

Social emotional learning (SEL) matters:  
Differences in student perceptions of SEL before and during COVID-19

by

Cassandra Wetzel

B.S., Iowa State University, 2007  
M.S., Emporia State University, 2017

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Special Education, Counseling, and Student Development  
College of Education

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

2022

## **Abstract**

The month of March 2020 is one that will not be forgotten. The coronavirus disease (COVID-19) is caused by a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the outbreak forced schools to close their doors and quickly develop a virtual learning platform where students would be learning virtually in their homes. Social-emotional learning (SEL) has always been important but it has been emphasized even more so throughout the pandemic. Numerous studies over the years have emphasized the importance of SEL for students' education and development as it influences achievement and long-term outcomes. This quantitative study investigated the differences among student SEL, measured by Panorama Education's SEL student perception data from students in grades 3-12 and the COVID-19 pandemic. The researcher examined the data from Fall 2019, Fall 2020, and Fall 2021 to reflect differences in students' SEL prior to the COVID-19 pandemic and during the pandemic. The researcher also examined the differences among student SEL results related to grade level during Fall 2019, Fall 2020, and Fall 2021.

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Approved by:

Major Professor  
Dr. Judith Hughey

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## **Chapter 1 - Introduction**

Children face countless situations that have the potential of having negative effects on their social emotional development (Zins & Elias, 2006). The pressures of academic performance, homework, social pressures, being bullied or teased all can impact a student's overall health and wellbeing. Furthermore, the pressure to raise test scores can persuade teachers to devote large amounts of class time to test preparation, leaving little time for other things such as social emotional learning which is also referred to as social-emotional learning (Durlak et al., 2011). Hazel (2010) reported teachers know that affective learning helps reduce aggression, bullying, and stress, however, teachers have little time and energy to give to children's social-emotional learning needs due to academic demands.

The development of Social Emotional Learning (SEL) is important groundwork for children's current and future development and success. Collaborative for Academic, Social and Emotional Learning (CASEL, 2021) defines social emotional learning as "is the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions" (pg. 3).

Social emotional learning programs benefit students beyond the present moment and has shown improvements in mental health, social skills, and academic achievement (Durlak et al., 2011; Wiglesworth et al., 2016). Research revealed that social-emotional learning improves achievement by an average of 11 percent and reported improvement in student attitudes toward school, in addition to reduces stress (Durlak et al., 2011). Several short-term student outcomes that social emotional learning programs included increased positive social behaviors and

relationships with peers and adults, increased test scores, grades and attendance, decreased emotional stress and risk-taking behaviors, and enhanced self-efficacy, confidence, persistence, empathy, connection and commitment to school, and a sense of purpose (Durlak et al., 2011; Farrington et al., 2012; Sklad et al., 2012; Taylor et al., 2017). Long-term SEL student outcomes increased the probability of high school graduation, readiness for postsecondary education, career preparation, positive interpersonal relationships, improved mental health, and engaged citizenship (Hawkins et al., 2008; Jones et al., 2015; Berman et al., 2018; Collaborative for Academic, Social, and Emotional Learning, 2017; Jones & Kahn, 2017; Weissberg et al., 2015).

Measuring student perception provides powerful data helpful to educators in their challenge to enhance the social emotional wellbeing and academic success of all students. Panorama Education (2015) presented the Panorama Student Survey with the intent to provide holistic supports when examining the connection between students' SEL skills, competencies and their academic performance. Panorama Education released the Panorama Student Survey to allows educators to measure students' perceptions of SEL, explore the results with interactive reports, and provide strategies to build students' SEL skills. By using scales and phrasing each survey item as a question the Panorama Student Survey works to minimize the measurement error of individual questions (Panorama Education, 2015).

Based on the results, information is given to better understand each student's perceptions on SEL skills such as grit, anxiety, emotional regulation, and social awareness. Educators are able to identify which students are in need of more support and create groups to monitor students' progress and evaluate the impact of Multi-Tiered System of Supports (MTSS) interventions over time (Panorama Education, 2015). MTSS provides a guiding framework for educators to prioritize students in need of additional supports, use evidence-based practices, and

progress monitor with data. Tier 1 is universal which means every student will receive the information. This is implemented by assessing students' skills in SEL with Panorama Student Surveys which is aligned with the CASEL framework. When students need more supports than what they receive in Tier 1, they move to more targeted supports. Tier 2 of MTSS is more intensive than Tier 1, but requires less support than Tier 3. In Tier 2, supports are often implemented using small groups. The final MTSS is Tier 3 which requires an intensive intervention and may require reducing the intensity, frequency or complexity of the concern (PBIS, 2019).

