Anxiety of Struggling Readers and Excelling Readers During the COVID-19 Pandemic

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Anxiety of Struggling Readers and Excelling Readers

During the COVID-19 Pandemic

Chelsey Lemmon

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Education Specialist

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ABSTRACT

Anxiety of Struggling Readers and Excelling Readers
During the COVID-19 Pandemic

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Anxiety is the most reported negative emotion in the academic setting. One of the specific forms of anxiety that children can experience is reading anxiety (RA). Children who experience RA are often at risk for reading failure; likewise, children who experience reading failure are likely to experience RA. Children who excel at reading can also experience anxiety, often in the form of harm avoidance. Bibliotherapy has been shown to help to mitigate the effects of specific types of anxiety in children. The purpose of this study was to understand the anxiety of children who excel at reading and children at risk for reading failure, particularly during the time of the COVID-19 pandemic. Eighty-five first-, second-, and third-grade students in a rural school district in a western state with a range of reading achievement levels participated in the study. The Multidimensional Anxiety Scale for Children Second Edition (MASC 2) and Reading Anxiety Scale (RAS) were used to measure students’ levels of specific forms of anxiety and the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) was used to measure their reading achievement. When comparing the specific anxiety levels of different reading achievement groups, there was no significant difference between the levels or types of anxiety experience by the groups. Instead, there was an increase in all forms of anxiety regardless of reading achievement level when compared to what prior research would suggest. This rise in all levels of anxiety is correlated with the COVID-19 pandemic timeline. Future research should investigate the impact of bibliotherapy on anxiety levels across reading achievement levels.

Keywords: bibliotherapy, anxiety, harm avoidance, reading anxiety, reading achievement, COVID-19
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CHAPTER 1

Introduction

Children, like adults, experience a wide array of emotions. This diversity of emotion in an academic setting can have a significant impact on the child’s cognitive processes, performance, motivation, concentration, and memory (Bohn-Gettler & Rapp, 2011; Grills-Taquechel et al., 2012; Pekrun et al., 2002). When emotional needs are met, the ability to learn increases significantly because emotions can impact the learning process just as much as the cognitive domain (Jalongo & Hirsh, 2010; Webster, 1961). Positive emotions while learning help the brain to attend to and retain new information. Conversely, negative emotions decrease the brain’s ability to process new information (Jalongo & Hirsh, 2010). Positive emotions are reported to occur equally as often as negative emotions. Moreover, anxiety is the most often reported negative emotion in academic settings (as high as 15% to 25%; Pekrun et al., 2002). Students’ focus on negative emotions can limit cognitive resources and drain attention from academic tasks. Negative emotions such as anxiety can become a form of intrinsic distraction. Intrinsic distraction is often more harmful than extrinsic distractions which are purposefully minimized in academic settings (Pekrun et al., 2002). Because anxiety is the most frequently occurring emotional intrinsic distraction, it is a primary point for intervention to improve the academic experience and performance of students.

There are many physical reactions to anxiety including but not limited to: the release of adrenaline, sweating, racing heart, quickened breathing, feeling faint or shaky, headache, stomachache, or throwing up. There are also many cognitive reactions to anxiety such as low self-esteem, a sense of dread, and feeling helpless. The culmination of these symptoms can be described as a “fight or flight” reaction (Jalongo & Hirsh, 2010). When a student experiences
these intense physical and cognitive reactions, particularly in association with a task such as reading, their cognitive resources are directed toward the management of these various symptoms rather than the academic task (Pekrun et al., 2002). Poor academic performance may occur if a student is distracted by this anxiety and all of its associated symptoms, which over time can lead to lowered achievement. These reactions may also be initiated in response to previous failures in similar tasks. Either way, students may experience lowered academic achievement or other significant negative outcomes such as anxious coping associated with the anxiety they experience during academic tasks or in academic settings (Grills-Taquechel et al., 2012; Ramirez et al., 2019).

Anxiety has a distinct impact on students’ reading capability, particularly in the form of reading anxiety (RA). Children whose earliest reading experiences are characterized by anxiety may show reduced reading achievement later in life because negative reading affect may play a larger role in the development of children’s reading skills (Ramirez et al., 2019). The impact negative reading affect has is more crucial than the impact positive reading affect has on reading skill development. Because the impact of emotions is not equal between positive and negative emotions, there is not an inverse relationship between the two. Meaning, increasing one affect will not inherently decrease the other (Ramirez et al., 2019). Because negative affect corresponds more with reading skill development and academic achievement, this is the more suitable target of academic interventions targeting emotions (Ramirez et al., 2019). A study by Carey and colleagues (2017) found a correlation of 0.73 between math and reading performance. This indicates the treatment of anxiety associated with reading and reading skill development will likely also increase math performance. Anxiety is the most frequent academic emotion. Because of the pervasive nature of reading throughout other academic subjects, the treatment of anxiety
associated with reading could help to decrease anxiety and increase performance in reading and other academic areas.

**Statement of Problem**

One classification of specific anxiety is reading anxiety (RA). Children who experience RA are often at risk for reading failure; likewise, children at risk for reading failure often experience RA (Grills-Taquechel et al., 2012). Because of the cyclical nature of failure and anxiety, these perpetuate one another and significantly worsens each condition (Grills-Taquechel et al., 2012). Surprisingly little research has been conducted on the impact of RA on academic function, specifically for those who experience reading difficulty (Grills-Taquechel et al., 2012). Even less research has been done on children, rather than adults or college students, even though a child’s experience is different from an adult’s experience with RA (Wu et al., 2012). The research done with children has most often focused on the context of second language acquisition with little recent research being conducted on first language learning, reading, and RA (Piccolo et al., 2017).

Another classification of specific anxiety is harm avoidance. Children who excel at reading (often classified as gifted and talented students) also tend to experience anxiety, typically in the form of harm avoidance (Grills et al., 2014). Harm avoidance can also cause the child distress, whether or not it is exhibited in their academic performance.

Bibliotherapy has been shown to help mitigate the effects of specific types of anxiety in children (Newhouse, 1987). Bibliotherapy is the process in which a trained professional (such as a teacher, or school mental health professional) supports a child to interact with a storybook in ways that can be useful for the assessment, adjustment, and growth of the child (Russell & Shrodes, 1950). Research indicates bibliotherapy could be used to potentially reduce the anxiety
experienced by both children at risk for reading failure and children who excel at reading (Schrank, 1982).

**Statement of Purpose**

The original purpose of this study was to understand the impact bibliotherapy can have on the anxiety of children who excel at reading and children who are at risk for reading failure. Because the mass spread of COVID-19 resulted in nation-wide school closures, the designed bibliotherapy intervention was not able to be implemented. This resulted in a shift in the purpose of this study to understanding the impact the COVID-19 pandemic may have on the types and intensity of anxiety experienced by children who excel at reading and children who are at risk for reading failure. First, the researcher will denote the subgroups of students who excel at reading and students at risk for reading failure. Next, the researcher will establish the types of anxiety each of the subgroups (e.g., children who excel at reading and children at risk for reading failure) experience. The researcher will then ascertain whether the subgroups differ in anxiety type and severity. By identifying the specific experiences of children with anxiety, the researcher can better understand the types of anxiety experience by children of a variety of reading achievement levels as well as the impact the COVID-19 pandemic may have had on the quantity of anxiety children of a variety of reading achievement levels experience. This will provide information in guiding researchers in their development of individual treatment plans for learners across the reading achievement spectrum. As such, this study seeks to add to the understanding of researchers and practitioners in this field by analyzing the impact anxiety can have on both children who excel at reading and children who are at risk for reading failure who experience anxiety. Despite disturbances in the research process, this study still seeks to propose bibliotherapy as a potential future intervention for both children who excel at reading and
children at risk for reading failure who experience anxiety. This study will explore the following research questions:

1. What types of anxiety do students who excel at reading experience?
2. What types of anxiety do students at risk for reading failure experience?
3. Are these findings different than the research would indicate?
CHAPTER 2

