

7-2021

## **Overcoming Learning Anxiety in Workplace Learning: A Study of Best Practices and Training Accommodations that Improve Workplace Learning**

Ann-Marie Piscitelli  
*University of Arkansas, Fayetteville*

Follow this and additional works at: <https://scholarworks.uark.edu/etd>



Part of the [Adult and Continuing Education Commons](#), [Educational Assessment, Evaluation, and Research Commons](#), and the [Educational Leadership Commons](#)

---

### **Citation**

Piscitelli, A. (2021). Overcoming Learning Anxiety in Workplace Learning: A Study of Best Practices and Training Accommodations that Improve Workplace Learning. *Graduate Theses and Dissertations*  
Retrieved from <https://scholarworks.uark.edu/etd/4169>

This Dissertation is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of ScholarWorks@UARK. For more information, please contact [scholar@uark.edu](mailto:scholar@uark.edu).

Overcoming Learning Anxiety in Workplace Learning: A Study of Best Practices and Training  
Accommodations that Improve Workplace Learning

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Education in Human Resource and Workforce Development

by

Ann-Marie Piscitelli  
University of Central Florida  
Bachelor of Science in Business Administration, 1996  
Indian Wesleyan University  
Master of Science Human Resource Management, 2014

July 2021  
University of Arkansas

This dissertation is approved for recommendation to the Graduate Council.

---

James Maddox, Ph.D.  
Dissertation Director

---

Mandel G. Samuels, Ed.D.  
Committee Member

---

Paul Blisard, Ed.D.  
Committee Member

## **Abstract**

Anxiety disorders are the most common mental illness in the U.S. and affect 40 million adults, or 18.1% of the population each year. Anxiety plays an essential role in encouraging productive learning outcomes; however, uncontrolled anxiety could result in heightened emotions that create barriers to learning. Employees who have anxiety disorders may experience these barriers to learning when in traditional training programs and may require support or accommodations to boost their unique learning needs for development in the workplace. Human Resource Development (HRD) professionals' challenge is how best to intervene when an employee exhibits behaviors of learning anxiety to nurture and promote productive workplace learning that leads to skill development and career advancement. This basic qualitative study seeks to determine how individuals with an anxiety disorder may be better supported in the workplace through accommodations and using best practices in anxiety management that are typically applied in clinical settings or formal education environments. The research questions ask how individuals respond to anxiety in workplace learning and what practices they feel would help them manage the heightened anxiety. Data was collected through semi-structured interviews consisting of open-ended questions. The voluntary participants, who self-identified as having learning anxiety, were selected using theoretical random sampling. Content analysis was applied to examine the data for codes, categories, and themes. Key results indicate that learning is impaired, which negatively impacts learning and job performance when one experiences learning anxiety. The data also revealed that the participants believed they would benefit from accommodations provided by HRD professionals who understand the detrimental impact of learning anxiety.

*Keywords:* Anxiety, Disorders, Accommodations, Andragogy, Human Resource Development

©2021 by Ann-Marie Piscitelli  
All Rights Reserved

## **Dedication**

To my daughters, Tori and Emma Piscitelli, whose support has made this journey possible for me. Your patience, grace, encouragement, and sacrifice continue to amaze me and reminds me to practice those character traits in all that I do. Not many adults would be so giving of their time with their mother as you both were as middle schoolers. Your unseen efforts to keep the house quiet and in order so I could focus on my studies will never be forgotten. I hope my tenacity to achieve this title stays with you always and provides you the strength and endurance to become whoever you strive to be. Always remember, you must first take care of you before you are capable of taking care of others- becoming your best self and hard work ensures that everything else in life will fall into place. You two are my heart and my soul, my everything. I hope you recognize this is every part of your achievement as it is mine.

## **Acknowledgements**

I first would like to thank Dr. Schmidtke for making the coursework fun and purposeful. Not many can say earning a doctorate is enjoyable, but somehow you made it so and often had me laughing out loud. You encompass all that adult learning and HRD should be.

Thank you to Dr. Maddox for jumping on board so late in my journey and guiding me through the end game. Your words of encouragement and confidence made each long day of writing possible. I appreciate all the time you have given me, and I hope our journey together continues long after graduation. To the other members of my committee, thank you for your feedback and support. I appreciate of the time, effort, and guidance you gifted me.

To Dr. Thomas Steele, thank you for being the quiet advisor and provided me with much direction and encouragement. You really were a beacon of light in a very dark place. You will do great things and maybe even become a superhero with your newly acquired title as Dr. Steele.

Finally, to Jason who simplified the technical stuff for which saved me countless hours, to Hilary Bee and Eunice Frohlich for your mad proofreading skills, all my family and friends, who never complained about giving me the time to work, even on holidays. I thank you all for your support and encouragement. I love you all.

## Table of Contents

Chapter 1: Introduction .....	1
Statement of the Issue .....	2
Problem Statement .....	4
Purpose of the Study .....	5
Primary Research Questions .....	6
Significance of the Study .....	6
Theoretical Framework .....	7
Research Theory .....	9
Research Design .....	10
Selection of Subjects .....	10
Data Collection Methods .....	11
Data Analysis .....	11
Reliability and Validity .....	12
Ethical Considerations .....	13
Assumptions and Limitations .....	14
Chapter Summary .....	15
Definition of Terms .....	16
Chapter 2: Literature Review .....	17
Anxiety .....	18
Learning and Anxiety .....	22
Organizational Learning and Anxiety .....	25
Adult Learning Principles .....	27

Learning Styles.....	30
ADA Stance on Anxiety.....	33
Best Practices Relevant to HRD to Manage Anxiety.....	37
Chapter Summary.....	42
Chapter 3: Methods.....	44
Research Questions .....	45
Ontology and Epistemology.....	45
Basic Qualitative Method.....	46
Selection of Subjects.....	46
Data Collection Methods.....	47
Data Analysis .....	50
Reliability and Validity.....	52
Ethical Considerations.....	53
Chapter Summary.....	54
Chapter 4: Findings.....	56
Selections of Participants .....	56
Interview Setting.....	57
Demographics of the Participants .....	58
Overview of Categories and Themes .....	59
Category 1: The Anxiety Experience .....	60
Category 2: Managing Learning Anxiety.....	66
Chapter 5: Discussion, Conclusions, and Recommendations.....	72
Interpretation of the Findings .....	72

RQ1: What emotions, responses, or behaviors create barriers to learning (avoidance, over-vigilance, excessive arousal) when experiencing feelings of learning anxiety? .....	73
RQ2: What do employees believe are the most impactful training practices or formal/informal accommodations in managing anxiety in their learning and development? .....	76
Limitations of the Study .....	79
Recommendations for Research.....	81
Implications for Practice .....	82
Conclusion.....	83
References.....	85
Appendices.....	94

## Table of Figures

Figure 1 Categories, Themes, and Sub-themes of the Study .....	60
--	----

## Tables of Tables

Table 1 Reasonable Accommodations Under the ADA .....	35
Table 2 Third-Party Recommended Accommodations for Anxiety .....	35
Table 3 Third-Party Recommended Accommodations to Improve Learning .....	36
Table 4 Demographics of the Participants .....	58
Table 5 Summary of Mental Response Theme.....	62
Table 6 Summary of Physical Response Theme.....	63
Table 7 Summary of Learning Performance Theme.....	66
Table 8 Summary of Job Performance Theme .....	66
Table 9 Summary of Learning Performance Theme.....	68
Table 10 Summary of Best Practices Theme .....	70
Table 11 Summary of CBT Best Practices Theme .....	70
Table 12 Comparison of Accommodations .....	77

## Chapter 1: Introduction

A little over 18% of the U.S. adult population is documented as having an anxiety disorder (Anxiety and Depression Association of America, n.d.). Many studies have found that moderate anxiety has benefits to learning; however, excessive anxiety has an adverse effect and can potentially wield a negative impact on learning (Sun et al., 2017). Symptoms of anxiety cause one to lack concentration and display other detrimental behaviors such as poor time management, disorganization, and an inability to cope with stress (Hughes et al., 2016). This knowledge is relevant to human resource development (HRD) professionals as it can impact learning in the workplace, particularly when workplace support is not provided to those with an anxiety disability.

The Americans with Disabilities Act prohibits discrimination and guarantees that individuals with disabilities have equal opportunities to have a typical lifestyle, including employment. The act defines disability as a physical or mental impairment that restricts a major life activity (ADA National Network, 2018). Hughes et al. (2016) further elaborated that learning has been acknowledged by the courts as such an activity; therefore, mental illnesses that prevent learning are protected under section 504 within the ADA. HRD professionals face the challenge in recognizing when an employee is exhibiting behaviors of heightened anxiety in workplace learning.

Additionally, HRD professionals must determine the best course of action to take to support the employee through the learning process when developing new skills. Under the law, employers are expected to offer reasonable accommodations to ensure the disabled employee can experience equal benefits and privileges to those without disabilities (U.S. Equal Employment Opportunity Commission, n.d.). The ability to recognize exaggerated anxiety responses and

behaviors triggered from workplace training will allow HRD professionals to offer individualized accommodations and otherwise support the employee to mitigate the symptoms. Hughes et al. (2016) emphasized that it is important that HRD professionals use resources, such as the Job Accommodation Network (JAN), to identify the accommodation that will help the employee better manage his or her anxiety and successfully perform the role and fully assimilate into the working environment.

After an exhaustive review of the literature, it was determined that little research exists on anxiety and its impact on adult learning in the workplace. While this study does not suggest that an HRD professional should take the role of a medical professional in diagnosing anxiety disorders, there may be an opportunity for HRD professionals to support individuals in mitigating anxiety in workplace learning. The question then arises for HRD professionals, what non-medical techniques or a scaled version of mental therapy can be exploited in workplace learning to mitigate anxiety? Vince (2014) recommended developing learning strategies that connect individuals with their anxiety that will aid those in managing the heightened emotions. Hay and Blenkinsopp (2019) asserted that working with emotions helps develop a tolerance of anxiety which prevents it from becoming excessive. They further state that this tolerance holds much promise for HRD practices. These findings emphasize the need for HRD researchers and professionals to examine mental health professionals' practices, such as cognitive behavior therapy, to develop nonclinical ways to integrate anxiety mitigation methods that can be used to advance employee development.

### **Statement of the Issue**

Anxiety plays an essential role in encouraging productive learning outcomes. Vince and Saleem (2004) asserted that learning is unlikely to occur without anxiety. However, if not

controlled, anxiety can result in heightened emotions that cause conflicts and create barriers to learning or learning inaction (Gilmore & Anderson, 2016). Research has shown that high levels of anxiety consume necessary attentional resources and impede learning and performance (Bell & Kozlowski, 2008). Macher et al. (2012) asserted that increased anxiety might cause individuals to experience low levels of self-efficacy and high fear of failure in learning situations.

Lack of concentration, poor time management, disorganization, and the inability to cope with stress are all symptoms of anxiety and conditions that create obstacles for learning (Hughes et al., 2016). These symptoms can stimulate avoidance behavior towards the anxiety-provoking stimulus, such as learning new skills in the workplace (Muschalla et al., 2010). Gross and Hen (2004) define avoidance, vigilance, and arousal as anxiety-related behaviors that are part of a universal mechanism in response to undesirable situations. Furthermore, individuals with high degrees of anxiety have proven records of lower task efficiency (Su et al., 2017).

Anxiety is an instinctive response to stress to regulate focus and alertness during a perceived threat or adverse conditions (Kim et al., 2011). When heightened, it becomes an issue when it produces an intense and excessive response that hinders a person's major life activities (Sokolowska & Hovatta, 2013). Kutlu and Gould (2015) reported that 40 million Americans are affected by anxiety disorders. Bateson et al. (2011) stated anxiety disorders are among the most common mental illnesses, where treatments are not universally effective and suggest there is a need to better recognize abnormal anxiety responses. These disorders are recognized by the Americans with Disabilities Act (ADA) as a mental illness that could limit a major life activity (such as learning) and requires organizations to provide disability accommodations (Thompson, 2015). Organizations that fail to offer reasonable accommodations under section 504 may be

exposed to legal risk. Additionally, the absence of reasonable accommodations may result in employee performance failure.

The Anxiety and Depression Association of America (n.d.) report anxiety disorders are the most common mental illness in the U.S. and affect 40 million adults over age 18 and representing 18.1% of the population. The Anxiety and Depression Association also reported only 36.9% of those suffering from anxiety receive medical treatment. Hughes et al. (2016) assert there is a high probability that HRD professionals will interact with employees who suffer from mental and emotional disabilities. Historically, an HRD professional's role included practices to enlighten and establish health and wellness programs that are inclusive of all workers, including those employees with mental illness disabilities (Rocco et al., 2014). However, more intervention is needed in the workplace, and HRD professionals should not ignore employees' psychological disability attributable to lack of training in mental health (Hughes et al., 2016).

The challenge for human resource development (HRD) professionals is how to recognize when an employee is exhibiting behaviors of heightened anxiety in workplace learning that prevent the development of needed skills. An additional challenge is determining the best course of action to take to support the employee through the learning process. The ability to recognize exaggerated anxiety responses and behaviors triggered from workplace training will allow HRD professions to provide accommodations or support the employee to mitigate learning anxiety.

### **Problem Statement**

To have an engaged staff that contributes to the organization's competitive advantage, employees need equal opportunities to develop skills to perform well and advance in their careers. However, employees who have pathological anxiety may experience barriers to learning

in traditional training programs and require support or accommodations to boost their unique learning needs for development in the workplace. In addition, failing to provide training accommodations (under the ADA) to those clinically diagnosed could expose the organization to legal risk (Thompson, 2015).

Macher et al. (2012) asserted that increased anxiety might cause individuals to experience low levels of self-efficacy and high fear of failure in learning situations resulting in the avoidance or rejection of learning opportunities in the workplace. HRD professionals who provide support in the form of best practices or exercises to those employees who exhibit heightened anxiety behaviors during training could mitigate learning apprehension and avoidance that prevent the development of desired skills (Gilmore & Anderson, 2016). The challenge for HRD professionals is how to intervene when an employee exhibits behaviors of excessive learning anxiety to encourage and promote effective workplace learning that leads to skill development and career advancement.

### **Purpose of the Study**

The purpose of this study is to explore what behaviors employees believe they exhibit when experiencing anxiety that prevents learning and development in the workplace and to examine what learning interventions and training accommodations improve workplace learning. The study will conduct qualitative interviews to categorize common behavior responses reported by those who self-identify with having heightened levels of anxiety during anxious episodes. Additionally, the study seeks to discover preferred accommodations and non-clinical best practices to mitigate the anxiety that can be incorporated by HRD professionals in workplace learning to frameworks to improve workplace learning.

## **Primary Research Questions**

This proposed study seeks to determine what actions HRD professionals can take to mitigate anxiety while learning when an employee exhibits the behavior of heightened anxiety when learning new skills in the workplace. The following research questions will be considered to collect data on the participant's individualized perception when experiencing anxiety:

RQ1: What emotions, responses, or behaviors create barriers to learning (avoidance, over-vigilance, excessive arousal) when experiencing feelings of learning anxiety?

RQ2: What do employees believe are the most impactful training practices or formal/informal accommodations in managing anxiety in their learning and development?

## **Significance of the Study**

After an exhaustive literature review, little research was found on how to address anxiety and adult learning beyond the confines of formal educational institutions. Some individuals who suffer from anxiety disorders have not been previously identified as needing accommodations in a learning institution (Anxiety and Depressions Association of America, n.d.). Furthermore, for those who have been identified, the transfer of accommodations (such as a 504 plan) from learning institutions to the workplace ceases to exist. The lack of identification and/or transfer of learning plans poses challenges for HRD professionals charged with workplace learning.

It is a challenge for HRD professionals who lack mental health professional designations to identify anxiety due to the various types of disorders which all have unique symptoms with varying degrees of severity. Statistics from 2019 report that anxiety is the most common mental disorder in the United States, impacting 18.1% of adults, which is roughly 40 million people (The Anxiety and Depression Association of America, n.d.). This study will provide data to aid HRD professionals in recognizing signs and behaviors of employees who are exhibiting

pathological anxiety in workplace learning. Additionally, the study seeks to identify tools, practices, and formal and informal accommodations that increase learning in workplace training.

### **Theoretical Framework**

Scholars and practitioners have focused on the question of how adults learn since the early twentieth century. The first attempt to propose adult education as a unique field of practice, as differentiated from pedagogy, was the concept of andragogy. Knowles' (1968) theory of andragogy differentiated childhood learning from adult learning and called the attention of scholars to recognize adult learning as a unique field of practice. Andragogy considered five assumptions that adult learners have, a) the self-concept to direct one's own learning, b) prior learning and experience, c) readiness (or need) to learn, d) the orientation to learn and interest in the application of knowledge, and e) intrinsic motivation to learn (Merriam, 2001). When learning, adults differ from (most) children as they seek autonomy with the need to self-direct learning activities (Knowles, 1968).

Andragogy is rooted in the humanistic philosophy and considers the learner's a) need to control the process, b) the natural desire to learn, and c) the motivation to continue learning (Merriam, 2001). As that natural desire to learn exists, adults want to take part in how they learn. They want to decide who will facilitate their learning and the methods used. Scholars agree that andragogy has made significant contributions to the understanding of adult learners; however, it is criticized that andragogy has provided little advancement in understanding the process of learning (Merriam, 2001).

Skinner (1954) asserted that learning is a product of introducing an effect within specific conditions designed to change behavior. Understanding how a student learns is essential for educators as it contributes to the student's academic success. Teaching does not guarantee

learning has been achieved, and much depends on the learning activities the students engage in (Vermunt & Verloop, 1999). Students possess unique learning styles and require reciprocal teaching styles. A learning style is defined as a concept that individuals differ in preference of instructional practices or methods of study when learning and retaining knowledge (Klašnja-Milićević et al., 2011).

Beyond the student's learning style, there is a need to address student anxiety in the learning process. Chen (2020) asserted students seek to achieve high marks due to fear and the need to avoid adverse reinforcement such as failing. Students struggle with maintaining the possible feeling of self-confidence and coping with negative emotions such as anxiety, stress, doubt, and helplessness (Vermunt & Verloop, 1999). Su et al., (2021) argued students who are perceived to be slow learners or have poor learning achievements might be a result of never having the chance to learn in their preferred way. The perception of being a slow learner contributes to the anxiety of the learning process.

Holland's (1982) theory of learning styles asserted these styles are influenced by several factors including, social status, environmental, physical, sociological, and emotional. The author defines social status factors as those characteristics that relate to a person's inclusion in different social groups that are assigned at birth, such as gender and race. Holland identified environmental factors as influences such as sound, light, temperature, design that may enhance or impair a person's learning. Physical needs are how one learns (e.g., listening vs. reading) or their ability to sit (or not) for extended periods of time (Holland, 1982). Sociological needs determine if the student prefers to be a social or independent learner. Emotional factors include the student's motivation, perseverance, and responsibility. These traits assist the student in

maintaining his or her willingness to learn and help counter anxiety and task-irrelevant thoughts (Vermunt & Verloop, 1999).

