, and EES for raising such awareness. Eight participants consecutively
reported they developed a gain in knowledge after developing their learning contracts and
participated in the focus group.

#### **Stress**

Decreasing personal stress, professional stress and organizational stress. This code was defined as a physical or emotional factor (internal/external) that could produce discomfort and disruption. Participants in the research study reported experiencing several types/sources of stress (as in decreasing personal stress, professional stress, and organizational stress) as they associated the code of stress with the impact of the learning contract and the focus group.

The researcher created the code of stress, due to the connection that it had among the participants during the focus group. Participants reported a decrease in their day to day life stress after the research study. Due to the different answers related to code of stress the researcher created three different sources of stress. The sources of stress were: personal stress, daily stress and professional/occupational stress.

Personal stress: Eight participants consecutively reported they developed a decrease in their personal stress after creating and using their learning contracts. Personal stress was described as an uncomfortable response to an inappropriate level of pleasure in relation to their own eating habits. According to the participants, regarding personal stress the learning contract was a big factor that ultimately helped them experience a decrease in their own personal stress.

**Daily Stress**: Daily stress was described as a result response to an uncomfortable daily activity or task. According to the participants, regarding the daily stress, the learning contract appeared to cause participants to slow down and be more aware of eating alternatives before making a quick decision. Nine participants consecutively reported a decrease of stress in their daily lives.

Professional/Occupational stress: Occupational stress was described as an uncomfortable response to an event or situation at work related to their own eating habits. According to the participants' occupational stress and their eating habit routine, the learning contract was a big factor that ultimately helped them being aware of their eating habits routine. Eight participants reported a decrease in their occupational stress related to their eating habits after creating and using their learning contracts.

Growth as in professional growth, personal growth, social growth: The code growth was defined as Increasing Developmental Stages (professionally and mentally). Participants reported experiencing several types/sources of growth (professional, personal, socially). They associated the code of growth with their learning contracts and participation in the focus group. The researcher created this code, due to the connection that it had among the participants during the focus group. Due to the different answers related to code of growth, the researcher created three different sources of growth. These sources of growth were: professional growth, personal growth, social growth

**Professional Growth**: Professional growth was described as increasing or adding to someone's own professional life in relation to someone's own eating habits and learning contract. Professional growth was reported by 10 participants, and according to them, learning contracts helped growth professionally. Participants credited the learning contract and EES for that. Ten participants consecutively reported they developed in professional growth after creating and using their learning contracts.

**Personal/ Mental Growth**: Personal growth was described as evolving as a person in relation to someone's own eating habits and learning contract. Personal growth was reported by 11 participants, and according to them, they were able to evolve mentally

and raised awareness related to their eating habits. Eleven participants consecutively reported they developed a personal growth after creating and using their learning contract.

**Social growth**: Social growth was described as the ability to increase relationships and create empathy towards others. Social growth was reported by participants, and according to them, they were able create and learn from others in the study groups. Participants reported they created long lasting relationships outside of the groups. Ten participants consecutively reported they developed social growth after participating in the study and using their learning contracts.

#### Intellectual

Learning, knowledge: This code was defined as a person who engaged more interests in logic, thoughts, and reflection, related to their own thoughts. Participants in the research study reported experiencing several types/sources of intellectual improvement (as in learning, knowledge) as they associated the code of intellectual with the impact of the learning contract and their response to the research study.

The researcher created the code of intellectual, due to the connection that it had among the participants during the focus group. Participants reported an intellectual improvement in learning and knowledge. Due to the different answers related to code of intellectual, the researcher created two different sources of intellectual. The sources of intellectual were: intellectual improvement learning and intellectual improvement in knowledge).

**Intellectual improvement in learning**: Improvement in learning described intellectual learning as engaging more interest in learning in relation to their own eating

habits. According to the participants, the learning contract was a big factor that ultimately helped them gained more learning related to their own eating habits. Eight participants consecutively reported they developed an intellectual gain in learning, due to the learning contract in relation to their eating habits.

Intellectual improvement in knowledge: Intellectual improvement in knowledge was described as engaging more interest in knowledge in relation to their own eating habits routine. According to the participants, the learning contract was a big factor that ultimately helped them gained more knowledge related to their own eating habits. Eight participants consecutively reported they developed an intellectual improvement in knowledge, due to the learning contract in relation to their eating habits.

# **Interpretation of Results**

The purpose of this study was to examine the impact of learning contracts on eating habits and explore if there were any differences, positive impacts, benefits, and outcomes for participants utilizing learning contracts in relation to their eating habits.

Looking through quantitative and qualitative data, the researcher would have to say, ultimately, yes. There was an impact between learning contracts and eating habits groups. Participants believed the learning contracts had a great impact in their eating habits, according to responses during the focus group

All the participants felt they were able to learn from the learning contract experience and from other participants in the group. Participants reported experiencing gain in knowledge, relationships, awareness, and understanding. Others reported experiencing personal growth and peer relationship growth. Others reported experiencing gaining intellectual learning and intellectual knowledge. Lastly, others reported

experiencing a decrease in personal stress, professional stress, and organizational stress.

