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## Virtual Learning and its Impact on Belonging and Mental Health

Chelsey Highley

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Virtual Learning and its Impact on Belonging and Mental Health

by

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A DISSERTATION

Presented to the Faculty of

The College of Education and Human Services

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## Abstract

This dissertation examined virtual learning and the link between sense of belonging and mental health. Specifically, this qualitative study assessed the perceptions and opinions of 15 high school students from a rural high school setting who participated in virtual learning for at least one semester during the COVID-19 pandemic. The research questions that guided this study were: (a) How did high school students experience belongingness with teachers and peers when engaged in virtual learning; and (b) How did high school students experience mental health issues during virtual learning? The data was collected via individual interviews and analyzed. The category emerging from the responses for question one was *Reciprocal Relationships/Collective Acceptance*. The two codes determined for this question were *Acceptance of Others* and *Being Accepted by Others*. The subcodes emerging were (a) shared interest with friends, (b) emotional connection with friends, (c) emotional connection with teachers/school personnel, (d) being valued/cared for by friends and family, and (e) being valued/cared for by teachers/school personnel. The category emerging for research question two was *Spectrum of Covid Consequences*. The codes emerging from this category were *Novel Changes* and *Costs*. The subcodes were (a) autonomous learning, (b) social media, (c), new perspectives on mental health, (d) isolation, (e) hindered social connections, (f) falling behind academically, and (g) depression/anxiety. P20 implications for teachers, administrators, and teacher preparation programs, as well as directions for future research are discussed in detail.

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## **Chapter One: Introduction**

Virtual learning in K-12 schools is a relatively new phenomenon. COVID-19 pushed almost every school worldwide to offer some type of virtual learning option. The virtual learning options in most rural communities were limited due to internet and device access for students. With virtual learning came concerns about students' well-being and students' mental health (Stringer, 2020). The shift to virtual learning was abrupt and without preparation, therefore the already struggling students continued to struggle with little assistance and those on the brink of struggling began to struggle more (Singh et al., 2020). The virtual learning platforms in most locales extended more free time for students to complete assignments on their own time also meaning they did not have much student-teacher interaction. Most students completed their work after teacher work hours and could not receive immediate feedback from teachers because of this.

In addition to the daily challenges of virtual learning, mental health in students began to decline due to stress. Some students were being forced to stay in negative home environments for days at a time (Singh et al., 2020). In addition to issues with home environment, students were also having to manage their own days, some without parental supervision (Pope, 2021). Students were having to set up their own schedules to get assignments completed. In the locale this study is set in, all the above-mentioned issues were at the forefront of school administration.

Hammered with stressful situations, students also lost contact with most of their friends, family members outside of their homes, and daily acquaintances. Students perform better in schools, home, and work situations when they feel they belong to a certain community (Strike, 2010). Students who experienced COVID-19 as a K-12 student were thrown into a life they had never known before. Some children lost contact with the only person they felt cared about them

which took a detrimental toll on mental health and children's well-being (Pope, 2021). Students who were high achievers and had great mental health coping abilities reported low self-esteem, stress, and inability to manage the workload during virtual learning (Mascorro et al., 2020).

Students were also being asked to spend large amounts of time behind computer screens or phone screens if they did not have a computer. Prior to virtual learning, children and parents had always been cautioned to limit screen time of devices due to withdrawn behaviors, losing interest in things that once brought pleasure, and the inability to hold a conversation (Hoehe & Thibaut, 2020). However, virtual learning gave no option for limiting screen time due to the nature of the coursework. Some rural schools had to limit the amount of work sent to students each week because not all students had devices and were sharing devices and internet hotspots with other siblings in the home. Therefore, some students were working on assignments much later than anticipated because they did not have access to those devices.

Growing frustration over the stress, workloads, and mental health toll grew each month that students continued with virtual learning. With those issues in mind, mental health therapists and companies tried to incorporate mental health services to assist all children. Telehealth options were offered to both students and parents as well as phone/text conversations and email conversations (Hawke et al., 2021). The internet issues and device issues were also the same for mental health appointments and sometimes appointments were missed due to these issues (Warren & Smalley, 2020). Therefore, students who needed therapy were having to wait longer than normal which could be dangerous in some students who needed emergency assistance (Hawke et al., 2021). Of course, children and parents were cautioned to call 911 for emergencies but sometimes students do not see their current behavior as emergent. In addition, therapists'

caseloads were rapidly increasing and therapists did not always have time to meet the needs of every student for that particular day (Warren & Smalley, 2020).

### **Problem Statement**

A student's sense of belonging in school can extend far beyond grade school and collegiate levels. A student's sense of belonging relates to education, relationships formed, overall health, and mental health factors (Goodenow & Grady, 2010). Students who felt engaged and participated in school activities were more likely to see higher educational outcomes and positive practices (Goodenow & Grady, 2010).

The COVID-19 pandemic forced most schools into an online learning platform without allowing students or teachers time to acclimate to the procedures. Students experienced heightened mental health issues related to online learning and some students who had mental health issues were left untreated. The relevance of this study is to provide a deeper understanding of the relationship of belonging and connectedness to in-person learning. While it is important to build on previous literature, it is also important to incorporate all post COVID-19 literature to utterly understand the importance of this study.

Research was available to relate youth mental health concerns with sense of belonging and connectedness during school environments. The research has indicated that it is now difficult to identify those at-risk students due to their two-to-three-year virtual backgrounds making it difficult for students, teachers, and parents (Alves et al., 2017). This study focuses on high school students who will have completed at least one semester virtually due to the COVID-19 pandemic. The research of this study will be conducted with a phenomenological qualitative method attempting to understand the students' perceptions of belonging and connectedness with online learning.

### **Purpose**

The purpose of this qualitative study is to examine the relationship between the sense of belonging related to virtual and in-person learning and mental health. It is the hope of the researcher to gain an understanding of the complex relationship between sense of belonging, mental health, and in-person/virtual learning. This study will add to the wide variety of research based around mental health, sense of belonging, in-person learning, virtual learning, and COVID-19 impacts. It is the goal of the researcher that this study can assist in the types of programs offered to students to boost mental health and sense of belonging. The COVID-19 pandemic is not over thus the research during the hopeful tail end of the pandemic will be important for the future virtual learning programs.

### **Conceptual Framework**

The framework for this study is built on the dynamic social system which is constructed on the human need to belong (Allen et al., 2021). According to Allen (2021), the framework of belonging is built on four constructs: (a) competencies of belonging, (b) opportunities to belong, (c) motivations to belong, and (d) perceptions of belonging. Each of these competencies work together to achieve an overarching sense of belonging which emerges when the components are met or exceeded.

As a result of the pandemic, children have had an increased need to reach a sense of belonging at school, at home, or in another environment. In this study, belonging will be captured by assessing the subjective experiences of students (i.e., perceptions) ability to connect (i.e., competencies) to the school system via technology (i.e., opportunities) to maintain health and wellness (i.e., motivation). Thus, the researchers will use a holistic framework to better understand this concept of belonging.

## Theories

There are a variety of theories related to belonging and attachment, the main ones that are discussed in Chapter two are Maslow's Hierarchy of Needs, Erikson's Theory of Psychological Development, John Bowlby and Mary Ainsworth' Theory of Attachment, and William Glasser's Choice Theory. All of these theories provide information related to the importance of connections and relationships beginning at young ages. In addition, the attachments that individuals formed can be formed at young ages (Maslow, 1943).

Maslow's Hierarchy of Needs indicates that children need safety, love, security, relationships, feelings of accomplishments, and the ability to set goals (Maslow, 1954). Children learn at a young age the feelings of being rejected or being welcomed in a group or with friends and if those connections are not met at a young age, the issues will continue into adolescence and adulthood (Maslow, 1943). Lasting effects can be felt from the inability to form connections at young ages (Maslow, 1943).

Erik Erikson's Theory of Psychological Development explains that children develop trust for adults as infants and therefore move into childhood with those trust vs guilt feelings (Erikson, 1963). Children must meet the requirements of the stage before to successfully move to the next one. Children learn trust shortly after birth; children cry and someone comes running to comfort or provide what they need (Erikson, 1963).

The theory of attachment developed by John Bowlby and Mary Ainsworth brings the feelings of trust, connections, and rejections, together by explaining a person's need for attachment and close relationships (Ainsworth & Bowlby, 1991). The attachment theory further explains that the connections children form are based on the feelings of safety and security they feel to parents, family members, or other relationships. Again, children's trust and security forms

at a very early age and those attachments are formed based on the trust and security they feel (Ainsworth & Bowlby, 1991).

The choice theory developed by William Glasser further explains that the attachments we feel push our drive for goals and behaviors (Glasser, 1998). If children feel connected, their learning styles can be improved as well as pushing those interactions with others at school. Glasser (1987) wrote that teachers must be willing to facilitate the instructional boundaries and relationship goals during early childhood when children are not ready to form those connections. If teachers facilitate these connections, children will be more likely to continue those positive relationships (Glasser, 1987).

### **Research Questions**

Research questions for this study were developed with virtual learning, belonging, relationships, and mental health concerns as the aim of this study. There has been little research on this topic after the COVID-19 pandemic when students were forced into distance learning without an alternate option. The research questions for this study are:

- 1: How did high school students experience belongingness with teachers and peers when engaged in virtual learning?
- 2: How did high school students experience mental health issues during virtual learning?

### **Methodology**

This dissertation will be conducted as a phenomenological qualitative study of participants who completed at least one semester on virtual learning in a rural high school located in Eastern Kentucky. The factors being explored for this study are factors of belonging related to mental health and the impact of virtual learning as a result of COVID-19. The

population for this study is high school students in rural school districts. The research will utilize convenience sampling due to the researcher's close relationship with the school district.

### **Significance of the Study**

The impact of belonging and relationships should be formed during childhood into adolescence (Maslow, 1954). This study will explain that the need for feedback, positive relationships, and attachment to others is vital to human survival (Erikson, 1963). Research has shown that children with attachments to family, other children, teachers, and school environments have produced lasting relationships and higher levels of belonging and connectedness when children grow to adults (Hertel, 2019). The impact of this study can provide depth to the research that children who form those lasting positive relationships also experience greater feelings of self-esteem, greater self-worth, and greater success (Orenstein & Lewis, 2020).

### **List of Abbreviations**

*CASEL*: Collaboration for Academic and Social Emotional Learning

*COVID-19*: Coronavirus disease 2019

*HIPPA*: Health Insurance Portability and Accountability Act

*PISA*: Program for International Student Assessment

### **Definitions**

*Adolescence*: Period of life when a child develops into an adult

*Attachment*: A strong emotional bond that an infant forms with a caregiver; viewed as a basis for normal emotional and social emotional development. A physical or emotional connection to another person.

*In-person learning*: Traditional approach to educational styles with in-person classrooms.



*Mental health:* Condition of being sound mentally and emotionally sound.

*Active participation:* Completing classwork on a virtual platform regularly and communicating and interacting with teacher and/or peers.

*Non-Participation:* Student does not complete work on the virtual platform regularly and does not have a constant communication with teacher or peers.

*Sense of belonging:* Close or intimate relationship

*Social and emotional learning:* Process of learning social skills, self-awareness, emotional management, responsible decision-making skills, and relationship skills.

*Theory:* An idea or set of ideas that is intended to explain facts or events

*Virtual learning:* A learning experience that utilizes technology and virtual platforms as opposed to traditional in-person classrooms.

### **Summary**

As a result of COVID-19, the education system, like many other systems, went virtual. Despite returning to an in-person experience in 2021, the aftermath of virtual learning on mental health continues to be experienced. In addition, mental health has been identified as a key element related to sense of belonging, success, and positive relationships.

This qualitative study aims to explore belongingness and wellness based on student experiences and needs, psychosocial development, and connection to the school system. The methodology and significance of the study were also examined and explained in this chapter. Lastly, a list of abbreviations that would be helpful to readers was included. The goal of this study is to supplement the existing body of research on the impacts of technology on belongingness.

## **Chapter Two: Literature Review**

There has been a wide variety of research conducted on virtual and in-person attendance and the impacts on belonging cite it. However, the COVID-19 pandemic pushed the world into a primarily virtual environment without warning and without preparation. Most of the research contained in this literature review is considered pre-COVID. There has been little research on virtual and in-person attendance and its impact on belonging since the COVID-19 pandemic is still raging worldwide.

The goal of this literature review is to provide a background of information using sub sections of information contained in the main sections of belongingness in school, teaching and learning pedagogy, social emotional learning, and the impact of COVID-19. Multiple theories of belongingness are identified to relate to both in person and virtual learning by providing expertise from theorists using the Hierarchy of Needs, theory of psychological development, theory of attachment, and choice theory. The next section examines the constructs of belongingness which are broken down into social connectedness, school membership and diversity. The role of belongingness in adolescence and predictors of belongingness both provide a summary of relationships, impacts, and motivations of adolescents. In addition, teaching and learning pedagogy is examined to give a perspective of various theories in teaching and learning styles. The social and emotional learning aspect related to mental health is also related to the virtual school option that most schools are now offering due to the pandemic. Lastly, the impacts of COVID-19 on both in-person and virtual learning are identified.

The goal of this literature review aims to incorporate the past research and develop additional theory related to the in-person and virtual impacts of belongingness relating to mental health and connectedness among children. This study aims to develop theory for the framework

for the impacts of belonging on both virtual and in-person learning utilizing theories and background information summarized both pre-COVID and post-COVID.

### **Search Strategy**

The search strategy for this study began with establishing a literature review outline so that keywords could be identified and search criteria easier to obtain. Keywords included in this literature review search strategy included, but not limited to *belonging*, *belongingness*, *connectedness*, *in-person attendance*, *virtual programs*, *sense of belonging*, *theories of teaching and learning*, *virtual learning*, and *social emotional learning*. The following were searched for information: EBSCOHOST, SAGE, ERIC, and UNIVERSITY LIBRARIES databases. Google Scholar and Mountain Scholar were also searched for relevant articles.

The sources of information included books, peer-reviewed journal articles, dissertations, and government information and statistics. A wide variety of sources was gathered with emphasis on sources within the last seven years for relevance. Sources old than seven years were used to provide background information, history, and the recurring issues of the topic.

### **Theories of Belongingness**

Belongingness in schools is not a new concept but rather a newly innovated concept. The theories of belongingness have been identified for decades but not linked to belonging, mental health, and virtual learning until recently. Maslow's hierarchy of needs extends beyond the basic needs and is extremely important in the classroom (Maslow, 1954). In addition, Erikson's theory of psychological development is equally as important because it teaches children when relationships should be formed and the environments in which those relationships flourish (Erikson, 1963). In addition, John Bowlby and Mary Ainsworth theory of attachment identifies the link between parent and child relationships and the importance of those. Lastly, the choice

theory as constructed by William Glasser describes the need for individualization and the need to make our own choices based on our individual needs.

### **Maslow's Hierarchy of Needs**

The need to belong and feel loved is a part of Maslow's Hierarchy of needs (Keyes, 2019). Maslow created a five-tier model depicting the basic needs that humans needed to feel secure and satisfied (McLeod, 2020). The lower portion of the pyramid must be met before individuals can feel satisfaction and move up the pyramid. The lower level is physiological needs such as food, water, shelter, etc. The second is safety needs such as security, employment, stability, etc. Both bottom levels are categorized as being basic needs. The third and fourth levels are categorized as psychological needs. The third level is belongingness and love, these are the relationships that an individual makes with others. The fourth level is self-esteem and feelings of accomplishment. The final level is considered self-fulfillment and is categorized as self-actualization. The idea of self-fulfillment is based on the individual setting goals and achieving goals and to fulfill one's potential to something (Maslow, 1954).

Maslow (1943) identified that most of the time, if lower-level needs are not met and an individual tries to move up the pyramid, he/she may not be satisfied at any level. Research has shown that motivation increases as needs are met. There are a variety of things that could disrupt the lower level of needs to not be met. However, Maslow (1943) noted that there are individuals who require more love and affection than others as opposed to others who feel the need for feelings of accomplishment instead. Therefore, the pyramid can be a flexible tool for some individuals to use to achieve goals and to increase motivation (Maslow, 1943).

Humans have an innate need to give love and receive love and in turn belong to a part of something (i.e., families, school groups, friend groups, church groups, etc.). Teachers have given

surveys to students asking what they need from school to be motivated to do better and what students are struggling with (Towl & Hemphill, 2020). Children with a sense of belonging, attachment, or connection to teachers, parents, and other students begins in school and could decrease negative effects during childhood (Towl & Hemphill, 2020). Lasting relationships and collaborative experiences begin with a sense of belonging and connection to an organization or environment (Hertel, 2019).

Maslow's hierarchy of needs is important to adolescent relationships and belonging especially today when children are more connected through screens and less connected face to face. This theory is included in this study because the effects of relationships, affection, and need for belonging can last well into adulthood and therefore correlate with virtual learning concerns. Erik Erikson's theory of psychological development is also important and goes a step further than Maslow in explaining each individual stage of development.

### **Erikson's Theory of Psychological Development**

Erik Erikson introduced the theory of psychological development by identifying the approximate age and stage that each life event should happen (Orenstein & Lewis, 2020). Each level should be looked at as a stair step and each increase in complexity as an individual moves up the steps. The first stage is the infant stage which is where trust versus mistrust is developed. Stage two is the toddler stage where autonomy versus shame and doubt are developed. Stage three is the pre-school age where initiative versus guilt is enacted. Stage four is the grade school age where industry versus inferiority is developed. Stage five are teenage years where identity versus role confusion is entertained. Stage six are considered young adults where intimacy versus isolation is developed. Stage seven is considered the generativity versus stagnation stage and

happens as middle-aged adults. The final stage is where integrity versus despair makes a transition in older adults (Orenstein & Lewis, 2020).

Each stage is dependent on the prior stage (Orenstein & Lewis, 2020). Each stage has a question and a relationship that must be met to succeed at the next stage. There are a variety of relationships developed in Eriksons stages of psychological development such as relationships with mother, parents, family, neighbors, school environment, peers, friends, co-workers, and social relationships. Eriksons theory identifies the importance of creating and maintaining positive relationships with all the above individuals at different stages in life. Gaining satisfaction from other individuals can increase success, increase feelings of high self-esteem, and increase the sense of self (Orenstein & Lewis, 2020).

Erikson explained that if adolescents find a secure place within themselves and are secure with their identities and relationships, they are better prepared for the future (Erikson, 1963). Erikson also explained that adults with satisfaction through social interactions and accomplishments. Reflection on social experiences such as volunteer work or assisting others has proved beneficial into late adulthood (Erikson, 1963). This theory provides important information about securing relationships before reaching adulthood, issues with self-esteem, and self-fulfillment, all of which can be minimized with virtual learning. The impact of this theory on this study will be beneficial by explaining the issues with virtual learning and the lack of true and meaningful relationships. The theory of attachment developed by John Bowlby and Mary Ainsworth takes the attachment and relationships formed during childhood, early adulthood, and adulthood a step further by explaining that a lot of the relationships and connections are based on the attachments outside of school.

## **Theory of Attachment**

The theory of attachment was developed by John Bowlby and Mary Ainsworth (Bretherton, 1992). Bowlby emphasized the need for an attachment and close relationships partly because of his volunteer work with young children who lacked attachments to others. In addition, Bowlby identified the conflict of aggressive behavior and emotional problems due to isolation and lack of attachment. Bowlby identified the clear expectations from parents and children that a positive relationship among the two is important to success and sustainment of the family. Like Bowlby, Mary Ainsworth also worked on the attachment theory and the attachments that youth form with their parents and their families. Ainsworth noted that youth must feel safe and secure before they can begin to drive for goals or establish any type of independence (Bretherton, 1992).

Bowlby and Ainsworth conducted studies on experiences of families and the separation among mothers (Ainsworth & Bowlby, 1991). Both identified the need for love, affection, and a positive family relationship to succeed in society. The need and attachment for a maternal figure was identified as a response to reduce separation anxiety and deprivation in youth. Ainsworth completed multiple studies on infants and mothers and their attachment to each other. The studies were used in the creation of the attachment theory by both Bowlby and Ainsworth (Ainsworth & Bowlby, 1991). This theory is important to this study because virtual learning has taken place primarily in the family home therefore, if students do not have attachments and positive connections at home, they could suffer with their relationships and virtual learning could also be detrimental to their belonging if they retreat to their rooms without any connections to the outside world. Choice theory by William Glasser identifies the behaviors that students make in schools and at home that may prove belonging or identify withdrawn behaviors.