Literature Review

COVID-19 and Anxiety

In January of 2020, the World Health Organization declared the outbreak of the COVID-19 strand of coronavirus as a public health concern at an international level (World Health Organization [WHO], 2020c). In March of 2020, the western state in which this study was conducted announced a “soft closure” of K-12 schools for two weeks which was ultimately extended through the end of the school year. COVID-19 is an infectious disease that is predominantly spread through droplets of saliva or mucus. Primary symptoms include fever, dry cough, and tiredness. Individuals infected with COVID-19 will experience mild to severe respiratory illness depending on a variety of risk factors such as diabetes, cardiovascular disease, cancer, and chronic respiratory disease (WHO, 2020a). Although there are risk factors that increase the likelihood of serious illness if infected with COVID-19, anyone can contract COVID-19 and become seriously ill. Many who contract the disease will heal without needing hospital treatment, but about one in five will become seriously ill and have difficulty breathing (WHO, 2020e). Along with the physical pandemic accompanying the spread of COVID-19, there is a parallel emotional pandemic of fear and anxiety accompanying the uncertainty of these times (Presti et al., 2020). This makes understanding and investigating the psychological state of individuals of particular importance at this time. Because of the sudden outbreak and the ease and speed with which COVID-19 is spread, it will inevitably lead to increases in depression, anxiety, and other fear-based reactions (Wang, Di, et al., 2020). The unique problems children are facing and the drastic changes in their schooling and life structure makes it especially important to investigate the psychological state of children.
When cross-sectionally investigating the Chinese public health during the COVID-19 outbreak, research found a significantly higher prevalence of mental health burdens (Huang & Zhao, 2020). The main psychological impact thus far has been elevated rates of stress and anxiety (WHO, 2020c). Other studies found this elevation of anxiety and depression was higher in adolescents particularly when measured during the early and peak periods of COVID-19. In these adolescents, 37.4% had symptoms of mild to severe anxiety. Comorbid depressive and anxiety symptoms were found in 31.3% of the participants. The most common symptoms were feeling nervous, anxious, or on edge (53.6%), worrying too much (46.3%), and becoming easily annoyed or irritable (47%; Zhou et al., 2020). Children may be responding to the stress in different ways including but not limited to being more clingy, anxious, withdrawing, angry or agitated, or bedwetting (WHO, 2020b). These problems are particularly severe in children who are primarily confined to home without access to outdoor activities or same-aged peers (Wang, Zhang, et al., 2020).

Even when the infection rate in China was leveling off, the rate of depressive and anxiety symptoms was still high among adolescents. This indicates the importance of monitoring the psychological wellbeing of adolescents even once the infection rate of COVID-19 has eased (Zhou et al., 2020). This suggests the impacts of the COVID-19 pandemic and its associated pandemic of fear and anxiety will be lasting. As such, it is ever more important to understand the psychological experience of children to help mitigate the negative impacts and best understand how they can be aided in their processing and emotional healing.

Role of Information

Although there is much still unknown surrounding COVID-19, there is an abundance of circulating information (factual, rumor, or myth). Children are constantly exposed to COVID-19
related news and information, making it important to have direct and informative conversations with children about the things they are hearing and learning (Wang, Zhang, et al., 2020). Providing correct and adequate information can help to reduce the stigmas that could arise surrounding COVID-19 (Kelly, 2020). The World Health Organization (WHO, 2020b) advises providing facts about how to reduce risks of being infected as well as what could happen with words that are reassuring and conducive to their understanding. Students that knew more about COVID-19 prevention, control measures, projections, and trends exhibited fewer symptoms of anxiety and depression (Zhou et al., 2020). Although some information can be helpful and provide protective psychological barriers, it is important to minimize exposure to any information that initiates feelings of anxiety or stress and ensure the information you are accessing comes from a trusted source. Exposure to even facts should be limited to once or twice a day at designated times while seeking to avoid misinformation and rumor altogether (WHO, 2020d). Appropriate access to factual information can help to calm the panic that comes from rumor and myths (Kelly, 2020). Providing children with access to information that is accurate, understandable, and appropriately frequent can mitigate the rise of anxiety and depression due to COVID-19.

Social media is playing an additional role in the spread of rumors and misinformation that is not verified (Kumar & Nayar, 2020). Those who spend more than three hours focusing on COVID-19 outbreak information have a significantly higher rate of anxiety symptoms and harmful effects on their mental health (Huang & Zhao, 2020). Health care workers and younger people are at higher risk for anxiety disorders related to COVID-19, especially when they spend too much time thinking about the outbreak (Huang & Zhao, 2020). Those with the education of a master’s degree or above (and therefore exposed to more information) are at higher risk for
depression during the COVID-19 pandemic than those with a bachelor’s degree (Wang, Di, et al., 2020). Higher use of social media can also lead to more exposure to COVID-19 information and misinformation. This higher rate of exposure to COVID-19 information can engender an increase in thinking about the outbreak. Exposure or thinking about the outbreak can increase anxiety symptoms.

**Risk Factors and Protective Factors**

There are a variety of factors that make an individual more susceptible to anxiety and mental health difficulties during the COVID-19 pandemic. Unfortunately, even some public health measures that limit the spread of the disease and can benefit society at large can have negative effects on individuals’ mental health (Kelly, 2020). Some individual influencing factors increase the risk of anxiety and other mental health difficulties including gender, socioeconomic status, and education (Huang & Zhao, 2020; Kelly et al., 2020; Wang, Di, et al., 2020; Zhou et al., 2020).

There were some mixed findings in the risks and proportion of anxiety disorders experienced in males and females. Huang and Zhao (2020) found one in three participants show anxiety disorders regardless of their gender. This is contrary to what was anticipated considering previous research indicates females are more likely to experience anxiety than males (Gao et al., 2020). Other research findings specifically studying anxiety during the COVID-19 pandemic align with what was anticipated. These findings indicate that a smaller proportion of males exhibited anxiety symptoms than females and females are at higher risk of anxiety than males (Wang, Di, et al., 2020; Zhou et al., 2020). Generally, females experienced a greater psychological impact from the COVID-19 pandemic including high levels of anxiety in addition to stress and depressive symptoms (Zhou et al., 2020). There are some mixed findings regarding
the impact of gender on anxiety experienced during to COVID-19 pandemic, but a majority of the findings indicate that it is likely females are at higher risk for experiencing anxiety symptoms than males at this time. Elevated levels of anxiety experienced to constitute an anxiety disorder may be similar for males and females.

Another way individuals are impacted disproportionately by the COVID-19 pandemic and the ensuing pandemic of fear and anxiety is dependent on their socioeconomic status and area of living (Kelly, 2020; Zhou et al., 2020). Those who are poor or suffer from mental illness have suffered disproportionately from past pandemics such as the Great Irish Famine or the Spanish Flu (Kelly, 2020). Students living in rural areas were found to have a higher proportion of anxiety and depression than those living in urban areas. This seems to be linked to economic status (Zhou et al., 2020). This indicates that both historically and in the present pandemic, poor individuals suffer more from pandemics and the associated fear and anxiety than wealthier individuals.

The amount of anxiety and depressive symptoms experienced seems to differ between levels of education. Research indicates that the further along the students are in their education the higher the proportion of students who experience depressive and anxiety symptoms (Zhou et al., 2020). This is also reflected in higher education, as those who have a master’s degree or above are at higher risk for depression than those who have a bachelor’s degree (Wang, Di, et al., 2020). This variance in anxiety and depressive symptoms indicates that more education, which is correlated with exposure to more information, leads to more anxiety.

Because of the social changes that have occurred due to the rapid spread of COVID-19 and the increase of anxiety symptoms, some researchers speculate there will be an increase in generalized anxiety disorders (GAD) and obsessive-compulsive disorders (OCD; Kumar &
Nayar, 2020). One of the public health measures that can benefit society at large but have potential negative side effects on an individual’s mental health is the consistent promotion of handwashing to help limit the spread of the coronavirus. There is an overemphasis on the importance of consistent handwashing because of the invisibility of the virus. This emphasis on handwashing could contribute to an increase in the chances of developing OCD and related maladaptive behaviors (Kumar & Nayar, 2020). The rise in anxiety that envelops much of society and the associated intense fear responses may narrow the range of behaviors that people engage in (Presti et al., 2020). An additional mental illness that may occur at higher rates following this pandemic is schizophrenia. Maternal influenza infection is one of the most heavily correlated risk factors for the development of schizophrenia (Kępińska et al., 2020). Because of the correlation of influenza with schizophrenia, it is suspected that the baby of a pregnant woman who contracts COVID-19 could be at higher risk for developing schizophrenia (Kelly, 2020). The COVID-19 pandemic not only has an impact on the current mental health of individuals, but it also has the potential to impact the mental health of individuals in the future particularly in the development of GAD, OCD, or schizophrenia.