This research study intends to integrate the basic principles of andragogy and Skinner's beliefs on conditioning learning with the self-directed learning theory. Self-directed learning incorporates three principles, a) the self-initiated learning process to plan and manage learning, b) autonomy characteristics of the learner, and c) exerting control over the instruction (Caffarella, 1993). The underlying humanistic foundation of self-directed learning prescribes that learners assume responsibility and the educators act as guides in the learning process (Caffarella, 1993). Self-directed learning is a popular learning style among adult learners. However, Caffarella (1993) argued, "being self-directed and acting autonomously in a learning situation is not an all-or-nothing position" (p.30). Garrison (1997) suggested a collaborative perspective to ensure the adult learner fulfills the need to control the learning while under guidance and direction to meet educational objectives. This theory would support the partnership between the employee recognizing symptoms of anxiety and the HRD professional providing guidance of best practices and accommodations.

### **Research Theory**

Grounded theory is applied to develop theory derived from the collection of data within a study. The theory is generated solely from the data and not from other established theories. The grounded theory works inversely from the traditional research (theory and hypothesis, research and data collection, conclusion) as it begins with a question of inquiry and seeks data to form a framework. Patton (2002) asserted, "grounded theory is meant to build theory rather than to test the theory" (p. 127).

Data is collected through interviews and asking open-ended questions of participants who are selected using theoretical sampling. Patton (2002) defines theoretical sampling as the “process of selecting incidents, slices of life, time periods, or people on the basis of their potential manifestation or representation of important theoretical constructs” (p. 238). As the researcher, I will continuously compare the data collected and group the data into concepts eventually forming a category to establish a theory.

### **Research Design**

This study encompasses basic and applied research to gain knowledge in comprehending the obstacle as to determine appropriate ways to intervene and correct or improve the problem (Patton, 2002). Moreover, the study seeks to understand a social phenomenon from the perspective of the participants and focuses on the reality that people perceive them to be and how they feel about the experience. The research will encompass emancipatory/critical action research to uncover the constraints placed on individuals with high levels of state anxiety in workplace learning.

### **Selection of Subjects**

Working within the social distancing constraints due to a pandemic, social media venues will be used to solicit working adults who self-identify as having heightened levels of anxiety within workplace learning situations. Random selection will be applied to select from those volunteers to participate in a qualitative interview. The interview seeks to understand the impact of anxiety on workplace learning from the participant’s perspective and which accommodations or best practices the participant feels improve concentration, time management skills, organization, and ability to manage anxiety while learning new skills. Each participant will receive a consent to participate form, which states the purpose of the research and a statement of

confidentiality from being identified in participating in the study. Questionnaires, interview transcripts, sound files, and other information obtained from participants will fully be stored in a secure location and held per of the law and University policy.

### **Data Collection Methods**

Data will be collected through interviews and asking approximately nine open-ended questions of participants who are selected using random sampling from those who have a correlation between the independent and dependent variables. The participants will partake in a semi-structured interview to answer questions within the timeframe of 45-60 minutes. Questions are defined as four questions to identify what behaviors are demonstrated when feeling anxious and the practices and formal/informal accommodations that the participants feel improved concentration, time management skills, organization, and ability to cope with stress while learning new skills. Rubin and Rubin (2011) define four questions as questions that “request your interviewees to provide a broad description of their activities or those of the organization, to talk in general terms about how they handle some particular matter, or to present their knowledge about what steps occur in a process” (p. 137). Responses will be recorded and transcribed.

### **Data Analysis**

Qualitative research is applied to extract data from a small group of individuals that can be generalized to a larger sample of the population. Data collected from the qualitative interviews will be coded through thematic analysis to identify patterns in the responses. Interpretive interactionism will be used to understand the meanings that people impose on learning events and behaviors.

## **Reliability and Validity**

Reliability is the degree to which a measurement tool produces steady and consistent results, and validity refers to how well a test measures what it is supposed to measure (Ary, Jacobs, Sorenson, & Razavieh, 2010). Qualitative research seeks to record the participants' experience of a particular phenomenon rather than to isolate the laws of human behavior (Merriam & Tisdell, 2016). The authors further state that due to the varying interpretations of the responses collected, no benchmark exists to establish reliability in the traditional viewpoint. Furthermore, validity is relative to the circumstances of the research and assessed in association with those conditions.

Given that traditional reliability does not exist in a qualitative study, one should not discredit the results of any study. Merriam and Tisdell (2016) asserted that researchers should seek data that is consistent, makes sense, and mirrors reality. Triangulation supports the credibility of a study by cross-examining data from multiple sources (Savin-Baden & Major, 2013). This study will apply a form of triangulation through similar research and by the collection of data from interviews. Member checking will be applied to ensure the validity of the responses. Savin-Baden and Major (2013) asserted member checks ensures correct interpretation of the participants' responses. Additionally, peer evaluation by the advisor committee will review to validate the research approach and results are consistent with existing research.

Research operationalization will be applied to ensure the data collected is empirical. In research, operationalization is the establishment of survey questions, observation criteria, or experimental protocol. Creating an order of operations will direct the research in the day-to-day tasks and established structure and ensures the process is repeatable, trackable, and measurable (Shuttleworth, 2008). Vague concepts (such as emotions) will be explained and defined as to

how it is to be measured. This research study defines who the participants are- adults with secondary education, employed, and have anxious feelings about learning in the workplace. It provides examples of anxious feelings and describes the types of workplace learning. The study seeks to examine the various forms of anxiety and will not discriminate against those who do not have trait anxiety and only experience high levels of anxiousness when learning in the workplace.

Maxwell (2013) suggested the following strategy for analyzing qualitative data: listen to the interview recordings before transcribing, then read the transcripts, notes, and or documents, and take notes on what you hear or see in the data. Follow by applying one of the three main groups: memos, coding, or connecting strategies (most popular is coding). Applying this iterative approach is essential to qualitative research because it ensures the sequence of tasks are conducted and repeated in the same manner to create a repeatable experience. Additionally, the back and forth between the data and the findings ensures that all information-rich data is collected, and any new data is exhausted. The objective of the iterative process is uncovering the true results with each repetition (Ary, Jacobs, Sorenson, & Razavieh, 2010).

### **Ethical Considerations**

Qualitative research involves the participation of the researcher, whether it be in the form of direct observation or the design of interview questions asked, which add a degree of subjectivity to the study (Patton, 2002). The author also asserts a researcher should possess empathetic neutrality, which is defined as the middle ground between a researcher being too close and too distant from the participants in the inquiry. “Empathy involves being able to take and understand the stance, position, feelings, experiences, and worldview of others” (Patton,

2002, p.52). Empathy is vital to qualitative researchers because it provides an empirical foundation for relaying the perceptions of others (Patton, 2002).

An implication for qualitative research is that scholars who cannot be empathetic stand the risk of incorrectly relaying the opinions, thoughts, and feelings of others in their research. This effect shows the importance of researchers being reflexive. Reflexivity involves the individual having the self-awareness to be attentive to one's views while considering the views of the participants in the study (Patton, 2002). Savin-Baden and Major (2013) stress the importance for a researcher to define his or her own personal stance so that opinion does not impact the quality of the research.

### **Assumptions and Limitations**

Assumptions are important to qualitative research because if the assumptions fail to exist, the study fails to exist (Simon, 2011). The researcher assumes the participants will answer truthfully. This assumption is logical as the participant has volunteered to partake in the study. It is also assumed the sample is an accurate representation of the population; however, the small sample may determine results that may not apply to the greater population. Random selection is not an option as not every person has anxiety. As the researcher, I will have to accept whoever is willing to participate (individuals with self-identified anxiety) in the research; therefore, making the selection process non-random. Additionally, as the researcher for this study, I acknowledge that I possess trait anxiety and experiences heightened levels of anxiety when learning. Therefore, it is reasonable to assume that I have established both conscious and unconscious biases around HRD interventions (or lack of) in workplace learning.

## Chapter Summary

This qualitative research study seeks to reveal best practices and accommodations utilized by those who experience increased levels of anxiety in a workplace learning environment. Learning ceases to exist without anxiety as anxiety forms a necessary foundation for productive learning outcomes. Nevertheless, uncontrolled anxious feelings can result in heightened emotions that create barriers to learning, such as lack of concentration, poor time management, disorganization, and an inability to cope with stress (Gilmore & Anderson, 2016). Employees who encounter these barriers to learning in workplace learning may require support or accommodations to boost their unique learning needs. Outcomes of this study may benefit multiple stakeholders including learners, HRD professionals, and the broader organization. This study may be of especial interest to HRD professionals who are seeking to improve learning outcomes in traditional training programs in the workplace.

A comprehensive literature review is included in Chapter 2 on anxiety, adult learning, and interventions that reduce anxiety. The primary focus of Chapter 2 is understanding the impact of heightened anxiety on learning, the legal stance on workplace accommodations, and known cognitive therapy practices that abate anxious feelings. The literature review will demonstrate how anxiety impairs learning and may require additional support (in the form of accommodations) to employees who are learning new tasks in the workplace. Chapter 3 describes the research design in greater detail, including the selection of the participants and the interview procedure. Chapter 4 will discuss the findings of the study, and the paper will conclude with the interpretation of the findings and their applications in Chapter 5.

## **Definition of Terms**

**Anxiety:** is the body's normal response to stress and a mental state that is prompted out of fear in anticipation of danger or potential threat (Gross & Hen, 2004).

**Anxiety Disorder:** an elongated, excessive, or exaggerated fear response. The four most common disorders are discussed: panic, phobias, generalized anxiety, and post-traumatic stress disorder (PTSD) (Gross & Hen, 2004).

**The Americans with Disabilities Act (ADA):** one of America's most comprehensive pieces of civil rights legislation that prohibits discrimination and guarantees that individuals with disabilities have the same opportunities as everyone else to have a typical lifestyle, including employment (ADA, n.d.).

**Accommodation:** actions taken by an employer to ensure the disabled employee can experience the same benefits and privileges equal to those employees without disabilities. Accommodations must be reasonable and cannot accrue excessive costs or be disruptive to nature of the business (US Equal Employment Opportunity Commission, n.d.).

**Andragogy:** the theory of adult learning which considers five assumptions that adult learners have, a) the self-concept to direct one's own learning, b) prior learning and experience, c) readiness (or need) to learn, d) the orientation to learn and interested in the application of knowledge, and e) intrinsic motivation to learn (Merriam, 2001)

**Cognitive Behavioral Therapy (CBT):** a clinical method to teach people with anxiety disorders different ways of thinking, behaving, and reacting to anxiety-producing events (National Institute of Mental Health, n.d.).

## Chapter 2: Literature Review

Understanding how anxiety impacts an employee's ability to learn and develop in the workplace is vital to this research study's success. More specifically, this study seeks to determine how individuals with an anxiety disorder may be better supported in the workplace through accommodations and best practices in anxiety management that are applied in medical settings or formal education environments. Anxiety disorders are the most common mental illness in the U.S. (Anxiety and Depressions Association of America, n.d.). The Equal Employment Opportunity Commission recognizes anxiety disorders as a disability covered under the American with Disabilities Act when it disrupts a major life function, which in this case is learning. Vince and Saleem (2004) asserted some anxiety is needed in any change and plays an essential role in encouraging individuals to learn and develop. However, Gilmore and Anderson (2016) reported that uncontrolled anxiety could result in heightened emotions that create barriers to learning. Employees who have anxiety disorders may experience these barriers to learning when in traditional training programs and may require support or accommodations to boost their unique learning needs for development in the workplace. The challenge for HRD professionals is how best to intervene when an employee exhibits behaviors of learning anxiety to nurture and promote productive workplace learning that leads to skill development and career advancement.

The following review of the literature will help HRD professionals comprehend the detrimental symptoms of anxiety, and its impact on learning from the perspective of this study. This review will consolidate recommended accommodations that will improve learning opportunities and introduce a scaled cognitive therapy approach, which may be beneficial if incorporated into workplace training.

Furthermore, this literature review will focus on prior research conducted on anxiety, and more specifically, anxiety associated with organizational learning. The research will cover relevant frameworks on behaviorism, cognitive theory, and adult learning principles from which to better assist those who suffer from anxiety disorders. Additionally, a review of psychotherapy practice is conducted to identify areas of opportunity in developing workplace learning in the context of this study.

### **Anxiety**

Anxiety is a mental state that is prompted out of fear in anticipation of danger or potential threat (Gross & Hen, 2004). Anxiety is the body's normal response to stress; however, an excessive or exaggerated fear response can develop into an illness or disorder. The term anxiety disorders represent a group of disorders illustrated by excessive fear or avoidance of external and internal stimuli and is the most common classification of mental illnesses (Kutlu & Gould, 2015).

This mental illness, which often begins in youth, can have severely disabling effects on social, occupational, and other areas of major life functions (Craske & Stein, 2016). Anxiety disorders develop from a complex set of factors involving genetics, brain chemistry, persona, and life events (Anxiety and Depressions Association of America, n.d.). An untreated anxiety disorder often reoccurs for decades and often results in high relapse rates should remission transpire (Hirsch et al., 2019).

Anxiety disorders, being the most common mental illness in the U.S., affects 40 million adults age 18 and older, or 18.1% of the population each year (Anxiety and Depression Association of America, n.d.). Craske and Stein (2016) reported a study that was conducted across 44 countries and found the overall prevalence of anxiety disorders was estimated at 7.3%.

These results suggest that one in 14 people around the world at any given time has an anxiety disorder. Additionally, Hirsch et al. (2019) reported that general anxiety disorders have an estimated lifetime prevalence in 6-7% of European and American adults.

Looking to the future, these numbers show no signs of decreasing as Mineka and Zinbarg (2006) asserted children of parents with anxiety disorders are reported to be at higher risk for the development of anxiety disorders. Furthermore, in demographic studies, it was found women are two times more likely as men are to have an anxiety disorder, and adults between the ages of 35-54 years are more susceptible than those 55 years and older (Anxiety and Depressions Association of America, n.d.).

A person may suffer from one or may have multiple types of anxiety disorders. Forsell et al. (2019) asserted that those who have an anxiety disorder commonly have comorbidity with other anxiety disorders or depression- spectrum disorders. Anxiety is more likely to evolve into a long-term disability if more severe symptoms are present and comorbidity exists (Hendriks et al., 2016). Consequently, in addition to the devastating personal and societal costs, anxiety disorders are responsible for a substantial burden to the U.S. economy and taxpayers. This group of disorders is estimated to generate \$42.3 billion in psychiatric and non-psychiatric treatment costs, death-related costs, and prescription costs- approximately one-third of the total mental health budget of the U.S. (Kutlu & Gould, 2015). Moreover, anxiety disorders are linked to impaired workplace performance and increased absences (Hirsch et al., 2019).

While unique symptoms further define the various illnesses covered under the anxiety disorder umbrella, they are often described as an exaggerated fear response to situations that are not truly dangerous as one sees them to be (Kutlu & Gould, 2015). Anxiety and fear possess many of the same mental and biological properties; however, they are differentiated in that fear

is fleeting while anxiety persists over time. Additionally, one may experience anxiety in the absence of a direct physical threat and is universally conceptualized as in a state of constant fear (Hartley & Phelps, 2012).

Gross and Hen (2004) stated anxiety, in its non-pathological form, can be divided into two categories based on duration: state anxiety that is acute, and trait anxiety, which is prolonged or long-term. In its pathological form, anxiety can severely interfere with normal life activities and greatly diminishes the overall quality of life (Hirsch et al., 2019). This study considers the four most common anxiety disorders: panic, phobias, generalized anxiety, and post-traumatic stress disorder (PTSD).

Panic disorders are defined as chronic unexpected panic attacks that occur without any cues or triggers (Mineka & Zinbarg, 2006). During these attacks, the person experiences worry, anxiety, or behavioral change related to having an additional attack. The Job Accommodation Network (n.d.) characterizes panic disorders as mental health impairment when a person experiences frequent panic attacks. These attacks result in heightened anxiety or avoidant behavior and extend over a month or fewer than four panic episodes. Those who have panic disorders often have recurrent or constant fears of having another panic attack. Worry about future panic attacks and the effort spent trying to avoid attacks cause significant problems in everyday functioning and often develop into agoraphobia (National Institute of Mental Health, n.d.).

Phobias are described as an irrational fear towards a specific aversive event or situation where the individual will avoid that phenomenon at all costs (Engel et al., 2019). While the experience could be considered realistic to trigger anxiety in some circumstances, the fear people with phobias feel is out of proportion to the actual danger presented in the situation or object

(National Institute of Mental Health, n.d.). The institute calls out social anxiety (fear of social situations) and agoraphobia (fear of being in crowded, open spaces) as two phobias that impact normal life functions. They lead to the individual becoming homebound.

Generalized anxiety disorder differs as it is characterized by chronic, excessive, uncontrollable worry about multiple events or activities that extend over a period longer than six months (Mineka & Zinbarg, 2006). The fear and anxiety interfere in normal life activities, such as social interactions, school, and work. National Institute of Mental Health (n.d.) list generalized anxiety disorder symptoms to include irritability, fatigue, restlessness, excessive worry, and loss of concentration.

Hughes et al. (2016) distinguished PTSD as a disorder triggered by a terrifying event in which the fear lingers long after the event ended. The Job Accommodation Network (n.d.) (JAN) states it is common to experience a brief state of anxiety or depression after trauma; people with PTSD continually re-experience the harrowing event and have symptoms of excessive emotions and avoidance of others or situations associated with the event. Van der Kolk (2014) stated that once an individual is devastated by an event, the trauma permanently changes the person. Additionally, Van der Kolk asserted the trauma may echo in continually recycling memories. JAN (n.d.) further clarifies that people with this disorder cannot function as well as before the traumatic event and experience these symptoms for over one month.

Anxiety disorders are accompanied by other negative feelings such as apprehension, worry, and tension. Its symptoms include intrusive memories, avoidance, emotional numbing (loss of interest), and hyperarousal (Kutlu & Gould, 2015). Those with an anxiety disorder tend to avoid tasks and practices that trigger stress. Additionally, individuals who experience heightened anxiety develop low levels of self-worth and elevated fear of failure and tend to

avoid tasks and practices that may be beneficial to effectively maneuver the threatening situation (Macher et al., 2012).

These symptoms cause one to have a lack of concentration, poor time management, disorganization, and an inability to cope with stress (Hughes et al., 2016). Individuals often lack job engagement, poor relationships with peers, and disinterest in pursuing advancement. This knowledge is relevant to HRD professionals as it can impact learning in the workplace. The International Board of Credentialing and Continuing Education Standards (n.d.) asserted that the symptoms of anxiety disorders cause poor academic performance and resistance to anything learning related.

### **Learning and Anxiety**

Learning is defined as the acceptance and adoption of unknown information or skills (Reio, 2013). Anxiety plays an essential role in encouraging productive learning outcomes. Vince and Saleem (2004) asserted that learning and change is unlikely to occur without anxiety. Hay and Blenkinsopp (2019) asserted anxiety has been identified as a major emotional output during learning and development and is considered essential to learning. Reio (2013) asserted that taking risks in personal development is a crucial part of the learning process. He defines risk-taking, as it applies to learning, as the creative and uncertain processes that extend beyond the conventional forms of learning. Learning and risk-taking coexist in adult education. The author stressed that risk-taking is necessary to enhance learning and development and encourages critical thinking and problem-solving. Gilmore and Anderson (2016) reaffirmed the correlation between emotion and learning by emphasizing that anxiety forms a necessary foundation for productive learning outcomes.

However, if not controlled, anxiety can result in heightened emotions that cause conflicts and create barriers to learning or learning inaction (Gilmore & Anderson, 2016). Sun et al. (2017) asserted many studies have found moderate anxiety has benefits to learning; however, excessive anxiety has an adverse effect and can potentially wield a negative impact on learning from the feelings of loss of the sense of challenge, self-determination, and control. Researchers have shown that high levels of anxiety consume necessary attentional resources that hinder learning and performance (Bell & Kozlowski, 2008). Sari et al. (2019) stated students who suffer from anxiety experience disruptions in their daily activities, assignments, academic development, and social skills, which can continue to deteriorate in their adult age.