## **Choice Theory**

William Glasser coined the term choice theory to describe the theory that our behaviors are driven by our needs (Glasser, 1998). The behaviors or choices we make are driven by the attachments we feel to ourselves, others, and the needs we have embraced. Glasser identified that if students do not feel as though they belong, they will become increasingly less interested in school, school activities, and withdraw altogether. These same children will try to embrace relationships with others, and many have failed in those relationships and therefore drop out of school and engage in deviant behaviors. Children have the innate need to feel loved, appreciated, and valued, and when those needs are not met, it is hard for children to make choices because they lack the attachments to others (Gough, 1987).

In addition to Glasser's explanation of choice theory, he also identified that teachers must be the middle person in relation to students and their relationships with other teachers and their peers (Glasser, 1987). Glasser reported that during his research, he interviewed several students who reported they worked harder in classes where they felt connections with their teachers and their peers as opposed to classes where they felt little connections with others. Glasser explained that teachers could facilitate the interactions among students especially during group work. If there are students who are quiet, placing those students in other groups and allowing them to branch out in smaller groups without feeling overwhelmed prove to be extremely important (Gough, 1987).

Teachers must push students to motivate themselves and others by facilitating group work and instruction where students can communicate and interact with their peers (Gough, 1987). This is important to this study because virtual learning placed a damper on the interaction



among students and teachers. The lasting effects will be present in the learning environment for the next several years because of this.

### **Constructs of Belongingness**

The constructs of belongingness are the ideas and beliefs that adolescents need to achieve to feel as though they belong and can sustain those relationships and positive environments. The constructs of belonging are best identified as social connectedness, school membership, and diversity. All three constructs work together to achieve the main goal of belongingness.

#### **Social Connectedness**

Students have the incessant need to want close relationships with teachers, students, and to experience overall caring environment (Strike, 2010). Strike (2010) examined the four C's of community and how they relate to students' positive relationships and sense of belonging and connectedness. Coherence, cohesion, care, and connectivity are the four C's which Strike (2010) explained can adequately address gaps in student sense of belonging and successful school programs. Prior to the No Child Left Behind school reform policy enacted by President Bush, student needs were not at the forefront of education (Ostermann, 2000). Human goals are motivated by the attachments we form with other individuals, groups, and environments. In the study by Osterman (2000), the author found that engagement with others in the school climate can promote goals and student success. Students need to feel welcomed by the school community as whole this means teachers, staff, and students, not just one or two people (Osterman, 2000).

Social isolation is an unfortunate aspect of virtual learning (Coldrick & O'Higgins Norman, 2012). A study was performed on 44 students to gain responses about social and academic isolation related to virtual learning. Students reported feeling isolated from their peers

and their teacher due to the virtual platform. Students reported difficulty connecting with their teacher due to times they were able to contact them due to their own schedules and when the teacher would respond to them. Students reported they needed extra support but felt that sometimes that was impossible to get due to the nature of the virtual platform (Coldrick & O'Higgins Norman, 2012).

### **School Membership**

The basic premise that all children want to belong at school and feel as though another person at school values their opinions, values, and ideas is the idea of school membership (Korpershoek et al., 2020). While belonging is at the forefront, students must also be willing to participate at school to feel a sense of belonging. If students can connect with other students during group work and engage in conversations, students typically enjoy school better than those who do not actively engage in conversation and relationships with others. In addition, positive relationships with teachers and peers can reinforce the sense of belonging those students feel at schools and students feel a sense of membership to a group, another person, and their school (Korpershoek et al., 2020). School membership is important to this study so that the link between virtual learning and the impact on belonging can be identified clearly. With school membership, relationships, and connections, school diversity must be examined.

### **Diversity**

Each child brings a new set of ideas, opinions, values, skills, abilities, and connections to content to the classroom (Kaiser & Rasminsky, 2020). Teachers and school administration must be open to diversity in all aspects and must acknowledge all cultures and differences. Classroom teachers have more contact with students than administration since more time is spent with them which in turn can provide culturally responsive lessons and activities for students. There are a

variety of languages, values, and home cultures that can differ from the school culture that a student attends. It is important to allow students time to explore the school culture and climate and reflect on their own so they can be culturally aware of their surroundings. This also resonates with teachers and other students as well. It is important that all students are immersed in culturally diverse activities, so they know how to respond and connect with students who have cultures that differ from their own (Kaiser & Rasminsky, 2020).

Sense of belonging and diversity can be hard to pinpoint with some students (Kaiser & Rasminsky, 2020). Students who are deviant and have behavior issues could be misunderstanding the directions, the assignment, and/or lacking connection to their peers. There are a variety of exercises that can ensure that all students leave high school culturally aware and prepared to enter the work force or secondary education. The lasting effects of diversity and sense of belonging will be felt in adulthood and beyond.

### **Role of Belongingness in Adolescence**

The roles of belonging in adolescence are something most strive to achieve. All students strive to feel a connection to family, school, friends, and form positive relationships with all those people. The connection and formation of positive relationships can limit the risky behaviors that adolescents engage in and enhance the feelings of safety and security (Center for Disease Control and Prevention, 2020). The ideas of belonging, belonging in school, engagement, the impact of feedback, and motivation in schools all provide valuable ideas that prove to be essential to belonging and growth during adolescence.

### **Sense of Belonging**

If students feel connected to school, family, and other organizations (including clubs and athletics), they are less likely to exhibit risky behaviors and have mental health issues (Center for

Disease Control and Prevention, 2020). Students need to feel protected and cared for and some students do not receive this nurturing environment at home so the only place they can gain this is at school (Ancess, 2003). Students cannot be the only ones committed to sense of belonging and connectedness in the school system. The teachers, administration, and school staff must be committed for making the school environment a safe, and welcoming environment for all students. Behaviors must be dealt with appropriately, but behavior plans must be modified based on each individual student and their specific needs (Ancess, 2003). In addition to school staff, a welcoming community of professionals promoting engagement in the school climate can promote positive relationships and positive programs for students (Baker et al., 1997). Students can be bonded with teachers and students which can strengthen student resilience in latter parts in life (Brooks, 2006).

### ***Promoting Sense of Belonging***

Promoting sense of belonging and connectedness has remained on the forefront of most educators (Sanders et al., 2016). Students have the need to be taught resiliency and how to react to situations beyond their control, and research has shown that sense of belonging can help promote resiliency and situational awareness. Students have other factors attacking against them that are out of their control but relationships and the need to belong are intuitive. Children are impacted by their home and environments and the neighborhoods in which they belong (Sanders, Munford, & Theron, 2016). Sense of belonging and connectedness have also related to academic success and positive relationships (Pittman & Richmond, 2007). Students who belong and are connected have increased attachments and experience less emotional stress. Students also experience better academic motivations at the collegiate levels if positive relationships were formed during grade school (Pittman & Richmond, 2007).

### ***At-Risk Youth and Risky Behaviors***

A study completed on 506 youth were followed for three years due to destructive histories and backgrounds (Sanders et al., 2016). The 506 were identified as at-risk youth, these students were at-risk for not graduating or making the transition to college or a career field. These students had been suspended or expelled from school and did not have outside support systems. Most reported they had skipped school more often than they attended and that they struggled to fit in and feel like they belonged at school. They felt as if nobody at school appreciated them or checked in on them when they did miss school. They all reported they felt they had no support to assist with neighborhood issues or support systems at school or at home (Sanders et al., 2016). This study is important to the author's study because positive relationships and forming connections with peers, teachers, and others in the community can push at-risk students to achieve more and have easier transitions in life. In addition, school belonging has been linked to higher success with academics and less engagement in risky behavior (Allen et al., 2018).

In a study of 572 students, school belonging was associated with higher levels of academic motivation and less at-risk behaviors when students felt as though they belonged to the school environment (Allen et al., 2018). Belonging has been linked with higher levels of happiness, self-identity, better adjustment to situations, and higher levels of self-esteem. The ages of 12-18 are crucial in development of adolescent brains and formations of relationships and transitions. Research has proved that students who have positive relationships in middle school will transition easier to high school settings (Allen et al., 2018). Negative behaviors and mental health concerns are connected to the low sense of belonging those adolescents feel either to their

teachers or their peers (Allen et al., 2018). This study provides valid data relating to the self-esteem, risky behaviors, and levels of happiness associated with sense of belonging at school.

Students in middle school and high school were participants in a study where they were interviewed and provided with questionnaires relating to relationships, risky behaviors, mental health, and self-harm (Steiner et al., 2019). Students were asked about their connectedness to their families, friends, and others at school. In addition, risk factors such as mental health, sexual health, substance abuse, physical violence, and self-harm were also asked in question form to gauge the risky behaviors of the participants. For students who reported higher levels of family and school connectedness, those students reported less engagement in risky behaviors. The protective factors that students long for with belonging and connectedness prove to be important factors in childhood and relative to adulthood (Steiner et al., 2019). This study is important because it examines the connections between school belonging and relationships with risky behaviors, mental health, and self-harm tendencies. In addition, students were better able to create goals for themselves and complete those goals if they had positive relationships and felt a sense of belonging (Anderman & Anderman, 1999).

In a study of 3,130 students in grades 7-12, students associated sense of belonging and feeling connected to lower levels of distress, suicide, violence, and substance use (Koppa et al., 2018). The study also reported that students who felt lack of belonging experienced increase feelings of anxiety and depression. Students also reported they had easier times transitioning from middle school to high school and then high school to college or workforce if they felt they belonged to the school they were enrolled in. The study also revealed that students who answered that they belonged to a group or felt like they belonged to their school experienced less depression, anxiety, and greater psychological wellbeing later in life (Koppa et al., 2018). If

students do not feel as if they belong and do not feel that their needs are met, this creates a barrier where students could experience isolation, withdrawing themselves from social situations, rejection, or lack of friendship (Karaman & Tarim, 2018).

### ***Attachments***

Research has shown that meaningful relationships and attachments to someone other than themselves is a motivational factor (McNeely et al., 2002). The National Longitudinal Study of Adolescent Health conducted a review on 75,515 students in 127 schools across the United States. The study revealed that the closer a student felt to positive relationships and school environment, the less likely they were to engage in drug and alcohol use, and early sexual involvement. Students reported positive relationships with classmates, teachers, extracurricular activities, and consistent discipline were all ways they felt connected to their school (McNeely et al., 2002). Traumatic experiences and mental health experiences are related to lack of belonging and connectedness during childhood (Towl & Hemphill, 2020). The experiences a child goes through can play a pivotal role in their need to be loved, accepted, and valued (Keyes, 2019).

It is in the human condition to be accepted, loved, valued, and included. Activating these needs can increase a human's participation and engagement in social and business settings (Keyes, 2019). Sense of belonging in the classroom plays into the idea that students need to feel respected, loved, and included by both their teachers and their peers (Goodenow & Grady, 1993). Peer relationships can be both negative and positive and students can assist struggling students, or they can break them down resulting in withdrawn behavior leading to other risky behaviors. Students want to know will be supported at school because some of them come from unimaginable environments at home and do not have anyone to rely on (Goodenow & Grady,

1993). The outcomes of students are equally as important as their status at school and home which is evidence by the National Longitudinal Study of Adolescent Health (Anderman, 2002).

### ***School Belonging and Involvement***

Data from the National Longitudinal Study of Adolescent Health inspected the relationship between school belonging and outcomes of students (Anderman, 2002). The results showed that belonging was lower in urban and larger schools than in suburban and rural schools. The study also showed that there were psychological outcomes related to sense of belonging. If students answered they felt like they belonged to their school, those students were less likely to engage in risky behaviors such as truancy, failure, alcohol or drug use, and violence. In addition, the students who felt accepted and connected experienced less depression, anxiety, and school issues (Anderman, 2002). Teachers are also concerned with the at-risk students and most try to do everything possible to limit those at-risk behaviors if they can do so at school (Blad, 2017).

A survey was given by the Education Week Research Center where 528 teachers responded (Blad, 2017). The findings of the survey placed emphasis on students' perception of belonging to a group, school culture, and how those motivated them to do better. Teachers responded that they were concerned with the students who failed to get involved or who felt as if the school environment did not treat them fairly. Teachers also responded that lack of culturally diverse materials and unfair procedures could exacerbate these feelings in students. Teachers also responded that it was often difficult to push students out of their comfort zones and past their negative perceptions of themselves. This is especially hard during large classes where one on one time is limited with students (Blad, 2017). Thus, teachers play a critical role on students' perception of belonging in the classroom.



Blad (2017) also explored teachers' concerns about students' past experiences with belonging and their instability at home. Parent and family involvement is extremely important in children's lives. A lot of teacher responses stated that they found it difficult to portray belonging, kindness, love, and value to students' who were on the fence about the idea when students returned home to purely dysfunctional homes. Students who are struggling to buy into the idea that teachers do want each student to feel loved, valued, appreciated, and as if they belong, will find it harder to believe this concept if they do not feel like they belong at home for a variety of reasons (Blad, 2017).

Involvement and engagement are vital for student growth, satisfaction, and promotion of positive behavior (Willims, 2003). Disaffected students can be described as those who do not feel like they belong, often miss school, regular behavior issues, and lack of participation in school activities. Students who do not feel as if they belong at school can become disengaged from school and therefore suffer from additional issues throughout their lives. Belonging and the need for acceptance is learned from an early age and can prove beneficial or hazardous throughout adulthood. It is apparent that high participation levels during grade school yield to higher participation in post-secondary studies whereas low participation levels yield lower participation in post-secondary programs (Willims, 2003).

Prior research showed that students who displayed low participation and behavior problems during the early years or school would be considered vulnerable children and therefore success would be limited unless interventions took place (Willims, 2003). Many of those children struggled to make friends, struggled to read, struggled with problem-solving skills, and had behavior related issues. It is evident that there are other risk factors for issues into adulthood such as family-related risks, low parental education, domestic violence, drug issues in the home,

etc. However, having one or two of those factors present does not always lead to failure.

However, having those issues coupled with lack of participation, engagement and feeling left out during school can exacerbate such issues into adulthood (Willims, 2003).

The Organization for Economic Co-Operation and Development (OECD) conducted the Program for International Student Assessment (PISA) study (Willims, 2003). This study focused on student engagement in thirty-two countries. The study examined students' sense of belonging, engagement, and participation at school. The PISA survey used the disaffected student definition as criteria to analyze results. Principals from each school where students were assessed provided information about school characteristics such as free and reduced lunch numbers, behavior plans, and other resources. The study also determined if students have the knowledge and skills related to participation and engagement to be productive members of society after they finish grade school. The study also examined student relationships with correlation to family backgrounds and resources available to families. The report aimed to offer resources to improve engagement, belonging and participation based on the estimated disaffected students from each school district (Willims, 2003).

The PISA report labeled students' sense of belonging results as whether they ever "felt lonely" or "out of place" and whether they felt it affected their education (Willims, 2003). In addition, the PISA also examined the unexcused absence rate for students two weeks prior to the survey. By choosing a two-week window, the results could be narrowed down to determine if students missed school more times if they felt as if they did not belong. Time spent on homework and participation in extra-curricular activities was also analyzed. Students were considered to have a low sense of belonging if they scored 3.0 or below on the sense of belonging scale.

Students were instructed to respond with answers from strongly disagree to strongly agree.

24.5% of students surveyed fell below the 3.0 on the sense of belonging scale (Willims, 2003).

The PISA report interpreted low participation if students scored less than ten on the participation scale (Willims, 2003). Students were instructed to respond with answers such as one or two times, three or four times, skip classes, or arrive late to school or all answers apply. 20% of participating students were classified as having low participation related to sense of belonging in schools. While participation is linked to student engagement, the average for the study was set at 500. 24 countries scored below the set score of 500 meaning the students that participated in the study for those countries indicated they felt as if they were not engaged with their schools, teachers, and/or peers. The United States scored low in both low sense of belonging and students with low participation. In this study, one-half of students with behavior issues during high school continued those same problems and additional ones during adulthood and most related to belonging and participation. These students also suffered from social issues among groups (Willims, 2003). This series of studies provided significant information relating to low sense of belonging and the reasons why and if those could be altered.

The study completed by Goodenow and Grady (2010) included 74 student participants who were asked questions about belonging, engagement, and success. School belonging had a high score where a lot of students valued it as important. Students reported that even those with minor connections at school felt as if they performed better and felt less alienated than those with no connections at school (Goodenow & Grady, 2010). School belonging has been assessed by the Psychological Sense of School Membership Scale (PSSM) This scale has become influential in determining the associates with educational belonging and motivational outcomes (Goodenow & Grady, 2010).

Participation in school clubs has been shown to reduce absences and failures while bonding with at least one adult at school could increase the feeling of belonging associated with school clubs. A study performed on high school students indicated that school bonding and peer relationships and inclusion decreased the likelihood of mental health issues and negative experiences at school (Karaman & Tarim, 2018). Students who have a lack of attachment experience greater isolation, greater anti-social behaviors, and other mental health concerns into adulthood if not treated and/or behavior changed course (Baumeister & Leary, 1995). The risky behavior danger is not just associated with grade school students but also beyond high school levels (Karaman & Tarim, 2018).

### ***Belonging after High School***

An additional study of 276 people aged 18-26 aimed at the belonging factors that associated beyond high school (Karaman & Tarim, 2018). The Belonging to the University scale was developed by Karaman and has 14 components. The 5-point Likert scale was used to arrange responses from scales 1 to 5. The variables studied were motivation, expectations, positive feelings, positive relationships, accomplishment, meaning, negative relationships and well-being. Participants were asked a series of questions relating to whether a correlation could be formed between belonging to the university and well-being of the students. Students reported that they felt happier when they felt as if they belonged to the university. In addition, individuals with depression or mental health issues showed a strong link between belonging and social interactions (Karaman & Tarim, 2018).

In the Caravallo and Gabriel (2006) study, factors such as loneliness, self-esteem, mental health, satisfaction, and well-being all related to belonging and the need to be connected to a group (Caravallo & Gabriel, 2006). 131 participants were selected for the collegiate level study.

The study centered around social interaction. Students participated in various questionnaires where responses were kept confidential, after that part of the study, conversations via chat room with other students were part of the interaction. Self-esteem was assessed using the Rosenberg Self-Esteem scale, attachment was assessment by self-reporting answers. The study revealed that if participants who had lower self-esteem continued with lower self-esteem even after acceptance from other participants. The study also revealed that those participants with higher self-esteem sometimes did not worry about the acceptance of others or social interaction (Caravallo & Gabriel, 2006).

The study also revealed that participants thought they would be picking their own partner to discuss answers with so when that was not the case and they were placed with one, this had an impact on whether they felt accepted or not (Caravallo & Gabriel, 2006). It is apparent that the need for acceptance motivates students to do better. However, there are always exceptions to the belongingness rule, and some students do not feel accepted even after receiving feedback and vice versa. Self-esteem levels had a direct correlation with what type of feedback participants received from their partners. In addition, a second study was completed to ensure that the same results would be rendered. The second study enhanced the idea that positive feedback had a connection to dismissing participants and/or belonging of individuals. The second study indicated that it was the same as the first study (Caravallo & Gabriel, 2006).

The need for belonging can enhance students' motivation in their social, academic, and home lives (Uslu & Gizir, 2017). In addition to belonging at school, students have a need for parent and family involvement as well as it can augment the students' attitudes towards school and belonging. Research has shown that female students have a greater sense of belonging than those of male students and thus the success of females is stronger than that of males. The idea of

belonging in schools is based on designing effective classrooms and enhancing teachers with the tools they require to foster belonging and involvement among students (Uslu & Gizir, 2017). The studies performed by Caravallo and Gabriel (2006) and Uslu and Gizir (2017) provided valuable information about student's sense of belonging after high school and their ideas of sense of belonging while they were in grade school. The involvement aspect is just as important as sense of belonging, but some students do not have the desire to get involved or engaged because of their lack of belonging. In addition to lacking the desire to engage or positive connections, some students long for feedback or conversation with others.