### **Problem Statement**

The COVID-19 pandemic exacerbated the youth mental health crisis and appears to present alarming implications for the health and social emotional well-being of our society (Cardona, 2022; Pfefferbaum & North, 2020). The emerging evidence reports that the pandemic has greatly affected students in various ways, including their social emotional state of being. When schools closed, many students lost access to their school-based services (Hill et al., 2020; Leeb et al., 2020). Students reported an increase in negative feelings during the pandemic and suicidal ideation was increased among children and young adults (Hill et al., 2020; Leeb et al., 2020). Since the early days of the pandemic, educators and families across the country shared concerns regarding social and emotional wellbeing and researchers predicted and has seen it come to fruition, an increase in stress and anxiety in children and youth due related to the COVID-19 pandemic (Orgiles et al., 2021; Patrick et al., 2020; Verlenden et al., 2021; Xie et al., 2020).

## **Purpose of the Study**

This quantitative study sought to understand the differences among student SEL levels as measured by Panorama Education's SEL student perception data from students in grades 3-12 and the COVID-19 pandemic. In an effort to mitigate the influence of covariance factors on the results of that comparison, the research design statistically controlled for variables including poverty and minority. The researcher also examined the differences among student SEL results related to grade level during Fall 2019, Fall 2020, and Fall 2021. The results of this study can help guide educators, legislators, and other stakeholders in gaining insight which to be used to help and support students. In this study, the research compared student perception SEL data in the context of the COVID-19 pandemic.

## **Research Question**

The following research questions were explored using a causal comparative design:

RQ1: What are the differences among student SEL, measured by Panorama Education's SEL student perception data, and the COVID-19 pandemic.

- a. What differences exist in the level of social awareness reported by students during Fall 2019, Fall 2020, and Fall 2021?
- b. What differences exist in the level of grit reported by students during Fall 2019, Fall 2020, and Fall 2021?
- c. What differences exist in the level of coping with anxiety reported by students during Fall 2019, Fall 2020, and Fall 2021?
- d. What differences exist in the level of emotional regulation reported by students during Fall 2019, Fall 2020, and Fall 2021?

RQ2: In what ways and to what extent, if any, is student SEL results related to grade

level during Fall 2019, Fall 2020, and Fall 2021?

- a. Do social awareness results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?
- b. Do grit results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?
- c. Do coping with anxiety results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?
- d. Do emotional regulation results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?

### **Significance of Study**

As defined by CASEL the development of SEL is essential groundwork for children's current and future success in physical and mental health, emotional, social, and behavioral well-being, and academic achievement (Cardona, 2022). This study examined the influence of COVID-19 on student SEL by exploring Panorama Education's SEL student perception data. There are current studies examining the potential impact on academic achievement, but there are few empirical studies regarding the influences COVID-19 on student SEL, especially from student perception data (Kuhfeld et al., 2020).

### **Definitions and Terms**

The following terms were used operationally in this study.

***Anxiety***: a feeling of worry, nervousness, or unease, typically about an imminent event or something with an uncertain outcome (Panorama Education, 2015).

***Emotional regulation***: the ability to regulate or control one's emotions (Panorama Education, 2015).

***Grit***: the ability to persevere through setbacks to achieve important long-term goals (Panorama Education, 2015).

***Multi-Tiered System of Supports (MTSS)***: provides a guiding framework for educators to prioritize students in need of additional supports, use evidence-based practices, and progress monitor with data (Panorama Education, 2015).

***Social awareness***: to consider the perspectives of others and empathize with them (Panorama Education, 2015).

***Social emotional learning (SEL)***: “SEL is the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions” (CASEL, 2022, p.3).

## **Summary**

SEL has been researched for years and has proven to be a critical competent of student learning. However, SEL has been looked at with a different lens during the COVID-19 pandemic due to the challenges across the globe as people faced illness, death, abrupt school shutdowns, loss of jobs, fear, grief, and anxiety. Attentive to these issues and their associated literatures, the proposed dissertation study will examine the influences the COVID-19 pandemic has had on student SEL, based on student perception data.

This dissertation is comprised of five chapters. Chapter 1 focused on the introduction, background, research statement, purpose statement, research questions, significance of the problem and definitions. Chapter 2 consists of current literature about SEL and the influences of COVID-19. In Chapter 3, the topics discussed include the purpose of the study as well as the



research design and specific details of how the study was conducted. Chapter 4 relates to the methodology and chapter 5 is a discussion of the results, meaning of the outcomes, and future research.

## **Chapter 2 - Review of Literature**

This study examined the differences among student SEL, measured by Panorama Education's SEL student perception data from students in grades 3-12 and the COVID-19 pandemic. In an effort to mitigate the influence of covariance factors on the results of that comparison, the research design statistically controlled for variables including poverty and minority. The researcher examined the differences among student SEL results related to grade level during Fall 2019, Fall 2020, and Fall 2021. This chapter includes information regarding the history, background and research of SEL, the value of student perceptions regarding SEL, the influences of the COVID-19 pandemic, and the theoretical framework of the study.