Macher et al. (2012) asserted that increased anxiety might cause an individual to experience low self-efficacy levels and high fear of failure in learning situations. Additionally, anxiety triggers negative emotions, like frustration, which are demotivating and cause a lack of concentration, poor time management, disorganization, and inability to cope with stress- all conditions that create obstacles for learning (Hughes et al., 2016). When key concentration resources are exhausted and diverted to other focuses, learning is obstructed. This obstruction can be especially detrimental in the early stages of workplace training when cognitive skills are in high demand to learn a new skill (Bell & Kozlowski, 2008). Moreover, anxiety can lower task competence and stimulate avoidance behavior towards the anxiety-provoking stimulus, such as learning new workplace skills (Muschalla et al., 2010).

Vince and Saleem (2004) determined that anxiety both fosters and deters learning. When encountered with an unknown, the person can either manage the anxiety to develop a new understanding or ignore and avoid the situation and remain ignorant. The authors describe a two-directional approach when uncertainty brings about anxiety. In the first path, the person can

control the anxiety through the trial-and-error process to gain new knowledge. When anxiety is not regulated, the second path leads to denial or avoidance that discourages learning.

Learning anxiety is defined as negative emotions, stress, and pressure that occurs during a learning opportunity (Sun et al., 2017). Learning anxiety has often been shown to be predictive of a poorer learning outcome. Warr, P., & Downing, J. (2000) reported that individuals with heightened anxiety “attend to fewer environmental cues, encode information less well, process material less effectively, experience more cognitive interference, and lose working memory capacity by worrying” (p.7). These emotions can cause the learner to feel less challenged and lose self-determination and control, which then consequently, increases anxiety and has an adverse effect on cognitive and intellectual tasks (Sun et al., 2017). A large body of research has indicated that high levels of anxiety introduce irrelevant task thoughts into the limited storage component of the information processing system. Therefore, this distracting information disrupts focus and depletes working memory space, resulting in inefficient information processing (Nelson & Harwood, 2011). Vince (2014) asserted that anxiety disrupts the phonological loop in storing data, which burdens working memory capacity and results in poor reading comprehension in education and in workplace learning, regardless of the stage of development. Stress and trauma both impact how memories are formed; therefore excessive amounts of stress and trauma can cause substantial memory impairment (Pretak, 2018).

Over the past three decades, there have been advancements in recognizing the mental disorders that cause learning impairment extend to adults and not just youth (Hughes et al., 2016). Researchers have shown that adults who have a psychiatric disorder often also have a learning disability that is overlooked or underestimated (Robinson, 2016). Many cognitive theories have suggested that a learning disability and anxiety have a common brain-based

etiology and frequently coexist (Nelson & Harwood, 2011). Nelson and Harwood (2011) go on to state there is much evidence to support that a learning disability can bring about anxiety, and that anxiety can cause avoidance, creating barriers to learning. However, some individuals question if excessive generalized anxiety can invoke a learning disability. Historically, it was rarely acknowledged that a person with a learning disability often suffered from mental illness. Even in recent times, those people who have mental health problems and a learning disability, the collective effects of the two disorders are overlooked or underestimated (Robinson, 2016). Little research has been completed to determine if anxiety may be an indication of an undiagnosed learning disability.

The research correlating the negative impact anxiety has on learning should be considered when engaging in organizational learning. Kjellstrand et al. (2017) asserted that workplace learning generates the fear of making mistakes, which further leads to additional anxiety of making more mistakes and causes negative learning patterns. The authors further state that HRD professionals cannot successfully contribute to organizational growth if they do not consider mental or emotional disabilities when developing employees.

### **Organizational Learning and Anxiety**

Organizational learning or workplace training and development exists through the interaction with and through other people and therefore is both a social and a political process (Vince & Saleem, 2004). Workplace learning has been dominated by behaviorism, emphasizing producing observable and measurable outcomes (Ertmer & Newby, 1993). The authors further argue the behaviorism theory likens learning by inserting a stimulus and then measuring the change in observable performance. The learner responds to the stimulus and plays a reactive role in the learning process (Chen, 2020). As most organizations seek measurable outcomes,

applying behaviorism to workforce education allows companies to assess performance without difficulty through a criterion-referenced assessment, which can be easily reinforced (Bell & Kozlowski, 2008). Employing this theory to workplace education allows the organization to program its employees to respond consistently to an event. The employee is taught to react in specific ways to an event, and then the response is reinforced through repetition (Meigh et al., 2020).

Vince (2011) asserted that fears and anxieties are a daily part of organizational life that cannot be dismissed or ignored. Fears of being chastised, punished, humiliated, and excluded are genuine and commonly occur within the formal learning settings. These fears and anxieties surface when one worries that they may not meet the expectations of their peers or superiors, which results in some form of discipline (Hay & Blenkinsopp, 2019). Vince (2014) later stated

“one fantasy that I find to be common in learning environments is that, when we learn together, ‘we are all in the same boat’. Emphasizing the equality inherent in learning with and from our peers is productive, but it also allows individuals to avoid the differences that are present in learning” (p.9).

Furthermore, anxiety also arises from making mistakes on the job (Kjellstrand et al., 2017).

Vince and Saleem (2004) studied the interrelatedness between fear of mistakes and anxiety and concluded that these emotions trigger negative learning patterns such as denial, avoidance, and lack of accountability. Coutu (2002) asserted that employees experience anxiety in organizational learning due to the fear of what is expected to be learned will be too difficult and the individual will look foolish or incompetent in front of their peers. Coutu (2002) further stated this anxiety causes low self-esteem and negative emotions that the employee will become an outcast and excluded from his or her peer groups.

Organizational learning may not be conducted in traditional classroom settings, and studies suggest that learning anxiety is often induced when new teaching and learning methods

are utilized (Hay & Blenkinsopp, 2019). The authors also stated that learning methods that require additional active learner participation evoke anxiety and cause concern about how to behave and meet performance expectations. Coutu (2002) asserted that learning anxiety will always exist, but providing well-facilitated training, coaching, group support, and positive feedback will help the employee overcome the anxiety. Understanding the impact of layering organizational learning anxiety elements on top of basic learning anxiety becomes critical to HRD in considering adult learning principles when delivering workplace learning.

### **Adult Learning Principles**

Scholars and practitioners have focused on the question of how adults learn since the early twentieth century. The first attempts to propose adult education as a unique field of practice, as differentiated from pedagogy, were the concepts of andragogy and self-directed learning. Knowles' (1968) theory of andragogy differentiated childhood learning from adult learning and called scholars' attention to recognize adult learning as a unique field of practice. Andragogy considered five assumptions that adult learners have: (a) the self-concept to direct one's own learning, (b) prior learning and experience, (c) readiness (or need) to learn, (d) the orientation to learn and interest in the application of knowledge, and (e) intrinsic motivation to learn (Merriam, 2001). When learning, adults differ from (most) children as they seek autonomy with the need to self-direct their learning activities (Knowles, 1968). In comparison, children live in a dependent environment and expect to be told how and what to do. Part of maturing is making one's own decisions about his or her experiences. Knowles (1968) asserted that adult learners want to be recognized as adults (and not as children) and be treated with respect, have the freedom of choice, and be seen as unique individuals.

Andragogy is rooted in the humanistic philosophy and considers the learner's: (a) need to control the process, (b) the natural desire to learn, and (c) the motivation to continue learning (Merriam, 2001). As that natural desire to learn exists, adults want to take part in how they learn. They want to decide who will facilitate their learning and the methods used. Engaging the adult learner in the analysis of their needs for learning is a vital part of andragogy (Knowles, 1968). The involvement continues as the student is involved in planning the learning, followed by carrying out the process. As the processes are a collaboration between educators and students, teachers look for direction on how best to understand adult learners' needs. Caffarella (1993) asserted Knowles principles provided an outline that guides teachers and learners on how to work together to develop a learning plan.

Scholars agree that andragogy has made significant contributions to the understanding of adult learners; however, it is criticized that andragogy has provided little advancement in understanding the process of learning (Merriam, 2001). This criticism led to the expansion of Knowles's first assumption of andragogy that learners become increasingly self-directed as they mature (Merriam, 2001). A self-directed learning process often encompasses learning strategies that correlate with the five assumptions listed above about adult learners. Garrison (1997) agreed that most adult education focuses on Knowles first principle of self-direction of learning tasks when facilitating learning.

Self-directed learning incorporates three principles: (a) the self-initiated learning process to plan and manage learning, (b) autonomy characteristics of the learner, and (c) exerting control over the instruction (Caffarella, 1993). He stated, "what differentiates self-directed learning from learning in more traditional formal settings is that the learner chooses to assume the primary responsibility for planning, carrying out, and evaluating those learning experiences"

(p.28). Allowing the student to self-direct learning gives the learner control over the processes, increasing the motivation to learn (Garrison, 1997). The self-directed process fosters transformational learning, which initiates critical reflection by the learner (Merriam, 2001). Reflective and critical thinking is a crucial part of self-directed learning as it contributes to the learner's better understanding of what and how he or she learns (Caffarella, 1993).

The underlying humanistic foundation of self-directed learning prescribes that learners assume responsibility and the educators act as guides in the learning process (Caffarella, 1993). The learner exerts control over learning activities and decides what processes will be used (such as setting goals, the resources to be used, and the methods used) that work best for the learner (Brookfield, 1993). Though, Caffarella (1993) argued, "being self-directed and acting in an autonomous manner in a learning situation is not an all-or-nothing position" (p.30). Garrison (1997) called for a collaborative perspective to self-directed learning; the learner controls how and what to learn and then seeks others to confirm if what was learned was worthwhile. The collaborative perspective ensures the adult learner fulfills the need to control the learning while meeting educational norms and standards (Garrison, 1997).

A criticism of self-directed learning is that adults are limited in their backgrounds and experiences (family, past education, work experience), which complicated their ability to self-direct in specific learning activities (Brookfield, 1993). Adults have competing priorities such as work-life balance and stress of life and may be too exhausted to make informed decisions about their learning experience (Brookfield, 1993). Hence, without guidance from an educator, it may be impractical to expect adult learners to assume complete responsibility for their own learning (Garrison, 1997).

As educators become more involved, the controversy of control-led self-direction arises, putting the adult learner at risk of only having the illusion of control of the learning process. There is control over the pace, objectives, resources, and evaluation; however, “if the range of acceptable content has been pre-ordained so we stay clear of things that are controversial then we are controlled rather than in control” (Brookfield, 1993, p. 235). Educators must be sure to leave their personal agendas out of the direction to ensure the learner dictates the learning process.

Considering that the learner seeks to guide the learning experience and the methods used, HRD professionals should consider adult learning styles when delivering workplace learning. Adult learning styles were first considered when adult education began as a social program to improve the quality of life for disadvantaged adults who possessed limited skills to advance out of hard labor (Watkins & Marsick, 2014). Logically, that adult learning was injected into the workplace during World War II as the white men (those with the most civil liberties) were sent to fight overseas, leaving the elderly, women, and minorities behind to support American businesses. Still today, HRD professionals face the challenge of how best to incorporate the adult learning process and the many learning styles of adults into a training and development program to improve corporate performance. Knowles provided a paradigm of the fundamental principles of adult learning that provide HRD tools in designing learning activities to help employees make the most of the learning opportunity provided.

### **Learning Styles**

The discussion around learning styles has a lengthy list of contested theories on the diverse ways a person learns. Students use cognitive or “thinking” styles to process subject matter, resulting in learning outcomes (Vermunt & Verloop, 1999). Su et al., (2021) asserted a student’s learning style or learning preference will, a) vary among students, b) be

distinguishable, and c) need a complimentary teaching style. Vermunt and Verloop (1999) further defined learning style as the comprehensive learning activities that students commonly exercise, their learning predisposition, and their opinion of learning.

Learning styles are influenced by several factors including social status, environmental, physical, sociological, and emotional (Holland, 1982). The author defined each factor as follows: (a) social status as a trait determined at birth such as race and sex, (b) environmental factors consist of sound, light, temperature, design and may enhance or impair a person's learning, (c) physical needs are how one learns (e.g., listening vs. reading) or their ability to sit (or not) for extended periods, (d) sociological factors determine if the student prefers to be a social or independent learner, and (e) emotional factors include the student's motivation, perseverance, and responsibility. These traits help the student maintain his or her willingness to learn and help counter anxiety and task-irrelevant thoughts (Vermunt & Verloop, 1999).

Teaching strategies and learning styles should be considered when working with employees who experience anxiety. Studies suggest that anxiety is often evoked when new and unconventional teaching and learning methods are introduced (Hay & Blenkinsopp, 2019). Gilmore and Anderson (2016) asserted that the use of unconventional teaching and learning methods deployed by an instructor is a major source of anxiety where learning outcomes are consequential for careers.

Beyond the student's learning style, there is a need to address student anxiety in the learning process. Chen (2020) argued, students only seek to achieve high marks from fear of adverse reinforcement. Skinner's research, while dated, focused on the need for immediate feedback in the learning process and continued reinforce long after the learning has occurred (Skinner, 1954). Providing a student with reinforcement throughout the learning process may

combat learning anxiety and encourage the student's further learning. Vermunt and Verloop (1999) agreed in stating that reassuring learners with feedback lessens fear and anxiety.

Students struggle to maintain the possible feeling of self-confidence and cope with negative emotions such as anxiety, stress, doubt, and helplessness (Vermunt & Verloop, 1999). Su et al. (2021) argued that students who are perceived to be slow learners or have poor learning achievement may be a result of never having the opportunity to learn in their ideal approach. The perception of being a slow learner contributes to the anxiety of the learning process.

Klašnja-Milićević et al. (2011) asserted that teaching that is aligned with student learning styles increases the quality of the learning outcomes. Vermunt and Verloop (1999) suggested applying three teacher-regulation strategies to tailor learning to the various learning styles of students- robust teacher control, loose teacher control, and shared control. Robust teacher control provides teacher-directed activities which are targeted to students with motivation and responsibility traits. Loose teacher control allows highly motivated students to apply learning activities independently and offers more flexibility for students who do not prefer traditional classroom learning. Shared control is for students who are somewhere in between where they complete the learning functions and the teacher's role to activate students in the learning. Garrison (1997) asserted that there is evidentiary support that collaborative control between educator and student results in effective self-monitoring and improved performance. Self-directed learning focuses on the learner's ability to have control of the learning process. This level of control can mean different things to different learners. To some, it may be deciding on the avenue on how the learning is delivered- classroom versus online classes. To others, it may be setting the learning objectives and the terms of the evaluation of the learning. Although allowing the learner to participate in the control over his or her own learning has the potential to

provoke high levels of stress and anxiety, including a training design element to help individuals manage their emotions has the potential to reduce anxiety (Bell & Kozlowski, 2008).

Employees who have an anxiety disorder may experience barriers to learning in traditional training programs and require accommodations to support their unique development needs in the workplace. Failing to provide training accommodations (under the ADA) could expose the organization to legal risk. Hughes et al. (2016) asserted that HRD professionals must be actively involved in the organization's procedures and legal issues associated with accommodating employees with disabilities in the workplace.

### **ADA Stance on Anxiety**

The Equal Employment Opportunity Commission (EEOC) is a federal agency that administers and enforces civil right laws protecting race, color, national origin, religion, sex, age, disability, sexual orientation, gender identity, and genetic information (U.S. Equal Employment Opportunity Commission, n.d.). The Americans with Disabilities Act (ADA) is one of the laws that fall under the EEOC's jurisdiction. The ADA was signed into law in 1990 and is one of America's most comprehensive pieces of civil rights legislation that prohibits discrimination and guarantees that individuals with disabilities have the same opportunities as everyone else to have a typical lifestyle, including employment (ADA, n.d.).

The ADA defines disability as a “physical or mental impairment that substantially limits one or more major life activities” (ADA National Network, 2018 p.1). An individual has workplace rights under the ADA when an applicant or employee has a mental illness that meets this criterion. The ADA defines mental impairment to include any emotional, mental, or psychological disorder and explicitly calls out major depression and anxiety disorders (Hurley et al., 2012). The EEOC provided additional guidance stating that the ADA applies to mental

illnesses and psychiatric disabilities and covers those whose psychiatric disability and its effects are controlled by medication (U.S. Equal Employment Opportunity Commission, n.d.). While there has been much controversy in the courts as to what is a major life activity, learning has been acknowledged as such an activity; therefore, mental illnesses that prevent learning are protected under section 504 within the ADA (Hughes et al., 2016).

Employees have two critical rights under the ADA. They have a right to privacy and the right to job accommodations. The exception to the accommodations rule is when the request causes undue hardship for the employer. Employer hardship is one that disrupts the nature of the business functions or generates excessive costs (ADA National Network, 2018). Employers are required to provide reasonable accommodations to ensure the disabled employee can experience the same benefits and privileges equal to those employees without disabilities (US Equal Employment Opportunity Commission, n.d.). The EEOC stated that benefits and privileges apply to training, services, and social functions. Should an employee require an accommodation to participate, the employer must do so unless it can prove undue hardship. The Department of Labor (n.d.) suggested accommodations should be referred to as “productivity enhancers” and not viewed as special treatment.

The ADA does not expect the employer to lower quality or production standards to make an accommodation. The Employer Assistance and Resource Network on Disability Inclusion (n.d.) asserted the cost of providing an accommodation is often misrepresented and various studies have found that reasonable accommodations cost much less than most employers anticipate. They also recommended that employers establish formal accommodation policies and procedures to increase the likelihood that accommodation requests will be handled properly and consistently. The EEOC does not provide specific policies or procedures that employers must

follow when offering an accommodation to an employee with a disability; however, it provided some (but not limited to) examples of accommodations as shown in Table 1.

**Table 1**

*Reasonable Accommodations under the ADA*

Provide training in alternative formats and accessibility
Additional time to performs tasks
Provide information through various means of communication
Job restructuring
Permitting the use of accrued leave
Application of a "no-fault" leave policy
Modified schedule

(US Equal Employment Opportunity Commission, n.d.).

In addition to the EEOC, many third-party organizations specialize in providing expert guidance and best practices on workplace accommodations. Hughes et al. (2016) asserted the importance to HRD professionals in using resources such as the Jobs Accommodations Network (JAN) to ensure employees with anxiety are provided with the accommodations and considerations needed to successfully perform the role and fully assimilate into the working environment. Job Accommodation Network (n.d.) (in addition to the EEOC) recommends the following accommodations to help manage anxiety and panic attacks as shown in Table 2.

**Table 2**

*Third-Party Recommended Accommodations for Anxiety*

Flexible schedule
Provide a rest area/private space
Allow support animal
Provide a support person
Identify and reduce triggers that occur in the workplace

Job Accommodation Network (n.d.) recommends the following accommodations to help improved learning, as shown in Table 3.