### **The Impact of Feedback**

A study performed on participants aimed to identify the type of feedback received from online platforms from their peers and teachers (Caravallo & Gabriel, 2006). The type of feedback received and the manner of feedback all play an important role in belonging and connections to others. Social cues can be misconstrued during feedback analysis as examined in the Caravallo and Gabriel (2006) study. There is a direct relationship between emotions, motivations, and sense of belonging and attachment. The study also showed that even those participants lacking social skills and those less likely to participate are indeed still motivated to form relationships and still have a need for the sense of belonging and attachment to other groups. Some participant views on belonging and attachment were related to whether they felt included by the other participants (Caravallo & Gabriel, 2006).

The study completed by Keyes (2019) used interviews with 31 tenth grade students. Students were asked questions about their classroom experiences from ninth grade. The students were asked about what types of classrooms they encountered, types of teachers, room arrangements, working with classmates, and belonging and behavior engagement (Keyes, 2019).

The question being asked in this study was to see what factors were important for promoting belonging among high school students. The sample for the study was diverse in the ethnic makeup of each participant (Keyes, 2019).

The interviews were 45-minutes long and each student was asked the same set of sample questions (Keyes, 2019). Students were given time to elaborate on each question beyond their simple answers if they choose to do so. Students were asked to rate their level of belonging and engagement on a scale of one to ten. A ten rating would be that the students experienced high levels of belonging, acceptance, felt included, and felt valued. Whereas a one rating would mean the students did not experience those same feelings of belonging, acceptance, being included, or felt valued. A five on the scale meant that students perceived that they were accepted, belonged, felt included, or felt encouraged during their class time (Keyes, 2019). The studies aimed at identifying the levels of feedback students received and the importance of each type of feedback. The types of feedback students received generally motivated the student to do better or if no feedback was received, the student may slack off with certain assignments and/or classes (Keyes, 2019).

### **Motivation in Schools**

A study was conducted to measure the influence of motivation relative to student relationships at school (Goodenow & Grady, 1993). The scales were based on the theory of motivation. The theory of motivation states that achievement related behavior is related to the expectation that the behavior will be successful. In addition, the behavior and the expectation must also have a value of success otherwise motivation will not be accomplished. During the analysis of the results of the questionnaire, it was determined that most students felt like they gave an effort at school. Students gave mostly negative responses when asked questions about

the school environment. In addition, female students were more likely than male students to answer the questions with higher sense of belonging and motivational values. Most students reported exceptionally low responses when asked questions related to belonging. Most students could not confirm that they belonged to the school in the sense of this study (Goodenow & Grady, 1993).

It is evident that when students feel connected and form positive relationships with their teachers, they tend to perform better in the classroom and are more motivated (Blad, 2017). Positive student-teacher relationships and trusting an adult in the school prove successful and to be motivational factors to most students (Okonofua et al., 2016). Empathy of teachers to students could prove beneficial for all parties. Teachers must be able to approach all students with care because a lot of students deal with very harsh circumstances at home. Teachers are often unaware of home environments if students are unwilling to form the relationships with teachers therefore teachers must handle each student with care and be empathetic to all situations. Punishment is not always the answer for students and sometimes a positive relationship with a trusting adult can prove to increase student-peer relationships and increase motivation in school (Okonofua et al., 2016).

A study performed by professors at the University of Michigan aimed to identify students' favorite parts of school, and what would help them be engaged more at school (Kilday & Ryan, 2019). The study found that students felt if they had other students and teachers who cared about them found that the assignments were more interesting, they felt more engaged at school, and they felt more confident in completion of their assignments. Some students reported that their favorite parts of the day were lunch and breaks because they were able to spend the most time with their friends and talk the most with them. If students do not have a gateway for



stress and emotions such as their friendships, they might lose focus and become withdrawn from school and home life aspects (Kilday & Ryan, 2019). The studies presented about motivation and engagement have proved important due to the valuable student data and responses. Students have stated a variety of motivational factors come from teacher engagement, motivation from teachers, and positive feedback and interactions with teachers can all provide predictors of belongingness in schools.

### **Predictors of Belongingness in Schools**

The importance of positive relationships in students can be found in their positive interactions with others along with the social bonds, happiness, and positive outcomes in life (Carvallo & Gabriel, 2006). In addition, those with social support are typically happier than those who do not have any support system. Students need to form relationships with both peers and adults in school environments to feel motivated (Goodenow & Grady, 1993). Adolescents are longing for acceptance, support, and a caring environment with positive relationships (Allen et al., 2018).

CDC (2009) has shown that there are four factors that influence belonging in the school environment. The four factors are support by school staff, positive peer relationships, commitment to academics, psychosocial climate of the school. Supportive school staff and peer relationships prove beneficial to students by fostering belonging and attachment. If students have a commitment to academics and a drive to do well because they feel accepted, they will be more likely to do better in school, make better grades, and miss school less frequently. The psychosocial climate of the school is based on consistent classroom management practices, consistent behavior management plans, and the effort by school staff to foster student engagement (CDC, 2009).

## **Child-Parent Relationships**

Positive child-parent relationships are important to the school environment (Martin et al., 2018). Family relationships are important in adolescence and can enhance independence and engagement among peers. Family components influence adolescents and their decision-making skills. A study performed in Ireland showed that children who had parents who listened to them at home, the children felt they were valued and supported. In addition, children whose parents enforced consistent forms of communication and punishment were made better decisions at school (Martin et al., 2018).

Attachment to families has impacted adolescents and their ability to form developmental skills and attach to others (Al-Yagon et al., 2016). In addition, stable and positive home environments promote social and emotional health and increase trusting behaviors with child-teacher, child-parent, child-child relationships. There has been significant research on child and mother relationships. The research has shown that secure attachments has lowered child depression, anxiety, and other mental health issues. In addition, child and adult delinquency is shown to decrease with positive attachments to families. Children who form attachments with families and have social conversations with their families are likely to experience increased belonging at school and increased peer relationships (Al-Yagon et al., 2016).

Children are resilient figures who require love, affection, and guidance from parental figures (Sevón, 2015). Children thrive in positive family environments where consistency in behavioral consequences and protection are constant. Children also need to see the importance of having their own values, thoughts, and ideas just as adults do. Parents need to encourage children to children to be independent of their own voice and the things they enjoy. Parents also need to

lead by example by promoting positive interactions with other adults so that in turn, children will be part of positive relationships with their peers (Sevón, 2015).

Child-parent relationships are vital to the functionality of children in society (Lavis, 2016). Attachment among children and parents begin at birth. Children cry and involved, caring, and loving parents' comfort and nurture their children. This allows children to know they are taken care of, and they feel loved. Children who feel attachments to parents and other families are better able to regulate their emotions and feelings. Negative relationships with parents and family members can affect children's' relationships with their peers, teachers, and others (Lavis, 2016).

A study completed on American and Turkish parent-child relationships yielded results that showed the connection between child-parent relationships and attachments (Escalante-Barrios et al., 2020). Education levels and income levels of parents had significant impact on the types of relationships and the amount of affection that children felt. Culture and religious backgrounds also played an important role in the types of relationships and attachments that children were able to perform. Some children were affectionate and needed to be hugged whereas some children were against physical touch altogether (Escalante-Barrios et al., 2020). Child-parent relationships are important to belonging and growth just as teacher-student relationships. The child-parent relationships are important to this study because if students do not feel as though they belong at school or at home, and do not have a driving force behind them, they may be at-risk for failing, truancy, or negative behaviors.

### **Teacher-Student Relationships**

Research has shown that positive relationships with teachers strengthen students social and emotional health (Towl & Hemphill, 2020). In addition, a student coming from traumatic

experience having a positive relationship with their teacher had restorative factors and significant responses to their trauma. This means that traumatic experiences were on the back burner if students had meaningful, lasting relationships with at least one teacher. This was extremely important for at-risk students and the development of their brains during childhood. Research has shown that if teachers are proactive and well-versed in social and emotional learning, they are better equipped with the tools to handle students from traumatic experiences and students with mental health issues (Towl & Hemphill, 2020).

### **Student Motivations in the Classroom**

Engagement among adolescents can be enhanced when teachers ask students what their interests are and promote learning that fosters their creativity and allows them to be free-thinkers (Kiefer et al., 2015). This behavior generates positive mindsets among students and students believe they are involved, engaged, and that their teachers and peers are interested in them. By allowing students to complete choice assignments, this allows students to make their own choices about assignments but also allows them to be creative in completion of the assignment. Teachers can promote motivation of students in the classroom and this in turn improves teacher-student relationships and promotes the engagement of students. Research has been if teacher involvement in and out of the classroom can provide social and emotional support to students thus improving their relationships with peers, family members, and others. Students want to be motivated and challenged by their teachers but also cared for, loved, and understood (Kiefer et al., 2015).

Students also stated that they felt that some of their teachers did not actually listen to them, so they did not feel cared for (Keyes, 2019). A student mentioned that she felt that a teacher really paid attention to her and wanted to know about her interests outside of school, her

extracurricular activities, her hobbies, etc. The student reported that she felt the need to perform better in this class because she felt appreciated and valued as opposed to a class where teachers did not form those bonds to students. In addition, teachers who asked students for input on assignments or lessons felt very appreciated and wanted to work harder in those classes. Students do want structure but also want flexibility with assignments as in, students want choice assignments and different ways to complete things. Some want to work as a group all the time and some students want to complete individual work especially if they are having a bad day (Keyes, 2019).

### **Positive Interactions**

Teachers who showed genuine concern and interest in their students tend to have higher success rates and more students who feel as though they belong in some portion of the school environment (Rimm-Kaufman & Sandilos, 2010). Positive teacher-student relationships foster social skills and contribute to academic performance among students as well as assisting students with social and emotional health. Students are likely to be more successful and develop higher quality social skills if they have at least one positive teacher-student relationship. Even the most difficult students are yearning to belong in the school environment but are sometimes confused on how to go about it and how to ask for help; therefore, they fall back on the behaviors they feel comfortable with which are usually defiant and troublesome behaviors (Rimm-Kaufman & Sandilos, 2010).

A teacher's interaction with each student when they greet them at the door can make or break a student (Gabilnske, 2014). If a teacher greets the students with a smile and asks them a question about their day, their extracurricular activities, homework, other classes, etc., students feel connected with that teacher. Whereas a teacher who does not converse with students and

does not seem to care if they are in the room or not, students do not feel connected and are less likely to complete assignments for that teacher if they can get by with it. Some students simply do not care to fail and if a student does not feel connected with a teacher, and that same student does not care to fail, that student will push deviance to the limit in the classroom and make the classroom environment hard for each person in the room. Gablinske (2014) provides multiple strategies to assist teachers in forming positive relationships with students to ensure student success. Providing guidance to students is one of the strategies of positive teacher-student relationships, using student strengths and interests in class material to ensure all students feel connected and feel as if they belong in the classroom (Gabilnske, 2014).

A study performed on high school and college students regarding punishments and empathetic teachers proved consistent with the theory that the greater respect students gained from teachers, the more motivated students would be to do the work and act appropriately in the classroom (Okonofua et al., 2016). The positive interactions that can be formed among teachers and students can be successful through adulthood for students. In addition, having a positive relationship with a teacher proved that discipline was reduced because students felt as if the teachers respected them and therefore, they wanted to respect their teachers and not do things that would get them in trouble. While punishments are necessary parts of the school environment, it was not the only response to students who get in trouble. Sense of belonging must be questioned whether students have positive relationships at school must also be questioned. If students do not feel as though they belong and have no one to turn to at school, there normal response is to do things that might get them in trouble and/or get them suspended from school. This in turn sends them home for a few days which is where they feel comfortable and where they want to be anyway (Okonofua et al., 2016). This study provided beneficial

information and data relating to the positive relationships that students struggle to maintain throughout grade school.

A study completed on the way teachers interacted with students during group work aimed to see the patterns of relationships formed with school aged children, their peers, and their teachers (Martin et al., 1980). Teachers and students were observed during reading groups and their interactions such as praise, correct or wrong answers, and questioning tactics were all noted. The results yielded that the more consistent the teachers were with volunteers, calling on students, questioning tactics, and praise, the more prevalent teacher-student relationships became. In addition, the more prevalent the relationships became, the higher achievement and success with the assignment that the students achieved (Martin et al., 1980). This study aimed to focus on the types of interactions that students long to have and/or be a part of during school hours.

The relationships that students build with teachers and peers can have lasting effects into the rest of their youth and adulthood (Brophy & Good, 1974). Teachers need to be proactive in targeting those students requiring extra at-risk assistance, not just academic assistance. There are multiple ways for teachers to react and form teacher-student relationships. Praise and feedback must be a constant part of the school climate and environment so that the at-risk students can see when they are doing well, not just those students who always perform well (Brophy & Good, 1974). Teacher-student relationships are important to children as well as peer to peer relationships.

### **Peer-Peer Relationships**

In addition to meaningful relationships with teachers, positive relationships with peers are equally as important (Towl & Hemphill, 2020). Research has shown that students lacking

meaningful relationships were put at risk for negative social and school issues. Students were more likely to withdraw from school, have failing grades, promote violence, and have mental health issues. There has been evidence to suggest that promoting positive relationships and socialization among adolescents can improve the school climate and create a better school environment well into the collegiate level (Hughes, 2010).

Keyes (2019) broke down the research among categories so that the data could be organized: teacher characteristics, peers, and course subject. The researcher then went a step further and broke down favorite class and least favorite class into building relationships and constructing a learning environment as separate categories. Most of the student responses agreed that their favorite class established rapport with all students, and they felt safe, welcomed, and felt like they could trust their teacher. Whereas, their least favorite teacher may have issues with classroom management and therefore is too lenient or too strict and is unable to form connections with students as a veteran teacher would. Group work was high on most participants scale of belonging. Students felt that the more group work and peer interactions they were involved in, the better they felt a part of the class as opposed to doing individual work all the time. Students discussed that the teachers who were able to build relationships with students and foster positive peer relationships, students felt more engaged and interested in working in those classes (Keyes, 2019).

The study performed by Falloon (2012) focused on the interactions and relationships formed during virtual learning from the student's perspective. Student responses that they felt their teachers tried to facilitate and foster relationships and connections among other students but that the relationships were strained. Students reported they felt obligated to respond to classmates because teachers would make it a requirement and during group work, they also felt obligated to



respond and communicate with their classmates. Students responded they struggled making actual connections and lasting relationships with their peers due to the virtual format. Students also reported that if they were placed in courses with students, they had known prior or had connections in other classes, they did communicate more often than those who were new students to them (Falloon, 2012). This study focused on the communication, attachment, and engagement barriers that students felt while trying to interact with other students.

### **Teaching and Learning Pedagogy**

To accurately explain teaching and learning, one must first explore the theories of teaching and learning. Today, there are a variety of ways to gain an education. Students can attend in-person classes, synchronous online, asynchronous online, and virtual aspects with high schools adapted due to COVID-19 pandemic.

### **Theories of Teaching and Learning**

There are a variety of teaching and learning theories related to the sense of belonging, attachment, and connections that students will face in grade school and beyond. The cognitive learning theory developed by Jean Piaget provided ideas that all learners face when placed in certain environments (Piaget, 1932). The behaviorism and constructivism learning theories researched by Tolman, Combs, Rogers, and Knowles identified that there were specific goals paired with each behavior and individual growth is necessary to achieve. The theories developed assist in the explanation of behaviors, goals, and motivations with students.

### ***Cognitive Learning Theory***

Jean Piaget developed the cognitive learning theory and proposed that learners go through various stages from birth to adulthood that all affect how they learn and behave (Piaget, 1932). Piaget exerted that everyone takes information, interprets information, stores information,

and retrieves information all in a different manner depending on their learning abilities. The ways the information is retrieved is based on goals, understanding of the information, and abstract thinking. The cognitive learning theory can also be affected by a child's social or home environment and can be both positive and negative. Cognitive abilities can be affected by poverty, domestic violence, and attachments (Bosley, 2016). The negative experiences that a child faces and potentially overcomes can affect the way a student learns and understands (Piaget, 1932).

### ***Behaviorism Learning Theory***

Edward Tolman conducted multiple forms of research on behaviorism theory (Tolman, 1954). Behaviorism theory is best defined as goal-oriented behaviors or behaviors are purposeful meaning there are goals associated with the specific behavior performed. All individuals are motivated by something whether family, goals, money, etc. (Innis, 1999). The incentives that a learner receives from the desired behavior can be either positive or negative in nature. If negative, the learner will not want to perform that behavior again, if positive, the learner will continue with the behavior. The behaviorism theory relates to what stimulates each learner and what enables the learner to commit to the specific behavior (Faryadi, 2007).

### ***Constructivism Learning Theory***

Constructivism learning theory is based on the premise that individuals incorporate existing knowledge to new concepts and new ways of understanding (Olusegun, 2015). Many times, students are asked questions to gauge background knowledge on certain topics. This assessment uses constructive learning theory to ensure students have retained material. Constructivism theory requires constant evaluation and assessment to ensure individuals are both retaining old information and utilizing new information for the future. Utilizing all types of

knowledge and information can improve problem-solving skills and assist learners in new experiences (Olusegun, 2015).

### ***Humanism Learning Theory***

Humanistic Learning theory is best defined as self-actualization and individual growth as the basis for the theory and the developments that one makes (Purswell, 2019). If students set goals and feel they can pursue those goals, they will be more likely to gain additional knowledge and learning on the subject matter. Humanistic theory was researched widely by Arthur Combs, Carl Rogers, and Malcom Knowles, all provided crucial information to supplement the theory and assist in the learning behavior. In addition to self-actualization, humanistic theory also places emphasis in the relationships with teachers that students maintain. Students must have a sense of trust with teachers and school officials so that students feel comfortable enough to talk to them about goals, feedback, and difficult assignments or situations. These positive interactions can prove beneficial to students and continue long-term (Purswell, 2019).

### ***Connectivism Learning Theory***

The connectivism learning theory is a relatively new concept based on the connections that individuals maintain along with their virtual learning environments (Kropf, 2013). This theory is based on the idea that technology and constant connectedness have a deciding factor in how individuals learn and how their behaviors adapt. The virtual environment is a lot of learning on your own without the oversight of others. This can be both good and bad for individuals. The connectivism learning theory is also based on the idea that online networks can form learning such as using multiple platforms. When students are placed into online classes, they are utilizing multiple platforms to succeed in their classes. In these classes, students must manage their time, complete assignments, and interact with their peers and teachers (Kropf, 2013).

The connectivism learning theory is also based around connectedness to teachers and peers (Kropf, 2013). Teachers must be willing to facilitate the interactions among students and ensure they are both positive and meaningful interactions. In addition, teachers must also be willing to interact with their students by both providing feedback and responding to emails and messages from students in a timely manner (Kropf, 2013). In addition to the theories of behavior and learning, virtual learning must also be examined as the basis for lack of engagement and connections recently.

### **Virtual Learning**

Virtual learning is not a new concept for most colleges however being used in high schools is a relatively new concept (Vivolo, 2016). Two types of virtual learning have been identified: synchronous and asynchronous. The synchronous model closely relates to in-class instruction and requires students to log onto their computers at certain times and they will be in class at the same time as in-person students. In this format, students also participated in group activities and could respond to questions and have feedback given immediately. Whereas asynchronous allowed students to log in at their leisure and complete assignments during their own time. Asynchronous learning limits the immediate feedback that students would receive during synchronous sessions (Vivolo, 2016).

### ***Resistance***

Even for most colleges, resistance has occurred, and some colleges did not want to offer online courses for students due to their not being issues with traditional formats (Vivolo, 2016). Also, universities were concerned about losing personal relationships with students and peers. Some universities and colleges reported they felt as if online instruction would fade out over time and there was no use in setting up online platforms for a short-term issue. There were also

concerns about the course offerings due to some courses having a lab component and not being able to teach those courses online at any point (Vivolo, 2016).

Online platforms can be costly to organizations who use them (Pisirai, 2020). Often, updated electronic devices, updated internet services, and other delivery methods are required. Accommodations for students with poor internet speeds and poor computer systems must also be made. On the opposite end of the spectrum however, online platforms can save money for some institutions due to instructor availability, less paper being used, and less building space and equipment. In Zimbabwe, universities struggle with finding the space and finding for in-person instruction so online learning has become a widely used option. Student readiness is a key concept in online learning that must be constantly assessed by continuous feedback and analyzing data. Students must be learning and retaining the material to consider online learning a successful option (Pisirai, 2020).