There are a variety of skills and predispositions that can be developed to manage the fear and anxiety that accompanies the COVID-19 pandemic. One of these skills is psychological flexibility, which can assist in adapting to new and ever-changing circumstances and help to overcome the rigidity that can come from anxiety (Presti et al., 2020). Other skills include the ability to treat thoughts as thoughts rather than a literal truth and allow the bodily sensations of anxiety rather than try to escape these sensations (Presti et al., 2020). Finally, students who are able to maintain a more stable routine and schedule in their life may be more psychologically resilient (WHOb, 2020).
Struggling Readers

There are significant long-term impacts for struggling readers. For the purpose of this study, struggling readers will be classified as students who fall one standard deviation or more below the mean score on the Dynamic Indicators of Basic Early Literacy Skills (DIBELS; University of Oregon Center on Teaching and Learning, 2018). Children who are poor readers are at increased risk for feeling angry, distracted, depressed, anxious, sad, and lonely. As the student’s struggle with reading becomes more evident to their peers, they often experience peer rejection. This is especially prominent for elementary-aged students because reading is considered to be a key academic achievement by the end of the primary grades. The culmination of these things is correlated with socioemotional maladjustment, even more so than for students who struggle with math (Morgan et al., 2012). As early as third grade, reading skills can be used as a factor to predict high school dropouts compared to high school graduates. By sixth grade, reading achievement becomes a strong predictor (Lloyd, 1978). Considering these findings, it becomes evident that reading ability has a significant impact on future success. Reading anxiety is one of the many factors that contribute to a child’s reading skill development. Therefore, interventions that impact the reading anxiety of struggling readers could help to improve their socioemotional adjustment and academic path.

Reading Anxiety

Of the research that has been conducted on the impact of anxiety on academic function, much of it has been on general or trait anxiety (Piccolo et al., 2017). Reading anxiety (RA) is often misrepresented, even in research, most commonly by comparing RA to general or trait anxiety. RA is a specific phobia that is distinct from anxiety or fear (Piccolo et al., 2017). RA is defined as a fear or apprehension associated with situations that involve the processing of text.
out loud or in other forms (Ramirez et al., 2019). A phobia is an association of both fear (situation-based) and anxiety (feelings without situational contingency). RA, in its nuance, is the intersection of fear and anxiety because it is based on both situation and anticipation; therefore, RA constitutes a specific phobia (Jalongo & Hirsh, 2010; Piccolo et al., 2017). Although this may seem like a superfluous clarification, it is essential to understanding the distinctions between general or trait anxiety and RA and why RA needs to be studied as a separate entity.

Another gap in the study of RA is that a majority of studies conducted on RA focus on people who are learning English as a second language (Piccolo et al., 2017). As of 2017, in an extensive search about RA, there were only two articles that focused on participants experiencing RA associated with their primary language. All other studies focused on subjects who exhibited RA associated with their second language (Piccolo et al., 2017). Of the studies focusing on RA associated with primary languages, only one was in English. This study focused on validating a new instrument to measure reading anxiety (Zbornik & Wallbrown, 1991). This concludes that for people experiencing RA related to their primary language, there is a significant correlation between RA and general anxiety. RA was found to measure something above and beyond general anxiety (Zbornik & Wallbrown, 1991), however. With this knowledge, there is a significant gap exposed because the research on general anxiety in primary language speakers will not suffice. RA is a distinct experience that is lacking research directed towards it specifically.

An important finding emphasizing the significance of reading anxiety is that positive and negative affect do not have an inverse relationship with reading achievement and one another. This means increasing one affect, positive or negative, will not inherently decrease the other (Ramirez et al., 2019). This implies that for bibliotherapy to maximize the impact it has on
reading anxiety and achievement it must not simply increase positive affect associated with reading but must decrease negative affect. Additionally, because of the impact that negative affect has on reading achievement, it correlates with a more significant improvement in reading achievement than positive affect. This insinuates that addressing negative reading affect may have a larger impact on improving reading achievement than increasing positive reading affect (Ramirez et al., 2019).

When children experience reading anxiety during their early reading experiences, they are at risk for reduced growth in their reading achievement and literacy skills later in life. Reading acquisition occurs primarily in first and second grade; therefore, this is the primary age to focus on the relationship between early reading anxiety and reading achievement (Ramirez et al., 2019). One aspect that contributes to the development of reading anxiety is how the child appraises the situation. The appraisal theory, in its essence, claims that emotions are elicited by the appraisal (or evaluation) of a situation. The appraisal we have of a situation may change over time and consequently our feelings as well (Roseman & Smith, 2001). When children fail at reading it impacts the way they assess themselves and the associated reading situation. Because of the new elicited emotions, the child’s ability to perform reading tasks to their full potential is inhibited (Piccolo et al., 2017). It is unclear whether the reading anxiety or reading failure is the initiating event, it may vary from case to case, but they seem to feed on another (Grills-Taquechel et al., 2012). Regardless of the initiating event, the appraisal theory argues that the way a child evaluates a situation produces their reading anxiety and reading failure. This initial evaluation could be based on past reading failure or anxiety-provoking for other unrelated reasons; it is unclear rather the initiating event of the cycle is the reading anxiety or reading failure.
This direction of the relationship is a major question faced regarding reading anxiety and reading failure: Does reading anxiety lead to reading failure or does reading failure lead to reading anxiety? Anxiety can lead to poor academic performance if the student is distracted by anxious thoughts and behaviors. Thoughts like “I am afraid I am going to fail” or behaviors such as shaking hands can impede a child’s ability to concentrate and process information. This can result in decreased learning and eventually decreased academic performance (Grills-Taquechel et al., 2012). There is also the argument that repeated prior academic failures are leading to these anxious thoughts and behaviors in the first place. If this is the case, then targeting achievement would be effective in reducing reading anxiety (Grills-Taquechel et al., 2012). Ultimately, both of these hypotheses could be correct and a bi-directional reciprocal relationship between reading anxiety and reading failure may exist (Grills-Taquechel et al., 2012; Ramirez et al., 2019). There is an even stronger relationship between reading anxiety and reading failure for boys than for girls (Ramirez et al., 2019). The initiating point likely varies from one child to the next, but the results are the same: decrease in academic performance, depression, anxiousness, sadness, loneliness, and other negative outcomes (Morgan et al., 2012). It is helpful to establish the starting point to deem the most effective points for intervention, but based on the appraisal theory it seems it will be consistently effective to intervene in the child’s perception of the situation through bibliotherapy. This will help to adapt the evaluation of situations that lead to the reading anxiety a child feels associated with reading failure. There is hope that as a child succeeds, this cycle of failure will be replaced with a cycle of success (O’Bruba, 1978).

**Math Anxiety**

Although having an understanding of trait anxiety can be helpful to have a basis in understanding the impact of the emotion, not all anxieties are the same which is part of the
reason they are often distinguished in the first place. Research conducted to gain more insight on math anxiety found that, like RA, there was a significant and negative relationship between math anxiety and math achievement even after controlling for trait anxiety (Wu et al., 2012). Academic anxieties are not subsumed by general or trait anxiety (Carey et al., 2017). Because RA corresponds more accurately with math anxiety than trait anxiety, it is a more valid comparison to look at the math anxiety body of research than trait anxiety research to understand RA (Ramirez et al., 2019). In the formation of the Reading Anxiety Scale (RAS), there was a greater correlation between RA and mathematics achievement than general anxiety and mathematics achievement (Zbornik & Wallbrown, 1991). This further indicates the relationship between reading anxiety and mathematics measurements. Although there are still significant differences between math anxiety and reading anxiety, given there is little research on reading anxiety, this is the most closely related body of research to pull from.

There are many significant outcomes related to math anxiety that, because of the correlations to reading anxiety, are likely to be similar outcomes for reading anxiety. For example, students with higher levels of working memory and with higher levels of math anxiety were predicted to have lower levels of math achievement (Vukovic et al., 2013). This is something found in the specific RA literature, but these correlated findings in the math anxiety literature help to reaffirm the RA findings.