**Table 3**

*Third-Party Recommended Accommodations to improve learning*

Alternative lighting	Employee assistance programs
Cubicle doors or shades	Awareness training
Fidget devices	Positive feedback
Noise abatement	Apps for memory
White noise machines	Recorded materials
Job coaches	Verbal cues
Task separation	1:1 communication
Behavior modifications techniques	Policy modification

Considering Job Accommodation Network's recommendation, accommodations may vary based on the needs of the individual and the nature of the job. Additionally, not all people with disabilities will require any accommodation at all. The question then arises for HRD professionals, are there non-medical techniques that can be applied in workplace learning that mitigate anxiety. Vince (2014) suggested that developing strategies for how individuals connect with anxiety in the learning process is an important first step toward helping people manage it. Hay and Blenkinsopp (2019) asserted that the ways individuals work with anxiety help develop tolerance of anxiety and to ensure it does not become excessive resulting in panic or avoidance. Hay and Blenkinsopp (2019) further state that this tolerance holds much promise for HRD practices; however, it is challenging to establish. HRD researchers and professionals should seek to examine mental health professional's practices to develop nonclinical ways to integrate anxiety mitigation methods that can be used to develop employees in the workplace better.

### **Best Practices Relevant to HRD to Manage Anxiety**

Pavlov's provision of an experimental model formed the foundation for the scientific study of how abnormal behavior, anxiety in particular, is developed in a person (Rachman, 2009). It is from Pavlov's work that it was discovered that if neuroses can be acquired by conditioning it should be probable to be deconditioned through training and practice. Anxiety disorders are generally clinically treated with medication, psychotherapy, or a combination of both. Additional methods beyond antianxiety drug medication and therapy to reduce anxiety include social skills training, applied relaxation techniques, stress management practices, and problem-solving coaching (Rachman, 2009).

Psychotherapy, talk therapy that seeks to change behaviors and overcome problems, has proven to be quite successful for those with anxiety disorders (National Institute of Mental Health, n.d.). While this study does not suggest that an HRD professional should be a substitute for a medical professional, there may be an opportunity to support individuals with anxiety disorders in managing anxiety in workplace training and development. Steimer (2002) stated that some anxiety disorder cases are pathological where the control mechanisms regulating the anxiety response are dysregulated. LeDoux and Pine (2016) asserted there is a distinction between disorders that cause physiological changes in the brain and body, and conscious feelings that trigger excessive fear and anxiety. The authors state this distinction is important in determining treatment. When considering the conscious feelings, adaptive responses practices can be developed to minimize the anxiety reaction and improving practices how one engages with intensified anxiety in the learning environment is the first step to helping people manage it (Hay & Blenkinsopp, 2019). HRD professionals have an opportunity to examine these clinical

practices, such as Cognitive Behavioral Therapy when working with professionals with learning anxiety.

Cognitive theories of anxiety propose that selective attention to negative information plays a central role in developing and maintaining anxiety (Cabera et al., 2020). Mental health professionals apply Cognitive Behavioral Therapy (CBT) as one method to teach people with anxiety disorders different ways of thinking, behaving, and reacting to anxiety-producing events (National Institute of Mental Health, n.d.). The method is a short-term therapy that aims at challenging patterns of negative thoughts and behaviors that lead to negative feelings and introduces new, more functional thoughts or behaviors to the anxiety-driven situation (O'Donohue & Fisher, 2012). CBT trains the individual to observe their thought content during a heightened anxiety event and identify counterproductive patterns of negative thinking, and then employ logical assessment to challenge the validity of their negative thoughts (Butler et al., 2015). CBT has most recently adopted practices of Eye Movement Desensitization and Reprocessing (EMDR) that directs eye movements to divert one's attention when feeling emotionally charged. EMDR is mostly used to treat PTSD; however, it has found to be beneficial in treating other anxiety disorders (Valiente-Gómez et al., 2017). These practices aid participants in cultivating skills, such as emotion-regulation capacities, coping mechanisms, and thinking styles, to protect themselves against the onset of anxiety (O'Donohue & Fisher, 2012). Sari et al. (2019) asserted CBT is capable of handling anxiety problems as it encompasses the cognitive therapy principles that therapy intervention seeks to identify, evaluate, and reprogram individuals' minds of false conviction, guiding them to realize the importance of recognizing negative thoughts and replacing them with positive feelings. Butler et al. (2015) reinforces Sari

et al.'s stance by stating CBT interventions have proven improvement in modest to large effect sizes in clinical studies.

Anxiety is supported by vicious circles involving physical symptoms, avoidance behaviors, and loss of confidence, which can be controlled by learning how to break those circles (Butler et al., 1991). They offered a less complicated method to mitigate anxiety responses in anxiety management, which incorporates CBT practices of applied relaxation techniques, graded exposure, and recognition of anxiety-provoking thoughts. Butler et al. (1991) referenced studies of individuals with general anxiety disorder who responded to anxiety management equally as well as those who received CBT.

Sari et al. (2019) expanded on these methods and recommended relaxation techniques such as breathing exercises, distraction behaviors, and five fingers hypnosis to replace negative thoughts with positive thoughts. The authors further explain that breathing in through the nose and out of the mouth effectively decreases anxiety by expanding the chest cavity and allowing the oxygen to flow throughout the body to calm the nervous system. Distraction techniques transfer attention during heightened anxiety episodes to distract the mind and reduce anxiety. Sari et al. provided an example of listening to music as an effective form of distraction. The other technique discussed is a five fingers hypnotic relaxation method that works to lessen anxiety and only requires a few minutes to learn. The process combines breathing, finger pressure, and positive thoughts to reduce tensions.

While the individual is relaxed, graded exposure can be introduced to reprogram the individual's response to the undesirable event. Rachman (2009) asserted that introducing the fear stimulus while the individual is in a state of deep relaxation enables the process of steadily reducing the extreme responsiveness to the negative stimulus or systematic desensitization.

Additionally, Rachman (2009) stated that applying appropriate positive reinforcement supports behavior modification to develop the appropriate behavioral response to the situation.

O'Donohue and Fisher (2012) asserted that cognitive therapy is conducive to be manualized, thus allows modality and scalability in delivery. This ability empowers CBT to be delivered as part of a module program to one-on-one or small groups over a set period of time or through ongoing support until the desired behaviors are developed (Clark et al., 2017). Over the past decade, internet-delivered psychological interventions have become more popular as it has proven advantages over traditional face-to-face CBT when it comes to anxiety while maintaining efficacy (Norlund et al., 2015). These advantages include on-demand participation which allows the participant to work at his or her desired pace and reduces the need for the therapist's intervention. The most significant benefits of internet-based CBT include its accessibility to a large population, privacy, convenience, the ability to offer immediate feedback, and cost-effectiveness (Smith et al., 2017).

According to Clark et al. (2017) schools have the potential to participate in delivery CBT programs. Clark et al. (2017) also stated that delivering interventions within schools could simplify skill development from one situation to another and minimize the disruption to education. Sroufe (1997) noted it had been observed that incorporating the instruction of students in the practice of a skill set targeted to increase social and emotional well-being can similarly assist in the development of attention, reflection, and motivation. Daunic et al. (2006) stated a research-based approach, such as CBT, to teaching students positive coping strategies effectively prevent behavior disorders. The authors suggested that the classroom incorporate CBT practices such as modeling, feedback, reinforcement, and cognitive mediation techniques.

Hay and Blenkinsopp (2019) asserted that teaching emotion control and negative capability is promising for overcoming anxiety. The authors define negative capability as “the ability to tolerate anxiety and to ensure it does not become excessive (leading to panic) or be denied (leading to inaction) (p.136).” Bell and Kozlowski (2008) also spoke to applying an emotion-control strategy that directed trainees to increase positive thoughts and reduce negative thoughts when learning a new task reduced learning anxiety. Kanfer and Ackerman (1990) found that trainees who applied this emotion-control strategy conveyed fewer adverse emotional reactions and had higher performance levels.

Other studies have suggested the implementation of forms of emotional control and resulted in the reduction of anxiety. Rodríguez-Ledo et al. (2018) recommended instituting the two constructs of mindfulness and emotional intelligence into the classroom to aid students in developing better emotional competencies that promote better personal and social well-being. Mindfulness trains individuals to direct one’s attention to the moment at hand to overcome present obstacles through the objective monitoring of one’s emotional state (Shokrian, 2016). Applying mindfulness-based self-observation helps regulates involuntary arousal, staying present, and better managing the symptoms so they do not interfere the life activity in the here-and-now (Pretak, 2018). Emotional intelligence is the ability to accurately identify and comprehend emotions; and reflectively regulate emotions (Mayer et al., 2004). Students who participate in mindfulness and Emotional intelligence intervention programs have demonstrated improved attention and concentration, reduced learning anxiety, impulse control, and stress management (Rodríguez-Ledo et al., 2018). The same authors had also found that the implementation of an 8-week mindfulness program to students was related to improvements in depressive symptoms and anxiety.

## Chapter Summary

This literature review attempts to provide a broad understanding of the various types of anxiety disorders, the impact of the symptoms one experiences when undergoing periods of extreme and heightened anxiety, and the importance of providing additional support when engaging in workplace learning and development. While the EEOC acknowledges that anxiety is a mental illness covered under the ADA, it loosely provides guidance on what accommodations are expected to be provided for those with an anxiety disorder. Accommodations may vary based on the individual's needs and the nature of the job, and not everyone will require any accommodation at all. HRD professionals may incorporate non-medical techniques that can be applied in workplace learning that mitigate anxiety. Vince (2014) suggested that developing strategies for how individuals connect with anxiety in the learning process is an essential first step toward helping people manage it. Hay and Blenkinsopp (2019) asserted that the ways individuals work with anxiety assists in developing tolerance of anxiety and ensure it does not become excessive, resulting in panic or avoidance. Understanding how to develop this tolerance holds much promise for HRD practices. Examining mental health professionals' practices to develop nonclinical ways to integrate anxiety mitigation methods into learning models shows great potential to better develop employees with anxiety in the workplace.

Combining what has been learned from the literature review, this study seeks to determine what actions can HRD professionals provide to mitigate anxiety while learning when an employee exhibits the behavior of heightened anxiety when learning new skills in the workplace. The qualitative study seeks to identify common behaviors when a person exhibits anxiety and then pinpoint what accommodations and best practices have most benefited the

participants when anxiety creates barriers to learning. The study will consider the following research questions:

RQ1: What emotions, responses, or behaviors create barriers to learning (avoidance, over-vigilance, excessive arousal) when experiencing feelings of learning anxiety?

RQ2: What do employees believe are the most impactful training practices or formal/informal accommodations in managing anxiety in their learning and development?

### **Chapter 3: Methods**

This chapter discusses the key aspects of the research design and a description of the methods I will be using in the study. It will provide a brief overview of the importance to the HRD field, the research questions, the ontology and epistemology that provide the foundation of the research methodology, and the research design. The chapter concludes the selection of participants, procedures, analysis of data, and summary.

The literature review uncovered anxiety creates obstacles for learning and impacts 18% of the U.S. population, and those ages of 35-54 years are more susceptible to anxiety disorders. According to the Bureau of Labor Statistics (2020), this age group represents 41% of the U.S. workforce. While the EEOC and third-party sources offer recommendations on better-supporting employees with anxiety disorders in workplace learning, little research exists to support which accommodations are the most impactful. It is important for HRD professionals to understand how anxiety impacts learning in the workplace from the participants' perspective and focuses on what accommodations those people perceive to help manage the anxiety through the learning process.

The purpose of this study is to explore what behaviors employees exhibit when experiencing anxiety that prevents learning and development in the workplace and to examine what practices and training accommodations improved concentration, time management skills, organization, and ability to cope with stress while learning new skills. The research intends to consolidate the exhibited behaviors and preferred accommodations in training practices that HRD professionals can apply to support employees who exhibit behaviors of heightened anxiety in workplace training.

## **Research Questions**

The proposed study intends to answer the following research questions:

RQ1: What emotions, responses, or behaviors create barriers to learning (avoidance, over-vigilance, excessive arousal) when experiencing feelings of learning anxiety?

RQ2: What do employees believe are the most impactful training practices or formal/informal accommodations in managing anxiety in their learning and development?

## **Ontology and Epistemology**

Anxiety disorders develop from a convoluted set of factors and are defined by unique symptoms that may vary from person to person. This characteristic lends itself to being examined through a qualitative research lens. Merriam and Tisdell (2016) asserted a key characteristic of qualitative research is that individuals construct a reality in interaction within their social world. This qualitative research seeks to understand a social phenomenon from the participants' perspective and adopts the positivism's view that there is a truth: anxiety created barriers to learning. Positivist paradigms seek to find a single truth and focus on the importance of objectivity and evidence in searching for truth through conducting an unbiased and judgment-free inquiry (Rubin & Rubin, 2012). The study seeks to collect data in a uniform manner that can be replicated by other studies. While positivism is the cornerstone philosophy of the study, some constructivism traits will exist as both parties may likely have interpretations of their experiences influenced by preexisting biases. Conflicting responses in this study do not imply one is right and the other is wrong; it could suggest that both are truthful from different perspectives.

First, Basic research is applied to understand the fundamental nature of anxiety in workplace learning. Basic research intends to gain knowledge, seek to answer fundamental

questions, and lead to new theories or test existing theories (Patton, 2002). Then emancipatory/critical action research is used to uncover the emotions and learning constraints experienced by individuals with high levels of anxiety in workplace learning. Action research strives to solve a specific challenge by including the study persons to be directly involved in gathering the information and studying themselves to improve one specific problem. The applied research focuses on the participants' negative feelings and seeks to comprehend the learning obstacle to determine appropriate accommodations to intervene and improve learning.

### **Basic Qualitative Method**

Qualitative research is applied to extract data from a small group of individuals that can be generalized to a larger population sample. The study will use basic qualitative research to understand the social phenomenon from the participants' perspective and focuses on the reality that people perceive them to be and how they feel about the experience. Specifically, the study seeks to understand what the participants feel when experiencing anxiety when learning. It also seeks to identify best practices or accommodations that they believe have or could have improved learning and ability to cope with stress while developing new skills.

### **Selection of Subjects**

Qualitative research usually requires two-tier sampling; one to first identify those who would have the case study's characteristics, then a second to select those to interview for the research (Meriam & Tisdell, 2016). The process of selecting individuals for the sample is categorized as a convenience strategy because the sample would be derived from those who self-identify as having general anxious feelings when learning and volunteer to participate in the study. From those individuals who offer to participate in the study, random sampling will be applied to select those who will advance and partake in the qualitative interviews. Random

sampling allows for the selection from the population of interest and should represent the target population and eliminate sampling bias (Patton, 2002).

Working within the social distancing constraints due to the current COVID-19 pandemic, social media venues of Facebook, LinkedIn, and Instagram will be used to publicly solicit working adults who self-identify to have heightened anxiety levels. Social networking sites offer far-reaching platforms that allow near-effortless creation and dissemination of multimedia content (Miguel et al., 2017). Pew Research Center (2019) reported on the most common social media sites used by adults in the U.S., with 69% of adults using Facebook, 37% using Instagram, and 27% using LinkedIn. Additionally, the agency stated many users include social media as part of their daily routine, with approximately 75% of Facebook users and 60% of Instagram users visiting these sites at least once a day. The solicitation will invite those who self-identify as having anxiety in the workplace to volunteer. From those who volunteer, random sampling will be used to select those to participate in a qualitative interview involving nine open-ended questions. The sampling size will be targeted between 15 and 20 participants. The target of 15-20 participants is selected based on the anticipation that the themes will become saturated as more interviews are conducted. Interviewing will cease when the responses become repetitive and new data or themes no longer occur. Patten (2002) asserted there is no set number to determine the appropriate sample size for a qualitative study. Additionally, he states, "while one cannot generalize from single cases or very small samples, one can learn from them- and learn a great deal, often opening up new territory for further research" (p. 46).

### **Data Collection Methods**

Data will be collected during in-depth qualitative interviews intended to collect rich and detailed information. Patton (2002) asserted we interview people to learn from them about

things the researcher cannot directly observe. Rubin and Rubin (2012) state to collect detailed information, the questions asked should allow the participant to answer the questions in any way he or she chooses. The interviews are planned to be semi-structured with prepared questions around the specific topics of understanding the participants' anxious emotions and any accommodations that help manage anxiety and plans to probe with follow-up questions to encourage the participant to answer at great length and in graphic detail. Topical studies seek to answer what, how, why, and to what consequence (Rubin & Rubin, 2012). Interviews will be conducted on a virtual meeting platform due to the social distancing constraints due to the current COVID-19 pandemic. Each interview will target a time limit of 45-60 minutes.

The interview will consist of nine prepared open-ended tour questions (See appendix B) of selected participants using purposeful sampling from those who meet the sampling criteria. Rubin and Rubin (2011) defined tour questions as questions that "request your interviewees to provide a broad description of their activities or those of the organization, to talk in general terms about how they handle some particular matter, or to present their knowledge about what steps occur in a process" (p. 137). Questions 1-3 look to answer research question 1 and seek to understand what general anxiety feels like to the participant, how anxiety from learning feels to the participant, and how often those feelings occur. Questions 4 and 5 are targeted to gain knowledge that will answer research question 2 (how those feelings cause barriers to learning). Questions 6-9 inquire about any accommodation that has worked in the past (or one thought could be helpful), methods that have been organically developed through practice, or taught to them to help manage anxiety while learning. Responses from questions will identify accommodations or behaviors that the participant believes contributed to their success.

In every study conducted, the researcher must determine his or her degree of involvement in the research and how the researcher will reveal his or her involvement to the participants (Rossman & Rallis, 2003). For this study, I will apply Rubin and Rubin's (2012) responsive interviewing method to establish a conversational partnership with the participant. I will be fully immersed and participating in the study to identify what behaviors and accommodations the participants believed contributed to managing his or her anxiety when learning. The participants will receive full disclosure of the study to explain which accommodations are most impactful on workplace learning.

The reciprocity (benefit) to the participants is the possibility of uniform adoption across organizations to proactively offer best practices to combat anxiety in future training efforts. The study will apply responsive interviewing to build a relationship with the participants. Responsive interviewing is based on the foundation of building relationships and establishing trust. Rossman and Rallis (2003) emphasize "trusting relations between researcher and the member of a setting are likely to yield a trustworthy report" (p. 159). Without trust, the researcher may experience barriers to the information he or she seeks. Should respondents not trust the researcher, they may be unwilling to respond honestly to the inquiry, and the data collection may result in flawed or incomplete theories (Rubin & Rubin, 2012).

Throughout the interview with the participant, I will be providing feedback on his or her responses. Feedback is what the interviewer relays to the participants during the interview to reinforce that communication is moving in both ways (Patton, 2002). The author also asserted that interviewers' common mistake is failing to provide the participant feedback throughout the interview as they are helpful and informs the partaker his or her responses are applicable and useful. Additionally, member checking will be applied to ensure the validity of the responses.

Savin-Baden and Major (2013) asserted member checks ensures correct interpretation of the participants' responses.

The participant's responses will be recorded and digitally stored in the secure location of the researcher. The recording will then be transcribed verbatim using Temi, a transcription software, to capture speech mannerisms. Most transcripts may not need as detailed as verbatim scripts; however, since anxiety is an emotion, capturing pauses and words of hesitation might influence interpretation (Rubin & Rubin, 2012). Additionally, the interview will be summarized to help compare responses across the interviews.

### **Data Analysis**

Qualitative studies often collect and analyze data simultaneously. While it is not possible to predict the participants' responses, the researcher typically has educated guesses, which will call attention to specific data (Merriam & Tisdell, 2016). Furthermore, the authors stated that data collection and analysis are repetitive and dynamic and often a looping and iterative process.

Data collected from the qualitative interviews will be coded through thematic analysis to identify patterns in the responses. The study's evidence collection theme consists of interviews with participants who self-identify as having feelings of anxiety while learning to uncover what practices and accommodations improved learning. The participants' responses will be assigned codes; recurring codes then form to identify themes.