### ***Successes and Student Perception***

On the other hand, the flexibility of online courses and the minimized face to face interactions make online courses a suitable option for many (Baum & McPherson, 2019). Students can work more hours while completing programs through high school or college. Test scores have shown similar scoring patterns with in-person and online courses. The success rate of students completing a variety of in-person and online courses is primarily successful, whereas, those completing entirely online programs, the dropout rates are higher, and engagement is lacking. Research has shown that moving entire programs to online formats will breed increased gaps in success and achievement for students. Some students are not prepared for the time it takes to be self-motivated and structured to complete an online course (Baum & McPherson, 2019).

A study that was conducted before the COVID-19 pandemic revealed that students who had positive experiences with virtual learning would be likely to enroll in another online course (Blackmon & Major, 2012). Students enjoyed the flexibility of having one or two in-person courses and one or two online courses. This gave students the opportunity to have gainful employment, extra-curricular, and do well in school. Several students reported that they appreciated the flexibility in the time frames for completion of assignments. Students were able to work and have family lives outside of school. Most students expressed that their time management needed work and they found it difficult to manage work, home life, and schoolwork (Blackmon & Major, 2012). This study provides valuable student voice information to explain the virtual learning experience.

Each student had different perceptions about their instructors, most students reported that instructor inaccessibility was one of their biggest concerns because they feared not being able to get in touch with an instructor should they have a question (Blackmon & Major, 2012). Most did not report positive experiences with their instructors for either being inaccessible or not understanding the material and asking for clarity but not receiving it. Lastly, students had issues with being able to connect to their peers. Students reported they were given discussion boards to complete but they did not feel connected to any of their peers and had no other contact with them outside of the discussion board (Blackmon & Major, 2012).

The study performed by Yang and Cornelius (2004), aimed to question the quality of online courses and the rise in courses offered in a virtual platform. The study also questioned whether students were learning material or whether online courses could provide the same type of instruction. 22 students were interviewed about their perceptions to online learning and the courses they had taken. Students reported that the online courses cost more due to the flexibility

of the course. Students responded that they were unable to make lasting connections with their instructors because they were not seeing them face to face and not communicating regularly. Some students even reported feeling isolated because they did not have the relationship, they expected they would with their instructor and their classmates. In addition, the delayed responses of some instructors irritated students who were trying to complete assignments and were always waiting for responses from instructors (Yang & Cornelius, 2004).

Georgia Tech Distance Calculus Program conducted a study on high school students utilizing synchronous online learning systems to assess challenges, student involvement and student achievement (Mayer et al., 2017). Student grades, logs of online activity, discussion posts in groups and individual were all used in the data collection process. In this program, students are required to view live lectures of their instructors for three days per week, the other two days are for group work sessions with other students. The data provided from this study showed that final grades for students in the distance program were higher than the average grades of traditional students. Students had high levels of satisfaction and involvement in the beginning and toward the end of the program while student cohesiveness scored low at the beginning of the program but higher toward the end. Students reported this was because they were uncomfortable in discussion type situations because they did not know each other at the beginning of the program (Mayer et al., 2017). This study aimed to assess the virtual learning programs and their success with high school students.

Students enjoyed being able to use the whiteboard and chat options with their classmates and reported they felt a better connection having used those tools during this program (Mayer et al., 2017). Students also reported they enjoyed the anonymity of some of the options in the program, they felt as if they could review their answers and even if they had gotten the answer

wrong, nobody else knew they had answered the problem. Students also reported more participation during group activities rather than group discussions. Students reported multiple internet and system issues which made their experience with the program less than ideal on some days due to technical difficulties (Mayer et al., 2017).

There were many pros and cons to virtual learning as referenced in Achieve Virtual (n.d.) Achieve Virtual offers a variety of online high school courses and offers parents and students a pro and con list to determine if virtual learning is the best option for students. One of the pros was the flexibility of the online courses since courses are asynchronous, students can log on at their own schedule. A con of virtual school was that online school was not easier than traditional setting classrooms and students were reminded that they would still be completing the same amount of work. Students were also reminded that the work would be primarily independent in nature, and they would not have a teacher standing over them the entire time they completed assignments, nor would they have 24/7 access to their teachers. Another con provided was the social isolation aspect however students were reminded that teachers and staff would do all they could to foster and encourage relationships, but the ultimate responsibility is with the students (Achieve Virtual, n.d.)

### ***Types of Instruction***

Falloon (2012), conducted a study to see what factors influenced students, the benefits of virtual learning and the factors that influenced students' perceptions. The study had 22 participants using individual interviews, anonymous questionnaires, and recordings of each video chat session. Students were able to respond to the questionnaire using the Likert scale and could elaborate on their answers if they chose to during the individual interviews or chat sessions. Student responses were in sync in that one of the main limitations to virtual learning was the



actual understanding of the material and the need for additional information. Students also had a difficult time communicating using the virtual classroom platform (chat or discussion boards), they felt as if their tone of voice could not be taken into consideration due to the nature of the platform. Lastly, students also indicated multiple technological issues such as low internet speeds, less than idea laptops, and difficulties opening some of the attachments their instructors had posted (Falloon, 2012).

### ***Engagement Through Virtual Learning***

A study performed on 13 students aimed to find if virtual learning models were positively fostering engagement and collaboration (Hughes, 2010). A series of interviews were conducted with the participants to assess their participation in discussion boards and the feedback received from peers and teachers. Most participants responded that they enjoyed the group work aspect of the virtual platform, but some members did not attempt to participate, and nothing was done or said to them. Some felt that if all people in the group completed work, they got along better while if there were one or two people who did not complete any work, it led to animosity among the group (Hughes, 2010). The significance of this study provided valuable data to gauge participation and connectiveness in virtual learning platforms.

Increasing the participation and facilitating the use of positive discussions in virtual classrooms would benefit all users (Freedman & Voelker-Morris, 2021). Fostering creativity and engagement by communication with others through group work and supportive virtual environments would prove successful for a virtual platform. The ongoing need for feedback and communication is a necessity and the virtual course must be designed with that in mind. Students must have multiple avenues for communication with their instructor and their peers to successfully engage in a virtual setting (Freedman & Voelker-Morris, 2021).

The research performed on virtual learning programs have used the social learning theory of Etienne Wenger which identifies that the social aspect is part of the learning process (Wenger, 1998). The virtual learning community can be a positive program is the proper feedback and socialization aspects are achieved (Pudelko, 2003). When students enter the virtual learning programs, most of the time, they do not know the other members of the group. Interaction and communication are important but must be a two-way street by all participants. Learners could form lasting relationships and have valuable communication lines in a virtual setting (Pudelko, 2003).

Student retention in virtual learning programs can be influenced by the sense of belonging, connectedness, participation, and feedback that students receive (Laux et al., 2016). Fostering a collaborative learning style in virtual platforms has been important to student success. The amount of social interaction has been an instructor and student responsibility. Instructors must facilitate interaction among students but also foster positive communication and shutting down conflicts. This can enhance students' sense of belonging and their perception of a positive virtual platform. Lower levels of connectedness through virtual platforms have shown increased levels of stress (Laux et al., 2016).

### **Social and Emotional Learning**

Social and emotional learning is a mandatory part of Kentucky grade school's curriculum as of July 1, 2021 (CASEL, 2021). Social and emotional learning curriculum provided students with the opportunity to learn the five components of the Collaboration for Academic and Social Emotional learning (hereinafter referred to as CASEL) model. The five components that lead to student growth and engagement were identified as Self-Awareness, Self-Management, Social Awareness, Relationship Skills, and Responsible Decision-Making skills. The lesson plans and

activities provided to staff, and teachers allow students to learn coping skills and how to balance their stressful school and home environments. The CASEL model also identified needs where students needed extra mental health assistance (CASEL, 2021).

### **Integration of Mental Health in Education**

One in five children living in the United States show signs of having mental health issues (Anderson & Cardoza, 2016). Approximately half of all mental disorders have an onset of symptoms by age 14 (Moffa et al., 2018). During an interview with a child experiencing anxiety and depression, the child reported that students bullied her and called her fat. She reported that her grades began to decline, and she began doing anything not to be around other kids, she would hide in the bathroom or in a teacher's room, she also stated she was self-harming herself. She also reported that nobody asked her about her mental health issues and that she would have told someone had they asked her (Anderson & Cardoza, 2016).

### **Universal Screener**

It was recommended that school teams of administration, counselors, and mental health therapists design a screener to ensure that mental health needs are being met before students experience symptoms of concern (Anderson & Cardoza, 2016). Studies have shown that school sense of belonging needs to be placed on the screener and given to students regularly to ensure no student is falling between the cracks. By giving the screener to student's multiple times in their school career, this can ensure that students are not having issues transitioning to new schools, making friends, new classes, etc. Early prevention is the best form of mental health response (Anderson & Cardoza, 2016).

## **Mental Health Issues**

Conduct disorder is described as antisocial behavior causing students to go against social norms and rules and typically engage in deviant behavior (Waddell et al., 1999). These types of students are typically labeled as bad children and are at-risk of failing, dropping out of school, running away, truancy, and other deviant behaviors. Conduct disorder is one of the most prevalent long-term mental health concerns in North America. There are multiple reasons for conduct disorder to begin in school-aged children. Poor grades in school, large families, family dysfunction, poverty, inconsistent parenting, chronic health issues, being of the male gender, and exposure to violence are all correlated with conduct disorder. The three that have been researched and proven to directly correlate with conduct disorder have been inconsistent parenting, failing grades, and exposure to parental/family dysfunction (Waddell et al., 1999).

Mental health issues in youth can lead to violence as youth and into adulthood (Waddell et al., 1999). Typically, deviant behavior that leads students to the juvenile justice system before ages 10 or 12 has a greater severity that students will continue that lifestyle into adulthood. In addition, research has shown that there has been some type of disconnect in the home and/or school environment to warrant the deviant behavior. If the mental health issues causing students to be violent and causing antisocial behavior can be addressed while students are school-aged, violence and deviant behavior is less likely to continue. The chain of destruction can be altered or changed while students are young, however, reasons for the behavior and proper treatment must be determined (Waddell et al., 1999).

The study completed by Olfson et al., (2014) uncovered mental health issues in school-aged children were increasing each year. The study was conducted on 230,070 students ages 12-17 and was sponsored by the Substance Abuse and Mental Health Services Administration.

Students were asked if they had ever received any type of mental health treatment (inpatient or outpatient). In addition, questions such as self-harm, homicidal tendencies, acting out, chronic absences, relationship problems, feeling of hopelessness were also asked. The study revealed that 19.7% of students in the study had received mental health care during that year. Unfortunately, some students who need mental health services do not fill out referrals to speak with mental health professionals (Olfson et al., 2014). The importance of this study provided valuable information related to mental health and student services.

### **Mental Health and Sense of Belonging**

Sense of belonging and relationships with teachers and students all combine to form positive or negative mental health (Phillippo & Kelly, 2014). There are a variety of viewpoints relating to whether teachers should be involved in students' mental health issues such as trauma, depression, suicide, anxiety, etc. However, teachers will always be involved whether they want to be or not. If positive relationships are formed with students, students will feel comfortable talking to their trusted adult at school and may share mental health concerns and issues with teachers and other adults. Teachers should be equipped with the tools necessary to assist students with these issues. Supportive environments and training should be available for teachers who wish to take on these challenges to better communicate with students and help them in their daily lives. Teachers should feel comfortable speaking with a mental health professional about a student so that the right course of conduct can be applied to each specific student (Phillippo & Kelly, 2014).

### **Teacher Perceptions**

The study conducted by Phillipppo and Kelly (2014) indicated that teachers felt unprepared to handle mental health issues that students brought to their attention even though

they had made long-lasting positive relationships with students. In addition, the study revealed that teachers regularly encountered students with mental health issues and concerns. The study also revealed that when participants were speaking with students about various issues, if teachers did not know how to respond, they would avoid direct engagement with the student and try to steer the student away from the conversation and onto something else (Phillippo & Kelly, 2014).

### **Shift to Virtual Learning**

The shift to virtual learning from in-person learning in a matter of days took a detrimental toll on students (Stringer, 2020). Students who were great students before the pandemic became withdrawn, uninterested, and made poor grades while on virtual learning. Most parents blamed the virtual learning aspect as the reasoning; however, mental health of students had been altered and is one of the causes of the behavior shift. Students were staying up later, sleeping in later, playing video games more often closed off in their bedrooms away from the outside world, most were not able to play with friends and some not able to see other family members who did not live in the same household. Parents were complaining that their children were unmotivated to do the schoolwork provided from their teachers (Stringer, 2020).

Students were expected to be able to log onto their computers, pull up assignments and complete the work, some without any interaction from their teachers and zero interactions from other peers (Stringer, 2020). Group work was non-existent, and most peer relationships had dwindled. Students did not feel connected to their teacher, the class, the school, or their peers. Online programs can be successful if used correctly however mental health must be addressed as a high value component (Barr, 2014). Relationships made with friends and teachers were strained and inconsistent. Goodenow (1993), found that there was a positive relationship between

teacher support of students and student engagement and achievement. Virtual learning platforms limited teacher contact to students and relationships dwindled because of this (Barr, 2014).

A student experiencing mental health issues such as anxiety, depression, stress, or alcohol/drug abuse can have negative effects on other aspects of their lives (Barr, 2014). A student could experience difficulty completing the assignments within the time constraints provided, and difficulty taking the steps to reach out to an instructor. 75% of mental illnesses occur before age 24 with the average age being 18-24. Often, mental health issues arise earlier in life due to student environments. There are multiple warning signs of mental health issues in online students. Instructors must be proactive in looking for issues such as irritableness, sudden change in assignment quality, late assignments, disrespectfulness, non-responsive, and bizarre behavior in discussion/group posts. Teachers must contact students and make a connection to see if there are issues that they can assist with (Barr, 2014).

Stress played an important role in mental health issues and young children were not equipped to handle the stress of a worldwide pandemic (Singh et al., 2020). Students were placed on lockdown with their parents which resulted in behavior issues, withdrawn behaviors, and isolation. Students were vulnerable to mental health issues by being forced out of school, out of daily routines, and some into negative home situations. Even if students were in positive home life situations, they were out of their routines and did not know how to handle themselves (Singh et al., 2020).

Students were trying to balance virtual learning while working multiple hours per week while learning how to manage their time and homework (Pope, 2021). Students were more stressed during the pandemic because they had not yet learned the skills they needed to thrive in a virtual environment while working, some full-time schedules. In addition, students were

sleeping less hours. In a study on an episode of *School's In*, 43% of students reported sleeping less during the pandemic than pre-pandemic while 5% of students reported they were getting less than four hours per night of sleep (Pope, 2021). Students reported being stressed over relationships with friends and teachers, money, work, and their schoolwork. Seniors reported being stressed over the next steps in their lives such as workforce or college decisions (Pope, 2021).

Much like the rest of the world, students in the West Contra Costa Unified school district in California resorted to online school for the remainder of the 2020 school year (Mascorro et al., 2020). Interviews were conducted with multiple students to get their perspective on virtual learning and the pros and cons of the experience. One student reported that prior to virtual learning, her mental health was great. However, during and after the virtual learning experience, her mental health declined, and she felt as if she were mentally exhausted and could not focus on school. She reported the isolation, and the toll of virtual work was too much for a high school student to endure. Another student reported the lack of communication with teachers was hard to handle and the inconsistency of when students would receive responses was difficult to maintain. A senior in the interviews reported that he struggled to remain calm because the isolation of quarantine and the stress of virtual learning had taken a toll on his mental health (Mascorro et al., 2020).

### **Mental Health and Technology**

In addition to belonging and connectedness, other mental health concerns also existed during virtual learning due to extended technology use (Hoehe & Thibaut, 2020). Brain imaging has shown that psychological changes happen to the brain during childhood and that the use of technology influences how the brain functions regarding language, cognition, and perceptions.



There are multiple articles relating to the use of technology and the damage being done to the adolescent brain. During adolescence, the brain is still developing the social and emotional learning receptors and learning how to react to certain situations. Technology advances have made a profound impact on how adolescents react to situations. Students are unable to hold attention spans in classrooms for assignments or interactions with their peers. In addition, mental health issues and well-being will remain on the forefront if technology is not limited for adolescents (Hoehe & Thibaut, 2020).

A study conducted about the use of internet and mobile phone usage yielded results that exposure to cyberbullying related to adolescent's mental health (Calpbinici & Arslan, 2019). Adolescents have far too lenient access to internet and have negative practices on technological tools at their disposal. Adolescents with prolonged internet and cell phone use experienced increased mental and behavioral problems. Cyberbullying also has lasting effects on adolescents due to the threatening nature of the messages and/or actions. Adolescents exposed to cyberbullying have an increased likelihood to be diagnosed with depression, anxiety, insomnia, suicide ideation, low self-esteem, isolation, and withdrawn behaviors (Calpbinici & Arslan, 2019). This study provided valuable data about cell phones, internet, and mental health for teenagers. Devices with internet are available to most teenagers and they are causing significant issues in development and with mental health.

A study was conducted on 8,311 high school students and self-report data was collected regarding student's internet use using the Likert scale. In addition, cyberbullying questions were also asked to see if students had been exposed to cyberbullying tendencies online. The results yielded that 77% of adolescents had access to computers in their home, and 60% used a computer before age 11. 49% of students reported they had engaged in cyberbullying behavior

by either mocking someone over the internet, published photos of a person they wanted to harm, acted as if they were someone else, sent threatening messages, and distributed negative information using the internet. 61% reported they had been exposed to the same type of cyberbullying. Anxiety, depression, low self-esteem, and hostility were higher in those adolescents who reported they were exposed to cyberbullying than those who were not exposed. It was determined that prolonged exposure to the internet caused mental health concerns related to cyberbullying (Calpbinici & Arslan, 2019).

Students have tendencies to do better in school when they feel as though they belong, and exhibit decreased mental health concerns and deviant behavior (Koppa et al., 2018). Sense of belonging and connectedness directly correlate with negative and positive behaviors of students. Positive relationships have also shown to contribute to decreased violence, substance use, failures, and suicides (McNeely et al., 2002). Students were faced with little contact with teachers and other students as well as isolation to the outside world which damaged relationships (Ignacio, 2020).

### **Mental Health Services**

Between 2012 and 2015, 35% of students who received mental health services received services from school settings (Stringer, 2020). Unfortunately, mental health needs of school aged children are not being met due to poverty levels and failed access to programs (Hodgkinson et al., 2017). Almost 80% of students who need treatment do not receive treatment today (Anderson & Cardoza, 2016).

### **Intervention**

The first step to intervening with a child who has exhibited mental health concerns is to talk to them (Anderson & Cardoza, 2016). This includes any person that this student encounters

such as family, friends, teachers, social workers, counselors, school nurse, any medical staff, and administration. If all these individuals follow up on a child they are concerned with, this could lead to quicker assistance and help for the child and possibly decrease the self-harm or deviant behaviors (Anderson & Cardoza, 2016). Some schools face shortages with school counselors and mental health therapists making the mental health team at a school almost impossible to complete (Olfson et al., 2014).

There are multiple interventions available for school-aged children if they can access the resources (Offord & Bennett, 1994). Prevention of mental health issues is just as important as treatment of mental health issues. Providing targeted services to at-risk families and students can prove successful in both prevention and treatment (Waddell et al., 1999). Treatments can be costly if families cannot afford proper insurance, thus leaving students and families left without preventative measures or treatments. One way to ensure that students are placed in targeted groups would be to assemble a team with mental health professionals, school personnel, and juvenile justice members to ensure that the student is being provided with all possible treatment options and that student is accepting treatment. In addition, a plan must be made for both student and family to ensure that the long-term interventions applied will stay in place and be continued for as long as necessary (Waddell et al., 1999).

To be considered as receiving mental health treatment, students must have had some type of treatment within the last 12 months (Olfson et al., 2014). During the Olfson et al., (2014) study, the results showed that 61.5% of students who had received mental health treatment were being treated in out-patient facilities. While 48.8% received treatment at school, 14.5% with medical services, and 12.3% with inpatient mental health services. Some students reported that they had received treatment while in therapeutic foster homes. Prior to COVID-19, less than 10%

of the United States population had used telehealth virtual services for clinical experiences and only 18% of doctors had provided those types of services (Warren & Smalley, 2020).