Another finding that has been established in the smaller body of research on RA and supported by math anxiety research is there seems to be a bidirectional relationship between academic anxiety and academic achievement (Carey et al., 2017). Because of this interactive relationship between anxiety and failure, whether it be for reading or math, a student must be looked at as a whole person rather than just their anxiety levels (Carey et al., 2017). Looking at a
student's entire profile will impact the point of intervention and effectiveness of the chosen interventions. Substantially, it was found that math anxiety has an equally detrimental impact whether the anxiety was related to the numbers themselves or the appraisal of the situation and social factors (Wu et al., 2012). Choosing the point of intervention for each child will help to determine the most impactful solutions, but regardless of the starting point of the anxiety and failure cycle, the negative impacts are universal. Determining the starting point of the cycle, therefore, does not determine if intervention should occur, but rather when it should occur to be the most growth-promoting.

Math self-concept is the strongest predictor of math anxiety. Self-efficacy is one subcomponent of self-concept (Jameson, 2013). Students that believe they have a high emotional self-efficacy, meaning a high ability to cope with negative emotions, can be protected from the negative impacts of math anxiety (Galla & Wood, 2012). This indicates that a student’s belief that they have high emotional self-efficacy can act as a moderator between math anxiety (or reading anxiety) and its negative impacts.

**Excelling Readers and Harm Avoidance**

For the purpose of this study, excelling readers will be classified as students who score one standard deviation or more above the mean on the DIBELS. Other studies have compared students' self-evaluations of high abilities to students with self-evaluated low abilities. In a study conducted by Pekrun and colleagues (2002) they found that students on each of these ends of the spectrum experienced boredom in the classroom. Students with high self-evaluations were bored when they felt the task demands were not difficult enough, whereas students with low self-evaluations were bored when they felt the task demand was higher than their abilities. Although these are two vastly distinct appraisals of the same situation, the reported feeling is the same:
boredom. Because of findings such as these, we believe that despite differences in the evaluation of the situation, the resulting feeling for both students who are at risk of reading failure and students who excel at reading may be the same: anxiety. The subtypes of this anxiety may be different, reading anxiety or harm avoidance, but the treatment of such anxieties may be universal through the use of bibliotherapy.

Children’s reading anxiety is inversely related to their reading achievement (Ramirez et al., 2019). This indicates that children who excel at reading, often referred to as the gifted and talented population, will experience less reading anxiety. But, this does not exempt them from experiencing other forms of anxiety. For example, harm avoidance anxiety is associated with better attention and higher reading achievement (Grills-Taquechel et al., 2012; Grills-Taquechel et al., 2013). This higher level of reading ability and intelligence makes bibliotherapy programs especially likely to apply to students who excel at reading (Schrank, 1982). Bibliotherapy may be able to help students who excel at reading to manage the other forms of anxiety they may experience such as harm avoidance.

The Mutidimensional Anxiety Scale for Children Second Edition (MASC 2; March, 2012) assesses four areas of anxiety: Physical Symptoms, Harm Avoidance, Social Anxiety, and Separation Anxiety/Panic. Of these four subtypes of anxiety, harm avoidance is the one most commonly exhibited by excelling readers. Conversely, students who experience more reading difficulty report lower levels of harm avoidance than students who are performing typically (Grills et al., 2014). Harm avoidance is anxious coping or perfectionism, focusing on doing things “exactly right” and being obedient (Grills-Taquechel et al., 2012). When studying the different forms of anxiety they all tend to decrease across time, all except for harm avoidance. Harm avoidance is the only one that does not decrease over time (Grills et al., 2014). This
indicates that harm avoidance is a perpetual trait. Although this form of anxiety may help in performance, it can still harm a child’s quality of life if it occurs in abundance.

**Bibliotherapy**

John Oliver (1927) submits that "the right kind of book may be applied to a mental illness just as a definite drug is applied to some bodily need" (p. 291). This is the foundational idea of bibliotherapy; someone can improve their mental health or receive a better understanding of their life situations through literature. Bibliotherapy is more than just reading time designated to a therapeutic topic, it is the interaction between a reader (or listener for young children) and a book in a useful and growth productive way (Russell & Shrodes, 1950). Ideal bibliotherapy includes the foundational stages of identification, catharsis, and insight (Heath et al., 2005; Newhouse & Loker, 1983; O’Bruba, 1978; Russell & Shrodes, 1950; Schrank, 1982). Bibliotherapy provides opportunities for emotional healing and growth that can help improve the mental health of an individual or group (Heath et al., 2005; Schrank, 1982). Bibliotherapy is an effective tactic in large part because it creates the opportunity for a child to view their problems from an emotionally safe distance (Prater et al., 2006). This is because bibliotherapy serves as an expressive art, assisting the students in using creativity as a problem-solving process (Talerico, 1986). Webster (1961) adds that discussion following the reading of the book aids this process. The book selected must be specific to the child, as not every child facing similar difficulties will be helped by a book addressing the same topic (Prater et al., 2006; Webster, 1961). Based on these things, we believe that through bibliotherapy the right kind of book truly can act as a medicine to help a child improve their mental health.
The Stages

There are three broadly identified components of bibliotherapy: identification, catharsis, and insight (Heath et al., 2005; Newhouse & Loker, 1983; O’Bruba, 1978; Russell & Shrodes, 1950; Schrank, 1982). Heath and colleagues (2005) identified involvement and universalism as the two additional stages of bibliotherapy. The sum of these five stages is what distinguishes bibliotherapy from a standard storybook reading and converts it into intervention and treatment. There is some overlap and disagreement as to which phase things like “recognizing their motivations” occur, but the components of the stages in sum are generally accepted.

Involvement is the primary stage of bibliotherapy. This is when the child is pulled into the story and participates in the narrative process through listening and demonstrating interest in the story (Heath et al., 2005). They cannot proceed into any of the further stages if they are not first involved and taking part in the story. This stage is shared with common storybook reading.

Identification is the first widely accepted stage of bibliotherapy. This stage starts when the student begins associating with the characters of the story. This is typically a character of similar age and personal circumstances (Heath et al., 2005). The child may identify a parent or a friend as connecting with a character as well (Russell & Shrodes, 1950). Identification helps to enlarge the student’s view of themselves and begin the process of reducing the differences they feel lie between themselves and others (Schrank, 1982). Identification does not always lead to insight, sometimes it will simply act as a scapegoat or vent a strong emotion through the character (Russell & Shrodes, 1950). It is important to recognize these stages do not always lead to one another, but they can still serve an important (though less impactful) role as a stand-alone stage.
Catharsis is the extended version of identification which takes place when the child not only identifies with the character but also can recognize the character’s emotions and problems as similar to their own and vicariously experience emotions through the character (Heath et al., 2005; Newhouse & Loker, 1983). A student summarized creative experiences by saying, “It was a way for me to control and focus all of my feelings” (Grossman, 1981, p. 187). Through this stage, the student may feel relief by having some of their socially unacceptable urges assuaged or validating some of their socially acceptable behaviors (Russell & Shrodes, 1950). Ideally, this is when the student starts to realize their identification with the character and therefore, understand their motivations and actions more clearly (Schrank, 1982).

Insight occurs when the child brings their previous identification out into reality (Russell & Shrodes, 1950). The child now applies the understanding they have gained from seeing themselves in the behavior of the characters to their own life (Heath et al., 2005; Russell & Shrodes, 1950; Schrank, 1982). This is a critical component because this is where problems that have previously felt insurmountable to the child become manageable. This stage is what grants the child hope of progress in their own life (Heath et al., 2005).

In the stage of universalism, there is a shift from me to we. The students realize they are not the only one that faces problems and others likely face issues similar to their own. This provides the child with a better outlook to ask for help through personal resources and coping skills (Heath et al., 2005).

Anxiety Reduction

In a meta-analysis of the research conducted on the impact bibliotherapy has on anxiety, it finds bibliotherapy is effective in reducing anxiety and fears. Bibliotherapy is found to be especially good at reducing anxieties and fears compared to other problem types (Marrs, 1995).
Another study found bibliotherapy supported by a therapist is even more effective than individual treatment (Cobham, 2012). When compared to a control group, the fear reduction was much higher for children who engaged in bibliotherapy treatment than those who did not (Newhouse, 1987). In addition to this initial reduction, a meta-analysis found the anxiety-reducing effects of bibliotherapy do not erode over time (Marrs, 1995). There is no significant difference between the effects of bibliotherapy compared to treatments administered by a therapist when it comes to anxiety reduction (Marrs, 1995). This is significant because it indicates that students can be treated in larger groups in ways that are comparably as effective as therapist-administered treatment and provide lasting effects.