The participant's responses will be recorded and digitally stored in a secure (passworded protected) location, in which the researcher will only have the privilege to access the data. According to the Institutional Review Board (IRB) standards, all data will be maintained for a minimum of three years before being destroyed. Microsoft Office products, Word and Excel, will be utilized to store the transcriptions and organizing key phases and their coordinating code

and themes. Taguette, an open-source qualitative research tool, will be used to highlight words, sentences, or paragraphs and associate them with the pre-selected codes. Taguette is a secure program that runs locally on the researcher's computer. The combination of the programs will aid the data analysis in an organized and systematic fashion.

Data analysis is the process of deriving logic out of data and involves consolidating, condensing, and deciphering what was said in the interviews (Meriam & Tisdell, 2016). Data is reviewed to find answers to the two research questions of the study. Each interview will be reviewed immediately and dissected into data units. Data units will consist of phrases or full sentences that provide data-rich information. The units will be compared to other units looking for recurring ideas in the data. The units will be assigned a code that designates a summative attribute to the data. Coding will allow for data collection as the researcher progresses through multiple interviews (Saldana, 2013). Those codes are then grouped into categories or themes to find the answer to the research questions.

Grounded theory is then applied to develop theory derived from the collection of data within a study. The theory is generated solely from the data collected in the interviews and not from other established theories. The grounded theory works inversely from the traditional research (theory and hypothesis, research and data collection, conclusion) as it begins with a question of inquiry and seeks data to form a framework. Patton (2002) asserted that grounded theory is intended to construct theory rather than to test the existing theory. Since little research exists on anxiety-causing barriers to learning in the workplace, this study seeks to find patterns in the participants' responses from which new theory can be established.

## **Reliability and Validity**

Reliability is the degree to which a measurement tool produces steady and consistent results, and validity refers to how well a test measures what it is supposed to measure (Ary, Jacobs, Sorenson, & Razavieh, 2010). Qualitative research seeks to record the participants' experience of a particular phenomenon rather than isolate human behavior (Merriam & Tisdell, 2016). The authors state that no benchmark exists to establish reliability in the traditional viewpoint due to the varying interpretations of the responses collected. Furthermore, validity is relative to the circumstances of the research and assessed in association with those conditions.

Since traditional reliability does not exist in a qualitative study, one should not discredit any study results. Merriam and Tisdell (2016) asserted that research should seek consistent data, make sense, and match reality. Triangulation supports a study's credibility by cross-examining data from multiple sources (Savin-Baden & Major, 2013). This study will incorporate a form of triangulation through the evaluation of similar research studies and by the collection of data from the interview. Member checking will be applied to ensure the validity of the responses. Savin-Baden and Major (2013) asserted member checks ensures correct interpretation of the participants' responses. Additionally, peer evaluation by the advisory committee will review to validate the research approach and results are consistent with existing research.

Research operationalization will be applied to ensure the data collected is empirical. In research, operationalization is the establishment of survey questions, observation criteria, or experimental protocol. Creating an order of operations will direct the research in the day-to-day tasks and established structure, so the process is repeatable, trackable, and measurable (Shuttleworth, 2008). Vague concepts (such as emotions) will be explained and defined as to how the concept is measured. This research study defines who participants are- adults post-

school, employed, and have anxious feelings about learning in the workplace. It provides examples of anxious feelings and describes the types of workplace learning.

The process for analyzing the qualitative data begins with listening to the interview recordings before transcribing. Once transcribed, I will then read the transcripts and the notes taken during the interview, then make note to themes relative to what I heard or noticed during the interview. Inductive analysis is applied to extract themes by classifying patterns, constructing categories, and applying coding to develop themes from the data. I will review the data as new interviews are conducted to ensure to uncover the true results with each repetition and that all information-rich data is collected, and any new data is exhausted. Applying this iterative approach will ensure the sequence of tasks of the research design are conducted and repeated in the same manner to create a repeatable experience for future studies.

### **Ethical Considerations**

Qualitative research involves the researcher's participation, whether it be in the form of direct observation or the design of interview questions asked, which adds a degree of subjectivity to the study (Patton, 2002). The author further asserts a researcher should possess empathetic neutrality, which is defined as the middle ground between a researcher being too close and too distant to the inquiry participants. "Empathy involves being able to take and understand the stance, position, feelings, experiences, and worldview of others" (Patton, 2002, p.52). Empathy is vital to qualitative researchers because it provides an empirical foundation for relaying others' perceptions.

An implication for qualitative research is those scholars who cannot be empathetic stand the risk of incorrectly relaying others' opinions, thoughts, and feelings in their research. This effect shows the importance of researchers being reflexive. Reflexivity involves the individual

possessing the self-awareness to be attentive to one's views while considering the participants' views in the study (Patton, 2002). As someone who has experienced excessive learning anxiety, I can easily relate and show compassion to those who have similar experiences. There is a possible risk that participants will feel anxious while answering questions; therefore, I will ensure the participant is given some of the recommended accommodations for anxiety, such as unlimited time to answer questions, private space, right to not respond to a question, and breaks as needed. One benefit of having virtual meetings is that the participant can choose a comfortable environment to engage in the interview. In addition, participants have the opportunity to withdraw from participation in the study at any time and are informed of this option in the permissions form.

### **Chapter Summary**

This chapter presented the methods that are applied in this qualitative study, including the research design, data collection, interpretation, and analysis. Basic research is first applied to understand the fundamental nature of anxiety in workplace learning and followed with emancipatory/critical action research to uncover the emotions and learning constraints experienced by individuals with high levels of anxiety in workplace learning. This study utilizes basic qualitative research to understand the social phenomenon of anxiety from the participants' perspective and focuses on the reality that the people perceive them to be and how they feel about the experience as it applies to learning in the workplace. Additionally, it intends to discover best practices or accommodations that the participants believe have or could have improved their learning experience and ability to cope with stress and anxiety.

Sampling by convenience will be used to detect those who volunteer to participate and self-identify as having general anxious feelings. Working within the social distancing

constraints due to the current COVID-19 pandemic, social media venues will be used to solicit participants publicly to participate in an interview. From those individuals who offer to participate, purposeful sampling will be applied to identify who also experiences heightened anxiety or symptoms of exaggerated fear responses to non-dangerous situations and invited to partake in the interviews. The sampling size will be targeted to a group of 15 and 20 participants.

Data will be collected during in-depth qualitative interviews that are intended to collect rich and detailed information about the participants' experience in managing anxiety in workplace learning. The semi-structured interviews will have nine prepared questions around the specific topic of understanding the participants' anxious emotions and any accommodations that help them manage anxiety. Follow-up questions will be asked to encourage the participant to answer at great length and in graphic detail. The interviewed will be recorded and transcribed to capture the data-rich information and then coded to identify themes from the data. Chapter 4 will discuss the key findings in depth that emerge from the participant's responses in the interviews and research notes.

## **Chapter 4: Findings**

The purpose of this study is to explore what behaviors are exhibited when experiencing anxiety that prevents learning and development in the workplace and to examine what best practices, interventions, and training accommodations improve learning while on the job. The research intends to consolidate the exhibited behaviors and preferred accommodations in training practices that HRD professionals can apply to support employees who exhibit behaviors of heightened anxiety in workplace training. The following research questions were considered during the interview to identify the individual perception of the participants in the study:

1. What emotions, responses, or behaviors create barriers to learning (avoidance, over-vigilance, excessive arousal) when experiencing feelings of learning anxiety?
2. What do employees believe are the most impactful training practices or formal/informal accommodations in managing anxiety in their learning and development?

Grounded theory methodology was applied with a line-by-line approach to generate codes from the interview transcripts to identify emergent themes that address the above research questions. The themes were compared from the data collected to group the data and form categories to cultivate a proposed theory.

This chapter presents an overview of the study and the data analysis from the data collected. It will first introduce the observed demographics of the study participants, followed by a discussion of the responses collected from the interviews. The chapter will conclude with a summary and explanation of the findings and how they relate to the overarching research questions.

### **Selections of Participants**

Working within the social distancing constraints due to the current COVID-19

pandemic, social media venues of Facebook, LinkedIn, and Instagram were used to publicly solicit working adults who self-identify to have heightened anxiety levels in workplace learning (see Appendix D). The public post was shared with three community groups and six other social media users for a potential sampling reach of approximately 12,625 social media users. Twenty-one individuals responded privately to volunteer to participate in the study. Of the 21 volunteers, individuals were randomly selected and interviewed until the responses became repetitive and new data or themes no longer occurred, or a minimum number of 15 interviews.

Once the initial indication of interest to the social media post, I sent a letter of invitation via email explaining the purpose of the study, the procedures of the interview process, a summary of my background as a student and an HRD professional, and the consent form to each person individually. As the volunteers' responses to the consent form were returned, interviews were scheduled based on the participant's availability. Due to the COVID-19 pandemic, there was some difficulty collecting consent forms with a wet signature. Consequently, electronic consent via the participant's personal email was accepted in lieu of a signed form, which the participant responded stating acknowledgment of receipt of the consent form and acceptance of the terms of the study.

### **Interview Setting**

The interviews were conducted in a private and secure room in my home using a teleconference service from my personal computer. All 15 participants were at a location of their choice during the interviews and accessed the interview through cellular phone or personal computer. A separate recording device was used to record the responses to ensure the data remained confidential and stored as described in the research methods. Due to the nature of the personal questions asked, the participants were reminded they had the option to not respond to

any question they did not feel comfortable answering. This study includes individuals who self-identify as having general feelings of anxiety; therefore, it is recognized that participating in the study itself could bring about heightened emotions that could influence the participant's responses.

### **Demographics of the Participants**

Fifteen participants who self-identify as having anxiety in the workplace participated in one-on-one semi-structured interviews. The participants' demographic data was collected throughout the interview from the participants' answers. Fourteen of the 15 individuals (93%) were female. The reported age ranges from 20-60 years of age, and all reported to be working or temporarily not working due to being furloughed due to the COVID-19 pandemic. Twelve of the 15 participants (80%) reported at least some post-secondary education. 60% openly volunteered that they have been diagnosed and treated for anxiety or mental illness as defined by the ADA.

Two additional participants believed they have an unpursued diagnosis of a mental disorder.

Table 4 provides a summary of the demographics of the participants.

**Table 4**

*Demographics of the Participants*

<b>Participant</b>	<b>Post-secondary School</b>	<b>Diagnosed</b>	<b>Sex</b>	<b>Age</b>
1	Yes	Yes	Female	50-59
2	Yes	Yes	Female	20-29
3	Yes	Yes	Female	20-29
4	No	No	Female	50-59
5	Yes	Yes	Female	40-50
6	Yes	Yes	Female	30-39
7	Yes	No	Female	40-59
8	Yes	No	Male	20-29
9	Yes	Yes	Female	20-29
10	Yes	No	Female	20-29
11	No	No	Female	50-59

**Table 4**  
*Demographics of the Participants Cont.*

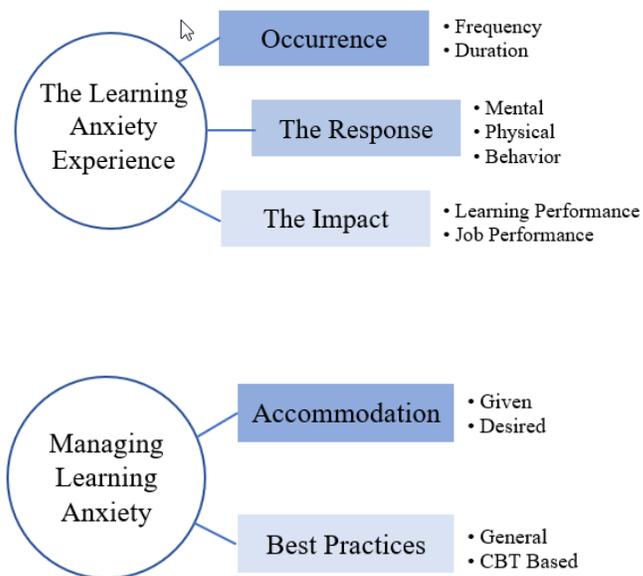
<b>Participant</b>	<b>Post-secondary School</b>	<b>Diagnosed</b>	<b>Sex</b>	<b>Age</b>
12	Yes	Yes	Female	20-29
13	Yes	Yes	Female	20-29
14	No	No	Female	50-59
15	Yes	Yes	Female	20-29

*Note:* The category of diagnosis was recorded if the participant volunteered of having a diagnosis for anxiety or another mental illness disorder.

The study included 15 individuals who self-identified as having anxious feelings while participating in training programs to learn new workplace skills. The interview questions were intended to collect personal feelings and experiences; therefore, each person was assigned a number to ensure anonymity and establish a safe environment, ensuring the participants felt comfortable sharing their personal experience. When reporting the data collected in the interviews, the participants are referred to their assigned number, i.e., Participant 1.

### **Overview of Categories and Themes**

The study sought to uncover the individual's emotions and responses when learning and what he or she felt would help in mitigating or managing those emotions and responses in improving learning and job performance. An array of responses were received from the participants regarding their reaction to learning anxiety and their experience with managing the emotional and physical responses to improve workplace learning outcomes. Each individual shared his or her personal experiences; however, many participants shared similar feelings and strategies when having anxious feelings. From those responses, four themes emerged to address the study's two primary research questions. As shown in Figure 1, there are two categories, five themes, and 11 sub-themes that were derived from the data.



**Figure 1**  
*Categories, Themes, and Sub-themes of the Study*

### ***Category 1: The Anxiety Experience***

Anxiety plays an essential role in encouraging productive learning outcomes. However, if not controlled, anxiety can result in heightened emotions that cause conflicts and create barriers to learning or learning inaction (Gilmore & Anderson, 2016). Research has shown that heightened emotions consume necessary attentional resources, cause individuals to experience low levels of self-efficacy and high fear of failure in learning situations that impede learning and performance (Bell & Kozlowski, 2008). One area of focus of the study was to understand the emotions, responses, or behaviors that create barriers to learning when an individual experiences feelings of learning anxiety.

The participants in the study discussed how they responded to the heightened emotions and how they reacted both mentally, physically, and behaviorally. They also discussed how often these feelings occurred and how long the responses lasted. Furthermore, the participants shared how they felt that response impacted their ability to learn and their ability to use those new skills in their job performance.

***The Response: Mentally.*** A primary reoccurring response was feelings of self-doubt, followed by poor self-image and feelings of judgement/fear of failure. Ten out of 15 participants reported self-doubt where they believed they could not perform the new skills being taught. Participant 5 stated, “I immediately thought I can’t do this” and “I began to second guess myself, I felt insecure because I knew that I hadn’t retained the information.” Participant 10 reinforced this response by stating, “I was afraid I would screw things up...I thought ‘I am going to do this wrong’ and had this fear of failure, of not being able to get it.”

Seven of the 15 participants stated judgement and fear of failure in front of peers were other strong emotions that impacted the learning process. Participant 4 shared, “I’m embarrassed, and I don’t want my coworkers to know that I’m struggling, or I don’t want anybody to know that I failed.” These responses are consistent with Macher et al. (2012) who asserted individuals experience low self-efficacy levels and high fear of failure in learning situations when having heightened anxious feelings.

Furthermore, eight participants reported to having feelings of poor self-image. These feelings varied from feeling they were too old to learn the new skills, to having no self-worth, to believing they were stupid. One participant described that she felt “physically ugly” and did not like herself when an onset of anxiety began.

Collectively, the participants described 46 negative anxiety responses. This data supports Kutlu and Gould (2015) who stated anxiety disorders are often accompanied by negative feelings and lead individuals to have the feeling of low self-worth. As shown in Table 5, the compilation of the participant's responses for the mental response theme.

**Table 5**  
*Summary of Mental Response Theme*

<b>Mental Response</b>	<b>Number of Responses</b>
Self-doubt	10
Poor self-image	8
Judgement/Fear of failure	7
Frustrated	4
Overwhelmed	3
Loss of control	3
Pressure	3
Frustration	3
Lost	2
Negative thoughts	2
Loss of motivation	1
Total responses	46

***The Response: Physically.*** It is a challenge for HRD professionals who lack mental health professional designations to identify anxiety due to the various types of disorders which all have unique symptoms with varying degrees of severity. This study seeks to provide data to aid HRD professionals in recognizing the signs and behaviors of employees who are exhibiting anxiety in workplace learning. The participants were asked to describe what outward physical responses they experienced to their feelings of anxiety. Fourteen out of 15 participants reported an outward physical response to anxious feelings. The symptoms reported are unique to each

participant with varying degrees of severity and include crying, shaking, excessive sweating, and increased heart rate. All the physical symptoms described by the participants were consistent with those reported by the National Institute of Mental Health (n.d.). As shown in Table 6, the participants' responses for the physical response theme.

**Table 6**  
*Summary of Physical Response theme*

<b>Physical Response</b>	<b>Number of Responses</b>
Cry	5
Shake	5
Sweating	5
Stutter	3
Increased heart rate	3
Loss of sleep	2
Loss of appetite/stomach pain	2
Numbness	2
Eye Twitch	1
Headache	1
Nervous tapping	1
Muscle tension	1
Hot spell	1
Bad dreams	1
Fatigue	1
Outburst	1
Cannot breathe	1
Dizziness	1
Pacing	1
Hyperventilate	1
Blotchy skin	1
<b>Total</b>	<b>40</b>

***The Response: Behavior.*** Gross and Hen (2004) asserted avoidance, over-vigilance, and excessive arousal as anxiety-related behaviors that are part of a universal mechanism in response to undesirable situations that cause heightened anxiety. Fourteen participants reported one or more of these three behaviors, with avoidance or rejection of learning opportunities being the most common (67%) among the individuals. Over-vigilance and excessive arousal have five responses respectfully.

***Occurrence: Frequency.*** Anxiety generally persists over time, and often, one may experience anxiety in the absence of a direct physical threat and is universally conceptualized as in a state of constant fear (Hartley & Phelps, 2012). Furthermore, those who have panic disorders often have recurrent or constant fears of having another panic attack and can extend for over a month or more (National Institute of Mental Health, n.d.). To build on this research, participants were asked to share how often they experienced anxious feelings while learning. Ten reported they felt anxious every time they are expected to learn something new at work, while four reported they feel anxious most of the time during learning sessions. One participant was an outlier and stated she rarely had learning anxiety. Those who did not feel it was all the time stated it was not present when learning simple or basic tasks. Additionally, seven of the participants believed their learning anxiety increases or escalates with each new learning expectation.

***Occurrence: Duration.*** Seven participants elaborated on the frequency of the responses and further discussed how long it would take for them to recover from an anxiety episode. The duration ranged from a few hours to multiple days. Participant 3 stated, “if an anxiety-induced situation occurred in the morning, it would stay with me the whole day.” Participant 5 stated, “it takes about two hours to get back to normal, for the tingling and the fingers and lips to stop, and

get my breathing under control, to stop crying and be okay.” Participant 10 recounted, “I’m probably anxious about it up until a couple of days afterwards just because the anxiety is built up, and now it’s just going to have to come back down.” Participant 13 specifically called out:

“it can be days, usually it’s days, and a lot of time, I won’t really understand why I’m feeling anxious, but it will linger for days. Even being removed from that learning environment, I’m still feeling those anxious feelings.”