According to the Western Interstate Commission for Higher Education, the same services that are provided for on-campus students must also exist for online students (Barr, 2014). Students should be able to access the same resources available for in-person students to avoid issues. Students should have access to mental health education such as pamphlets on certain disorders and concerns that might arise with students. In addition, students should also have access to immediate crisis centers, self-help services, additional referrals, and inpatient and outpatient services (Barr, 2014).

### **Virtual Options**

The study completed by Hawke et al., (2021) interviewed 409 participants about their ideas and views on virtual mental health services during the COVID-19 pandemic. Data was collected between August 7, 2020, and August 30, 2020, with the Center for Addiction and Mental Health being over the study. The Global Appraisal of Individual Needs (GAIN) Short Screener was used as a self-reporting tool that allowed students to report behaviors of substance use, crime, and violence. Students rated response from never, to within the past month. Students were also asked if they were willing to consider virtual mental health services prior to the pandemic, most agreed they would have considered individual virtual services with 73% while 40% in each group would consider group services (Hawke et al., 2021).

The study also asked the 121 participants who had participated in virtual experiences to respond to questions about whether the services helped or if they would continue virtual services (Hawke et al., 2021). Of those who participated in individual services, 70% participated via video chat, 61% by phone, and 18% by chat or email. For those that participated in group

services, video chat ranged at 80.8%, while group phone sessions were at 23.1%, and chat/email was 23.1% (Hawke et al., 2021). Unfortunately, 144 participants reported they had been receiving treatment before the pandemic and 67 of those students reported their services changed for the worse during the pandemic. While 25 students reported their services did not change for the better or worse, with 25 students reporting their services changed for the better (Hawke et al, 2021).

The programs that can be useful for virtual platforms are mindfulness, mediation techniques, crafting, awareness activities, and recreational activities (Hawke et al., 2021). Providing students with gateways to express themselves are a great way to incorporate mental health support into virtual platforms. Allowing students to craft or get into fitness, nutrition, or scrapbooking, can be a channel for the negative energy they have with their mental health issues (Hawke et al., 2021).

The executive mandate issued by President Trump on March 17, 2020 gave public and private agencies the ability to allow for virtual counseling options, telephone calls, and other forms of communication that were previously prohibited (United States Department of Health and Human Services, 2021). This executive order relaxed the HIPPA regulations to make it easier for therapists to communicate with clients now that in-person services were not being offered. This order allowed therapists to see clients through Zoom or other virtual platform, speak to them on the phone, and refill medications by a phone request instead of an in-person appointment (US Dept of Health and Human Services, 2021). There were multiple limitations for local therapists due to internet access, and lack of other resources. In rural communities, some therapists did not have internet access prior to COVID-19 and did not own personal devices or have company issued laptops.

### **Limitations to Virtual Platforms**

There are limitations to virtual programs with mental health issues such as internet issues, response times, and privacy (Hawke et al., 2021). Students were used to entering a room with only the therapist present listening to their concerns whereas with virtual platforms, the student would log on wherever they were, sometimes not being alone due to the household makeup and family schedules (Warren & Smalley, 2020). In addition, some students faced the issue with not having reliable internet and being able to connect with their therapist when they needed to. Along those same lines, response times became an issue during the virtual world due to the therapist working different hours to try to respond to all students on their caseloads. This meant that not all students always had access to their therapist, whereas during school hours, students at least had access to their therapist for seven hours per day (Hawke et al., 2021).

Privacy concerns were also at the forefront of doctor's offices and clinical practices due to HIPPA compliance (Warren & Smalley, 2020). Clinical practitioners were concerned with the legalities of HIPPA and did not want to violate any federal laws or practices. Prior to COVID-19, the only approved telehealth options were those of chronic illnesses that would not allow patients to report to the doctor's office every week without complication. Now, telehealth options are available to most patients and mental health patients can receive treatment quicker through telehealth than waiting which could prove beneficial and safer (Warren & Smalley, 2020).

### **Promoting Virtual Options**

The West Virginia Department of Education provided an informational pamphlet to assist students and parents with the virtual learning aspect (Virginia Department of Education, n.d.). The information provided encouraged teachers to be mindful of student's mental health and to assist them with the resources and tools they would need to be successful virtual learners. In

addition, students were reminded that social interaction would be limited but they needed to be supportive of their classmates and teachers to encourage connections and belonging. Mental health concerns remained at the forefront of virtual learning platforms and students must be interacting socially and providing feedback to other students and responding to their teacher to be successful (Virginia Department of Education, n.d.).

The framework for the virtual mental healthcare system was developed to assist students who were struggling at home due to isolation of the pandemic and stress from virtual learning (Doan et al., 2021). Most clinics did not offer a mental health telehealth option prior to COVID-19 due to privacy concerns and the need for safe spaces for patients. Mental health professionals used a variety of warming activities including toys, books, and fidgets to make patients feel comfortable in their offices. This was unable to be accomplished through a video screen. Telehealth options can provide flexibility with patients and guardians by providing a variety of times that students could participate in sessions. Doan et al. (2021) explain that guardians must sign privacy waivers and be able to provide respectful environments where children could receive treatment at their residence. In addition, reliable internet and an electronic screen must be available in the household. Parents must be willing to provide this environment and if they do not, other options must be explored and the reasoning for their unwillingness must be examined to see if there are other household issues (Doan et al., 2021).

The virtual reality programs can be extremely important in treatment of any mental health disorders as well as interventions for electronic use (Hoehe & Thibaut, 2020). The therapist would have access to all the materials the child would need and would work with the child and parent to develop a sound program that would address all the issues the child was

having. Children can engage through virtual reality much like they would in the office one-on-one with the therapist.

### **Impact of COVID-19 on Virtual Learning**

Unfortunately, COVID-19 forced our country into virtual learning during most of the year 2020. Students were forced to communicate with teachers and other students on virtual platforms and did not see their peers and teachers very often if at all. Virtual learning can be beneficial to teachers and students if used correctly (Alves et al., 2017). High school students were forced into the virtual learning environment without having the tools to be successful. One of the most prominent barriers to virtual learning is that students lose contact with teachers and peers (Muilenburg & Berge, 2005). Students no longer have daily face to face access to their teachers or peers. In addition, most students completed their online assignments at their home with multiple distractions which could make virtual learning almost impossible considering some circumstances. If students are faced with negative home environments and they use school as an escape, virtual learning at home in a negative environment will cause a struggle and likely end in failure for students (Muilenburg & Berge, 2005).

The COVID-19 pandemic wreaked havoc on all students from elementary to college age and mental health issues were left untreated due to the pandemic restrictions (Singh et al., 2020). Some students were isolated at home with pre-existing mental health issues unable to attend virtual mental health sessions due to unreliable internet. In addition, students were at home with unsafe or negative environments and lots of underprivileged families being forced to provide two additional meals per day now that students were not eating breakfast and lunch at schools. This placed stress on the family unit and additional stress on each student especially if they had pre-existing mental health issues. Children with mental health issues do well with structure and



routines. Structure and schedules were thrown out the window when in-person schools were shut down and parents were told they had to choose between staying home with their children or keeping their jobs. A lot of children were left home alone if they were of age and they were completing assignments by themselves whenever they wanted to, there were no schedules to tell them when to eat breakfast, do math work, do English, restroom breaks, etc. Students completed (or did not complete) the assignments at their leisure (Singh et al., 2020). Students lost contact with teachers, peers, and some lost contact with a lot of family members other than immediate family who lived with them.

In addition to loss of face-to-face relationships, teachers also lost contact with at-risk students, and it is difficult for teachers to identify at-risk students from different grade levels (Alves et al., 2017). Some students who can do the work refuse to do the work because they are lazy while some students need extra assistance but refuse to ask for help or do not turn in assignments. During the COVID-19 virtual learning experience, teachers were required to weed through students who are capable and students who are at-risk of risky behavior and/or retention (American Psychological Association, 2020). Daily and weekly monitoring is an important part of the virtual learning process so that no student gets left out, feels left behind, and therefore withdraws from the course or school environment (Alves et al., 2017).

Parents and school staff must be proactive when handling students who are primarily virtual (King, n.d.). Students may not be accepting to mental health programs in a virtual setting but now that COVID-19 has forced all career and school programs to perform in some virtual aspect, the virtual platforms are here to stay. Students need to be reminded of the flexibility of virtual mental health assessments and appointments; this can be a turning point to get students on board. In addition, transitioning students from an all-virtual platform whether it be school or

mental health appointments will be a challenge that all team members must take slowly and carefully to ensure no step backs and additional stress are added to the student (King, n.d.). Schools can maximize participation among students and increase positive relationships which could limit their need for mental health services based on belonging in the future (Brooks, 2006).

Students were living in an unstable environment with uncertainty due to the COVID-19 pandemic (King, n.d.). Students were expected to complete two to three hours of work sometimes without instruction from a teacher all while dealing with home environment issues that may not have been safe before the pandemic. Prior to COVID-19, students were able to attend school for five days per week, seven hours per day, providing them a release and time away from an unsafe home environment (King, n.d.).

### **Ethnic and Cultural Information of Population**

The high school chosen for this study is a Title I school. The reason for choosing a Title I school is because they are limited on resources such as internet opportunities, devices, transportation, and other necessities. A large number of students at this high school receive backpack food on Friday afternoons that gives them three meals per day for Saturday and Sunday since they will not be in the building for those two days. The paperwork sent home each year to families requires them to include how many people live in each home and who in the home is employed, this paperwork is updated into the school district database and School Report card (Kentucky Department of Education School Report Card, 2021). The information from 2019 reported that 68.3% of students were economically disadvantaged. The demographic makeup of this high school is as follows: 96.1% Caucasian or 522 students, 2.2% Hispanic or 12 students, 0.7% African American or four students, and 1% other or five students. 26.9% of

students have behavior incidents with 0.5% resulting in out of school suspensions, and 26.4% resulting in in-school removal programs (Kentucky Department of Education report card, 2021).

### **Summary**

The current research on this topic is not enough to make a generalized statement after reviewing the impact of COVID-19 on the mental health and social emotional learning of children. The theories of belongingness provide a history of the need to feel loved, feel as though you belong, and have the motivation to sustain lasting relationships and attach to others. (Andermann, 1999). In addition, the theories related to development and attachment prove there must be clear expectations for all children to sustain a healthy environment and learning capabilities related to belonging (Ainsworth & Bowlby, 1991).

The constructs of belongingness identify the need for school membership, inclusion, and connectedness to other people. Adults must provide motivating factors to facilitate the attachments and healthy relationships (Caravallo & Gabriel, 2006). In addition, children must be provided a safe environment for diversity and allow them to advocate for the changes in culture, connections, and relationships (Keyes, 2019). Children want to belong in a variety of places: school, work, home, and friendships. The positive or negative relationships formed can have lasting effects on children beyond adolescence (Falloon, 2002). The theories of teaching and learning explored within this literature review are not new concepts. Each theory provides a set of standards related to adolescent learning and the effects that each theory can have on adolescents if certain factors are not removed (poverty, domestic violence, etc. (Bosley, 2016).

Virtual learning and the negative impacts of certain models have had a detrimental effect on adolescents (Laux et al., 2016). The social emotional learning aspect of mental health is important and identifies key components crucial for belonging and connectedness to peers

(CASEL, 2021). There are a wide variety of mental health programs for children in the US and some have transformed into telehealth operations (Anderson & Cardoza, 2016). After the pandemic, students have reported sleeping less, more stress, and less time management skills (Pope, 2021). These important factors have stemmed from virtual learning and how it affected the mental health of children (Calpbinici & Arslan, 2019).

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

The purpose of this chapter is to introduce the research methodology for this qualitative theory study regarding virtual attendance and in-person attendance and the impact on belonging. The phenomenon for this study was to focus on the mental health needs of students and the relation to belonging. This approach allowed for more in-depth responses and elaboration during the COVID-19 pandemic. The qualitative research approach for this study is discussed in-depth in this chapter. The research plan, including the methodology, procedures, analysis method, participants, and ethical concerns are primary concerns of this chapter.

#### **Purpose of Qualitative research**

The type of qualitative research in this study is phenomenological in nature. This method focuses on a phenomenon and focuses on the feelings, opinions, interactions of groups of people and lived experiences (Teherani et al., 2015). If performed correctly, qualitative research methods can be helpful to health services and health policies (Sofaer, 1999). Qualitative methods include open ended questions to participants that can elicit additional information beyond the original question posed.

This study focused on the phenomenological approach to qualitative analyses. Phenomenological qualitative research is a search for a particular meaning about a lived experience (Boss et al., 1996). The idea of phenomenological research is to explore the emotions and perceptions of the participants. The goal of this type of qualitative study was to elicit responses and therefore smaller sample sizes are best suited for this type of research since the study is based on responses and perceptions and has nothing to do with number of participants. (Boss et al., 1996).

### **Research Method and Appropriateness**

The reason for choosing a descriptive case study method of qualitative research for this study was because a variety of responses can be collected in which responses pertain to current situations. This type of method is especially important when trying to answer “how” or “why” questions as included in this study (Baxter & Jack, 2008). This study conducted interviews individually instead of focus groups due to the nature of the questions regarding mental health. The rationale for this was so that participants felt comfortable to share their perceptions and experiences individually with the researcher that they might not have felt comfortable doing in a whole group discussion. Interpretation of responses was confirmed after transcripts were printed and confirmed with each participant.

### **Research Questions**

This study aimed to inquire how adolescent belonging relates to mental health during virtual and in-person learning. The research questions for this study were:

- 1: How did high school students experience belongingness with teachers and peers when engaged in virtual learning?
- 2: How did high school students experience mental health issues during virtual learning?

### **Role of the Researcher**

The researcher has been an observer of students amidst a pandemic for the last two and a half years. It has been apparent that when students returned to school after the pandemic, their mental health had suffered during their experience of virtual learning accompanied with other factors as well. It was the researcher’s belief that students’ sense of belonging and in-person attendance correlate strongly with mental health and positive actions. The researcher has come in contact with multiple students with mental health related concerns and issues. The researcher

limited bias by including all responses in the study including students who state their mental health has been unaffected due to COVID-19 and virtual learning.

Bias was limited in this study by coding multiple times with the co-researcher to ensure categories, codes, and subcodes were accurately depicted. In addition, participants reviewed their transcripts for accuracy. The researcher shared transcripts with co-researcher after participants had signed off. The researchers worked together to discover final categories, codes, and subcodes.

The researcher kept an extensive set of field notes in a binder only accessible to the researcher. In addition, the researcher conducted various dialogues with the co-researcher. The researcher was aware of the biases the researcher had in this study due to participating as a participant in virtual learning for a semester or more. The researcher understands that the possible bias of virtual learning placed on mental health and belonging is a serious issue. The researcher used bracketing with a co-researcher to limit the bias in this study (Chan et al., 2013). The researchers met to discuss possible preconceptions about interviews and responses that the researcher could encounter. The researcher was aware that they must put aside their preconceptions about virtual learning, belonging, and mental health to achieve trustworthiness and credibility in this study. Bracketing ensured that the bias's in this study were limited (Chan et al., 2013). The researcher had to put aside their own beliefs about belonging and virtual learning so that categories, codes, and subcodes were formed with bias opinion. Bracketing ensures that the researchers bias are eliminated by thinking of questions before the interviews commenced (Chan et al., 2013). In addition, the researcher did not know the lived experiences of each participant prior to the interviews.

While the researcher had a set of open-ended questions as a guide, some, or all would not be answered during each interview. The researcher used the participants actions, words, and perceptions to field questions and elicit responses throughout the interviews to have an objective study so that the researcher's perceptions did not interfere with the study. In addition, the researcher and co-researcher convened to discuss themes and possible variations in responses before and after the interview process.

The researcher conferred with the co-researcher to determine categories, codes, and subcodes. The researchers used inductive coding to interpret the codes. Inductive coding allows researchers to take the data and form codes based on the opinions, ideas, and perceptions that appeared from interviews (Yanto & Shang, 2017). The researchers created a list of possible categories after the first read through the transcripts. Secondly, codes were formed and then subcodes. As the researcher put the opinions and statements into coded categories, additional subcodes were formed. Lastly, categories, codes, and subcodes were altered when the researcher was writing the final narrative of the study.

### **Description of Population and Sampling**

Students at a rural high school in Kentucky were chosen for this study and convenience and purposeful sampling was used in this study because participants at this high school completed at least one semester virtually. All students in the United States have experienced mental health challenges stemming from the COVID-19 pandemic. A rural high school was chosen for this study because the options for rural students are less than those of urban communities due to lack of resources. The researcher has developed a variety of partnerships with professional organizations and due to the pandemic, convenience sampling was deemed to be the most appropriate and effective sampling method.



### **Geographic Location**

The county from where the sample was pulled was a small rural county where the school demographics match the demographics of the county according to the 2020 census (U.S. Census Bureau, 2020). The population of the county in which the study took place in is 95% Caucasian, 2% African American, 2% Hispanic, and 1% unknown. The household income of the county is under \$55,000 annually. 26% of children under 18 are living below the poverty line while 13% of senior citizens are living below the poverty line (U.S. Census Bureau, 2020). 41% have graduated high school, 23% have no degree whatsoever, 21% have some college, 9% have a bachelor's degree, and 5% have post-graduate degrees (U.S. Census Bureau, 2020).

### **Sampling and Sample Size**

The sample size of 15 participants was chosen due to the hermeneutic phenomenological research method chosen for this study. Hermeneutic phenomenology focuses on the participants interpretation of certain lived experiences and allows the researcher to conduct the study by gaining opinions and perceptions about certain experiences (Thompson, 1981). In general, smaller sample sizes are best suited for this type of research where perceptions, ideas, and opinions on a certain phenomenon are studied. Smaller sample sizes allow researchers to not saturate the study with repetitive responses (Boss et al., 1996). The researcher chose 15 participants and began coding immediately after interviews by printing transcripts. The researcher did the initial coding in the margins of the transcripts. If the researcher had not forthcoming themes, codes, or categories, the researcher would have conducted second or third interviews with participants. However, enough categories, codes, and subcodes emerged so that additional interviews were not necessary for this study. In addition, the responses received by the

researcher were similar for the questions and there was not a lot of new information in the responses to warrant additional interviews.

This sample size offered a wide variety of responses yet not an overwhelming abundance of the same responses which tends to happen in larger sample studies. Participants were chosen based on the attendance data from 2020-2021 because all students were marked as not actively participating in virtual learning (i.e., not doing their online work or communicating with their teacher or peers) or participating (i.e., completing online assignments and communicating with teachers and peers) last school year. An initial, random sample of 50 participants from the overall student population were chosen at random. From that 50, 15 other participants were chosen to be included in the study but six of them were quarantined and unable to participate so additional participants had to be chosen. Within the first 15 chosen, there were several students that could not be reached due to them being chronically absent and unable to reach. Another 15 participants were chosen from the initial 50. In addition to being sure the participants could be reached, the researcher also checked participation rates during virtual learning. Seven students were chosen based on them not participating and eight students were chosen because they did participate during virtual learning. Participants were asked if they would like to participate in the study. If students agreed, they were sent home with consent forms for parent/guardian to sign and minor assent forms for student information. It was explained to participants that they could opt out at any time.

### **Analysis of Demographic Data**

The demographics for the first 50 random participants (Table 1) for this study included high school students aged 14-18 years old. Participants were then narrowed down to 15 participants and the demographic data is represented in Table 2. Due to the limited amount of

racial diversity in the population, the sample, consequently, was comprised of all Caucasian participants.