**Risks**

Bibliotherapy has received mixed reviews on its success, particularly when implemented by untrained professionals (Newhouse & Loker, 1983). This process can pose a potential risk because the books used for bibliotherapy bring difficult emotions to the surface and an untrained professional may not provide the opportunity for the children to properly process and work through these difficult emotions. This process can be more successful if it is mediated by a suitably qualified adult. The adult is considered suitably qualified to administer bibliotherapy if their knowledge, skill set, training, and experience is comparable to the type and severity of the child’s impediment (Heath et al., 2005). Something that distinguishes bibliotherapy from simply reading books is its inclusion of associated activities to help children process their exposed emotions. These activities help to bring a sense of closure to the process and provide measurable evidence of the growth and learning the child is undergoing (Heath et al., 2005). These activities can help to manage the risks associated with bibliotherapy. Although there are risks to
bibliotherapy, these risks can be minimized if it is implemented by a qualified adult and followed by activities that assist in processing.

**Stereotype Threat.** The threat stereotypes pose to girls in school subjects like math and science is something being actively fought against in society. Yet, boys undergo a similar experience when it comes to reading and little is being done to fight against it. Girls perform an average of 12 points worse than boys in math, but boys perform an average of 39 points worse than girls on reading—an average of one school year’s progress (Hartley & Stutton, 2013). Boys perform even worse when they are reminded of these stereotypes before testing because they are stereotypically perceived as underperformers and often believe they are underperformers themselves. On the other hand, when students are told that boys and girls typically perform equally well on tests, boys perform better than in other experimental conditions. There is no impact on the girls’ performance for either of these conditions (Hartley & Stutton, 2013). In essence, there is a measurable impact that words have on students’ ability to perform. Boys’ performance can improve when their stereotype threat is counteracted (Hartley & Stutton, 2013).

Just as stereotype threat can be counteracted, bibliotherapy can be used to counteract other negative thoughts and experiences a child is having. Words are powerful and have significant potential to help children, but they also have the potential to harm children if the messages that are shared are not carefully selected.

**Book Selection.** Careful book selection serves as an influential component of the reduction of fear and anxiety that may occur through the bibliotherapy process (Webster, 1961). Because of this, it is significant to note that children with learning disabilities (LDs) are not always accurately portrayed in the literature (Prater, 2003). In Prater’s (2003) analysis of the literature, only 20% of books containing characters with LDs portrayed LDs realistically. Some
books were not just unrealistic, but blatantly misinforming. Educators and professionals often advocate for the use of books containing characters with disabilities, but do not consider the inaccurate portrayals they may give to children (Prater, 2003). As established in the previous discussion of stereotype threat, words hold significant weight and power. Because of this, it is critical to select books that accurately represent children with disabilities to be used for bibliotherapy.

The school psychologist should select a book that holds personal meaning and significance for the students who will be participating in bibliotherapy. The book selected will have more personal meaning when factors like age, situation, language, ethnicity, socioeconomic status, religion, and cultural beliefs are taken into consideration (Heath et al., 2005). The bibliotherapy book must not merely be entertaining and relatable, but it also must assist in building coping skills and offer hope and support for the child’s struggles. This hope and support are much more likely to be offered when the selected book considers the child’s religious and familial beliefs because it builds upon support systems the student already has (Heath et al., 2005). Book selection is a critical component of the bibliotherapy process.

**No Quick Fixes.** A study was conducted to measure the effectiveness of bibliotherapy and found no results after eight one-hour sessions. The experiment was extended and the same participants were then exposed to a total of 28 sessions. There were still no results, so the same participants underwent 28 more sessions once again. Finally, after a total of 56 sessions, the participants exhibited a significant decrease in the mean Link Children’s Fear Scale re- and post-test scores (Newhouse, 1987; Link, 1976). Although bibliotherapy is a rather simple treatment because of its classroom applicability, there is no quick and easy fix to issues related to mental health and bibliotherapy is no exception. Heath and colleagues (2005) also acknowledge the
limiting nature of bibliotherapy by asserting that it should not be considered a “magical fix or sole intervention for promoting change” (p. 565). For major issues, far more than bibliotherapy is required for reparations. Although bibliotherapy is not a quick solution, it can still provide some relief and aid in the therapeutic process.
CHAPTER 3

Methods

Research Questions

This study explored the following research questions:

1. What types of anxiety do students who excel at reading experience?
2. What types of anxiety do students at risk for reading failure experience?
3. Are these findings different than the research would indicate?

Research Methods

All students in the classrooms of consenting teachers were going to participate in the designated bibliotherapy intervention with or without consent because it was designed as a part of the reading comprehension resources to teach all students comprehension skills aligned to district literacy standards. No students received this designed intervention, however, because the participating schools closed before intervention implementation due to COVID-19. The collected consent and assent forms were still applicable to student participation in the pre-intervention assessment process. Because of the school closures, the pre-intervention assessment was the only portion of the initial research design able to be administered. The intervention and post-intervention aspects of the research design assessments were not administered for this study but are still outlined here as they were a part of the original research design and Institutional Review Board (IRB) approval process.

In the initial design, all of the students in the participating classes would have engaged in a shared reading activity where the general education teacher reads aloud selected books targeted at reducing anxiety in children to the classes (see Table 1). They would then participate in discussion questions and activities as designated by the provided lesson plan (see Appendix A).
Table 1

Anxiety-Themed Books for Children

<table>
<thead>
<tr>
<th>Book Title and Author</th>
<th>Synopsis</th>
</tr>
</thead>
</table>
| *Can’t You Sleep, Little Bear?*  
  by Martin Waddell | This book is about facing fears. Little bear is afraid of the dark and cannot go to sleep. Big Bear (the dad) sets out to show Little Bear that there is no reason to be afraid of the dark. Big Bear tries several strategies before finally walking out into the dark to see the moon and the stars. |
| *Beautiful Oops!*  
  by Barney Saltzberg | This book explains how mistakes are not only okay, but rather opportunities to make something beautiful. |
| *Jabari Jumps*  
  by Gaia Cornwall | Jabari watches the other kids take their turns jumping off the diving board at the pool. He wants to jump, and he has all the skills he needs but has some fears he needs to overcome. His father helps Jabari see the excitement in jumping and helps him to cope with the anxious feelings he is having. |
| *Breathe Like a Bear*  
  by Kira Willey | The book is divided into five sections: Be calm; Focus; Imagine; Make some energy; Relax. Each section includes brief breath-centered exercises to encourage mindfulness. Creative exercises refer to wild animals and nature, such as, “Imagine you are a sleepy lion just waking up.” |
| *Should I Share My Ice Cream?*  
  by Mo Willems | Gerald and Piggie are best friends who go through an experience that epitomizes the challenges of overthinking and awfulizing. Gerald the elephant worries excessively over making the right decision about whether or not to share his ice cream with Piggie. |
| *One of Those Days*  
  by Amy Krouse Rosenthal | This book universalizes the dilemma of one of “those days.” A day when your pants shrink in the wash, you’re too short to ride the best ride, or no one will listen to you. Luckily, there is always a brand-new day tomorrow, and you can laugh at those days when they’re over. |
| *Wemberly Worried*  
  by Kevin Henkes | Wemberly worries about everything morning, noon, and night. Wemberly worries most of all about one thing: her first day of school. With the support of her stuffed bunny, Petal, she makes it to her first day. Once there, Wemberly meets a fellow worrier and realizes that school is too much fun to spend time worrying! |
| *Black Dog*  
  by Levi Pinfold | A black dog appears outside the Hope’s home and as each member of her family sees it they hide. The dog slowly grows bigger and bigger. Only Small, the youngest member of the family, has the courage to face Black Dog. Small shows no fear as she is chased by Black Dog through the forest, which makes the dog shrink smaller and smaller. |
| *Chrysanthemum*  
  by Kevin Henkes | Chrysanthemum is a young mouse who loves her long name until another mouse in her class, Victoria, teases her about it. Chrysanthemum’s parents try to console her but to no avail. It is hard to regain your self-esteem when you are being threatened on the playground to be “plucked” and “smelled.” Luckily, the children meet their music teacher, who is also named after a beautiful flower, and defends Chrysanthemum’s name. |
It was anticipated that the teachers would introduce the book on Monday, then engage the students in activities related to the book on Tuesday through Friday for no more than 15 minutes per day. A new book would be introduced once a week for eight weeks. After all of the books were introduced and taught, the teacher and assenting/consenting students would be asked to complete a survey ranking the books used for the intervention (see Appendix B and Appendix C).