***Impact: Learning Performance.*** Symptoms of anxiety may cause one to have a lack of concentration, poor time management, and ineffectiveness (Hughes et al., 2016). This knowledge is relevant to HRD professionals as it can impact learning in the workplace. The International Board of Credentialing and Continuing Education Standards (n.d.) asserted that anxiety disorders cause poor academic performance and resistance to anything learning-related.

Participants were asked to reflect on how they believed the anxious feelings impacted their ability to learn what was being taught, which all responded they believed their learning to be impacted by their emotions. Participant 5 stated, “On a scale from one to ten when I am having an anxiety attack, my learning is at a one.” Participant 3 shared, “I don’t retain as much because I’m so worried about anxious feelings themselves.” Common responses reported were feeling distracted and lack of focus which resulted in poor knowledge retention. These responses support Gilmore and Anderson (2016) who asserted uncontrolled anxious feelings could result in heightened emotions that create barriers to learning such as lack of concentration, poor time management, disorganization, and inability to cope with stress. As shown in Table 7, a summary of the participants’ responses for the impact of the learning performance theme.

**Table 7***Summary of learning performance theme*

<b>Impact on Learning Performance</b>	<b>Number of responses</b>
Lack of focus/distracted	8
Lack of knowledge retention	5
Inability to learn	2

**Impact: Job Performance.** Additionally, the participants reflected on how these learning barriers transferred to job performance. Eleven out of 15 (73%) admitted they have poor work performance from the hampered learning. Additionally, four reported they were not focused on their work tasks because they were feeling anxious about being able to perform well. Participant 2 stated, “it made me anxious to fail in my job performance because I know that every move I make is being watched.” Additionally, two participants reported that they felt they had a “bad attitude,” which was sometimes directed towards co-workers or customers. Participant 12 stated, “I become very impatient and become short or rude to other people.” As shown in Table 8, a summary of the participants’ responses for the impact of the learning performance theme.

**Table 8***Summary of job performance theme*

<b>Job Performance</b>	<b>Responses</b>
Poor performance	11
Not focused	4
Poor patience/attitude	2
Developed a poor reputation	1

### **Category 2: Managing Learning Anxiety**

Employees who have an anxiety disorder may experience barriers to learning in traditional training programs and require accommodations to support their unique development needs in the workplace. Accommodations are designed to aid employees in successfully

performing the job and fully assimilate into the working environment. However, accommodations may vary based on the needs of the individual and the nature of the job. Additionally, not all people with disabilities will require any accommodation at all. Additionally, Butler et al. (1991) asserted anxiety is supported by vicious circles involving physical symptoms, avoidance behaviors, and loss of confidence, which can be controlled by breaking those circles. The authors recommend anxiety management, such as a form of CBT or methods of relaxation techniques.

The participants in the study discussed if they received any accommodations or informal support to aid in managing anxious feelings while learning. If they had not received an accommodation, they made suggestions on what they believed would be beneficial in the learning activities. Furthermore, the participants shared best practices they have adopted to manage their anxiety.

*Accommodations given.* Accommodations are actions taken by an employer to ensure the disabled employee can experience the same benefits and privileges equal to those employees without disabilities (US Equal Employment Opportunity Commission, n.d.). Not one of the 15 participants reported having received an accommodation for anxious feelings by their employer. Three of the participants reported having a 504-plan established by their learning institution for their anxiety. 504 plans are formal plans that are developed within schools to provide individuals with disabilities the support they need while learning and are covered under Section 504 of the Rehabilitation Act (US Equal Employment Opportunity Commission, n.d.). Those two participants stated they were provided additional time to complete assignments and exams, additional breaks, and provided a distraction-free environment.

*Accommodations desired.* The participants were asked to suggest accommodations they believed would help them manage their learning anxiety in the workplace. In total, 37 suggestions were made, with the three most popular being a) More time, b) more breaks (when they felt it was needed), and c) a distraction-free environment. As shown in Table 9, a summary of the participants' responses for the desired accommodations theme.

**Table 9**  
*Summary of learning performance theme*

<b>Suggestion for Accommodation</b>	<b>Responses</b>
More time	7
More breaks	7
Distraction free environment	7
1:1 support/direction	4
Time to prep/study/material sooner	2
On-site counselor	2
More positive reinforcement	2
Different media for material	1
Stand at desk	1
EAP for anxiety support	1
Flexible work schedule	1
Support person	1
Take a walk/to move body	1
Sandbox environment to practice	1

During this section of the interviews, two individuals suggested they believed that large corporations should have a counselor or a mental health coordinator on property to support employees who are having an anxiety attack. Additionally, five participants expressed that they would think it would be helpful if their manager or trainer had received training in how to manage employees with anxiety. Some quotes include participant 9, who stated:

“If leadership was trained to deal with anxiety, and leadership was trained in work-life balance, and if leadership was trained on how to support employees- to look at employees as individuals with individual needs, and not just a group as a whole, as one size fits all- I think it could lead to a lot more happiness at work.”

Participant 10 supported this message and shared about how he or she feels his manager should respond:

“I just think that every person learns differently, and they deal with life differently. One person who has anxiety is going to manage their anxiety in a completely different way than another person. And that's an important thing to remember. Is that just because this works for one person, you can't expect it to work for another because none of us are cut out of the same mold. We're all created differently.”

To supplement, participant 8 shared, “I didn't have healthcare, I couldn't get diagnosed, so if a trainer or a manager notices something, I feel that they should be able to provide some sort of an accommodation.” Additionally, participant 15 shared that she could not presently take her medication and felt a void of not having her educational 504 accommodations plan available to her in the workplace to help her focus and job performance. While these suggestions would not fall in the realm of an accommodation, I believe this data is impactful to the study.

***General best practices.*** This study seeks to uncover if there are non-medical techniques that can be applied in workplace learning that mitigate anxiety. Hay and Blenkinsopp (2019) suggested individuals should determine ways to work with anxiety as to develop a tolerance of anxiety and ensure it does not become excessive, resulting in panic or avoidance. The participants were asked how they manage times when they feel highly anxious. As shown in Table 10, the participants’ recommended some most used practices the participants described to help lower their anxiety.

**Table 10***Summary of best practices theme*

<b>Best Practice</b>	<b>Response</b>
Take Break	3
Practice on own	3
Exercise	3
Note taking	3
Ask for help	1

*Cognitive Behavioral based practices.* When reflecting on the participant's responses to how they manage their anxiety, there was a pattern of behaviors that would closely mirror practices included in Cognitive Behavioral Therapy (CBT) and Sari et al. (2019) expansion on these methods. These practices were broken out into their own sub-theme. These practices include relaxation techniques such as breathing exercises, distraction behaviors, and five fingers hypnosis to assist in replacing negative thoughts with positive thoughts. Twelve of the 15 participants reported applying at least one CBT technique to manage anxiety. Most common were breathing exercises and distraction techniques that involved sensory integration. Sari et al. (2019) asserted sensory integration techniques increase a person's threshold for tolerating sensory-rich environments and is proven to calm an anxious person. Some examples of sensory techniques included applying pressure, holding hands in cold water, creating background noise, and playing with silly putty. As Table 11 shows, the CBT best practices the participants described as ways to help lower their anxiety.

**Table 11***Summary of CBT Best Practices theme*

<b>CBT Practice</b>	<b>Responses</b>
Breathing exercises	7
Emotion control	6

**Table 11**  
*Summary of CBT Best Practices theme Cont.*

<b>CBT Practice</b>	<b>Responses</b>
Sensory integration	4
Meditation	4
Distraction behaviors	2
Stretching	1

### **Chapter Summary**

This chapter presented the findings from a comprehensive analysis of 15 in-depth, semi-structured interviews to explore what behaviors one exhibits when experiencing anxiety that prevents learning and development in the workplace and to examine what best practices, interventions, and training accommodations improve learning while on the job. The chapter began with an explanation of the participant selection and their demographics. Description of the interview setting was provided and followed with a detailed inventory of the categories themes that were derived from the data collected. The participants described their anxiety response and its impact on both learning and job performance. Additionally, the participants discussed ways they manage their anxiety and what they believed their employer could do to improve their learning outcomes. Chapter 5 will provide a discussion of the findings, the limitations of the study, and areas for future research.

## **Chapter 5: Discussion, Conclusions, and Recommendations**

This qualitative study aimed to explore what behaviors employees believe they exhibit when experiencing anxiety that prevents learning and development in the workplace and examine what learning interventions and training accommodations improve workplace learning. The participants shared their feelings and responses when experiencing anxiety and shared what they believed would help mitigate the responses. The results of this study provide a better understanding of these experiences, add to the current literature about anxiety disorders, and can help HRD stakeholders make more informed decisions about supporting employees to overcome learning barriers caused by anxious feelings.

This chapter begins with the interpretation of the findings as they apply to the two research questions:

RQ1: What emotions, responses, or behaviors create barriers to learning (avoidance, over-vigilance, excessive arousal) when experiencing feelings of learning anxiety?

RQ2: What do employees believe are the most impactful training practices or formal/informal accommodations in managing anxiety in their learning and development?

Through the conceptual framework lens through which this study was conducted, the results integrate the basic principles of andragogy and Skinner's beliefs on learning with the self-directed learning theory. The limitations and implications of the study are considered, and recommendations for future study are made. The chapter is completed with a consolidated conclusion.

### **Interpretation of the Findings**

The study is founded on the belief that employees who have an anxiety disorder may experience barriers to learning in traditional training programs and require support or

accommodations to boost their unique learning needs for development in the workplace. It can be a challenge for HRD professionals who lack mental health professional designations to identify when an individual is facing anxiety due to the various types of disorders which all have unique symptoms with varying degrees of severity. Understanding how anxiety impacts an employee's ability to learn and develop in the workplace is vital to this research study's success.

**RQ1: What emotions, responses, or behaviors create barriers to learning (avoidance, over-vigilance, excessive arousal) when experiencing feelings of learning anxiety?**

For this study, the participants were first asked to recall a workplace learning event where they felt consumed with anxious feelings. Collectively, the 15 participants described 46 emotional responses when feeling anxious during a learning activity at work. Though all the responses were exclusive, all the 46 responses can be categorized as emotions of negative feelings directed to them personally or towards their work performance.

The most recurring response was having feelings of self-doubt in learning the new skill and then applying the newly acquired skill to their work performance effectively. These findings are consistent with Vermunt and Verloop (1999), who reported anxiety diminished self-confidence, and increased emotions of self-doubt. The responses of self-doubt were often coupled with feelings of poor self-perception and comments of feeling stupid or having worthless thoughts. This data collaborates with Kutlu and Gould (2015), who stated that anxiety disorders are often accompanied by negative feelings and lead individuals to have feelings of low self-worth. These two responses often lead to a third emotional response where almost half of the participants recounted having a fear of failure, especially in their peers' presence (facing judgment). These findings are consistent with Macher et al. (2012), who stated that individuals who experience heightened anxiety developed low levels of self-worth and high fear of failure.

Understanding how anxious emotions are detrimental to learning, the question to consider is how do HRD professionals, who do not have mental health professional designations or training, identify when an individual is facing anxiety? As part of this study, the participants were asked to describe how they physically responded to the intense anxious feelings. Forty different physical responses were shared where at least 10 of the symptoms described are responses that HRD professionals in a learning environment can easily observe. The four most common responses included a) crying, b) shaking, c) excessive sweating and d) stuttering. Of the 14 who responded to the physical response inquiry, each reported one or more of those four primary responses. While it is recognized by the National Institute of Mental Health (n.d.) that crying, shaking, sweating, and stuttering are not absolute in signifying anxiety, these identified reactions can be indicative to HRD professionals providing opportunities for the employees to have a discussion on what their needs are to improve learning performance.

The participants were then asked to reflect on how these emotions caused them to respond to the learning opportunity. Gross and Hen (2004) asserted that when anxiety is not regulated, the emotions typically lead to denial or avoidance that discourages learning, which was supported by 14 of the 15 participants who stated they demonstrated at least one of those three behaviors. Nine responded that they lost interest, rejected, and avoided learning the new skill and aligns with Vince and Saleem (2004), who asserted that pessimistic emotions and fear of mistakes trigger negative learning patterns such as denial and avoidance, where the individual chooses to remain ignorant.

Five participants reported excessive escalated thoughts that led to repetitive behaviors such as over-preparing. Five participants also reported having hyperstimulation, which then extended beyond the learning event and impacted other aspects of their lives. These findings are

consistent with Gross and Hen (2004), who determined avoidance, vigilance, and arousal as part of a universal mechanism in response to anxiety-related situations, all resulting in lower task efficiency. This data presented on behavioral responses supports the need for HRD professionals to establish an environment that fosters practices that alleviate anxiety and its negative emotions that arise during learning activities.

After the participants reflected on their responses, they evaluated how they perceived these emotions impacted their job performance. Seventy-three percent responded that they performed poorly when asked to execute the new tasks learned. Another recurring response from the interviews was the inability to focus, which coincides with Hughes et al. (2016), who asserted anxiety symptoms cause one to lack concentration, poor time management, disorganization, and inability to cope with stress in learning situations.

The results of my study confirmed the themes in current literature about anxiety's impact on learning and extend to adult learning in the workplace. Overall, the data analysis showed that barriers to learning extend beyond education institutions and impact employees when learning and, ultimately, their job performance. Having the ability to recognize those described exaggerated anxiety responses and behaviors triggered from workplace training will allow HRD professions to offer individualized accommodations or personal support to aid the employee in mitigating the detrimental symptoms. It is not suggested that an HRD professional act as a medical professional and diagnose and treat anxiety disorders. However, the study's data reveals a strong probability that engaging with employees to identify and learn techniques to manage their anxiety will improve workplace learning and job performance.

**RQ2: What do employees believe are the most impactful training practices or formal/informal accommodations in managing anxiety in their learning and development?**

Under ADA, employers are expected to offer reasonable accommodations to ensure all employees have equal benefits and privileges to effectively learn in the workplace (US Equal Employment Opportunity Commission, n.d.). As shown from the responses from the participants, the effects of anxiety vary from person to person, which indicates that accommodations will also vary from person to person. Hughes et al. (2016) recommended that HRD professionals use resources, such as the Jobs Accommodations Network, to determine practical accommodations to help the employee better manage their anxiety and successfully perform the role and fully assimilate into the working environment. This study seeks to extend HRD practice beyond only referencing third-party organizations to identify appropriate accommodations. The participants shared what practices have been beneficial in managing their anxiety and what workplace accommodations they believe would improve their learning.

All the study's participants reported they have never received any accommodations for their learning anxiety by any of their employers. More than half commented that they had never asked or were not aware they would be eligible for accommodations. This fact was of interest to the study as nine of the participants volunteered to be medically diagnosed with a mental illness, and two others believed that they had undiagnosed anxiety. Furthermore, three of the participants have had educational 504 plans in place in their secondary and post-secondary institutions. This data reveals a need for mental illness and treatment awareness training which is one of the recommended accommodations by Job Accommodation Network (JAN). The participants suggested 38 different accommodations they believed would help alleviate their learning anxiety. The topics of more time, more breaks while learning, and learning in a

distraction-free environment were the most common three responses. The data collected from the interviews show the accommodations the participants wanted were consistent with JAN's recommendation for accommodations to improve learning anxiety. As Table 12 shows, JAN's recommendations as compared to the participant's responses.

**Table 12**  
*Comparison of Accommodations*

<b>JAN Recommendation</b>	<b>Participant's Responses</b>
Alternative lighting	-
Cubicle doors or shades	Distraction-free environment
Fidget devices	Sensory toy
Noise abatement	Distraction-free environment
White noise machines	Listen to soothing sounds/ water running
<b>JAN Recommendation</b>	<b>Participant's Responses</b>
Job coaches	Support person
Task separation	-
Behavior modifications techniques	Replace negative thoughts with positive
Employee assistance programs	EAP for anxiety support
Awareness training	Was not aware
Positive feedback	More positive reinforcement
Apps for memory	Improve memory
Recorded materials	Time to prep/study/material sooner
Verbal cues	-
1:1 communication	1:1 support/direction
Policy modification	Flexible work schedule

In addition to formal accommodations, this study sought to determine the techniques the participants used to manage their anxiety. The participants were asked to describe what actions they took to calm themselves when having an excessively anxious response in the workplace. Of the responses provided, breathing techniques, introductions of positive thinking, and creating

distractions and sensory integration techniques were the most common to manage the extreme emotions. The nine participants had had a medical diagnosis shared they learned many of these practices from their treatment, and four other participants stated they learned these techniques from a friend or co-worker who also experienced anxious feelings.

These listed practices by the participants are often used in Cognitive Behavioral Therapy (CBT), which trains the individual to observe their thought content during a heightened anxiety event and encourage skills, such as emotion-regulation capacities, coping mechanisms, and thinking styles, to protect themselves against the onset of anxiety (O'Donohue & Fisher, 2012). This data supports Hay and Blenkinsopp (2019), who asserted that the ways individuals work with anxiety to help develop tolerance of anxiety hold much promise for HRD practices. While this study does not suggest that an HRD professional should be a substitute for a medical professional, there appears to be an opportunity to partner with the employees to manage their anxiety when engaging in learning and development. The study's data supports that HRD researchers and professionals should seek to examine mental health professionals' practices to develop nonclinical ways to integrate anxiety mitigation methods that can be used to better develop employees in the workplace. Butler et al. (1991) further support this theory by noting general anxiety disorder studies where individuals responded to nonclinical anxiety management procedures equally and those who received CBT.

Additionally, five participants volunteered other suggestions to HRD practice on what they believed would be highly advantageous beyond accommodations in managing their learning anxiety. They believed management or HRD professionals should receive training on directing employees with anxiety. More specifically, those participants thought it would be helpful if the leadership could identify the learning anxiety and proactively offer solutions to manage the

heightened emotions. Butler et al. (1991) asserted that the first step in controlling anxiety is learning how to break the repetitive cycles involving physical symptoms, avoidance behaviors, and emotions of loss of confidence. This data further supports the idea of implementing techniques for emotional control and practices in workplace learning programs in developing better emotional competencies that contribute to improved personal and social well-being.

The interview questions' overall response indicated that the participants felt it was essential to have a manager or HRD professional who could recognize their anxious responses and the need for accommodations. The participants also thought it was important to have a voice when deciding what methods would be applied to support and improve their learning outcomes. These responses are consistent with the conceptual framework of andragogy's fundamental principles and Skinner's beliefs on the self-directed learning theory. The study supports the theory of andragogy, which is rooted in the humanistic philosophy, and considers adult learners' desire to take part in how they learn and facilitate their learning and methods. Furthermore, the responses that stated there is a need for HRD professionals to be active in the anxiety management process further supports Caffarella (1993), who asserted the underlying humanistic foundation of self-directed learning prescribes that learners assume responsibility and the educators act as guides in the learning process.

### **Limitations of the Study**

The scope of this study was limited to those working adults who self-identified as having learning anxiety. Due to the study's specific nature, this narrow scope was necessary to answer the research questions. The answers collected were taken solely from the learner's perspective and did not consider input from other stakeholders such as learning facilitators, HRD professionals, or management.

This study included the assumption that the participants answered truthfully and openly about their experience with anxiety in workplace learning. This assumption is made based on the foundations that the participants freely volunteered to participate in the study and were assured confidentiality in their answers. It was also assumed the sample is an accurate representation of the population; however, the small sample may determine results that may not apply to the greater population.