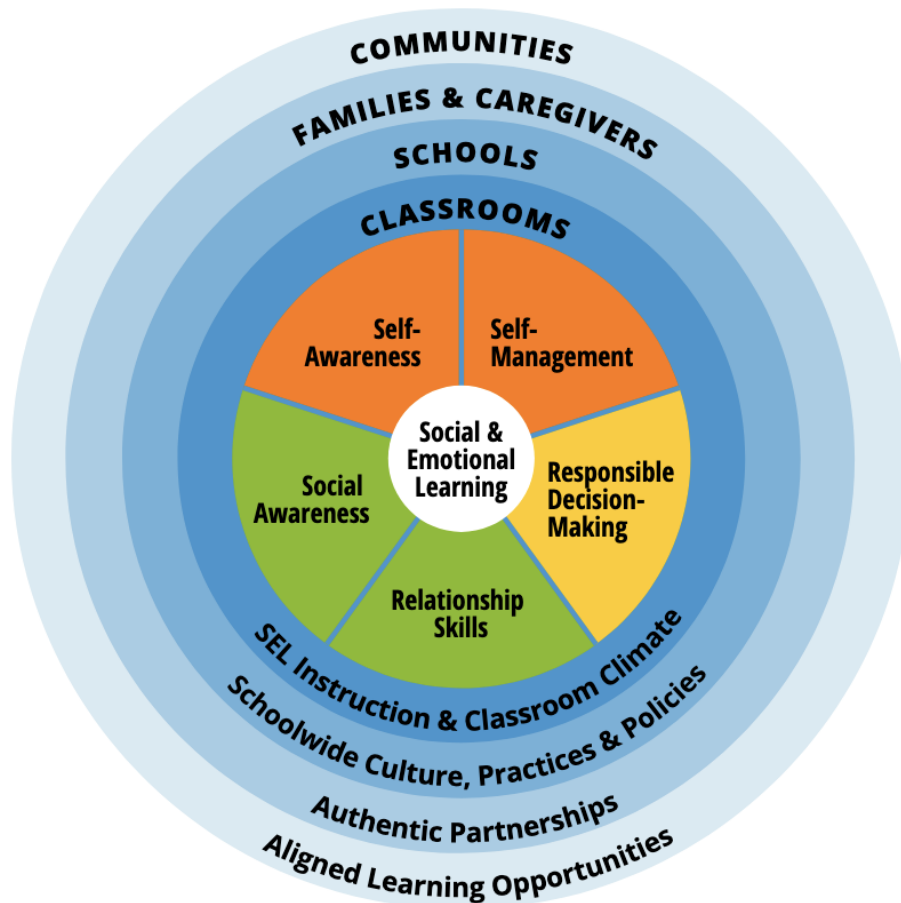
### **Social Emotional Learning**

The term of social emotional learning emerged in 1994 when educators and researchers met at the Fetzer Institute to discuss social-emotional competence and mental health (Durlak et al., 2015). With the intent to create an evidence-based SEL program that is an essential part of school, attendees established Collaborative for Academics, Social, and Emotional Learning (CASEL) (Durlak et al., 2015; Weissberg & Cascarino, 2013). CASEL continues their mission to help make evidence-based SEL an essential part of education and researching the science of SEL, examining the effectiveness of SEL practices, and advocating to improve policies that support evidence-based SEL programming (CASEL, 2020).

A goal of SEL programs is to foster the development of five interrelated sets of cognitive, affective, and behavioral competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision making (CASEL, 2021). CASEL's framework is grounded in science and developmental research based on the work of Zins et al. (2004) as well as Rimm-Kaufman and Hulleman (2015).

**Figure 1**

*CASEL Framework*



(CASEL, 2021)

SEL programs are designed to enhance an interrelated set of cognitive, emotional, and behavioral skills regarded as foundational for academic performance which in turn improves student attitudes and beliefs about self, others, and school (Greenberg et al., 2003; Mahoney et al., 2018; Zins & Elias, 2006). Ultimately, this provides a foundation for academic performance, interpersonal and intrapersonal relationships, less disciplinary problems, decreased emotional distress, and improved grades and test scores (CASEL, 2021; Durlak et al., 2015; Mahoney et al., 2018).

Social emotional learning develops students' capacity to incorporate skills, attitudes, and behaviors to learn how to process and work through daily tasks and challenges (CASEL, 2021; Duncan et al., 2017; Miller et al., 2017; Muratori et al., 2017). Teaching students these social skills are the prerequisites for academic success as well as future successes in middle and high school, college, the workforce and throughout life. Jones and Kahn (2017) stated, "major domains of human development – social, emotional, cognitive, linguistic, academic – are deeply intertwined in the brain and in behavior. All are central to learning" (p. 4).