As part of the original study design, before the assessments and implementation of the bibliotherapy intervention teachers underwent a one-hour intervention training at the school district offices. This training included information for teachers about how to administer the 15-minute lesson plans related to reading and anxiety. The teachers overviewed the books and lesson plans with practice doing the dialogic style delivery of book reading and subsequent conversations. The teachers were provided with both the lesson plans for the Bibliotherapy Shared Reading Lessons as well as the coordinating books for the first few lessons with a plan to deliver the other books and lessons partly through the intervention process.

The areas of this study that necessitated consent were the assessment of students and their parents and the teacher training processes. The student and parent assessments addressed the student’s areas of anxiety, reading anxiety, and early literacy skills. Anxiety was assessed through the MASC 2, reading anxiety through the RAS, and early literacy skills through the DIBELS. The MASC 2 and RAS were intended to be given twice, once before and once after the completion of the bibliotherapy intervention, but given the circumstances, the MASC 2 and RAS were only administered once to each of the consenting students. Parents and students were both intended to fill out the MASC, but only the student assessments were administered before school closures. The students were asked questions verbally by a research assistant in a quiet
location outside of the classroom taking approximately 10 to 25 minutes depending on the speed of response and if the student received the MASC 2 and RAS or the MASC 2 only. The student and research assistant were always within sight and sound of another research assistant to ensure the safety of the researcher and participating student. The RAS was only administered to a subgroup of students using the same administration procedures as the MASC 2. Students who were administered both assessments were given the RAS succeeded by the MASC 2 in one session whenever possible. DIBELS scores were gathered from the students' school records.

**Participants**

The participants are from a purposeful sample including first, second, and third-grade students, parents, and teachers. To find classrooms to participate in the study, a recruiter gave information to the teachers in the school district asking who would be interested in participating in the study. Scripted information sessions were held with the teachers. If the teacher decided to participate, the students then received a scripted presentation from trained research assistants asking for their assent to participate in the study. This script detailed the expected design of the study and outlined the potential risks and benefits of participating in the study (see Appendix D). The students were then asked to indicate if they desire to participate in the study. Those who indicated they wanted to participate were given an assent form to sign. Students who gave their assent were provided with parental consent and permission forms which were sent home with their homework. Eighty-five first, second, and third-grade students (43 first graders, 15 second graders, and 27 third graders) from classrooms in a rural school district in a western state participated. Thirty-eight of the participants self-identified as female and 47 self-identified as male. The students' ages ranged from six to nine years old. It was intended for each student to have one parent participant as well, but the parent assessments were not administered before
school closures. Twelve first, second, and third-grade female teachers participated: six first-grade teachers, four second-grade teachers, and two third-grade teachers.

**Setting**

The bibliotherapy treatment was designed to be administered in first, second, and third-grade classrooms in a rural school district in a western state during their traditional literacy time. The assessments were administered in a quiet area just outside of the student’s classroom.

**Measures**

The Multidimensional Anxiety Scale for Children 2nd edition (MASC 2) is a 39-item self-report measure intended to be used with parents, children, and adolescents to gather information about how a child is feeling. The MASC 2 specifically assesses the amount of nervous and anxious thoughts and feelings a child is experiencing compared to the average of children their age (March, 2012). This test was read aloud to the children one at a time by trained researchers. The results were documented in a paper format then recorded online within one to two days of administration. The child was asked to report their answer on a four-point Likert scale which was adapted to use the options “Never agree” (0), “Rarely agree” (1), “Sometimes agree” (2), and “Often agree” (3). The MASC 2 assesses four anxiety types: Physical Symptoms (PS; tense/restless, somatic/automatic), Harm Avoidance (HA; anxious coping, perfectionism), Social Anxiety (SOC; humiliation/rejection, performing in public fears); and Separation Anxiety/Panic (SEP). A total score is produced, along with Anxiety Disorder and Inconsistency Indices. Originally the MASC 2 was normed for individuals who are eight years old and older. But, subsequent studies have found the MASC 2 can be used effectively with children as young as six years old as long as the items are read aloud to the child (Grills-Taquechel et al., 2012; March & Parker, 2004). There were no student participants younger than six years old.
The Reading Anxiety Scale (RAS) is a 45 item self-report measure intended to measure the three domains of reading anxiety: fears of curiosity, aggression, and independence. There are 15 items administered for each domain. These items are traditionally administered using a five-point Likert scale (Zbornik & Wallbrown, 1991). This study was adapted to use the same four-point Likert scale as was used for the MASC 2 to encourage continuity between the administrations and prevent confusion for the student responses. The questions were also adapted to use terms such as “you” and “your” rather than “me” or “I” and a few other slight word alterations to be more conducive to verbal administration rather than the original visual reading administration. The RAS was selected over pictorial assessments of anxiety because interpreting pictorial expressions of anxiety may be harder for children than being asked questions directly (Vukovic et al., 2013). This assessment was administered by research assistants to a subset of students who have been identified by their teachers as being anxious about reading regardless of their academic achievement level.

The Dynamic Indicators of Early Literacy Skills (DIBELS) is a set of measures that assess early literacy skills. Specifically, the DIBELS assesses critical skills to successfully begin reading such as phonemic awareness, phonics, fluency, vocabulary, and comprehension. The DIBELS is a battery of short one-minute measures used as a brief test to establish the child’s reading health, not an in-depth assessment. A benchmark assessment only takes about two to six minutes and can establish if a student needs reading assistance. If assistance is deemed necessary, the DIBELS can establish which specific areas the student needs assistance with (University of Oregon Center on Teaching and Learning, 2018). This measurement was used to establish which children are at risk for reading failure and who excels at reading.
**Data Collection**

Our data were originally designed to be collected using a pre/post-test design with both parents and children reporting the child’s anxiety using the MASC 2 and children reporting RA using the RAS. Because the data were only able to be collected once and no intervention was applied, the data were instead collected through a survey using a comparison research design. The MASC 2 was still used to measure the child’s anxiety, but it was only administered once to the children and not to the parents at all. The RAS was also administered only once to the children. The student’s reading scores were gathered using the composite DIBELS which had been administered by the schools at the midpoint of the 2019–2020 school year.

**Data Analysis**

Students were grouped into levels of reading achievement based on their composite score from the middle-of-year benchmark DIBELS scores. The students were grouped into categories of red (well below benchmark—at risk for reading failure), yellow (below benchmark), green (at benchmark), or blue (above benchmark—excelling reader) based on their DIBELS composite score. The ranges for these groupings were based on the standards established in the Acadience Reading Manual and varied between grades. Descriptive statistics were run to determine how many students fell into each DIBELS achievement color group. To analyze the differences in the RAS scores between the DIBELS groups, the researchers ran a one-way ANOVA with a post hoc Tukey for specification in the differences between groups. An independent sample t-test was used to compare the means of composite RAS scores between males and females. The same tests were conducted using the MASC 2 data; a one-way ANOVA with post hoc Tukey for difference between groups and an independent sample T-test to compare the means of each measure of the MASC 2. The areas reported on by the MASC 2 are as follows: MASC 2 Total Score, MASC 2
Anxiety Probability Score, Separation Anxiety/Phobia, General Anxiety Disorder (GAD) Index, Social Anxiety Total, Humiliation/Rejection, Performance Fears, Obsessions & Compulsions, Physical Symptoms Total, Panic, Tense/Restless, and Harm Avoidance.
CHAPTER 4

Results

For the students selected by teachers to be administered the RAS, the descriptive statistics indicated there were 11 students in the red group, 4 in yellow, 4 in green, and 9 in blue. The scores were not skewed, so equal variance was assumed for the distribution of RAS scores between DIBELS groups. The one-way ANOVA had a between groups $p$-value of .642. Because $p > .05$, the findings were insignificant, meaning we accepted the null hypothesis that there is no difference between RAS scores between DIBELS achievement groups. Tukey also indicated no significant difference between groups. The $p$-value between DIBELS groups red and blue was 1.0 indicating a perfect correlation between the mean scores of the two groups. There was a high correlation between the red and blue groups with the green group as well with $p$-values of .999, a near perfect correlation. The distribution of RAS scores for males and females also indicated no significant skew in either group, so equal variance was assumed. The independent sample t-test showed no significant difference between the means of males and females RAS composite score. The null hypothesis was accepted because $p = .272$ meaning $p > .05$ and the null hypothesis could not be rejected, see Table 2.