**Table 1:**

**Demographic data for 50 participants**

Demographics	Number of Male Participants	Number of Female Participants
Gender	22	28
Age	15 years olds - 2 16 years olds - 6 17 years olds - 6 18 years olds - 5 19- years olds 3	15 years olds - 3 16 years olds - 7 17 years olds - 8 18 years olds - 9 19 years olds - 1
Ethnicity	Caucasian - 20 Hispanic - 2	Caucasian - 26 Hispanic - 1 African American -1
Participating	4	17
Not participating	18	13
Learning Level	At risk - 11 Honors - 1 Average - 7 Gifted - 3	At risk - 4 Honors - 4 Average - 14 Gifted - 6

**Table 2:**

**Demographic data for 15 participants**

Demographics	Number of Male Participants	Number of Female Participants
Gender	4	11
Age	16 years olds - 2 17 years olds - 2	15 years olds - 2 16 years olds -1 17 years olds - 4 18 years olds - 4
Ethnicity	4 Caucasian	11 Caucasian
Participating	1	6
Not participating	3	5
Learning Level	At risk - 1 Average - 2 Gifted - 1	At risk - 2 Honors - 1 Average - 5 Gifted - 3

### **Data Collection Procedures**

The interviews were conducted in-person and were recorded with the researcher's computer with an encrypted password lock. The Google Meets software was used to transcribe all interviews. The transcribed interviews were uploaded into a Google Drive folder on the researcher's Google desktop with a password to protect the individuals. The data was analyzed by using the transcriptions to search for themes or patterns in the codes the researcher has created. The inductive coding type ensured that correlations, similarities, and differences, were noted for each question and/or response. Participants reviewed their transcripts after the interviews and initial round of coding was placed in the margins. Participants signed off on their transcripts to ensure accuracy.

### **Trustworthiness and Credibility**

There are multiple strategies to ensure trustworthiness in qualitative research. The most notable ways to ensure trustworthiness are credibility, transferability, dependability, and confirmability (Guba, 1981). Credibility can be established by accounting for personal bias, ensuring records are maintained clearly and accurately, and engaging with a co-researcher to bracket themes and codes. Transferability refers to the results of a study being applied to other studies or situations (Guba, 1981). While this study encompasses a small number of participants, the responses gained can be utilized across the board in virtual learning studies along with belonging and mental health studies. The opinions and perceptions outlined in this study can be used to enhance virtual learning programs and assist with mental health programs for students. Dependability in qualitative research can be obtained in this study by utilizing the research committee to review the research process and data analysis to ensure all findings are consistent.

Lastly, confirmability can be established by ensuring that participants words are what they truly meant and are their perceptions and with no intrusion of the researcher's biases (Guba, 1981).

Participants were asked to review their transcriptions and themes to ensure the researcher accurately made meaning of what each participant said. This ensured credibility with this study because each participant reviewed their responses before they were entered into the study. In addition, the data analysis was reviewed the co-researcher, an expert in relationship and belongingness, to ensure accuracy of categories, codes, and themes.

### **Informed Consent**

Participants were reminded their participation would be coded using a pseudonym and their participation was not required as part of any requirement for school or other entity. The 15 who participated in the interviews were sent home with an informed consent permission slip to give their parent/guardian. Guardians were sent a letter explaining what they are participating in and what the results were examined for. Students and parents were reminded they could refuse to participate in the study and terminate their part in the study at any time. If students and/or parents/guardians refused, their non-participation was noted in the data analysis portion of this study. In addition, students were also given a minor assent form explaining the purpose of the study and their role in the study. The minor assent form has no legal bearing, it is purely informational and put into words so that students understand what they are participating in. No students or parents refused participation in this study.

The consent forms also explained the need for mandatory reporting if necessary, during interviews. If students report sensitive issues that warrant reporting, then the researcher would have referred the student to the appropriate party. If sensitive issues arose that do not warrant reporting, the researcher would have provided the student with literature and potential contact

information of professionals who could assist the student. The researcher worded questions sensitively to limit triggers but if they arose, the researcher ensured all appropriate legal channels had been followed and referrals or reports made so that ethical dilemmas were handled appropriately. The researcher also provided an introduction to the mental health questions as to prepare students that sensitive questions were to follow. No students indicated they needed additional mental health resources.

### **Confidentiality**

Guardians and students were reminded that all responses would remain confidential to each person. Responses were used in data analysis, pseudonyms were used in the analysis portion of this study to protect confidentiality of all participants. Confidentiality was maintained throughout the entire study by coding the participants names on Google Sheets that only the researcher had access to. Google Authenticator with two-way security passwords were used to keep the data secured.

### **Withdrawal Process**

Students or guardians could withdraw from this study at any time by informing the researcher about their desires to withdraw from the process. The participant could provide the reason they wish to discontinue with the study, but they were not required to do so. No participants withdrew from the study.

### **Data Security**

Data was only available on the researcher's locked computer with a password until placed into tables with codes that were used in the data analysis portion of this dissertation. Initial data analysis was conducted on the day after each interview occurred to limit information being misconstrued with another interview from another participant.

During each interview, notes were taken by the researcher. The notes were typed in a Google Sheets document. The individuals name was not used and only a secret code known only to the researcher was used for the Google Sheets note portion.

After all interviews had concluded, responses were coded for themes to assess major categories. All data was analyzed using veracity regardless of the opinion of the participant and whether it answers or negates the researcher's questions. To maintain trustworthiness and validity, the researcher pulled all responses from questions into one Google Sheets so that comparisons could be done on one form. On the same Google Sheets, the coded data from the interviews were also available. All data was included in the Google Sheets even if not conclusive data for the researcher's questions. To promote data veracity in this study, each student provided a variety of responses and information, all of which were important for the researcher. The researcher placed the statements of participants into certain categories so that each statement fit into the best category and all statements could be used. Whereas, it was easier to filter and create categories, codes, and subcodes when all the statements were related to that particular code.

Using the school district data base, attendance data ensured that parties were chosen using purposeful sampling with 15 random participants. The researcher did not invite participants that they would have regular interaction with to interview in the study to mitigate participants thinking that compulsory participation was required. The interviewees were aware that their responses would be considered anonymous, and nobody would know they participated in this study as their names will be coded by the researcher.

### **Summary**

This purpose of this chapter was to reintroduce the phenomenon, problem, and research questions. The purpose of the qualitative research study was to focus on the feelings and

interactions of others while conducting research. The research questions in this study aimed to gain information about the sense of belonging from students. In addition, the mental health aspect of whether students' mental health worsened with virtual learning and their participation levels in virtual mental health programs was also examined by including questions as to whether or not students participated in mental health programs such as counseling.

The sample for this study was 15 participants. The 15 participants were chosen based on attendance data for the 2020-2021 school year where all students were marked participating or not participating. It was the goal of the researcher to have a group of diverse interviews with high level participation, average, and low-level participation. In addition, the school demographic data that parents and guardians fill out during beginning of the year paperwork was coded and included so that the researcher can view demographic data to look for trends.

Informed consent was obtained by students and legal guardians for all interviews. Guardians were reminded if they do not want their child to participate, they can send the form back indicating they did not want them to. All responses remain confidential, and no real names were used due to the nature of the responses. Guardians and students were reminded they can withdraw from the study at any time. Participants were also sent a minor assent form that explained the study procedures and interview procedures in terms that they can understand which bears no legal value.



## **Chapter Four: Analysis of the Data**

In chapter four, the following information will be discussed: interview process, coding, data analysis and findings. The categories, codes, and subcodes emerging from interview perceptions and responses are noted in the findings section of this chapter. The interview questions, IRB letter, and consent forms are all located in the appendices of this paper.

### **Interview**

The two research questions emerging from the problem statement were “How did high school students experience belongingness with teachers and peers when engaged in virtual learning?” and “How did high school students experience mental health issues during virtual learning?” The questions encompassed both sense of belonging and mental health during the virtual learning experience during the pandemic.

The instrument used in this study was an individual structured interview style instrument where participants were asked a series of questions related to virtual learning, belonging, and mental health. This type of instrument worked best for the sensitive material discussed in the interviews and each participant knew their responses were anonymous. This study was sanctioned by the Murray State University IRB for approval. The interview questions are located in [Appendix A](#) of this paper, IRB letter is located in [Appendix B](#), consent form in [Appendix C](#), and minor assent form located in [Appendix D](#).

Before the interviews, each participant was sent home with a consent form for their parent/guardian to sign. Participants were also given a minor assent form to sign along with explanation from the researcher about the study and voluntary participation. Before the interview, participants were reminded that their participation in this study was voluntary. In addition, participants were reminded of the sensitive information that could be discussed in the

interviews. Participants were also told if they needed mental health services, pamphlets and brochures were available, as was the researcher who would provide telephone numbers for services upon request.

The interviews were conducted individually and audio recorded on Google Meets. The Google Meets transcription service was used to transcribe each interview. In order to ensure reliability of transcriptions, the transcripts were corrected for accuracy and each transcript was printed for the participant. Each participant signed off on their transcript stating that the transcripts provided were a true account of their interview.

### **Coding**

The transcripts from each interview were used to determine categories, codes, and subcodes. Codes were determined by using the simultaneous coding method (Strauss, 1987). This method allowed the researcher to read through responses and determine patterns or similarities in the responses. This allowed the researcher to form codes and subcodes based on the details emerging from each individual interview. Strauss (1987) identifies the coding process as a problem-solving method or rather a discovery of ideas perceived from each interview response. The phenomenology theory model was used to determine both codes and themes based on participant's ideas, opinions, and responses (Strauss, 1987). The focus of the study was to ensure students' opinions and perceptions were accurately portrayed by completing a qualitative research study.

Using Strauss' (1987) process allowed the researcher to organize the responses of each interview into a manageable analysis of similarly coded categories. Categories emerged first when reading through responses, then codes, and then subcodes. After codes were formed, subcodes began to emerge from the responses and codes already formed. The major headings of

each idea can be described as categories while each code can be equipped with subcodes that align with the original code (Strauss, 1987). The researcher worked with the co-researcher to code multiple times before the final categories, codes, and subcodes were determined for this study. According to Ryan and Bernard (2003), this is not an uncommon practice as it takes multiple perceptions, opinions, and ideas to pinpoint the correct categories, codes, and subcodes for each individual study.

The researcher printed each transcript and highlighted the common language in each response. During the analysis of the raw data, codes were determined by research question and then broken down into overarching themes that were identified with each participant through multiple questions and multiple responses. The researcher included all responses in the findings report regardless of agreement or contradiction of research questions.

The mechanics of coding were used as a basis for categorizing and coding this study (Strauss, 1987). The researcher used color coded highlighting and notes in the margins as a basis for determining initial codes. After this, a column table was formed where the raw data of the transcript was placed into the first column, the initial codes placed in the second column, and the final emerging code placed into the third column. This allowed the researcher to view each piece of data individually based on the emerging codes. The mechanics of coding indicated there was no set number of codes or subcodes and that each study would depend on the perceptions received from the interviews (Strauss, 1987).

The researcher collaborated with the co-researcher to determine final categories, codes, and subcodes. The category emerging from the responses for question one was *Reciprocal Relationships/Collective Acceptance*. The two codes determined for this question were *Acceptance of Others* and *Being Accepted by Others*. The subcodes emerging were (a) shared

interest with friends, (b) emotional connection with friends, (c) emotional connection with teachers/school personnel, (d) being valued/cared for by friends and family, and (e) being valued/cared for by teachers/school personnel. The category emerging for research question two was *Spectrum of Covid Consequences*. The codes emerging from this category were *Novel Changes* and *Costs*. The subcodes were (a) autonomous learning, (b) social media, (c), new perspectives on mental health, (d) isolation, (e) hindered social connections, (f) falling behind academically, and (g) depression/anxiety.

To limit bias in this study, the researcher used a set of both participating and not participating in virtual learning. This allowed the researcher to gather responses from a variety of participants rather than just one group that had participated in virtual learning or one group who had not participated in virtual learning regardless of the reasons behind participation level. The interviews were conducted individually so that procedural bias did not occur. Participants were not given a time frame for interviews and their responses were not rushed. The researcher also steered clear of response bias by ensuring the researcher was not putting words into the participants mouth that was not their idea or perception of the question. Lastly, reporting bias was an easier form to limit as the researcher worked to code the data into manageable tables too conduct analysis on. The responses transcribed were the responses given in the interview and thus will be reported in this study.

### **Findings**

The findings in this study were based on a series of questions asked in individual interviews with each participant. Each participant was given a pseudonym to protect their identity. The names for pseudonyms started at the letter A and ended at the letter O (see Table 3).

Qualitative findings in this study fell into two distinct categories: (a) *Reciprocal Relationships/Collective Acceptance*, and (b) *Spectrum of Covid Consequences*.

**Table 3:**

**Demographic data for participants including pseudonyms**

Pseudonym	Gender	Age	Participation Level	Learning Level
Ann	F	17	Participating	Gifted
Bailey	F	17	Participating	Gifted
Charlotte	F	18	Participating	Average
Denise	F	18	Participating	Gifted
Elizabeth	F	18	Not participating	Average
Faith	F	18	Not Participating	At-Risk
Gavin	M	16	Participating	Gifted
Hayley	F	15	Not Participating	Average
Isla	F	16	Not Participating	Average
Jordan	M	17	Not Participating	Average
Kayla	F	17	Participating	Average
Leslie	F	15	Participating	Honors
Matt	M	16	Not Participating	Average
Nick	M	17	Not Participating	At-Risk
Olivia	F	17	Not Participating	At Risk

**Reciprocal Relationships/Collective Acceptance**

The category emerging from the responses for research question one was *Reciprocal Relationships/Collective Acceptance*. This category identifies the need for a mutual relationship with someone other than yourself. The need for acceptance, sharing interests, and the value of those relationships also fall under this category as well.

**Acceptance of Others**

The *Acceptance of Others* category emerged as a code within the interview responses because a lot of participants indicated they felt accepted or shared some interest with their friends, peers, and/or teachers. Participants were asked about their connections with others and how those connections made them feel.

### ***Shared Interest with Friends***

Participants were asked a question pertaining to how many people they had connections with on a daily basis and how they felt about those connections. The subcode of shared interests emerged after reading through and analyzing the responses. The responses varied across the board but it was evident that students wanted to share interest or feel connected to at least one other person. Denise stated, “fitting in with someone or something on a daily basis.” While Nick indicated that connection to him means “fitting in with friends, going places and being invited.” Bailey stated, “belonging with friends or belonging with a group of people” as something that was important to her, while the connection definition to Charlotte indicated that being “connected to people, sharing the same interests or being connected emotionally and physically.” Charlotte indicated that sharing interests promoted being connected emotionally and physically.

### ***Emotional Connection with Friends***

The typical responses of emotional connections with family and friends was the major response while others felt connected to some teachers throughout their school day. Most students indicated that they had more connections with other students rather than teachers or staff members at school. The largest response number was given by Jordan who said, “25-30 people, mostly other students.” The fewest number was given by Isla who stated, “teacher wise three and student wise four” Some students indicated their friend group was large, so they felt more connected to those students when at school. Elizabeth indicated that the connection felt with friends meant “just feeling like you belong somewhere.” Matt indicated that he had a connection when he “felt like I am needed or wanted in a group of people.” Kayla and Leslie both had similar responses such as “close relationships to someone or something,” and “feeling like I

belong there, feeling comfortable.” respectively. Some indicated they felt connected to both teachers and students as well as their family members.

### ***Emotional Connection with Teachers/School Personnel***

While the participant responses indicated higher response numbers of connections with students rather than teachers/school personnel. The responses indicated that students still valued the relationships with other teachers and school personnel. Faith stated that she interacted with “six or seven people, mostly teachers. My trade school is all male and I don’t have a friend group there. I am only around school in the afternoon.” Gavin stated, “I feel like I belong and fit in great with all of my friends and my teachers.” Denise indicated,

I think it’s highly important to have someone at school whether it’s a teacher or a student that you can confide in so that you’re not lonely, you have someone to talk to, you’re not depressed or over in the corner.

While Matt stated “I think teachers need to understand that students are also working hard and we can’t always join the google meets when they want us to or when we fall behind, there is usually a reason for that.” This indicated that students need the emotional connection or understanding from their teachers and they want their teachers to be more understanding about falling behind, absences, etc.

### **Being Accepted by Others**

*Being Accepted by Others* category emerged because students longed to feel accepted, cared for, and valued by both friends and family and their teachers. Participants indicated those close relationships and being invited places were extremely important to them. In addition, they also wanted to form relationships with teachers and they wanted their teachers to ask about them

if they were absent or notice they were gone. They also wanted teachers to be involved with them, ask them about their interests and communicate about things other than school work.

### ***Being Valued/cared for by Friends and Family***

Participant's responses stated the close relationships with friends and feeling like they fit in and/or felt as though they belonged. The subcode that emerged from these responses indicated the care/value aspect being important among students. Faith responded, "belonging with your friends or feeling that you're welcomed around a group of people." Isla also stated, "needing something; feeling like you have to have it; being attached to it." Nick responded "going places and being invited" which leads to the being valued or cared for aspect of student perception.

Ann responded, "strongly with my family," when asked about connections and attachments to others besides herself. Ann also explained that she felt connected to "my mom and my stepmom and one of my stepmom's friends. She helps me a lot. I tend to tell them everything that goes on so their advice helps me the most figuring out how to deal with things." Charlotte also responded, similarly, "my family and friends."

### ***Being Valued/Cared for by Teachers/School Personnel***

Most participants stated they felt as though they got along with their teachers throughout the day. Some participants indicated there were teachers they felt they could go to with questions if necessary. Gavin stated "I feel like I belong and fit in great with all of my teachers." Leslie stated, "Even though my teachers were there, it was just hard for me to do virtual learning." This response indicated she knew she could contact her teachers if she needed them which led to the valued/cared for aspect as a subcode emerging. Ann stated, "I feel sometimes students think talking to teachers is awkward. I think it would be helpful if teachers were open to allowing students to talk about their feelings and stuff like that." Some responses indicated they wish their



teachers knew when they were stressed and would act on those feelings and open up and talk to them. They also indicated they wish their teachers knew about backgrounds and how home lives were. Bailey stated “what kids have going on at home, some kids don’t have anyone at home to do anything with and stuff.” Denise indicated “I think teachers could learn a lot about their students thinking in terms of our age.” This participant indicated she loved one of her teachers, but she was older and did not feel that same connection as she did with one of her younger teachers. She felt as though she could talk to the younger teacher about real-life situations with a hint of understanding because of the shortened age gap. Faith indicated that she wished teachers knew “the stress levels that some students face and just how stressed-out students are.”

Participants also indicated they appreciated when their teachers noticed if they were absent or reached out to them while they were out of the building. Ann stated “I feel my teachers care when I am not there and it does make me feel good when teacher’s reach out when I am absent.” Bailey stated that “No teachers contacted me on regular missed days. It would make me feel good if they did because at least they are thinking about me.” Charlotte stated “I think if I had gotten a message, it would make me feel like my teacher’s cared that I am not there.” Faith also stated something similar “It makes me feel good when my teachers reach out to me because I know they think about me when I am not there.” Isla also stated “If teachers contacted me, it would make me feel like they notice me there and they appreciate my work.”

### **Spectrum of Covid Consequences**

Virtual learning was difficult and challenging for students, staff, teachers, and parents. Most participants stated they were stressed and depressed in the beginning because they were unsure how to handle the virtual work and did not know what to expect. Some participants said

the assignments were easy, but the isolation factor of virtual learning was the most difficult piece of virtual learning.

A few participants reported no issues during virtual learning, but the isolation caught up with them after a certain amount of time. Participants admitted that they cheated during virtual learning, so the learning aspect was not truly there for them, while other students were concerned about their collegiate plans because they felt like they were given an injustice during virtual learning and did not learn the material necessary for college.

### **Novel Changes**

The code of novel changes emerged from the responses because there were a variety of changes emerging from student perceptions surrounding COVID-19 both with student perception and how students faced virtual learning. Students had to learn how to manage their daily lives without school schedules on top of virtual learning. A lot of students were also working and taking care of family members when school was changed to virtual.

### ***Autonomous Learning***

Autonomous learning emerged as a subcode in this study because students were required to create their own schedules, make their own time with friends, and some handling a lot of aspects of their lives that they had not previously handled before. Ann stated, “I felt stressed because I felt like I had to figure out how to do everything on my own without any help.” Charlotte stated, “I was sitting on my couch alone trying to figure out how to do schoolwork on top of having nobody to talk to.” Gavin stated, “Staying on top of my work was the hardest.” Kayla stated, “The hardest part was setting my own schedule to do the work.” Matt responded, “I enjoyed it because my schedule was flexible and if I wanted to sleep in, I could. I would get all my work done on Monday and Tuesday and I had the rest of the week to just calm and focus on

work or anything else.” Nick said, “It was easy to make my own schedule and get work done because I am self-disciplined.” Isla stated, “After the first few weeks, I enjoyed it because my schedule was flexible.” Most participants indicated that they had to learn how to manage their own school schedules that had been managed for them for the last several years of grade school. Some students were now working several hours per week on top of their own schoolwork schedules.