As previously mentioned, SEL has been thoroughly researched and continues to be researched to this day and the findings add to the growing empirical evidence regarding the positive impact of SEL programs. Policymakers, educators, and the community can contribute to healthy development of children by supporting the incorporation of evidence-based SEL programming into standard educational practice (Durlak et al., 2011; Mahoney et al., 2018). A meta-analysis of 213 SEL programs was conducted and those students that participated showed significant improvements in social-emotional skills, attitudes, behavior, and academic performance that reflected an 11-percentile-point achievement gain (Durlak et al., 2011). Another study looked at students 13 to 19 years after they received adequate SEL training and found that teaching these skills in kindergarten leads to students being less likely to live in public housing, receive public assistance, or to be involved in criminal activity (Durlak et al., 2011). Jones et al. (2015) found that kindergarteners with stronger social and emotional skills are more likely to graduate from high school and college and have stable, full-time employment while being less likely to commit crimes, be on public assistance, and have drug, alcohol, and mental health problems. Martinez (2016) highlighted the positive impact that a school-designed SEL intervention had on students as well as on teachers' practices. A vast body of randomized control

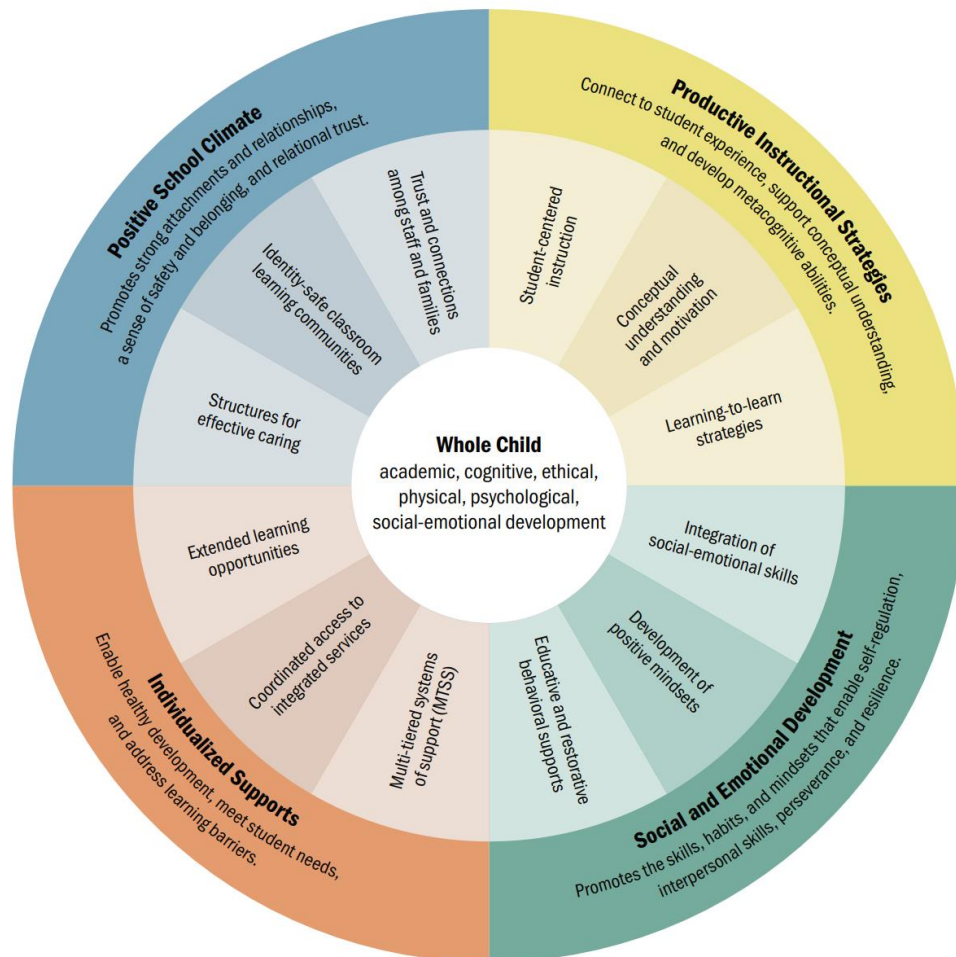
trials, longitudinal follow-ups, and multiple replications provide the research needed to demonstrates that SEL in education is beneficial and necessary. In addition, the research reported that teachers, regardless of academic areas, can effectively teach SEL (CASEL, 2018). SEL programs prepare students for success in the areas of social cognitive development, academic achievement, school readiness, and adjustment to the school environment (Denham et al., 2010).

In a recent study, 3,300 students between the ages 13-19 were asked questions about their social, emotional, and academic experiences and the results highlighted the increased need for student support with their social, emotional, and cognitive wellbeing inducing their ensuring their basic needs are met (Margolius et al., 2020). More than 1 in 4 students reported an increase in losing sleep due to worry, feeling unhappy or depressed, feeling constantly under strain. As a result of the study, it is recommended for schools to prioritize SEL and mental health (Margolius et al., 2020).