Table 2

Reading Anxiety Scale (RAS) Results

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean (SD)</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>11</td>
<td>113.73 (18.122)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yellow</td>
<td>4</td>
<td>98.00 (12.193)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>4</td>
<td>112.25 (42.484)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue</td>
<td>9</td>
<td>114.11 (18.765)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>111.39 (21.781)</td>
<td>.566</td>
<td>p &gt; .05</td>
</tr>
</tbody>
</table>
The students who assented to take part in the study and received parent permission were given the MASC 2. Of the participant group, the descriptive statistics indicated 12 students in the red group, 7 in yellow, 12 in green, and 84 in blue. The one-way ANOVA between groups for the variables of MASC 2 Total Score, MASC 2 Anxiety Probability Score, Separation Anxiety/Phobia, General Anxiety Disorder (GAD) Index, Social Anxiety Total, Humiliation/Rejection, Performance Fears, Obsessions & Compulsions, Physical Symptoms Total, Panic, Tense/Restless, and Harm Avoidance all showed $p > .05$, indicating that the findings were insignificant and therefore the null hypothesis could not be rejected. The $p$-values of the MASC 2 Total Score, General Anxiety Disorder (GAD) Index, Performance Fears, Physical Symptoms Total, and Tense/Restless were .9 or greater indicating a near perfect correlation between the mean scores of each of the groups. Although prior research indicated that there would likely be significant differences between the Harm Avoidance scores of the red and blue groups, the $p$-value between groups was .802 indicating that the findings were insignificant. There were no significant findings meaning the null hypothesis that there are no significant differences between the anxiety experiences of students of different reading achievement levels was not rejected, see Table 3.
Table 3

*Multidimensional Anxiety Scale for Children 2nd Edition (MASC 2) Results (ANOVA)*

<table>
<thead>
<tr>
<th>Variables</th>
<th>F</th>
<th>Sig p value</th>
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<tbody>
<tr>
<td>Total</td>
<td>.12</td>
<td>.95</td>
</tr>
<tr>
<td>Separation Anxiety Phobia</td>
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<td>.85</td>
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<td>General Anxiety Disorder</td>
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<td>Social Anxiety Total</td>
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<tr>
<td>Humiliation/Rejection</td>
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<td>.59</td>
</tr>
<tr>
<td>Performance Fear</td>
<td>.07</td>
<td>.98</td>
</tr>
<tr>
<td>Obsessions and Compulsions</td>
<td>.50</td>
<td>.69</td>
</tr>
<tr>
<td>Physical Symptoms Total</td>
<td>.18</td>
<td>.91</td>
</tr>
<tr>
<td>Panic</td>
<td>.76</td>
<td>.52</td>
</tr>
<tr>
<td>Tense/Restless</td>
<td>.13</td>
<td>.94</td>
</tr>
<tr>
<td>Harm Avoidance</td>
<td>.52</td>
<td>.67</td>
</tr>
<tr>
<td>Probability Score</td>
<td>.09</td>
<td>.97</td>
</tr>
</tbody>
</table>
CHAPTER 5

Discussion

Because there are no significant differences between any of the reading achievement groups or types of anxiety as previous research would have predicted, this indicates that there has likely been an increase of all forms of anxiety regardless of reading achievement level. Although these findings are insignificant in terms of statistics, they are significant in their implications as society moves forward and through the COVID-19 pandemic. Although this research is correlational and not causational, these data were collected at the exact times that schools were shut down due to the COVID-19 pandemic and there are measurably elevated rates of anxiety of all types in students across the board. This research is descriptive and not causal and therefore cannot determine the cause of the rise in anxiety levels, but rather describe phenomena that are correlated. Regardless of the cause, universally elevated rates of anxiety emphasize the importance of providing Tier-1 supports targeting anxiety in the general education classroom for all students. While students who struggle with reading and are identified by teachers as struggling with anxiety (as demonstrated by those selected to be given the RAS) did exhibit elevated levels of anxiety, so did students of every other reading achievement level. The students that would be traditionally identified by a teacher as needing support are not the only students who need support regarding anxiety at this time.

Another notable finding is found in the teacher selection of students to be given the RAS regardless of their reading achievement levels. Although there were significantly more students in the study who were blue-level readers, very few were selected to be administered the RAS (9 out of 84). Conversely, of the 12 red-level readers in the study. Eleven were selected by teachers to be administered the RAS. Yet, there were no significant differences between the RAS scores
of students who were high-achieving readers relative to those at risk for reading failure. Additionally, of the 28 teacher-selected students administered the RAS, 20 were males and eight were female. There was also no significant difference between the RAS scores of males compared to females. These findings are especially important to recognize considering stereotype threat. With the potential role that our words and beliefs play in the success of these students, is it critical to recognize the biases we hold against males in reading and the mental health of those who struggle academically. The selection of substantially more males than females in this study despite similar levels of experienced anxiety may indicate a negative bias toward male readers which, if vocalized or perceived, can inhibit their reading growth and development.

**Limitations and Implications for Future Research**

As with any research, there are limitations to this study. One of the strengths and limitations of this study is that it is conducted in a rural school district. This helps address a population that is not often studied but also provides some limitations to the generalizability of the study. Because the study is conducted in a general education classroom, this could help to support the generalizability of the findings despite taking place in a rural school district. Replicating this study in a non-rural school district could help to further validate the generalizability of this study. Another potential limitation is the sample size of this study. Although the sample was sufficient for conducting statistical analysis, having a larger sample could provide a more diverse and representative sample of the general population.

While conducting this study in a general education classroom helped to overcome the limitations of conducting this study in a rural school district, it does limit the applicability of this study to students in special education. No data was collected to distinguish differences between
students receiving special education services and students at risk for reading failure but not receiving special education services. Future studies may investigate the differences between the anxiety experienced by students in the red group who receive special education services compared to those who do not, or the anxiety experienced by those who receive special education services in a self-contained class compared to an inclusion class.

It would be beneficial for future studies to evaluate the effectiveness of bibliotherapy used as a Tier-1 intervention at this time of seemingly universal elevation of anxiety, particularly as a social emotional learning (SEL) intervention with the potential for significant emotional and academic outcomes. This research could be conducted as was originally outlined for this study prior to adaptation due to the COVID-19 pandemic.

Implications for Practice

Although the intervention was not able to be implemented, the findings of this study do imply that bibliotherapy could be an effective intervention to apply as students return to school. Because bibliotherapy can be applied as a part of traditional literacy and reading time in the schools, it has the potential to serve as an effective and simple intervention that overcomes potential biases in selection of those that may be in need of intervention. Additionally, because of the non-intrusive nature of bibliotherapy it can be effective for those struggling with anxiety that may not personally recognize the anxiety they are experiencing.

Students who engage in school-based social and emotional learning (SEL) programs exhibit significantly better social-emotional skills and indicators of wellbeing (Durlak et al., 2011; Taylor et al., 2017). Students engaging in such programs that were implemented by school teaching staff exhibited an 11-percentile-point gain in achievement in areas related to academic
achievement, SEL skills, attitudes and behaviors when compared to controls (Durlak et al., 2011).
REFERENCES


March, J. S., & Parker, J. D. (2004). The multidimensional anxiety scale for children (MASC). In M. M. Maruish (Ed.), *The use of psychological testing for treatment planning and...*


https://doi.org/10.3389/fpsyg.2012.00162


APPENDIX A

Bibliotherapy Lesson Plans

These are sample bibliotherapy lesson provided to the teachers.