Students had to learn how to balance their own lives, virtual learning schedules, and work schedules all while being home for long hours. Students’ strengths were tested because they were braving new adventures that they were not prepared for. Participant responses suggested they had to overcome things they were not prepared for nor knew how to handle. Ann stated, “The end units online were hard because I felt like I had to take the test but was still confused on the content.” Denise stated, “Wi-Fi doesn’t come out this far so I got really behind and almost failed. I had to go to night school to make up the credits I missed out on.” Gavin stated, “it was harder trying to make a schedule for myself and actually do the work. The work was so easy so I felt like I wasn’t getting anything out of it.” Kayla stated, “The hardest part was being motivated to do something especially when you don’t feel like you’re learning something.” Elizabeth stated, “I didn’t really mind the work because I mean like everyone else, you gotta cheat a little bit so the learning part wasn’t bad. I felt like I was just going through the motions.” Gavin stated, “I felt fine, I mean there were some things that I struggled with but I felt like if I needed my teachers I could just email them.”

Students struggled to find a new balance quickly with virtual learning. Having been thrown into virtual learning two months before school was out in March 2020 and then beginning the 2021 school year on virtual learning was something new for all participants.

Charlotte stated, “Teachers were in a frenzy themselves; it was something new for them so it was hard to get everybody to a balance. It was all of a sudden and hard to find a balance.” Jordan stated, “I think the hardest part was feeling like I had to be home because I was always out doing stuff then just being forced to being in the house.” Leslie stated, “the hardest part was setting my own schedule to do the work since I had been on the same schedule for 10 or 12 years of my life. Olivia stated, “...it (virtual learning) stressed me out a lot because I am better in person. For me, it was very hard. It was also very hard for me because I am very lazy.”

While in the beginning students’ attitudes towards virtual learning were negative, the students ended up being resilient and learning how to manage their own time. Students indicated they did not have anyone to make their own schedules for them and they had no choice but to get their work done or face failure. Students were able to overcome the obstacles set before them and grow as individuals. Students were able to be more independent, some working multiple hours per week while staying on top of their coursework. Students were willing to cheat on tests and activities and use their resources if that meant they were going to get the work done. Students were also able to realize the need for going to night school and the necessity that would be if they had failed a course. Students were able to be resilient because of the virtual learning aspect and overcome household issues, creating their own schedules, employment, and various other things.

### ***Social Media***

Participants indicated that when virtual learning commenced and they were pulled from the classroom, they relied on text messaging and social media in order to communicate with friends. Participants indicated they lost a lot of contact with close friends due to not being able to see them but some said they still communicated frequently while some lost the constant

communication aspect. Gavin stated, “I didn’t really have a lot of contact with my friends during virtual learning; if we communicated, it was through social media or text message.” Hayley stated, “The hardest part was not getting to interact with people. I communicated with my friends on my phone or social media.” Students suggested that if they did not have phone contact and social media contact with their friends they might have lost some of those connections. Just as Gavin reported “I didn’t really have a lot of contact with my friends during virtual learning; if we communicated, it was through text message.” Students relied on social media and text messaging to connect with their friends during virtual learning because they were not in the physical school building.

### ***New Perspectives on Mental Health***

Some participants indicated that they did not have mental health issues before, during, or after Covid-19 while some students had other responses. Participants were asked about their opinions on telehealth programs now that they have participated in virtual learning programs. It was the goal for this question to see if students would be willing to participate in virtual mental health programs, if they had participated in them, or if they currently were participating. Ann explained, “I think people would be more up to do that because if you have really bad anxiety or something, meeting people in that setting, it can probably be nerve-wrecking for some people.” Charlotte explained, “I think it (telehealth programs) could definitely be a positive for somebody in my age group.” Faith responded, “I feel like they (students my age) would because they would be comfortable in their own setting [online] and be used to it and comfortable where they are.” Isla said, “I think there are pros and cons to both virtual and in person meetings, but I do think kids my age would sign on and talk to somebody online.”

On the other hand, some students such as Bailey indicated, “I think some kids are sick of the virtual thing altogether and they just want face to face contact right now.” Elizabeth stated, “Personally, I would go face to face but I think a lot of people would be willing to talk to someone over a screen.” Leslie stated,

I have been visiting with mine for over two and half years now but I do think for me, personally, going in and speaking face to face is better. But, I know a lot of people, especially with Covid who don’t like to get out.

### **Costs**

Students lost a lot of things during virtual learning. Among the most notable, contact with peers, friends and teachers, due to loss of face-to-face instructional time. This particular district did not do synchronous learning and therefore valuable instructional time was lost. In addition, students also faced a variety of additional issues such as isolation, falling behind, finding new balances with schedules, and depression/anxiety issues or other mental health issues.

### ***Isolation***

Students were pulled from school buildings and isolated from their friends, teachers, peers, and some family members. Almost all participants noted isolation in some form in one or more responses. Bailey stated, “...not being able to see people except who you lived with was the hardest part.” Charlotte stated, “I felt isolated all by myself. I didn’t have any classmates that I could talk to.” Jordan stated, “It was kind of a different situation for me where I was homeschooled until high school. It felt less like a new normal and more like going back to normal. But, at the same time, I had come into public school and gotten used to seeing friends and having to go back to feeling isolated. Made me feel kind of stuck again.” Isla stated, “...well, at first I cried about it because I’ve always been the one that likes going to school and I

like learning in person and getting to interact with teachers and friends face to face.” Nick stated, “...the hardest part was not being able to see my friends all the time. I still talked to them on my phone, but I never got to see them.”

### ***Hindered Social Connections***

Social connections took a hit on all levels during the pandemic. People lost contact with those they interacted with every day. Some of those connections were lost forever and some were damaged and will take additional time to repair. Students felt the brunt of this connection loss and shared those responses with the researcher during interviews. Faith stated, “I can say that I have not made new friends since Covid.” Ann stated, “I lost contact with friends that I had made before Covid.” Jordan responded, “I had connections with some of my friends, but some connections were lost during virtual learning.” Kayla stated, “I still talked to some of my friends but not near as much. I could talk to them, but you don’t get that same interaction as much.” Charlotte stated, “It was very hard because it was something I wasn’t used to...it was very hard to learn and grow friendships as well.”

### ***Falling Behind Academically***

Participant responses surrounding this subcode suggested that some students felt they were behind academically because of virtual learning. Some participants indicated that although the work was easy, they felt that they did not learn much. While others indicated some of the tests were more difficult and they were not prepared for those when the time came to take them. Participants explained that they knew they had cheated on assignments which could mean they would be behind in classes this year and beyond because they did not learn the material. Hayley stated, “There wasn’t much like school learning going on. It’s just kind of doing your work for a grade. I didn’t think I was learning anything but it may be different for other students.” Leslie

stated, “I absolutely did not like virtual learning. I hated learning from home. In my opinion, I didn’t learn much.” Leslie had a similar response with “In my opinion, I didn’t learn that much.” Kayla indicated “I hated it. I didn’t learn anything especially having certain classes that were a lot more difficult.”

Participants indicated they had not learned a lot during virtual learning. This school district did not do synchronous learning due to the rural setting and not all students having access to computers and internet. Participants were completing the assignments when they could and viewed the work as “busy work” as opposed to them actually learning material.

### ***Depression/Anxiety***

Students were dealing with ongoing mental health issues while new issues were arising due to the pandemic, virtual learning, and new balances. Denise stated, “I was really depressed and stressed.” Ann also stated, “Most definitely before Covid, I struggled with test anxiety. Just anxiety about things and I think going online made it a lot worse because I felt like I had more to worry about.” Charlotte stated,

I know it’s easy to get sad and depressed whenever your friends are in quarantine or isolated from you and you don’t get to see anybody at school. I know I felt isolated when I tested positive for Covid, I felt really sad. I cried and fell into this depression where I knew I was going to be isolated from everybody for two weeks.

Isla stated,

I have really bad stress. I also struggled with OCD before virtual learning. I had seen therapists over this and when I was on virtual learning, it did get worse because I felt like I was sitting in my own mind for a bit instead of at school with distractions and friends.



Leslie stated, “I definitely have always been a very stressful person so my mental health did worsen because I was stressed because I wasn’t doing well with virtual learning.” Nick stated, “I would say the stress. I was stressed out about school, but I was stressed out about what I was missing out on. Not only social things but also feel like I didn’t learn a lot.” Olivia stated, “I struggled with severe anxiety disorder. I think the symptoms are different and maybe a little better because I was not around a lot of people so it made things better.”

Participants indicated depression and anxiety in a lot of their responses. Some of their anxiety formed around other people, some around virtual learning, and some around the isolation aspect of being at home most of the time. Some participants had struggled with stress and anxiety before Covid-19 and had to manage those feelings while navigating a new normal.

### **Summary**

This chapter summarized the data analysis procedures and findings from the qualitative research study. This chapter provides an overview of the responses indicated by participants along with their perceptions based on the research questions. The findings were narrowed down by the phenomenology theory after the researcher had reviewed all the transcripts allowing two categories to emerge with multiple codes and subcodes under each umbrella (Strauss, 1987). The next chapter will explain the findings in detail as well as the limitations, conclusions, implications, and recommendations for future research.

## **Chapter Five: Summary and Discussion**

The research questions for this study were, “How did high school students experience belongingness with teachers and peers when engaged in virtual learning?” and “How did high school students experience mental health issues during virtual learning?” The purpose of this study was to raise awareness on virtual learning platforms and the connections to sense of belonging, attachments, and mental health.

### **Overview**

The conceptual framework that this study was built on was the human need to belong and its four constructs of (a) competencies of belonging, (b) opportunities to belong, (c) motivations to belong, and (d) perceptions of belonging (Allen, 2021). Research question one can be related to Maslow (1954) when it was identified there were multiple reasons that students need to feel loved and cared for in the classroom and the hierarchy of needs was just as important there as it was beyond the classroom. In addition, Erikson (1963) identified the importance between the relationships formed and the environments in which they are formed. The social interaction aspect has been shown to increase productivity, secure relationships, and could contribute to less issues with self-esteem (Erikson, 1963). Participants gave multiple responses about virtual learning and their opinions and ideas related to the sense of belonging and how they felt when pulled out of the classroom. Some participants had close connections with teachers, peers, and friends while some did not. It was evident from student responses that they placed a high value of importance on those relationships and students indicated the loneliness aspect would be inevitable if students came to school and had nobody to talk to.

The three constructs of belongingness were identified in chapter two as social connectedness, school membership, and diversity. The need for social connectedness and

belonging in the school environment could increase the goal setting that students make for themselves and student success (Osterman, 2000). Student responses indicated they longed for more time with their friends and some had lost contact with those friends during the virtual learning process.

The social isolation study performed by Coldrick and O'Higgins Norman, (2012) found that students reported feeling high isolation from peers and teachers during virtual learning and difficulty connecting to others. This study connects to the current study by looking at the response from the students and their responses are eerily similar. In addition, students lost the sense of belonging aspect that they received when they could have face to face contact with their peers such as school membership. When in-person, students can have conversations that can accurately be perceived as positive or negative whereas through a computer screen, or a phone screen, misinterpretations can be an everyday aspect (Korpershoek et al., 2020).

Participants also indicated that they wish their teachers knew about the homelives of some of their students and that was an important aspect of promoting sense of belonging. Sanders (2016) indicated that students have factors outside the school environment that affect their relationships at school (Sanders et al., 2016). Participants wished their teachers were more connected and understood them better and felt as if their experiences at school would be better if teachers understood them and what they have going on at home. When participants were asked if teachers had contacted them if they missed school, several students responded they had not. The study completed by Sanders et al. (2016) considered at-risk youth and risky behaviors. Participants in that study reported they felt they did not have the necessary supports to not make those decisions and to make those positive relationships. This researcher fears that risky

behaviors could be on the rise stemming from virtual learning, isolation, and mental health issues related to the pandemic.

Keyes (2019) identified the importance between peer relationships and supportive relationships at school. Students rely on other peers especially in situations where students have negative homelife situations. If a student has another student to rely on at school, then this promotes students making positive decisions, goal setting, and steering clear of risky behaviors (Keyes, 2019). Students who are involved and have at least one other person to rely on at school are less likely to miss school and have low absenteeism rates (Andermann, 2002). The current study indicated this same concept, students felt that when their friends and teachers cared when they were not there, they were less likely to miss school. This study can assist in the future of virtual learning programs by insisting the communication piece be made between students and teachers, and students and their peers.

Research question two focuses on mental health issues. One in five children living in the United States show signs of having mental health issues (Anderson & Cardoza, 2016). This was made evident in participant responses and a lot of them were willing to share their struggles with mental health, anxiety, and depression issues. The prior research indicated that anti-social behavior or conduct disorder could entice adolescents to engage in behaviors they may not normally engage in (Waddell et al., 1999). Students were forced into virtual learning and some students stated they had lost contact with a lot of people unless they lived in the same household with them. This study shows the opinions and perceptions of participants relative to mental health and isolation. Some participants indicated they may be inclined to participate in telehealth options if those were available while some participants were against telehealth options altogether due to their negative experience with virtual learning.

If mental health issues are left untreated, they can lead to deviant behavior into adolescence and adulthood (Waddell et al., 1999). Some students reported they felt like they did not have any mental health issues before but had some now after Covid, while others reported having mental health issues prior to virtual learning, but that their issues were exacerbated during the pandemic. The shift to virtual learning required students to create their own schedules, make their own times to wake up, do their homework, assist with other siblings in the home, and some worked jobs while on virtual learning. According to Barr (2014), virtual learning limits the contact that students can have with others outside of the home, and therefore, worsening mental health issues. Participants indicated they had a lot on their plate at home. Students were pulled from their everyday schedules and expected to complete virtual learning programs without oversight by parents because many were at work. In addition, some were babysitting younger siblings, some were working full-time jobs, and some did not have adequate access to resources.

### **Codes and Subcodes**

The category emerging from the responses for question one was *Reciprocal Relationships/Collective Acceptance*. Codes (and their respective subcodes) under this category were *Acceptance of Others* (shared interest with friends, emotional connection with friends, and emotional connection with teachers/school personnel) and *Being Accepted by Others* (being valued/cared for by friends and family, being valued/cared for by teachers/school personnel). The second category to emerge *Spectrum of Covid Consequences*. The codes (and respective subcodes) under this category were *Benefits* (autonomous learning, social media, new perspectives on mental health) and *Costs* (isolation, hindered social connections, falling behind academically, depression/anxiety).

*Reciprocal Relationships/Collective Acceptance* can be traced back to the current body of knowledge by reviewing the need for close relationships with teachers and other students (Strike, 2010). In addition, engagement in school activities with other school members can enhance the school climate and promote success among students (Ostermann, 2000). Virtual learning brought a new struggle of isolation to students and the connections lost meant that student acceptance and healthy relationships were lowered (Coldrick & O'Higgins Norman, 2012). Student perceptions of conversations at school and positive relationships were viewed as highly important (Korpershoek et al., 2020). In addition, the need for belonging can enrich student goals and motivation in both school and home environments (Uslu & Gizir, 2017).

The COVID-19 pandemic initially caused stress on students and teachers but subsequently both costs and benefits and/or changes emerged as a result. Students were required to create their own schedules, some isolated at home with minimal contact with others (Singh et al., 2020). Teachers also lost contact with students and were struggling to get accommodating schedules and contact with students (Singh et al., 2020). Additional costs and benefits related to the COVID-19 pandemic and current knowledge will be available when the pandemic is over.

In the sense of belonging, attachment, and emotional connections category of the responses, students knew what sense of belonging and attachments meant to them. They all noted it related to needing something and feeling connected to something other than themselves. Most participants also stated they felt as if they belonged at school in the school environment. Students have the incessant need to feel as though they belong and are connected to other people. Some students do not have those connections at home and therefore, long for those connections when they enter the school building. All participants responded that they felt connected to at least one person, but some felt connected to more than just one person.

The level of importance placed on connections at school was considered high for all students with the idea that if you do not have at least one other person at school, you will have a lonely school environment. This let the researcher know that even if students only had one other person at school to connect with, that was enough to keep them going to school. If students do not have any connections with anyone at school, it makes it hard for students to get up and go to school if they know they are alone all day without forming true connections.

Some participants also experienced mental health issues before the pandemic while others did not. The most common responses were stress, not feeling welcomed, depression, and anxiety. When students were forced into virtual learning and required to stay at home, some students resorted back to those old mental health issues that began reoccurring. In addition, students were in their homes for longer periods of time with less distractions from the outside world. Students were stressed over the uncertainty of the pandemic, virtual learning, and now their new normal of isolation was kicking in. In participant responses, they indicated that at first the isolation aspect was difficult but then it became normal and they were used to it each day.

Student-teacher relationships and being cared for/valued held a high priority in student responses. Participants wished their teachers understood them better and tried to connect with them on that level. Participants also wished their teachers knew about the problems and stressors that teenagers face and could understand and realize they are not just students or robots going to school each day. Some students indicated their teachers were not very positive people and that bothered them, they felt if their teachers were more positive, the connections would be made easier. A participant reported that she had a teacher that did not even greet her home room students with a Good Morning, she just stood at the door and waited for them to come in. The

student indicated the good morning notion was not a large gesture but something that she remembered each day.

Telehealth mental health programs provided a mixed review of responses where some students stated they would utilize the resource, some would rather come face to face, and then others felt as though students would not use the resource at all. The question posed if participants asked if students had participated in telehealth, would participate in telehealth, or would continue participating in telehealth mental health programs. Some participants were afraid that the virtual environment had been used so frequently, they were afraid other students would not participate because they were sick of everything virtual.

Participant perceptions were that they felt isolated, anxious, depressed, and lonely when they were forced into virtual learning. A lot of participants experienced mental health issues related to both the isolation factor and the stress of virtual learning. The responses were overwhelming in that most students felt like they could do it at the beginning of virtual learning, but the uncertainty of the pandemic and the longer virtual learning existed, their mindset began to dwindle, the isolation and stress had already set in. Participants reported they missed the socialization aspect the most, but the workload and classes were different as well as the contact they had with their teachers.

It also became a new level of stress and anxiety when a new school year began virtually, and they had not been in the building to meet new teachers or see students at all. Eighth grade students were now freshmen and had not entered the high school at all, they could not picture their classrooms or their teachers and were being expected to function normally on a virtual platform. Students nor teachers were prepared to enter the world of virtual learning and all that came with it. This was evident from student responses. It is the researcher's belief that this study



is a successful model in improving virtual learning platforms to limit sense of belonging issues and mental health issues in the future by educators who create and monitor the platforms.

### **Limitations**

One of the limitations for this study was that it was difficult to find a culturally diverse demographic sample population. The school chosen for this study, the demographic makeup available on the state school report card website states that the school is 94.2% Caucasian, 4% Hispanic/Latino, 1.1% 2 or more races, and 0.7% other race not listed (KY school report card, 2022). This did not allow a lot of diversity with the geographical makeup for this study due to the student makeup of the school setting. The first round of random participants that were chosen, half of those students were chronically absent and unable to participate because they could not be reached due to them not being physically in the building nor able to be reached over telephone. The second round of participants were quarantined for a substantial amount of time and unable to be asked if they would like to participate. Finally, the third round of participants were able to be interviewed for this study. Another limitation for this study is that it only covered one high school. Had the study covered additional high schools, a wide variety of responses could have been gathered based on the diverse ways that each school district handled virtual learning.

There are a variety of limitations that exist due to the study being qualitative in nature. Some of those include that qualitative research requires the researcher to perceive responses and produce in-depth data analysis while looking at a phenomenon based on perception of participants. Another limitation to this study being qualitative is the short amount of time the study gathered responses. Due to the pandemic being so recent and still ongoing, this topic would greatly benefit being studied again in the future for a longer period of time. In addition,

reliability and validity in qualitative studies is hard to obtain and takes a great deal of time to code, subcode, and categorize to ensure participant perceptions are what participants meant. Researcher bias was also a limitation in this study due to the researcher being a teacher during the Covid-19 pandemic and participating in virtual learning programs.