Darling-Hammond and Cook-Harvey (2018) researched neuroscience, science of learning, and the development of children to examine how schools can effectively implement research-based practices that foster teaching the whole child. When students' basic needs are met, they are more likely to become engaged in school, develop social skills, be a part of the school and community, and achieve academically (Darling-Hammond & Cook-Harvey, 2018). Research has supported the critical roles schools have in supporting student development beyond academic instruction (Walsh et al., 2016; Moore et al., 2017). Schools provide a safe environment where students are able to build strong relationships with trusted adults who support their overall development (Cole et al., 2005).

**Figure 2**

*A Framework for Whole Child Education*



(Darling-Hammond & Cook-Harvey, 2018).

Despite the existing body of evidence in favor of programs and interventions focused on SEL, Jones and Kahn (2017) highlighted a number of important challenges that still remain. Ensuring consistent exposure and intensity to SEL programs often take the form of short lessons which are often minimized or even skipped due to various responsibilities, schedules and time dedicated to other things such as content specific learning. When this occurs, programs are often not sustained and students experience little continuity from one year to the next (Jones & Kahn

2017). Another challenge is that SEL programs are viewed as extracurricular instead of a core part of the educational. This mindset often leads to minimal effort when applying the skills learned during SEL programming into daily life. To address this issue, many programs have made intentional efforts to embed SEL with academic content yet there is still room for improvement. An additional concern is the lack of extending SEL beyond classrooms and into other locations where students learn, play, and interact with others such as the lunch room, recess, hallways, restrooms, and so on. Often times, these areas are less supervised than classrooms which could create a sense of feelings unsafe for some students. A sense of safety is important and helping students learn to navigate unstructured spaces could help the overall school culture (Jones et al., 2017). To be an effective approach to fostering development in students, educators need support to implement interventions or the effectiveness of SEL programming will be reduced (Taylor et al., 2017).

Social emotional learning benefits children from all backgrounds and contributes to the overall school experience (Shriver & Weissberg, 2020). Burroughs and Barkauskas (2017) identified that students with developed SEL skills have more success later in life. Social emotional learning is equally as important as academic content (Brennan, 2015; Durak et al., 2011; Shriver & Weissberg, 2020).

### **Adverse Childhood Experiences (ACEs) and Trauma**

Adverse childhood experiences (ACEs) are “potentially traumatic events” that occur during childhood (CDC, 2021). Between 1995 and 1997 Kaiser Permanente and the Centers for Disease Control and Prevention (CDC) interviewed more than 17,000 adults about childhood experiences including abuse, neglect, parental separation, substance abuse, incarceration, violence and mental illness (CDC, 2021). The research indicated that when a person has

experienced adversities, they are at a higher risk for chronic health problems, mental illness, and substance use in adulthood (CDC, 2021). Abuse, substance abuse, and parental separation or divorce are the three leading ACEs (Merrick et al., 2018). A survey from 2017-2018 reported one in three children under the age of 18 reported having suffered at least one adverse childhood experience (ACE) in their lifetime and 14 percent experienced two or more ACEs (HRSA, 2019).

Adverse childhood experiences (ACEs) have the potential to develop into trauma when an individual feels intensely threatened by an event experienced or witnessed (NCTSN, 2022). Traumatic experiences can cause strong emotions and physical reactions that could last long after the event. Additionally, trauma can significantly undermine a student's ability to learn and thrive in school (Sitler, 2009). Due to the prevalence of ACEs and trauma, it is highly likely educators will teach students that have been affected (Walsh et al., 2016; Moore et al., 2017). Therefore, it is important for schools to strive for a culture that emphasizes a supportive, positive, and safe learning environment and attends to the academic, physical, mental, and social emotional needs of students (Jones et al., 2017). When schools value educating the whole child, supports are implemented to ensure a supportive learning environment which includes a plan to meet students' physical, mental, and social emotional needs (Bethell et al., 2014).

NCTSN (2022) reported on the lasting impacts of ACEs and trauma and how it affects one's overall development, how it affects an individual's feelings, cognitive processing, and engagement and interactions with others. Schools can help students by educating the whole child and creating a safe, positive, supportive learning environment (Darling-Hammond & Cook-Harvey, 2018). Social emotional learning (SEL) is necessary when educating the whole child because SEL helps students develop skills to identify and regulate emotions, communicate



effectively, and work through adverse or traumatic experiences (Darling-Hammond & Cook-Harvey, 2018; Jones et al., 2017). Research has shown that a positive school climate contributes to academic achievement when students feel a sense of safety which allows their brains to learn (Darling-Hammond & Cook-Harvey, 2018). Consequently, it is imperative that schools provide a learning environment that values social emotional skills in effort to help students retain academic content (Darling-Hammond & Cook-Harvey, 2018; Sprenger, 2020). As more schools understand the topic, so does the number of schools investing in meaningful social emotional learning programs (Bailey et al., 2019).