## **Recommendation for Practice**

Based on the execution and results of this study, the following recommendations for learning contracts on (eating habits) discussion groups. The recommendations pertain to the topic area of use of learning contracts in other group settings, not only eating habit groups. The researcher hopes others may benefit from this research study, including other participants with their eating habits. Individuals, themselves, can do learning contracts and hold themselves accountable. Professionals in their respective fields, such as therapists, counselors, and social workers, etc., can also develop learning contracts and use them at their practices. A recommendation for learning contracts is to encourage others health care professionals to administer learning contracts in their respective fields.

Studies showed that using learning contracts in counselor education classrooms and mental nursing clinical programs appeared to particularly meet the needs of adult learners. According to Chan and Chien's (2000) study on the use of learning contracts in mental health nursing clinical placement, students' autonomy and motivation in clinical learning increased using learning contracts. The study reported that there was more sharing between students and teachers, and the quality of teaching and learning was improved. Furthermore, the study concluded that contract learning should be integrated into the curriculum of nursing education as a learning strategy for nursing students. Students felt more self-directed and motivated when developing learning contracts; but what they really liked was being able to select assignments that were relevant to their interests and needs

According to O'Halloran and Delaney (2011), learning contracts were

implemented in a counseling education classroom. According to the study, adult learners benefitted from being self-directed, from work that reflected their unique experiences, and from learning that addressed their intrinsic motivation and was organized around their goals and interests. According to O'Halloran and Delaney (2011), "one effective way of organizing the needs, goals, objectives, assignments, and evaluation of a course in a collaborative way is through the development of a learning contract" (p. 71).

## **Recommendations for Future Research**

The researcher believed that age might be an impact on learning contracts, but recommends a future study to examine this. After finishing the study, the researcher brain stormed some additional questions for future studies described below:

- 1) Could age or experience be a factor when using a learning contract?
- 2) Could an experience could be a factor in continuing using learning contracts?
- 3) Do minority participants take this more seriously than most participants?
- 4) Does diversity play a big factor when it comes to being comfortable in developing a learning contract?

Hence, if counselors applied this in their practice they may have to take their age and cultural background into account. Also, additional results seem to suggest that people who come from different backgrounds seem to have a little harder time in creating the contract and using the contract.

A two-week research study span is not enough to truly continue to monitor a longlasting impact on learning contracts. This research was especially designed to facilitate dissertation completion, and a change in eating habits was a process that can take some time. Follow-up studies should investigate participants' progress at least every month and perhaps find more reasons why other discussion groups can benefit from learning contracts.

Finally, an additional quantitative measure could perhaps be administered when the participants completed the focus group and the researcher transcribed the recording. Furthermore, this study may add to the research base of the EES and may continue to improve the practice of learning contracts in a traditional and nontraditional environment. This study may add to the research base of the EES and the development of a measure to assess coping with negative affect by eating and the use of learning contracts. The EES study suggested Anger/Frustration, Anxiety, and Depression subscales. All three subscales were correlated and provided evidence of construct validity (Arnos, Kenardy, & Agras, 1992). Just like in graduate counselor education programs, participants in eating habits groups can benefit from hands on method tools that will help them have a better support.

# Limitations

While the results of the pre-and posttests were consistent across the two tests, including the focus group was important to recognize a limitation of this study. It was conducted using a purposive sample of participants at a local boxing gym. Also, the sample size may have limited the ability to detect effects on the study. Originally the researcher desired number of participants was 20 participants, but only 12 were able to participate in the study. With a larger population and more volunteers for a study, more definitive results may be found.

As a result, the results of this study may not be generalizable to a larger population; therefore, further research of this type at additional institutions/organizations/

groups would be advantageous to further understand the impact of learning contracts in different group settings. Furthermore, a learning contract is not appropriate for all types of learners, especially for learners who need more direction, who have more dependent personalities, or who thrive in the traditional style of instruction (O'Halloran and Delaney, 2011). Learning contracts may not be appropriate when content is complex and completely unfamiliar to the learners. Introducing a learning contract as a new concept may require some rethinking of learning in the minds of some students. They may need time to adjust and understand the concept. Also, the EES instrument was created by Arnow et al., in 1992; an instrument from so long ago can be a limitation.

There is a separation based on experience, age, and cultural background. Six out of seven of the participants ages 30 to 39 reported experiencing a connection between their own experience and their learning contract. The researcher found participants 35-year-old gave better feedback on the usage of the learning contract.

These results differed from participants that were age below 30. These participants reported finding the learning contract helpful and practical. Four out of five participants reported: Le, A, Co, and P agreed on learning contract being helpful and very easy to use. Le stated, 'It is every easy to use.' A added, 'I can used this for my daily goals.' C mentioned, 'I can rearrange my contract at any time.' Lastly, P stated, 'It is a document easy to edit.'