### **P-20 Implications**

By looking at the data, new virtual learning programs can be implemented with innovative ways to sustain those programs. Virtual learning is not going away any time soon especially in the public-school K-12 sector. It is the researcher's belief that virtual learning will need to be adapted and looked at each year based on student needs, learning levels, and those teaching the virtual learning programs. Virtual learning programs will need to be revamped based on the previous year data and school administration to view in this study. This could mitigate isolation feelings that students have when on a virtual platform as well as limit the mental health issues that students may experience. If virtual learning programs continued to be offered as a means of education, students will need to be asked important questions about mental health as included in this study. If programs can be tailored to limit those isolation factors such as requiring students to report to the building so often or meeting with teachers so often, this could limit the isolation factor. Adolescent mental health has been compromised because of the pandemic which resulted in changes of routines, schedules, and most everyday life rituals (Stringer, 2020). Students were not equipped to handle the stress of a pandemic on top of handling virtual learning that some had never dealt with before. In addition, some students faced ongoing or worsening mental health symptoms that were left untreated for some time due to the inability to receive treatment until telehealth options became available.

This study reiterates the current knowledge about virtual learning that has stemmed from the COVID-19 pandemic. Caprara and Caprara (2021) indicate that the rules for virtual learning were stringent, and students were only allowed to be assigned so many hours of work per week. In addition, there were no specific platforms to be used state or nationwide for students and teachers. In addition, there was a disconnect between students and teachers as there was no face-to-face communication and no requirement to have any type of synchronous learning for most school systems (Caprara & Caprara, 2021). The initial response from school districts was to try not to overwhelm students and parents which led to lack of conversation and communication across the board. Students were creating their own schedules and their own routines.

When students returned to the building, some in 2021, students had forgotten how to communicate effectively with teachers and other peers because of the disconnect faced over the last year. The pandemic was still raging at the time when students returned to the classroom and each week, students and teachers prepared for another round of shutdowns and what that would do to the little progress they had made (Caprara & Caprara, 2021). In this study, some participants indicated they had not made new friends since Covid-19, while others indicated they had lost contact with their friends during the pandemic.

Students were left alone for long periods of time with their computer screens and personal electronic devices. When students came back into the classroom, they had forgotten how to positively connect with others. It was evident in this study that students longed for those connections and struggled to keep those connections alive when on virtual learning. The pandemic is still ongoing and these implications will be lasting for an unknown amount of time.

### **The Role of Teachers in Virtual Learning**

Based on findings from this study, virtual teachers can be trained to assess levels of connection by asking pertinent questions at the start of class, such as, “How are you feeling today?”, “I missed you yesterday!”, or “Let me know if I can help you with any of your makeup work from yesterday.” This allows teachers to make the connection with students and let them know they want to know how they are, they noticed they were out yesterday without intruding on personal lives and personal information (if students are reluctant to disclose). Student perceptions in this study indicated that students remembered the teachers that spoke to them each day or remembered when they were out of the building. The connections formed by teachers to students are lasting connections that will be remembered for years to come. Students remember the teachers who ask about them and are concerned about them.

### **The Role of Teacher Preparation Programs**

During regular teacher preparation programs, a high emphasis is placed on building rapport and forming relationships with students. During virtual learning, this concept was almost nonexistent for most students and teachers. On the Kentucky yearly evaluation that teachers receive from their administration, building rapport and establishing respectful boundaries in the classroom is a measurable concept that is evaluated each year. Unfortunately, the school year of 2021-2022 could not be evaluated on this concept at all because students did not spend a long enough time in a face-to-face classroom with their teachers. It is hard to build rapport and establish a relationship of trust and respect over a computer screen through a comment or an email.

In the future of virtual learning, a teacher preparation program on how to form relationships with students through virtual learning will be crucial for student and teacher

success. Social connection is an extremely important aspect in the school and social environment. In the future, it would be extremely important to gauge interest in virtual learning programs before students are admitted. In addition, teachers should be trained to have a steady amount of contact with students even when students do not respond. As mentioned prior, students who are working and completing school simultaneously may find it difficult to connect with teachers during normal hours. It would be important to ensure that students have access to teachers on their schedules to limit the isolation and lack of connection that students may feel with teachers. In addition, requiring students to communicate with other virtual students would be a positive outcome for both teachers and students. Students could complete a discussion board getting to know each other and communicating and this would allow teachers to read those responses and gain insight to student lives as well. Even at the college level, teachers integrate discussion boards so that students can communicate with one another and their teacher.

Additional pedagogy programs will be necessary at every level to ensure students are reaching their highest potential but also that students are learning the material from two and three years ago that they did not learn due to virtual learning and alternative learning platforms. Ensuring that students have been able to bounce back from the virtual learning aspect (where some students admitted to cheating, some students stated it was busy work, and some students indicated they did not learn at all) will be an important piece in the future. Looking at testing data and classroom assessments will be beneficial and creating programs for retention and re-teaching will be crucial to get students caught up to where they need to be. School administration will need to ensure that the assessment data is being collected correctly and analyzed correctly so that changes can be made to programs in the future.

### **The Role of Students in Virtual Learning**

There are also implications that fall on school personnel and families of school-aged children that go along with virtual learning and the havoc COVID-19 created when students and parents were forced to complete learning modules at home. Parents were not prepared for the amount of work virtual learning would be while maintaining their own employment, homes, and personal lives (Caprara, 2021). In addition, most public-school teachers in the United States had never taught 100% online and therefore were unprepared. Entire school districts were struggling with preparing teachers to teach online and how that should work. Most teachers were thrown into the virtual system and had to figure out a way to make things work for their classes and their students with little help from anyone else; as such, students were left with little to no support with regards to developing efficient structure.

Students learned to become more autonomous and were held accountable during virtual learning. Students had to set their own schedules for schoolwork, some while working multiple hours per week at part-time jobs. In addition, some students also babysat siblings and assisted siblings with homework and were unable to get their schoolwork completed on time because of other obligations.

### **The Role of Administrators/Policy Makers in Virtual Learning**

Another implication to virtual learning resulting from the pandemic is the inequality of learning across the board. This will be a hurdle that collegiate levels and trade schools will have to try to overcome with new programs aimed at teaching students' material that they did not grasp during virtual learning. Some schools were not 1:1 schools when the pandemic hit and households were sharing devices and the amount of work being completed by students was limited. A 1:1 school indicates that each student has access to one electronic device (computer,

chrome book, or tablet) for their own schoolwork and do not have to share a device with any other student even in their household. In addition, rural communities had less access to internet and internet resources leaving some students out in the cold due to device and/or internet capabilities.

A survey was given to students at Arizona State University and the results found that the pandemic had lowered graduation time frames and decreased potential job offers (Aucejo et al., 2020). The hardest hit population was the lower-economic students, as was the case in this study. The achievement gap has thus widened due to the pandemic and virtual learning.

In future virtual learning programs, it will be important to ensure that all students have access to internet and devices. Schools will need to ensure that reliable internet can be secured by way of hotspot or alternate data device and that students have equal access to electronic devices without having to share with someone else.

### **Recommendations for Future Research**

It would be beneficial to repeat a study similar to this in two to four years after students have either graduated or began college and/or careers. This would allow researchers to see if other student perceptions on virtual learning and belonging were similar to those in this study. It would also benefit by using another qualitative study with diverse participants from a wide variety of schools to ensure validity with responses from participants. It would also be beneficial to repeat this study with a new set of participants in two to four years to gauge their perceptions on virtual learning, belonging, and mental health to see if changes have been made at the grade school level and/or if new virtual learning options are being offered as well as mental health programs.

The study sample was 15 participants so it would also be beneficial to repeat this study with a larger sample of participants. In addition, using this study and interview questions on a more ethnically diverse sample from other schools in other locales to ensure ethnic diversity exists within participant opinions and perceptions. In addition to ethnically diverse participants, it would also be beneficial to look at extending the sample to different age groups to see the differences in perceptions and ideas of a variety of school-aged students.

A similar study could be repeated using teacher perceptions about virtual learning as well. This would give administration and school districts new ideas and opinions on the future of virtual learning and how virtual learning has impacted teachers to this point in the pandemic. Teacher perceptions will raise awareness on the difficulty of being thrown into the virtual environment lacking tools that promoted student success virtually.

A quantitative study could also benefit the research in the future by examining the relationship between virtual learning and mental health or virtual learning and sense of belonging with regards to time spent on virtual learning or time spent on mental health programs. Age groups could also be studied as a quantitative measure and gender could also be examined as to whether males or females were more successful on virtual learning. A quantitative would be more successful in the future when more research is available on this topic. Since the pandemic is still ongoing, there is limited research to conduct a quantitative study at this time.

The pandemic is still going on currently so it would be beneficial to conduct the same study for a longer period rather than just over the last two years. This could hold new insight about current virtual programs and could also attest to how virtual learning goes at the collegiate level compared to their high school experiences.



## **Conclusions**

In conclusion, the research questions for this study posed for a variety of responses and perceptions from participants. The pandemic is still raging through the world and students are still feeling those effects and learning how to transition to new behaviors, programs, and ways of doing things post-pandemic. Students' sense of belonging and relationships are important aspects of everyday life and students were expected to transition to virtual learning and loss of contact with friends, peers, and teachers.

The responses given by students indicated they longed for those relationships all while trying to manage their own daily schedules when at home. Students indicated creating their own schedules was one of the hardest parts of virtual learning. This can be attributed to students entering the school system around ages five or six and not exiting until typically 17 or 18 years old. Their schedules had been made for them; one student even indicated this in their response. In addition, students have ongoing mental health issues, and some were left untreated during the pandemic. Students felt isolated and had ongoing depression and anxiety as symptoms of mental health.

In terms of long-term implications, virtual learning will have lasting effects. Students indicated they did not feel like they had learned a lot, some had cheated, and some just did enough to pass the activities and the tests. The issues will inevitably resurface for the end of year state testing, collegiate levels, trade schools, and careers. Students will be asked difficult questions on all fronts and some will not know the answers because they did not actually learn and retain the material.

This study provided a wide array of responses with dissatisfaction on how students felt about virtual learning and the pandemic in general. The research has shown that sense of

belonging directly correlates in adolescence to the need to feel secure, loved, and attached. The students' perceptions during virtual learning were that they were missing that connection. Some students had indicated they still talked to their friends but the personal connection of those attachments was lost when they were not face to face each day.

In the future, students will need to be prepared to participate in virtual learning programs where they can be successful and have communication with both teachers and peers. Student wellness, mental health, and belonging all hinge on the connections and the belonging that students feel to other people. By creating programs where teachers are better equipped to handle virtual learning by incorporating breakout rooms where students communicate, additional discussion boards, and various other activities requiring students to think outside the box and communicate with someone else.



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## Appendix A

### *Sample Interview Questions*

Question 1	What does sense of belonging or attachment mean to you?
Question 2	How did you feel when forced into virtual learning and not being able to attend in-person school?
Question 3	How many people (teachers, staff members, or students) do you feel connected to at school? Why do you feel this way?
Question 4	What do you wish teachers knew about their students that could improve the relationships or connections made with students?
Question 5	How do you connect with other students at school?
Question 6	How important is it to be connected to another person at school (teacher, staff member, another student)?
Question 7	How can positive relationships among others be improved while you are at school?
Question 8	What types of mental health issues had you experienced prior to COVID-19? Have you experienced different or worsening symptoms of these issues since COVID-19 or have they remained the same?
Question 9	What types of mental health services have you sought to assist you?
Question 10	Have you participated in any telehealth mental health programs? If so, what programs? If not, explain.
Question 11	On average, how many days of school do you miss each school year? Are there particular reasons why you miss school?
Question 12	When you miss school, who do you feel is concerned if you are not at school (i.e., parent/guardian, family member, school staff, teacher, friends, etc.)

## Appendix B

### *IRB Approval Letter*



#### Institutional Review Board

328 Wells Hall  
Murray, KY 42071-3318  
270-809-2916 • msu.ibr@murraystate.edu

**TO:** Samir Patel, Educational Studies Leadership and Counseling  
**FROM:** Jonathan Baskin, IRB Coordinator *JB*  
**DATE:** 12/17/2021  
**RE:** Human Subjects Protocol I.D. – IRB # 22-108

The IRB has completed its review of your student's Level 1 protocol entitled *Virtual Learning and its Impact on Belonging and Mental Health*. After review and consideration, the IRB has determined that the research, as described in the protocol form, will be conducted in compliance with Murray State University guidelines for the protection of human participants.

**The forms and materials that have been approved for use in this research study are attached to the email containing this letter. These are the forms and materials that must be presented to the subjects. Use of any process or forms other than those approved by the IRB will be considered misconduct in research as stated in the MSU IRB Procedures and Guidelines section 20.3.**

**Your stated data collection period is from 12/17/2021 to 12/16/2022.**

If data collection extends beyond this period, please submit an Amendment to an Approved Protocol form detailing the new data collection period and the reason for the change.

**This Level 1 approval is valid until 12/16/2022.**

If data collection and analysis extends beyond this date, the research project must be reviewed as a continuation project by the IRB prior to the end of the approval period, 12/16/2022. You must reapply for IRB approval by submitting a Project Update and Closure form (available at [murraystate.edu/ibrb](http://murraystate.edu/ibrb)). You must allow ample time for IRB processing and decision prior to your expiration date, or your research must stop until such time that IRB approval is received. If the research project is completed by the end of the approval period, then a Project Update and Closure form must be submitted for IRB review so that your protocol may be closed. It is your responsibility to submit the appropriate paperwork in a timely manner.

The protocol is approved. You may begin data collection now.

*Opportunity  
afforded*

[murraystate.edu](http://murraystate.edu)

## Appendix C

### *Consent Letter*

#### **Research Participation Consent**

**Study Title:** Virtual Learning and its Impact on Belonging and Mental Health

**Primary Investigator:** Chelsey Highley, a graduate student in the Educational Leadership P20 at Murray State University, [chighley@murraystate.edu](mailto:chighley@murraystate.edu), 606-336-1824

**Faculty Sponsor Contact:** *Dr. Samir Patel, at the Department of Education and Human Resources at Murray State University.* [spatel4@murraystate.edu](mailto:spatel4@murraystate.edu), 270-809-6123

Your child is being invited to participate in a research study conducted through Murray State University. This form contains information you will need to help you decide whether you will allow your child to be in this research study or not. Please read the form carefully and ask the study team member(s) questions about anything that is not clear. You will be given a copy of this form to keep.

**Nature and Purpose of Project:**

1. The purpose of this study is to examine the relationship between the sense of belonging related to virtual and in-person learning and mental health.
2. **Participant Selection:** Your child is being asked to participate because you completed at least one semester virtually.

**Explanation of Procedures:**

*I will ask your child a series of questions centered around virtual learning, sense of belonging, and mental health.*

There may be additional questions asked based on student responses and if students have follow-up questions. The interviews will last anywhere from 20-30 minutes. I will audio record your child's interview and transcribe it. This transcription will then be analyzed for themes and specifics. A follow-up interview will be conducted that allows your child to see the transcription to ensure I accurately depicted what your child said in the themes and codes that I analyzed.

3. The study activities include the first individual and the follow-up interview.  
Study duration: The first interview will last 20-30 minutes while the follow-up interview will last 5-10 minutes depending on how your child perceives your transcriptions.

**Recordings:** *The individual interview will be audio recorded and transcribed. The transcription will be analyzed and coded for specific themes and used to explain student experiences with the virtual learning and how it has affected mental health and belonging. The transcription will be kept for 3 years in a locked cabinet at the researcher's office, without any identifying information, and shredded at the end of the three-year period.*

4. \_\_\_\_\_ I understand that the interview with my child will be audio recorded.  
*Initials*
5. **Discomforts and Risks.** There are questions regarding mental health and sense of belonging. Literature related to mental health will be available for all participants. If students disclose information that warrants a referral to a mental health agency, the referral forms will be available for students.
6. **Benefits:** This study is not designed to benefit your child directly. However, student participation may help to increase the programs offered to promote sense of belonging and promoting good mental health while completing virtual learning programs.
7. **Confidentiality:** Your child's identity will be known to the researchers, but the information your child provides will be kept confidential. Your child's responses will be shared but we will not include your child's name.
8. **Refusal/Withdrawal:** Your child's participation is strictly voluntary and your child is free to withdraw/stop participating at any time with absolutely no penalty. Your child is free to skip any questions that they prefer not to answer
9. **Contact Information:** Any questions about the procedures or conduct of this research should be brought to the attention of the Primary contact: Chelsey Highley, at the *Department of Education and Human Services of at Murray State University*, [chighley@murraystate.edu](mailto:chighley@murraystate.edu), 606-336-1824 or secondary: Dr. Samir Patel, at the *Department of Education and Human Resources at Murray State University*, [spatel4@murraystate.edu](mailto:spatel4@murraystate.edu), 270-809-6123. If you would like to know the results of this study, please contact: Chelsey Highley, at the *Department of Education and Human Services of at Murray State University*, [chighley@murraystate.edu](mailto:chighley@murraystate.edu), 606-336-1824 or Dr. Samir Patel, at the *Department of Education and Human Resources at Murray State University*, [spatel4@murraystate.edu](mailto:spatel4@murraystate.edu), 270-809-6123.

Your signature **indicates that this study has been explained to you, that your questions have been answered, and that you allow your child to take part in this study.**

The dated approval stamp on this document indicates that this project has been reviewed and approved by the Murray State University Institutional Review Board (IRB) for the Protection of Human Subjects. If you have any questions about your rights as a research participant, you should contact the MSU IRB Coordinator at (270) 809-2916 or [msu.irb@murraystate.edu](mailto:msu.irb@murraystate.edu).

Participant's Name (printed): \_\_\_\_\_

\_\_\_\_\_  
(Signature of Parent/Guardian)

\_\_\_\_\_  
(Date)

---

(Signature of Person Obtaining Consent)

(Date)



**MURRAY STATE**

UNIVERSITY

**Institutional Review Board**

Approved: 12/17/21 Expires: 12/16/22

## Appendix D

### *Minor Assent Form*

#### Assent Form for Research Participation

**Study Title:** Virtual Learning and its Impact on Belonging and Mental Health

**Primary Investigator:** Chelsey Highley, a graduate student in the Educational Leadership P20 at Murray State University.

**Faculty Sponsor Contact:** *Dr. Samir Patel, at the Department of Education and Human Resources at Murray State University.* [spatel4@murraystate.edu](mailto:spatel4@murraystate.edu), 270-809-6123

We are asking you whether you want to be in a research study. Research is a way to test new ideas and learn new things. You do not have to be in the study if you do not want to. You can say Yes or No. If you say yes now, you can change your mind later. If you don't want to be in the study or change your mind later, it won't affect your grades or other school activities.

Ask questions if there is something that you do not understand. After all of your questions have been answered, you can decide if you want to be in this study or not.

This study is about the relationship between the sense of belonging related to virtual and in-person learning and mental health.

We are asking you if you want to be in this study because you completed at least one semester virtually.

If you take part in this study, we will ask you I will ask you a series of questions related to virtual learning, sense of belonging and mental health.

There may be additional questions asked based on your responses and if you have follow-up questions. The interviews will last anywhere from 20-30 minutes. I will audio record your interview and transcribe it. This transcription will then be analyzed for themes and specifics. A follow-up interview will be conducted that allows you to see your transcription to ensure I accurately depicted what you said in the themes and codes that I analyzed.

Some things that might happen to you if you are in this study is discomfort about sensitive questions. There are questions regarding mental health and sense of belonging. Literature related to mental health will be available for all participants. If students disclose information that warrants a referral to a mental health agency, the referral forms will be available for students.

Some good things that might happen to you if you are in this study are that your participation may help to increase the programs offered to promote sense of belonging and promoting good mental health while completing virtual learning programs. We are not sure that these things will happen. We might also find out things that will help other children someday.



We will write a report when the study is over, but we will not use your name in the report.

If you want to be in the study, sign your name on the line below.

Participant's Name (printed): \_\_\_\_\_

\_\_\_\_\_  
(Signature of Participant)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature of Person Obtaining Assent)

\_\_\_\_\_  
(Date)