### **Student Perceptions**

Although students may be sitting in the same classroom, they may still have different experiences. Measuring student perception data helps school personnel gain a better, more in-depth understanding of how students are feeling and what they are thinking. It is important to listen to students' voices when implementing SEL activities as it helps them feel connected, cared about, and with a sense of safety (CASEL, 2013). Students have opinions and need and want the opportunity to share their opinions and to be made collaborative partners (CASEL, 2018). Research has connected student perceptions with positive learning outcomes (Panorama Education, 2015).

The American School Counselor Association (ASCA) National Model Implementation Guide (2016) identifies the value of using "I believe," "I know" and "I can" type questions as it makes the questions more personal to the student which ultimately leads to a higher percentage of accuracy. One way to structure perception data is by using a Likert scale (Dafoe, 2018).

Harvard Graduate School of Education and Panorama Education collaborated to develop a valid

and reliable student perception survey tool using advanced survey methodology (Panorama Education, 2020a).

Panorama Education (2020a) developed the Panorama Student Survey as the first major survey instrument that is theoretically-grounded with an empirically-based design process to provide school personnel with students' attitudes, beliefs, and values that are predictive of various classroom and school outcomes. Panorama Education (2020a) works with school districts to customize the survey while retaining validity and reliability as well as provides customized analytics through interactive reports.

### **SEL and the COVID-19 Pandemic**

Interest in students' social and emotional learning has increased recently as educators have been called to educate to the whole child (Burroughs & Barkauskas, 2017; Darling-Hammond & Cook-Harvey, 2018; Liew et al., 2010; Reimers, 2020). Due to the COVID-19 pandemic in March 2020, schools pivoted to virtual platforms for instructional delivery (Daniel, 2020; Maqsood et al., 2021; Yan, 2020). During this time, it became evident the important role schools have in fostering students' social emotional learning (Brackett & Cipriano, 2020; Livio, 2021).

Similar to SEL, mental health encompasses emotional, psychological, and social wellbeing, and is an essential component of overall health (U.S. Department of Health & Human Services, 2020). Biological factors including genes and brain chemistry and environmental factors or life experiences influence development and are often interrelated, which creates a unique challenge to isolate possible causes for what someone is experiencing (Schmidt, 2007; U.S. Department of Health & Human Services, 2020). Studies that examine the biological and

environmental factors help highlight the impact they have on one's development (Panter-Brick et al., 2020).

The Office of the Surgeon General (2021) reported that mental health challenges were the leading cause of disability and poor life outcomes in young people prior to the COVID-19 pandemic. One study reported approximately 1 in 5 children between the ages of 3 and 17 have a mental, emotional, developmental, or behavioral disorder (Perou et al., 2013). Whitney and Peterson (2019) reported approximately half of 7.7 million children with treatable mental health disorder did not receive the treatment needed. Centers for Disease Control and Prevention (2020) published information that revealed youth have shown increases in depressive symptoms and suicidal ideation. Youth psychiatric visits to emergency departments for depression, anxiety, and behavioral challenges were also on the rise prior to the COVID-19 pandemic (Kalb et al., 2019). Between 2007 and 2018, suicide rates for those between the ages of 10 and 24 in the U.S. increased by 57% (Curtin, 2020). Early estimates from the National Center for Health Statistics suggest there have been approximately 6,600 deaths by suicide among the 10-24 age group in 2020 (Curtin et al., 2021).

March 2020, the outbreak of the coronavirus 2 (SARS-CoV-2) lead to the COVID-19 pandemic and the world dramatically changed. Educators, policymakers, healthcare providers, families and students found themselves in uncharted territory. School districts were making challenging decisions regarding how to best continue academic learning while protecting students and staff from the coronavirus. Many events and rituals were halted including in-person school, sports, time with friends and family, and graduation ceremonies. The disruption of academic learning in addition with grief, isolation, and uncertainty impacted students' mental health (Kidman et al., 2021). It is estimated that as of June 2021, more than 140,000 children in

the U.S. had lost a parent or grandparent caregiver to COVID-19 (Hillis et al., 2021). Not only did people worry about the coronavirus and the effects it could have on one's health, but the mass home-confinement directives such as stay-at-home orders, quarantine, and isolation added to the concern. Research has shown that numerous emotional outcomes, such as stress, depression, anxiety, irritability, insomnia, fear, confusion, anger, frustration, boredom, and stigma is associated with quarantine (Pfefferbaum & North, 2020). Adverse childhood experiences (ACEs) such as abuse, neglect, witnessing violence, substance use concerns, mental health challenges, or instability at home can disrupt a child's sense of safety, stability, and bonding (Centers for Disease Control and Prevention, 2021). During the COVID-19 pandemic, many individuals experienced challenges that appear to have affected their mental and emotional wellbeing.