On the other hand, participants that identified as different racial background seemed to suggest and reported being engaged with the contract, but stated they were unsure if they would keep using the learning contract. Four out of 12 participants described themselves as being Hispanic and living in a Hispanic environment for their

entire life. Hispanic participants reported being engaged with the contract, but stated they were unsure if they would keep using the learning contract and recommended a translation version in Spanish of the learning contract.

Ale mentioned, 'My first time used this document, but it is very practical, but I will need a reminder to review it.' N mentioned, 'I like to try this again, but it will be better if I can translate this to Spanish.' K mentioned, 'I can use this document more if I can actually have more time off work.' Ju mentioned, 'I will have created me a learning contract twice year and hope to continue to use them.'

These results differed from participants that were born and raised in the United States. Z, Jo, and N mentioned the learning contract can be used always. Z stated, 'I can take this document anywhere I go.' Jo viewed the learning contract as perfect document that people can share and use daily. N mentioned, 'I use the learning contract to achieve personal goals.'

Furthermore, participants who were age 30 to 39 and older took the learning contract more seriously than younger participants and seemed to suggest that they would continue using the learning contract and continue to work on their personal goals. Six out of seven of the participants reported as follows: Lu, Ju, and N agreed that learning contracts were great for their age.

Lu stated, 'Learning contracts are well for my age group.' Ju added, 'The learning contracts can be practice even at an elder age.' N added 'that the learning contract is the right instrument for his age.' Similarly, C, Z, Le mentioned, 'The learning contract is perfect for their age and their lifestyle.' C stated, 'Easy to use document.' Z viewed the learning contract as 'fits my lifestyle.' Le mentioned, 'Good for my age!'

This result differed from participants that were age below 30. These participants reported finding the learning contract being beneficial/easy to use rather than suitable for their age. Four out of five participants reported: Le, A, Co and, Pat agreed on learning contracts being helpful and very easy to use. Leo stated, 'It is every easy to use.' A added, 'I can used this for my daily goals.' C mentioned, 'I can rearrange my contract at any time.' Lastly, P stated, 'It is a document easy to edit.'

## Conclusion

This study provided another advancement in learning contracts within group discussions. This study provided andragogical advancement with the introduction of learning methodology on day by day eating habits routines. This study has the potential to significantly better the lives of people by providing learning contract access to anyone in the community looking to have a better and a healthier life.

According to Knowles (1986), having students being actively engaged in the learning contracts and having them take responsibility for their own learning drew on the intrinsic motivation of adult students, which often led to greater retention of information learned. This retention of knowledge and the ability to foster ongoing motivation for learning was especially important in different discussion groups. According to O'Halloran and Delaney (2011) adult learners benefitted from diverse approaches to instruction, increased accountability for learning, and collaboration around learning goals. They also benefit from being self-directed, from work that reflected their unique experiences, and from learning that addressed their intrinsic motivation and was organized around their goals and interests (O'Halloran & Delaney, 2011).

This study has raised the bar on the use of learning contracts. Discussion learning

groups were highly efficient and convenient in terms of time and place, and by applying andragogical learning contracts to meet adult learning needs it can create a huge impact.

Ultimately, this researcher was pleased with the data that was recovered and the effort that went into this research study. The researcher was overwhelmingly appreciative to have had this experience to begin with, and was extremely blessed to have been able to chase their desires and to have had a group that was supportive of the research that was collected and completed. The researcher hopes this innovative research will gain implementation in the higher education community and become an addition to the history of andragogy.

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#### Vitae

Born in 1982, in Panama City, Panama, Jose Antonio Jones Rios. received his Bachelor of Arts in Mass Communication with a minor in Business in 2006 from Lindenwood University. After graduation, he received his Master of Business Administration in 2007 from Lindenwood University. In 2011, Mr. Jones received his Master of Arts in School Counseling and Professional Counseling. Mr. Jones was also a Professional boxer and had always interest in connecting boxing and counseling so after several researches on the connection he decided to teach a class at Lindenwood University called the Boxing Therapy. A class designed to released stress, anger and boost self-motivating and self confidence among their participants. Mr. Jones began his professional career as staff member at Lindenwood University. In 2014, After completing his provisional counseling hours and obtaining his Licensed in Professional Counselor, Mr. Jones became a therapist at Youth in Need. He served as a therapist at youth in need for two years. In 2014, Mr. Jones decided to open his own Private Practice called The Boxing Therapy. Mr. Jones developed significant interests in boxing and counseling approached therapy focusing on clients with mental and physical disorders, such as autism, depression, addiction, aggression, anxiety, Down Syndrome, ALS, and Parkinson's, etc.

Mr. Jones spent quite some time studying the different theories of psychotherapy in combination with his doctoral studies in leadership and andragogy. Mr. Jones focused on exploring and working on individual's strengths, motivation and coordination while applying boxing techniques. Mr. Jones currently managed his private practice. Two of his major programs are "Real Living Champions in Life" and "The Living Life Without a

Label." Mr. Jones is looking forward to continuing to work with the adult population and continued to expand the work on andragogy around the world.