*Breathe Like a Bear*
By Kira Willey

Publisher: Random House Children’s Books  
Year & ISBN #: 2017 & 9781623368838  
Number of Pages: 96  
Reading Level: 4 to 10 (could for sure go higher)

<table>
<thead>
<tr>
<th><strong>Book Synopsis</strong></th>
<th>This book leads you through a series of mindfulness exercises that teach kids techniques on managing their bodies, breathing, and emotions. There is a variety of exercises that can be divided into the categories of: be calm, focus, imagine, make some energy, and relax. These exercises could be used in whole group activities or at the end of a counseling session to help bring the child back to the present moment and regulate their emotions. Because of the breadth of the difficulties that this book addresses, it could be helpful for all students. It would be particularly helpful for students with anxiety or ADHD.</th>
</tr>
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<tbody>
<tr>
<td><strong>Lesson Objectives</strong></td>
<td>The basic goal of this bibliotherapy lesson is to help student to learn basic mindfulness exercises to help in the processing of their body and emotions throughout their daily life.</td>
</tr>
<tr>
<td><strong>Materials &amp; Advance Preparation</strong></td>
<td>Blank sheets of paper and coloring materials (colored pencils, markers, crayons, etc.) OR stuffed bear, a talking stick, ball, or some other item to indicate whose turn it is to speak. Pick out which exercises would be most useful for your class. You will not read this cover to cover, only the exercises you select.</td>
</tr>
<tr>
<td><strong>Key Vocabulary &amp; Concepts</strong></td>
<td>Anxiety, breath, emotions (or feelings).</td>
</tr>
</tbody>
</table>
### Pre-Reading Activity
Prior to reading, discuss with the children where they carry feelings in their body. Do they get cramps in their stomach? Does their hearth race? Do their palms sweat? Discuss what emotions/feelings are with examples (sadness, happiness, fear, anxiety, excitement, etc.) and where they feel those things in their bodies. Ask the students to notice what they are feeling now and where they feel it in their bodies.

### Post-Reading Discussion
How did breathing this way make you feel? Does your body feel different now than they did before the reading and breathing? Do you have different feelings now than you did before we did the animal breathing? Teach that they can recognize feelings by what is happening in their bodies. When can you use these breaths at other times in your life?

### Post-Reading Activity
Option 1: Have the students create their own breathing exercise based on their favorite animal. This can be related to one of the emotions you discussed prior to reading, or another emotion that they feel. They should make a drawing related to the animal or the breath. Once completing their drawing, get in pairs and teach their ideas to a partner.

Option 2: Split the children into small groups. Each group will have a “breath bear” to indicate whose turn it is to lead. The child will create a slow breath related to their favorite animal. They should identify which emotion they would use this breath for and a time when they may feel this emotion. They can lead the group in the breath, then pass the “breath bear” onto the next student.

### Closure
Emotions are a normal part of living. Sometimes our emotions can get really big and be overwhelming. We can understand these emotions by how we feel in our bodies. The breaths that we learned can help us to understand what we are feeling so we can be more [calm, focused, relaxed, etc.] and make our emotions not feel so big. Challenge: Use one of the breathing exercises we learned next time your emotions feel too big. Statement: Breathing can help the big emotions I feel in my body feel smaller.
APPENDIX B

Students’ Ranking of Books

This is the students’ form for ranking the books they liked.

Grade 1 2 3

Please draw a circle around the book you liked the best:
APPENDIX C

Teacher Rating Sheet

Ratings Sheet

Please individually rate each book on a Likert Scale (1 to 5), indicating how effectively the book facilitates children’s management of anxiety.

Book Titles

1. Beautiful Oops! By Barney Saltzberg

2. One of Those Days by Amy Krouse Rosenthal
3. Should I Share My Ice Cream? By Mo Williams

4. Chrysanthemum by Kevin Henkes

5. Breathe Like a Bear by Kira Willey
6. Wemberly Worried by Kevin Henkes

7. Can’t You Sleep Little Bear? By Martin Waddell
Describe what you liked or did not like about the books (specifically about a particular book or about the books in general).
## Rankings Sheet

Based on how each book might help children manage their anxiety, please rank order all the books from 1-9, with 1 being the best choice and 9 being the worst choice.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Book Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>____</td>
<td>1. List all titles here</td>
</tr>
<tr>
<td>____</td>
<td>2.</td>
</tr>
<tr>
<td>____</td>
<td>3.</td>
</tr>
<tr>
<td>____</td>
<td>4.</td>
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<td>____</td>
<td>5.</td>
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<td>____</td>
<td>6.</td>
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<td>7.</td>
</tr>
<tr>
<td>____</td>
<td>8.</td>
</tr>
<tr>
<td>____</td>
<td>9.</td>
</tr>
</tbody>
</table>

We want to hear your suggestions about other books that may help children manage anxiety—Please list any books that you would recommend.
APPENDIX D

Student Recruitment Script

Good morning class! My name is [Name of Research Assistant]. I am a student at Brigham Young University. I want to tell you about a research study we are doing. A research study is a special way to find the answers to questions. We are trying to learn more about how [first, second and third grade-choose one] students feel at school – especially when they learn new things in class such as reading. You are being asked to join the study because you are a student in [first, second or third grade-choose one]. If you decide you want to be in this study, this is what will happen:

1. You will answer some questions on a computer about how you feel when you learn new things at school. One of the students from BYU (it could be me or one of my friends) will read the questions out loud for you –. The questions are like this:
   I would read a statement out loud such as: “I have trouble breathing at school.”
   Then I would read the following answers:
   (0). “Never true about me,”
   (1). “Rarely true about me”
   (2). “Sometimes true about me”
   Or
   (3). “Often true about me”
   Then you would respond with a 0, 1, 2, or 3.

2. You might answer some questions specifically about how you feel when you are practicing reading.

3. Your teacher will read different books to your class, and you will vote on which book was your favorite.
   Everything will happen in the regular school day. The questionnaire will take about 5-10 minutes. Then afterwards you will receive a reward for participating such as a sticker, pencil, or small toy.
   Also - you may not want to answer questions. Or you may start with the questions but decide you don’t want to finish. You will receive the small reward whether you finish or not. And if you don’t want to answer questions, you can say you do not want to answer all of the questions and it will not hurt your grade and no one will be upset with you. This will not affect your grades in your class. It will not affect how your teacher feels about you.

   We don't know if being in this study will help you. But we hope to learn something that will help other children some day when they are learning new things in school.
   This study is confidential – which means, we won't tell anyone you took part in this study. So – you can answer any way you want to. When we are done with the study, we will write a report about what we learned. We won't use your name in the report.
   At any time – if you feel uncomfortable, your teacher and parent or legal guardian will have information on what to do if you feel uncomfortable during any part of the study. And – if you don't have to be in this study. It's up to you. If you say yes now, but change your mind later, that's okay too. All you have to do is tell us.
   Thank you! If you are interested in being in the study we will give you information for your parent or legal guardian to sign. Then you will return the information to us. (For students
who are interested give the folder of the consent – parent consent, parent permission and child assent for children 7 years old and older).

Do you have any questions?
APPENDIX E

Institutional Review Board Letter of Approval

Memorandum

To: Professor Cutrer-Parraga
Department: CP&SE
College: EDUC
From: Sandee Aina, MPA, IRB Administrator
       Bob Ridge, PhD, IRB Chair
Date: January, 2020
IRB#: X19298

Title: The Effects of Bibliotherapy on the Relationship of Anxiety and Reading Fluency

Brigham Young University’s IRB has approved the research study referenced in the subject heading as expedited level, categories 6 & 7. The approval period is from 01/17/2020 through 07/16/2020. Please reference your assigned IRB identification number in any correspondence with the IRB. Continued approval is conditional upon your compliance with the following requirements:

1. A copy of the informed consent statement is attached. No other consent statement should be used. Each research subject must be provided with a copy or a way to access the consent statement.
2. Any modifications to the approved protocol must be submitted, reviewed, and approved by the IRB before modifications are incorporated in the study.
3. All recruiting tools must be submitted and approved by the IRB prior to use.
4. In addition, serious adverse events must be reported to the IRB immediately, with a written report by the PI within 24 hours of the PI's becoming aware of the event. Serious adverse events are (1) death of a research participant; or (2) serious injury to a research participant.
5. All other non-serious unanticipated problems should be reported to the IRB within 2 weeks of the first awareness of the problem by the PI. Prompt reporting is important, as unanticipated problems often require some modification of study procedures, protocols, and/or informed consent processes. Such modifications require the review and approval of the IRB. Please refer to the IRB website for more information.
6. Please convert the protocol to the iRIS system two months before the expiration date to ensure there is no lapse in approval.

Stephanie Coyne
IRB Secretary
A 285 ASB
Brigham Young University
801-422-3606