In effort to help students, school districts emphasized the importance of social emotional learning (Schwartz et al., 2021). Students struggle learning if their emotions are not regulated which only strengthens the need to educate the whole child (CASEL, 2021). Social emotional learning helps students acquire skills to manage emotions and work through adversities such as a disruption to student routines and their school community. Schools are much more than a place where students come and learn academics. Schools are classroom communities for social opportunities to connect with friends and other adults. Furthermore, research has reflected emotions influence students' attention, decision making, memory and learning period (Schwartz et al., 2021). The ability to recognize feelings and maintain healthy relationships is essential to keeping students motivated and engaged which also helps foster a sense of belonging, community, and safety (Schwartz et al., 2021).

Another important implication the COVID-19 pandemic has had on student SEL is the “high prevalence of anxiety and depressive symptoms in children and adolescents, due to the pandemic itself, to social isolation and to parents' stress” (Deolmi & Pisani, 2020). Suicidal ideation was on the rise among children and young adults as shutdowns and social isolation challenged many peoples’ mental and emotional well-being (Hill et al., 2020). In early 2021, emergency department visits for suspected suicide attempts were 51% higher for adolescent girls and 4% higher for adolescent boys compared to the same time period in early 2019 (Yard et al., 2021). CDC found one quarter of respondents ages 18–24 had contemplated suicide in the 30 days prior to completing a 2021 survey (Czeisler et al., 2020). Surveys conducted from April to May of 2020 reported youth expressed feeling constant anxiety, depression, stress, unhappiness, and loss of self-efficacy (Cardona, 2022; Margolius et al., 2020). The youth in this study attributed these feelings intensified by the inability to sleep.

The COVID-19 pandemic highlighted how important schools are to the health and well-being of children. Schools are a place to learn yet they are also a place where students socialize (Elder, 1969), are fed (Kenney et al., 2020), and receive essential health and social services related to physical and mental wellbeing (Tyack, 1992). Furthermore, schools provide a trusted, safe environment for students while their parents work (Bryk & Schneider, 2004). Due to the increase in mental health and behavioral disorders in students (Blewitt et al., 2021), policymakers are taking a close look at SEL in schools by reexamining how to support communities, prioritize social emotional learning in schools, determining how to meet the needs of the whole child (Mann et al., 2021).

## **Theoretical Framework**

The theoretical framework for this study is Maslow's (1943) Hierarchy of Needs and Bandura's (1973, 1986) Social Learning Theory. While the two theories differ, they have some similarities (Woolfolk et al., 2013). Maslow theorized that all individuals have inner lives and potential for growth, creativity, and free choice as cited in Woolfolk et al. (2013). In 1943, he outlined a motivational process based on the belief that humans are motivated by basic needs that are hierarchically ordered (Maslow, 1943). The Hierarchy of Needs consist of: physiological, safety, love and belonging, esteem and self-actualization. Maslow believed individuals were motivated to achieve self-actualization, also described as reaching full potential, self-fulfillment, inner peace, and contentment (Woolfolk et al., 2013). Although the tiered model is in hierarchical ordered, the satisfaction of a need is not an "all-or-none" phenomenon (Maslow, 1987, p. 69).

Like Maslow, Bandura was initially trained as a behaviorist, yet he felt that a key element was missing (Bandura, 1977; Bandura, 1989). In 1977, Bandura recognized that individuals create and develop self-perceptions of capability that become instrumental to the goals they pursue and to the control they are able to exercise over their environments. Environment and social factors learned through imitation, observation, and modeling influence children and adolescence behaviors (Bandura, 1989). Bandura (1977) determined observational learning as a key tenet to learning and motivation. He described observational learning as developing the skills to establish strong, positive relationships by observing others in socially situations. From Bandura's work, it is believed that people have the capacity to learn and adjust their behavior based on what they observe (Bandura, 1977). With Bandura's social learning theory as a framework, Miller (2002) recognized that certain models, those being observed, are likely to be

imitated when they are reinforced. Furthermore, Miller (2002) stated that social development theory views children within the context of a sociocultural matrix which suggests children behave in ways due to their needs and wants that involve the environment.