Time and the smaller sample size of the participant pool are possible limitations of the study. A larger sample size over a more extended period might have yielded additional volunteers and data or more contradictory data which could be generalized or transferred to other contexts or settings. Additionally, a larger sample size may allow considering other demographics such as race when understanding the impact of learning anxiety. Another limitation of this study was that participants self-identify with anxious feelings and are volunteers, which would eliminate any person who felt uncomfortable or private about their anxiety disorder. One participant shared that she believed that many people are too embarrassed to disclose they had an anxiety disorder. In Addition, the participant pool was 93% female, and there is a possibility there is gender bias in the participant responses.

Furthermore, the essence of qualitative research assumes that the study results will be subjective and bound by the researcher's interpretation. As the researcher for this study, I may have a bias that could influence my interpretation of the data as I have been diagnosed with trait anxiety and heightened anxiety levels when learning situations do not tailor to my learning style. Rubin and Rubin (2012) asserted that because it is impossible for participants and researchers to remove personal biases from their interpretations, the researcher should not ignore those biases or reject the data. I have also worked in the learning development field for ten years, and it is

fair to assume that I have established both conscious and unconscious biases around HRD interventions (or lack of) in workplace learning.

### **Recommendations for Research**

This study has significance for future research in improving workplace learning outcomes for employees with mental illnesses. This study focused on learning anxiety, and future research could broaden the results of other forms of anxiety. Additional comprehensive research could potentially lead to examining other disorders that cripple or prevent learning.

The following recommendations for further research are grounded in the strengths and limitations of this study on what behaviors employees believe they exhibit when experiencing anxiety that prevents learning and development in the workplace and to examine what learning interventions and training accommodations improve workplace learning as well as the literature reviewed in Chapter 2. Conducting additional quantitative research to determine if the proposed accommodations positively impact workplace learning outcomes would validate the effectiveness of learning anxiety accommodations.

It is also recommended to conduct a qualitative study on the learner's perception of how non-clinical anxiety management procedures based on mental health professionals' practices integrate anxiety mitigation methods that can be used to better develop employees in the workplace. The results could potentially show a decline in anxious feelings and the removal of learning barriers. There is a significant gap in the literature about learning accommodations (such as educational 504 plans) and adult learning barriers in the workplace, and these recommended studies could assist in filling that gap.

Several of the participants discussed the benefits of having and supportive co-worker or manager when managing the anxiety episode. They also stated they believed it would be

beneficial to have a leader who better understood anxiety and its effects to better support them in the workplace. Research exists that determined co-regulation, one's ability to pacify and manage distressing emotions through the connection of a caregiver, vastly improves self-regulation and decreases anxiety when learning (Bransen et al., 2020). Considering the existing research in adolescent coping practices, future research should include applying co-regulation practices in adult workplace learning.

### **Implications for Practice**

The results of this study and the participant's perceptions presented may have the potential to inform HRD professionals about providing accommodations to those employees who exhibit anxious behaviors that may lead to improved learning outcomes. This practice would be an effective practice in change management practices when employees are required to learn new processes and feel resistant to the change.

This study presented ways to improve learning and knowledge transfer. The participants expressed the lack of anxiety management prevented learning and retention. When the employee's cognitive capacity is maximized or under high demands from stress (like anxiety), they cannot retain the new knowledge (Schnotz & Kürschner, 2007). Training transfer can be reinforced through self-efficacy (self-worth and confidence to learn) and increases motivation to learn (Petty, Lim, & Zulauf, 2007). Providing accommodations will increase cognitive capacity, improve employees' perceived self-worth, and the training program's overall effectiveness to achieve higher levels of job performance.

According to Swanson and Holton (2009), workplace learning and formal education account for more economic returns for both employees and organizations. Fitz-enz (2009) asserts that HRD professionals are charged with developing people to make a more significant

contribution to the organization's existence. To have an engaged staff that contributes to the organization's competitive advantage, employees need equal opportunities to develop skills to perform well and advance in their careers. This study's results support that employees who have anxious feelings have barriers to learning and require support or accommodations to boost their unique learning needs for development in the workplace. HRD professionals who provide support in the form of best practices or exercises to those employees who exhibit heightened anxiety behaviors during training could mitigate learning apprehension and avoidance that prevent the development of desired skills.

Lastly, an individual has workplace rights under the ADA when an applicant or employee has a mental illness that meets this criterion. The ADA defines mental impairment to include any emotional, mental, or psychological disorder and explicitly calls out major depression and anxiety disorders (Hurley et al., 2012). Learning has been acknowledged as such an activity; consequently, mental illnesses that prevent learning are protected under section 504 within the ADA (Hughes et al., 2016). Therefore, failing to provide training accommodations (under the ADA) to those clinically diagnosed could expose the organization to legal risk (Thompson, 2015).

## **Conclusion**

This qualitative research study sought to explore what behaviors employees believe they exhibit when experiencing anxiety that prevents learning and development in the workplace reveal best practices and accommodations utilized by those who experience increased levels of anxiety in a workplace learning environment. Existing research on learning anxiety is limited to experiences within educational institutions, and little exists for adults in workplace settings. While the EEOC and third-party sources offer recommendations on better-supporting employees

with anxiety disorders in workplace learning, the research which exists to support which accommodations are the most impactful is limited.

The participants' replies were consistent with a universal mechanism in response to anxiety-related situations by demonstrated avoidance, vigilance, and arousal behaviors. More specifically, those participants thought it would be helpful if HRD could recognize one's learning anxiety and proactively offer solutions to manage the heightened emotions. This data supports the idea of implementing techniques for emotional control and practices in developing better emotional competencies that contribute to improved personal and social well-being.

The research consolidated the exhibited behaviors and preferred accommodations of the 15 participants in training practices. The findings provide insights and provide a better understanding of these impeded learning experiences. The data can influence HRD stakeholders to make more informed decisions about supporting employees who exhibit anxious behaviors in learning situations to improve learning outcomes.

## References

- ADA National Network. (2018). *Mental Health Conditions in the Workplace and the ADA*. Retrieved on October 27, 2019 from <https://adata.org/factsheet/health>
- Ahmad, Y., & Broussine, M. (2008). Pedagogic implications of anxiety and loss of agency in public services managers and leaders. *International Journal of Public Sector Management*, 21(4), 340-352. doi:10.1108/09513550810880223
- American Psychiatric Association. (2018). Retrieved on October 20, 2019 from <https://www.psychiatry.org/newsroom/apa-public-opinion-poll-annual-meeting-2018>
- American Psychiatric Association. (n.d.) *The State-Trait Anxiety Inventory (STAI)- adult anxiety*. Retrieved on October 20, 2019 from <https://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/trait-state>
- Anxiety and Depressions Association of America (n.d.) Retrieved on November 1, 2020 from <https://adaa.org/about-adaa/press-room/facts-statistics>
- Ary, D., Jacobs, L., Sorenson, S., & Razavieh, A. (2010). *Introduction to research in education* (9th ed.). Fort Worth, TX: Harcourt Brace College Publishers.
- Asnaani, A., Richey, J. A., Dimaite, R., Hinton, D. E., & Hofmann, S. G. (2010). A cross-ethnic comparison of lifetime prevalence rates of anxiety disorders. *The Journal of Nervous and Mental Disease*, 198(8), 551.
- Bateson, M., Brilot, B., & Nettle, D. (2011). Anxiety: An evolutionary approach. *Canadian Journal of Psychiatry*, 56(12), 707-715. doi:10.1177/070674371105601202
- Bell, B. S., & Kozlowski, S. W. J. (2008). Active learning: Effects of core training design elements on self-regulatory processes, learning, and adaptability. *Journal of Applied Psychology*, 93(2), 296-316. doi:10.1037/0021-9010.93.2.296
- Bransen, D., Govaerts, M. J. B., Sluijsmans, D. M. A., & essen, E. W. (2020). Beyond the self: The role of co-regulation in medical students' self-regulated learning. *Medical Education*, 54(3), 234-241. doi.org/10.1111/medu.14018
- Brookfield, S. (1993). Self-directed learning, political clarity, and the critical practice of adult education. *Adult Education Quarterly*, 43(4), 227-242.
- Bureau of Labor Statistics (2020). Demographic Characteristics. Retrieved on October 10, 2020 from <https://www.bls.gov/cps/demographics.htm>.

- Butler, E., Mobini, S., Rapee, R. M., Mackintosh, B., & Reynolds, S. A. (2015). Enhanced effects of combined cognitive bias modification and computerised cognitive behaviour therapy on social anxiety. *Cogent Psychology*, 2(1) doi:10.1080/23311908.2015.1011905
- Butler, G., Fennell, M., Robson, P., & Gelder, M. (1991). Comparison of behavior therapy and cognitive behavior therapy in the treatment of generalized anxiety disorder. *Journal of Consulting and Clinical Psychology*, 59(1), 167-175. doi:10.1037//0022-006X.59.1.167
- Cabrera, I., Brugos, D., & Montorio, I. (2020). Attentional biases in older adults with generalized anxiety disorder. *Journal of Anxiety Disorders*, 71, 102207-102207. doi.org/10.1016/j.janxdis.2020.102207
- Caffarella, R. S. (1993). Self-directed learning. *New Directions for Adult and Continuing Education*, 1993(57), 25-35.
- Chen, F. R. (2020). Behavioral inhibition system function as the mediator in the pathway from electrodermal fear conditioning to antisocial behavior: Integrating the reinforcement sensitivity theory. *Personality and Individual Differences*, 166, 110179. doi.org/10.1016/j.paid.2020.110179
- Clarke, C., Hill, V., & Charman, T. (2016;2017;). School based cognitive behavioural therapy targeting anxiety in children with autistic spectrum disorder: A quasi-experimental randomised controlled trial incorporating a mixed methods approach. *Journal of Autism and Developmental Disorders*, 47(12), 3883-3895. doi:10.1007/s10803-016-2801-x
- Clayton, E. W. (2015). Why the Americans with disabilities act matters for genetics. *Jama*, 313(22), 2225-2226. doi:10.1001/jama.2015.3419
- Coutu, D. (2002) The anxiety of learning. *Harvard Business Review*, 80(3), 100.
- Craske, M. G., & Stein, M. B. (2016). Anxiety. *The Lancet* (British Edition), 388(10063), 3048-3059. doi.org/10.1016/S0140-6736(16)30381-6
- Creswell, J.W. (2013). *Research design: Qualitative, quantitative, and mixed-methods approaches* (4th ed.) Thousand Oaks, CA: Sage.
- Daunic, A. P., Smith, S. W., Brank, E. M., & Penfield, R. D. (2006). Classroom-based cognitive-behavioral intervention to prevent aggression: Efficacy and social validity. *Journal of School Psychology*, 44(2), 123-139. doi:10.1016/j.jsp.2006.01.005
- Dennis, C., Coghlan, M., & Vigod, S. (2013). Can we identify mothers at-risk for postpartum anxiety in the immediate postpartum period using the state-trait anxiety inventory? *Journal of Affective Disorders*, 150(3), 1217-1220. doi:10.1016/j.jad.2013.05.049

- Department of Labor (n.d.). Accommodations. Retrieved on November 3, 2020 from <https://www.dol.gov/agencies/odep/program-areas/employers/accommodations>.
- Employer Assistance and Resource Network on Disability Inclusion. (n.d.). Reasonable Accommodations. Retrieved on November 1, 2020 from <https://askearn.org/topics/laws-regulations/americans-with-disabilities-act-ada/reasonable-accommodations/>
- Engel, O., Müller, H. W., Klee, R., Francke, B., & Mills, D. S. (2019). Effectiveness of imepitoin for the control of anxiety and fear associated with noise phobia in dogs. *Journal of Veterinary Internal Medicine*, 33(6), 2675-2684. doi.org/10.1111/jvim.15608
- Ertmer, P.A. & Newby, T.J. (1993). Behaviorism, cognitivism, constructivism: comparing critical features from an instructional design perspective. *Performance Improvement Quarterly*, 6(4) PP. 50-71.
- Fitz-enz, J. (2009). *The ROI of human capital: Measuring the economic value of employee performance* (2nd ed.) [CourseSmart version]. Retrieved from <http://www.coursesmart.com>
- Forsell, E., Kraepelien, M., Blom, K., Isacson, N., Jernelöv, S., Svanborg, C., Rosén, A., & Kaldo, V. (2019). Development of a very brief scale for detecting and measuring panic disorder using two items from the panic disorder severity scale-self report. *Journal of Affective Disorders*, 257, 615-622. doi.org/10.1016/j.jad.2019.07.057
- Gallagher, M. W., Naragon-Gainey, K., & Brown, T. A. (2013;2014;). Perceived control is a transdiagnostic predictor of Cognitive–Behavior therapy outcome for anxiety disorders. *Cognitive Therapy and Research*, 38(1), 10-22. doi:10.1007/s10608-013-9587-3
- Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*, 48(1), 18-33.
- Gerber, P. J. (2012). The impact of learning disabilities on adulthood: A review of the evidenced-based literature for research and practice in adult education. *Journal of Learning Disabilities*, 45(1), 31-46. doi:10.1177/0022219411426858
- Gilmore, S., & Anderson, V. (2016). The emotional turn in higher education: A psychoanalytic contribution. *Teaching in Higher Education*, 21(6), 686-699. doi:10.1080/13562517.2016.1183618
- Gilmore, S., & Anderson, V. (2012). Anxiety and experience-based learning in a professional standards context. *Management Learning*, 43, 75– 95. doi: 10.1177/1350507611406482
- Gross, C., & Hen, R. (2004). The developmental origins of anxiety. *Nature Reviews Neuroscience*, 5(7), 545-552. doi:10.1038/nrn1429

- Hartley, C. A., & Phelps, E. A. (2012). Anxiety and decision-making. *Biological Psychiatry*, 72(2), 113-118. doi:10.1016/j.biopsych.2011.12.027
- Hay, A., & Blenkinsopp, J. (2019). Anxiety and human resource development: Possibilities for cultivating negative capability. *Human Resource Development Quarterly*, 30(2), 133-153. doi:10.1002/hrdq.21332
- Hendriks, S. M., Spijker, J., Licht, C. M. M., Hardeveld, F., de Graaf, R., Batelaan, N. M., . . . Beekman, A. T. F. (2016). Long-term disability in anxiety disorders. *BMC Psychiatry*, 16(1), 248-248. doi:10.1186/s12888-016-0946-y
- Hirsch, C. R., Beale, S., Grey, N., & Liness, S. (2019). Approaching cognitive behavior therapy for generalized anxiety disorder from A cognitive process perspective. *Frontiers in Psychiatry*, 10, 796-796. doi:10.3389/fpsy.2019.00796
- Holland, R. P. (1982). Learner characteristics and learner performance: Implications for instructional placement decisions. *The Journal of Special Education*, 16(1), 7-20.
- Hughes, C., Lusk, S. L., & Strause, S. (2016). Recognizing and accommodating employees with PTSD: The intersection of human resource development, rehabilitation, and psychology. *New Horizons in Adult Education and Human Resource Development*, 28(2), 27-39
- Job Accommodation Network (n.d.) Mental health impairments retrieved on November 4, 2019 from <https://askjan.org/disabilities/Mental-Health-Impairments.cfm#spy-scroll-heading-2>
- Julian, L. J. (2011). Measures of anxiety: State-Trait anxiety inventory (STAI), beck anxiety inventory (BAI), and hospital anxiety and depression Scale-Anxiety (HADS-A). *Arthritis Care & Research*, 63(S11), S467-S472. doi:10.1002/acr.20561
- Kanfer, R., & Ackerman, P. L. (1990). Ability and metacognitive determinants of skill acquisition and transfer. *Air Force Office of Scientific Research Final Report*, Minneapolis, MN
- Kim, M. J., Loucks, R. A., Palmer, A. L., Brown, A. C., Solomon, K. M., Marchante, A. N., & Whalen, P. J. (2011). The structural and functional connectivity of the amygdala: From normal emotion to pathological anxiety. *Behavioural Brain Research*, 223(2), 403-410. doi:10.1016/j.bbr.2011.04.02
- Kjellstrand, I., & Vince, R., (2017). No room for mistakes: The impact of the social unconscious on organizational learning in kazakhstan. *Administrative Sciences*, 7(3), 27. doi:10.3390/admsci7030027
- Klašnja-Milićević, A., Vesin, B., Ivanović, M., & Budimac, Z. (2011). E-learning personalization based on hybrid recommendation strategy and learning style identification. *Computers and Education*, 56(3), 885-899. doi.org/10.1016/j.compedu.2010.11.001

- Knowles, M. S. (1968). Andragogy, not pedagogy. *Adult Leadership*, 16(10), 350-352, 386.
- Kutlu, M. G., & Gould, T. J. (2015). Nicotine modulation of fear memories and anxiety: Implications for learning and anxiety disorders. *Biochemical Pharmacology*, 97(4), 498-511. doi:10.1016/j.bcp.2015.07.029
- LeDoux, J. E., & Pine, D. S. (2016). Using neuroscience to help understand fear and anxiety: A two-system framework. *American Journal of Psychiatry*, 173(11), 1083-1093. doi.org/10.1176/appi.ajp.2016.16030353
- Macher, D., Paechter, M., Papousek, I., & Ruggeri, K. (2012). Statistics anxiety, trait anxiety, learning behavior, and academic performance. *European Journal of Psychology of Education*, 27(4), 483-498. doi:10.1007/s10212-011-0090-5
- Maxwell, J.A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Mayer, J. D., Salovey, P., & Caruso, D. R. (2004). Emotional intelligence: Theory, findings, and implications. *Psychological Inquiry*, 15, 197-215. doi:10.1207/s15327965pli1503\_02
- Mayes, C. (2009). The psychoanalytic view of teaching and learning, 1922-2002. *Journal of Curriculum Studies*, 41(4), 539-567. doi:10.1080/00220270802056674
- Meigh, K. M., Cobun, E., & Yunusova, Y. (2020). Phoneme and stress programming interact during nonword repetition learning. *Journal of Speech, Language and Hearing Research*, 63(7), 2219-2228. doi.org/10.1044/2020\_JSLHR-19-00262
- Merriam, S. B. (2001). Andragogy and self-directed learning: Pillars of adult learning theory. *New Directions for Adult and Continuing Education*, (89), 3-14.
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass, a Wiley brand.
- Miguel, E. M., Chou, T., Golik, A., Cornacchio, D., Sanchez, A. L., DeSerisy, M., & Comer, J. S. (2017). Examining the scope and patterns of deliberate self-injurious cutting content in popular social media. *Depression and Anxiety*, 34(9), 786-793. doi:10.1002/da.22668
- Mineka, S., & Zinbarg, R. (2006). A contemporary learning theory perspective on the etiology of anxiety disorders: It's not what you thought it was. *American Psychologist*, 61, 10-26.
- Muschalla, B., Linden, M., & Olbrich, D. (2010). The relationship between job-anxiety and trait-anxiety—A differential diagnostic investigation with the job-anxiety-scale and the state-trait-anxiety-inventory. *Journal of Anxiety Disorders*, 24(3), 366-371. doi:10.1016/j.janxdis.2010.02.001

- National Institute of Mental Health (n.d.) Anxiety disorders. Retrieved on November 17, 2020 from <https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml>
- Nelson, J. M., & Harwood, H. (2011). Learning disabilities and anxiety: A meta-analysis. *Journal of Learning Disabilities, 44*(1), 3-17. doi:10.1177/0022219409359939
- Norlund, F., Olsson, E. M. G., Burell, G., Wallin, E., & Held, C. (2015). Treatment of depression and anxiety with internet-based cognitive behavior therapy in patients with a recent myocardial infarction (U-CARE heart): *Study protocol for a randomized controlled trial, 16*(1), 154-154. doi:10.1186/s13063-015-0689-y
- O'Donohue, W. T., & Fisher, Jane E. (2012). *Cognitive behavior therapy: Core principles for practice*. John Wiley & Sons, INC. New Jersey.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Petty, G. C., Lim, D. H., & Zulauf, J. (2007). Training transfer between CD-ROM based instruction and traditional classroom instruction. *The Journal of Technology Studies, 33*(1/2), 48-56.
- Pew Research Center. (2019, June 12). Social media fact sheet. <https://www.pewresearch.org/internet/fact-sheet/social-media/>
- Pretak, J. M. (2018). *Neurobiology of trauma and mindfulness: The impact of mindfulness-based interventions for the treatment of trauma through the theoretical frameworks of Sigmund Freud and Bessel van der Kolk* (Publication No. 10808688) [Doctoral dissertation, Southern Connecticut State University]. ProQuest Dissertations Publishing.
- Rachman, S. (2009). Psychological treatment of anxiety: The evolution of behavior therapy and cognitive behavior therapy. *Annual Review of Clinical Psychology, 5*(1), 97-119. doi:10.1146/annurev.clinpsy.032408.153635
- Reio, T. G. (2013). Exploring the links between adult education and human resource development: Learning, risk-taking, and democratic discourse. *New Horizons in Adult Education & Human Resource Development, 25*(4), 4-11.
- Robinson, J. (2016). What's the difference between a learning disability and a mental health problem? Retrieved from <https://www.mencap.org.uk/blog/whats-difference-between-learning-disability-and-mental-health-problem>
- Rocco, T. S., Bowman, L., & Bryant, L. O. (2014). *Disability, health and wellness programs, and the role of HRD*. In N. E. Chalofsky, T. S. Rocco & M. L. Morris (Eds.), (pp. 299-313). John Wiley & Sons, Inc. doi.org/10.1002/9781118839881.ch18

- Rodríguez-Ledo, C., Orejudo, S., Cardoso, M. J., Balaguer, Á., & Zarza-Alzugaray, J. (2018). Emotional intelligence and mindfulness: Relation and enhancement in the classroom with adolescents. *Frontiers in Psychology, 9*, 2162-2162. doi.org/10.3389/fpsyg.2018.02162
- Rossmann, G. B., & Rallis, S. F. (2003). *Learning in the field: An introduction to qualitative research (2nd ed.)*. Thousand Oaks, Calif: Sage Publications.
- Rubin, H.J., & Rubin, I.S. (2011). *Qualitative interviewing: The art of hearing data (3rd ed.)*. Thousand Oaks, CA: Sage.
- Saldana, J. (2009) *The coding manual for qualitative research*. Thousand Oaks, CA: Sage.
- Salkind, N.J. (2017). *Statistics for people who (think they) hate statistics (4th ed.)*. Thousand Oaks, CA: Sage.
- Savin-Baden, M., & Major, C.H. (2013). *Qualitative research: The essential guide to theory and practice*. New York, NY: Routledge. ISBN-13: 978-0-415-67478-2
- Schnotz, W., & Kürschner, C. (2007). A reconsideration of cognitive load theory. *Educational Psychology Review, 19*(4), 469-508. doi:10.1007/s10648-007-9053-4
- Shokrian, S. (2016). Implementing mindfulness skills in adolescence and increasing emotional intelligence. (Publication No. 10112003) [Doctoral dissertation, Alliant International University, ProQuest Dissertations Publishing.
- Shuttleworth, M. (2008). Operationalization. Retrieved on September 30, 2018 from <https://explorable.com/operationalization>
- Simon, M. K. (2011). *Dissertation and scholarly research: Recipes for success (2011 Ed.)*. Seattle, WA, Dissertation Success, LLC.
- Skinner, B. F. (1954). The science of learning and the art of teaching. *Harvard Educational Review, 24*, 86-97.
- Smith, J., Newby, J. M., Burston, N., Murphy, M. J., Michael, S., Mackenzie, A., . . . Andrews, G. (2017). Help from home for depression: A randomised controlled trial comparing internet-delivered cognitive behaviour therapy with bibliotherapy for depression. *Internet Interventions. The Application of Information Technology Mental and Behavioural Health, 9*(C), 25-37. doi:10.1016/j.invent.2017.05.001
- Sokolowska, E., & Hovatta, I. (2013). Anxiety genetics - findings from cross-species genome-wide approaches. *Biology of Mood & Anxiety Disorders, 3*(1), 9-9. doi.org/10.1186/2045-5380-3-9
- Spielberger, C. D. (1989). *State-Trait Anxiety Inventory: Bibliography (2nd ed.)*. Palo Alto, CA: Consulting Psychologists Press.

- Sroufe, L. A. (1997). Psychopathology as an outcome of development. *Development and Psychopathology*, 9, 251-268. doi:10.1017/s0954579497002046
- Steimer, T. (2002). The biology of fear- and anxiety-related behaviors. *Dialogues in Clinical Neuroscience*, 4(3), 231-249.
- Su, J., Liao, Y., Xu, J., & Zhao, Y. (2021). A personality-driven recommender system for cross-domain learning based on holland code assessments. *Sustainability (Basel, Switzerland)*, 13(3936), 3936. <https://doi.org/10.3390/su13073936>
- Su, Y., Kao, C., Hsu, C., Pan, L., Cheng, S., & Huang, Y. (2017). How does Mozart's music affect children's reading? the evidence from learning anxiety and reading rates with e-books. *Educational Technology & Society*, 20(2), 101.
- Sun, J. C., Syu, Y., & Lin, Y. (2017). Effects of conformity and learning anxiety on intrinsic and extrinsic motivation: The case of Facebook course groups. *Universal Access in the Information Society*, 16(2), 273-288. doi:10.1007/s10209-016-0456-1
- Swanson, R.A., & Holton, E.F. (2009). *Foundations of human resource development* (2nd ed). San Francisco, CA: Berrett-Koehler.
- The International Board of Credentialing and Continuing Education Standards (n.d.) Impact of Anxiety and Depression on Student Academic Progress. Retrieved on November 1, 2020 from <https://ibcces.org/blog/2019/05/01/impact-anxiety-depression-student-progress/>
- Thompson, A. E. (2015). The Americans with Disabilities Act. *Jama*, 313(22), 2296-2296. doi:10.1001/jama.2015.6296
- U.S. Department of Education. (n.d.) Protecting students with disabilities. Retrieved on March 30, 2021 from <https://www2.ed.gov/about/offices/list/ocr/504faq.html>.
- U.S. Equal Employment Opportunity Commission (n.d.). Retrieved on October 15, 2020 from <https://www.eeoc.gov/>
- Valiente-Gómez, A., Moreno-Alcázar, A., Treen, D., Cedrón, C., Colom, F., Pérez, V., & Amann, B. L. (2017). EMDR beyond PTSD: A systematic literature review. *Frontiers in Psychology*, 8, 1668-1668. doi.org/10.3389/fpsyg.2017.01668
- Van Bilsen, H. (2013). *Cognitive behaviour therapy in the real world: Back to basics* (1st ed.). London: Karnac Books. doi:10.4324/9780429473128
- Van der Kolk, B.A. (2014). *The body keeps the score: brain, mind, and body in the healing of trauma*. New York, NY: Viking.
- Vermunt, J. D. & Verloop, N. (1999). Congruence and friction between learning and teaching. *Learning and Instruction*, 9(3), 257-280.

- Vince, R. (2002). The impact of emotion on organizational learning. *Human Resource Development International*, 5(1), 73-85. doi:10.1080/13678860110016904
- Vince, R. (2014). What do HRD scholars and practitioners need to know about power, emotion, and HRD? *Human Resource Development Quarterly*, 25(4), 409-420. doi:10.1002/hrdq.21191
- Vince, R. (2011). The spatial psychodynamics of management learning. *Management Learning*, 42, 333– 347.
- Vince, R. (2016). Emotion and learning. *Journal of Management Education*, 40, 538– 544.
- Vince, R., & Saleem, T. (2004). The impact of caution and blame on organizational learning. *Management Learning*, 35(2), 133-154. doi:10.1177/1350507604043022
- Warr, P., & Downing, J. (2000). Learning strategies, learning anxiety and knowledge acquisition. *British Journal of Psychology*, 91(3), 311-333. doi:10.1348/000712600161853
- Watkins, K. E., & Marsick, V. J. (2014). Adult education and human resource development: Overlapping and disparate fields. *New Horizons in Adult Education and Human Resource Development*, 26: 42–54. doi:10.1002/nha3.20052
- Woods, C. (2010). Employee wellbeing in the higher education workplace: A role for emotion scholarship. *Higher Education*, 60(2), 171-185. doi:10.1007/s10734-009-9293-y
- Youell, B., & Canham, H. (2006). *The learning relationship: Psychoanalytic thinking in education* (1st ed.) Routledge Ltd. doi:10.4324/9780429482281

## Appendices

### Appendix A- IRB Permission




---

**To:** Ann-Marie Piscitelli  
**From:** Douglas J Adams, Chair  
 IRB Expedited Review  
**Date:** 02/26/2021  
**Action:** **Expedited Approval**  
**Action Date:** 02/26/2021  
**Protocol #:** 2102312973  
**Study Title:** Overcoming Learning Anxiety in Workplace Learning: A Study of Best Practices and Training Accommodations that Improve Workplace Learning  
**Expiration Date:** 02/11/2022  
**Last Approval Date:**

The above-referenced protocol has been approved following expedited review by the IRB Committee that oversees research with human subjects.

If the research involves collaboration with another institution then the research cannot commence until the Committee receives written notification of approval from the collaborating institution's IRB.

It is the Principal Investigator's responsibility to obtain review and continued approval before the expiration date.

Protocols are approved for a maximum period of one year. You may not continue any research activity beyond the expiration date without Committee approval. Please submit continuation requests early enough to allow sufficient time for review. Failure to receive approval for continuation before the expiration date will result in the automatic suspension of the approval of this protocol. Information collected following suspension is unapproved research and cannot be reported or published as research data. If you do not wish continued approval, please notify the Committee of the study closure.

**Adverse Events:** Any serious or unexpected adverse event must be reported to the IRB Committee within 48 hours. All other adverse events should be reported within 10 working days.

**Amendments:** If you wish to change any aspect of this study, such as the procedures, the consent forms, study personnel, or number of participants, please submit an amendment to the IRB. All changes must be approved by the IRB Committee before they can be initiated.

You must maintain a research file for at least 3 years after completion of the study. This file should include all correspondence with the IRB Committee, original signed consent forms, and study data.

cc: James F Maddox, Investigator

## Appendix B- Interview Protocol Form

Research study: Overcoming Learning Anxiety in Workplace Learning: A Study of Best Practices and Training Accommodations that Improve Workplace Learning

Date:

Time:

Location: Virtual Meeting Room

Interviewer: Ann Piscitelli

Interviewee:

Release form signed? Y / N

### Notes to interviewee:

Thank you for your participation. I believe your input will be valuable to this research and in advancing support in workplace learning. Please know, confidentiality of responses is guaranteed. I anticipate the approximate length of interview will take 45-60 minutes to answer nine major questions.

The purpose of this study is to explore what behaviors one exhibits when experiencing anxiety that prevent learning and development in the workplace and to examine what best practices, interventions and training accommodations improve learning while on the job. The following research questions will be considered to identify the individual perception of the participants in the study:

1. What emotions, responses, or behaviors create barriers to learning (avoidance, over-vigilance, excessive arousal) when experiencing feelings of learning anxiety?
2. What do employees believe are the most impactful training practices or formal/informal accommodations in managing anxiety in their learning and development?

1. Tell me about a times when you felt these feelings when learning new tasks or skills at work.  
     Tell me about the event (if known) that triggered the anxiety?  
     How did you feel, what emotions did you experience?  
     How did you react?

*Depending on the response- ask probing questions about behaviors of avoidance, over-vigilance, excessive arousal*

Response from Interviewee:

Reflection by Interviewer:

2. Tell me how often do you think you experience these (insert above stated feelings) when learning something new?

Do you think these feeling escalate (increase) each time you learn something new?

How long do you believe the anxious feelings linger after the completed training?

Describe those residual feelings.

Response from Interviewee:

Reflection by Interviewer:

3. How do these feelings make you feel about yourself?

Response from Interviewee:

Reflection by Interviewer

4. How do you think these feeling affect your learning? Your job performance?

Response from Interviewee:

Reflection by Interviewer

5. What can you tell me about support or accommodations that can be made on your behalf to help the learning process?

Have you been given accommodations in the past?

If no, what accommodations do you believe would have been helpful?

*Note: clarify the participants understands what an accommodation is, if not provide a definition and some examples.*

Response from Interviewee:

Reflection by Interviewer

6. Can you walk me through what are some of the techniques you apply during your learning process that help calm yourself?

Response from Interviewee:

Reflection by Interviewer

7. What factors most helped/hindered your learning?

Why?

How?

Here is list of potential factors that may help you.... Tell if you think they would be beneficial and why?

-relaxation techniques

-emotional control/positive thinking

-focus control

Response from Interviewee:

Reflection by Interviewer

8. Can you tell me about a time when a teacher, trainer, or a manager offered suggestions or provided support to improve the learning process?

Response from Interviewee:

Reflection by Interviewer

9. Is there anything you want to share or think I should know that would be important to the study?

Response from Interviewee:

Reflection by Interviewer

### **Closing**

Thank you for meeting with me today and sharing your experience. I want to reassure confidentiality of your answers.

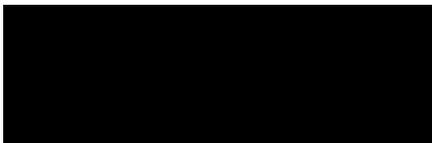
Ask permission to follow-up Y / N

## Appendix C- Informed Consent Form

### INVITATION TO PARTICIPATE and CONSENT FORM

You are invited to participate in a research study about identifying successful behaviors one exhibits when experiencing anxiety that prevent learning and development in the workplace and to examine what best practices, interventions and training accommodations improve learning while on the job.

**Principal Researcher:** Ann Piscitelli- Doctoral Student  
University of Arkansas



**Purpose of the Project:** The purpose of this study is to explore what behaviors one exhibits when experiencing anxiety that prevent learning and development in the workplace and to examine what best practices, interventions and training accommodations improve learning while on the job.

**Procedures:** As an individual who has self-identified as having general anxious feelings and symptoms of exaggerated fear responses to non-dangerous situations, such as learning new skills in the workplace. you are being asked to participate in answering questions over a duration of 45-60 minutes at your predetermined location via a virtual conference room (hosted by Webex). You will be asked ten questions to identify how you feel when you experience learning anxiety and what behaviors you believe help you manage the anxious feelings. Your responses will be recorded and transcribed. The interviewer may also take written notes and you will receive a copy of the transcription to ensure your responses were recorded accurately. Recording, transcript and notes will be stored confidentially on a password protected computer laptop.

**Risk of Participation:** There are no anticipated risks for participating in this project; however, since you, as the participant, has self-identified of having anxiety, you may experience anxious feelings throughout the interview. Note, the purpose of the interview is to collect data on your personal experience and there is no right or wrong answer.

**Benefits of this Project:** There are no direct benefits of the project beyond an exercise in practice in conducting qualitative research on understanding learning anxiety's impact on workplace learning.

**Length of the Project:** You will partake in a one time 45-60-minute question and answer

- session.
- Compensation for Time:** No compensation will be offered for participation in this study.
- Cost to the Participant:** There will be no cost associated with your participation
- Confidentiality:** No identifying information will be used in any report or publication resulting from this research. Digital and printed data will be stored in the secure home office of Ann Piscitelli. After the Qualitative Research Design Project is complete in May of 2021, all recorded files and written data will be erased and shredded. All interview transcripts, sound files, and other information obtained from participants will be kept confidential to the fullest extent of the law and University policy.
- Participant Rights:** Participation is solely voluntary and if you do not want to be in this study, you may refuse to participate. Also, you may change your mind and withdraw your participation at any time. If you have questions or concerns about your rights as a research participant, please contact Ro Windwalker, the University's IRB Compliance Coordinator, at 479-575-2208 or irb@uark.edu."
- Questions:** You have the right to contact the Principal Researcher or Faculty Advisor as listed below for any concerns that you may have.
- Principal Researcher**  
Ann Piscitelli- Doctoral Student  

- Faculty Advisor**  
Dr. James Maddox, Ph.D., R.O.D.C.  
Assistant Professor of Human Resource & Workforce Development  
College of Education and Health Professions  
133B Graduate Education Building.  
University of Arkansas  
Fayetteville, AR 72701  
Phone: 479-575-3208  
Email: jfmaddox@uark.edu
- Signatures:** I have read the above statement and have been able to ask questions and express concerns, which have been satisfactorily responded to by the investigator. I understand the purpose of the

study as well as the potential benefits and risks that are involved. I understand that participation is voluntary. I understand that significant new findings developed during this research will be shared with the participant. I understand that no rights have been waived by signing the consent form. I have been given a copy of the consent form.

---

Signature of the Participant

---

Date

---

Signature of the Researcher

---

Date

### **Appendix D – Social Media Participant Recruitment**

Seeking individual to participate in a dissertation research study to explore what behaviors one exhibits when experiencing anxiety that prevent learning and development in the workplace and to examine what best practices, interventions and training accommodations improve learning while on the job.

Criteria: Working adult over the age of 18 years of age who believe they have learning anxiety or experience anxious feeling while learning a new skill (i.e, new software program)

You will partake in a one-time 45-60-minute question and answer session.

No compensation will be offered for participation in this study.

Please private message Ann Piscitelli directly with interest to ensure confidentiality.

## Appendix E – Social Media Participant Recruitment

Thank you for volunteering to participate in my doctoral research study!

As part of the college research process, I have attached a consent form to participate. Due to constraints of COVID, instead of providing a signed form, you may respond to this email stating you have read the consent form and agree to participate.

Next steps would be arranging the date and time of the virtual interview. If you can provide some general times that work best for you, I will arrange a call that should last between 45-60 minutes.

I look forward to hearing from you, and again thank you so much for participating!

Ann Piscitelli

Some extra information for you:

About me:

My name is Ann Piscitelli and I writing my dissertation for my Doctorate of Education in Human Resource and Workforce Development. I have worked full time through my studies and am a mother of two college-age daughters. I have struggled through all my studies as I was an undiagnosed person with ADHD and anxiety as a child. It was when it was determined that I had these disorders, I was able to take measures to better manage my learning environment. These behaviors have benefited my daughter who has a learning plan in place under a 504 plan.

Background on what drives my research:

Past research studies have found that moderate anxiety has benefits to learning; however, it was determined excessive anxiety has an adverse effect and can potentially wield a negative impact on learning. Symptoms of anxiety have been found to cause the individual to have a lack of concentration, poor time management, disorganization, and inability to cope with stress. Statistics from 2019 report that anxiety impacts 18.1% of adults, which is roughly 40 million people in the United States. Some individuals who suffer from learning anxiety have not been previously identified as needing accommodations in a learning institution or by medical professions and for those who have, the transfer of accommodations (such as a 504 plan or IEP) from institutions to workplace cease to exist. The lack of identification and/or transfer of learning plans poses challenges for both the employee and the employer when learning new skills in the workplace.

This study seeks to provide human resource professionals in recognizing signs of anxiety in workplace learning and to identify tools, practices, and formal and informal accommodations that may help individuals in a work learning environment.