Over many years of research, it is evident that addressing students' social and emotional needs have a positive impact on their academic performance, their attitudes about school and the relationships that take place in educational settings (Durlak et al. 2011; Weissberg et al., 2015; Zins et al., 2004). Social emotional learning is the process through which students improve their ability to incorporate thinking, emotions and behavior to achieve important daily tasks (Zins et al., 2004). It was suggested for schools to implement and integrate SEL programs to focus on enhancing social-emotional skills, which encourage positive relationships and decrease negative behaviors. Goleman (2004) also explained that integrating social-emotional learning programs with academic instruction develops a positive and more encouraging classroom and school environment. Brackett et al. (2015) also highlighted the importance of teacher-student relationships as well as relationships among peers as these relationships can encourage students to act in harmony with the values, norms, and belief systems that are a part of school culture. As students engage with their teachers and peers, they learn how to develop skills that nurture and improve their relationships. The student learning environment impacts students socially, emotionally, and academically. Student learning suffers when they experience emotional dysregulation which could develop gaps in learning (Zins et al., 2004). In order for students to learn they must be emotionally regulated; therefore, it is essential educators provide a learning environment that is caring and respectful (Senge et al., 2012). Promoting SEL skills benefits student learning outcomes and allow students to feel more emotionally secure. Zins and Elias (2006) stated, "Social-emotional competence and academic achievement are highly related, and

effective schools are focusing efforts on integrated, coordinated instruction in both areas to maximize student's potential to succeed in school and throughout their lives" (p. 10).

During the pandemic, the phrase, "Maslow before Bloom" was commonly used among educators highlighting the need to put student safety and social emotional needs before academic demands (Mann et al., 2021; Raschdorf et al., 2020). When educators prioritize students' social emotional needs and are mindful of the learning environment, students are likely to be more motivated to learn and their brain is able to retain what is being taught (Mann et al., 2021). This is especially critical for students who have experienced adverse childhood experiences (ACEs) or trauma (Parker & Hodgson, 2020). In effort to increase student learning, educators must see the student as a whole child and meet them where they are in the present moment (Mann et al., 2021).

## **Summary**

SEL is foundational in helping students reach their full potential as caring, contributing, responsible, and knowledgeable friends, family members, coworkers, and citizens. Integrating SEL with academic instruction allows students the opportunity to learn skills and brings about meaningful and sustainable changes to education practice and, at large, the system. Overall, the benefits of SEL have been widely researched and the benefits have been acknowledged; however, limited information was found on student perception concerning levels of SEL, especially due the COVID-19 pandemic.



## **Chapter 3 - Research Method**

This chapter will commence with a restatement of the purpose of the study and the research questions, and will be followed by a description of the quantitative causal comparative design research method that was used and the design of the research. The problem researched in this study was the influences the COVID-19 pandemic had on students' social-emotional learning. This research was grounded in Bandura's (1973, 1986) Social Learning Theory, Maslow's Hierarchy of Needs, and other social emotional research of Durlak, Weissberg, and Zins. The data were collected over a three-year timeframe using the Panorama Education's SEL student perception data.

This chapter presents the independent and dependent variables used in this study, describes the population from which the sample was selected, the sample size, and demographic information about the participants. The survey instruments administered to collect the data will also be shared and the rationale for selecting a quantitative research design.

### **Purpose of the Study**

This study examined the differences among student SEL, measured by Panorama Education's SEL student perception data from students in grades 3-12 and the COVID-19 pandemic. Furthermore, the researcher analyzed the differences among student SEL results related to grade level during Fall 2019, Fall 2020, and Fall 2021. The results of this study will help guide educators, legislators, and other stakeholders in gaining insight which can be used to best help students. In this study, the research compared student perception SEL data in the context of the COVID-19 pandemic. In an effort to mitigate the influence of covariance factors on the results of that comparison, the research design statistically controlled for variables including poverty and minority.

## Research Question

The following research questions were explored using a causal comparative design:

RQ1: What are the differences among student SEL, measured by Panorama Education's SEL student perception data, and the COVID-19 pandemic.

- e. What differences exist in the level of social awareness reported by students during Fall 2019, Fall 2020, and Fall 2021?
- f. What differences exist in the level of grit reported by students during Fall 2019, Fall 2020, and Fall 2021?
- g. What differences exist in the level of coping with anxiety reported by students during Fall 2019, Fall 2020, and Fall 2021?
- h. What differences exist in the level of emotional regulation reported by students during Fall 2019, Fall 2020, and Fall 2021?

RQ2: In what ways and to what extent, if any, is student SEL results related to grade level during Fall 2019, Fall 2020, and Fall 2021?

- e. Do social awareness results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?
- f. Do grit results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?
- g. Do coping with anxiety results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?
- h. Do emotional regulation results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?

## **Research Methodology**

A quantitative research method was the most appropriate method for this study compared to other methods as it allows the researcher to gain a deeper understanding of how the COVID-19 pandemic has influenced students' perceptions of their SEL. Quantitative research methods are generally better suited for larger sample groups, as was the case in this study and required the researcher to interpret data (Mačutek & Wimmer, 2013; Russell & Russell, 2012). Additionally, quantitative research methods produce numerical data that is comprehensible and can be conveyed with further explanations (Shabani Varaki, et al., 2015). Furthermore, since the results of this study were generated objectively it allowed future research to be reproduced with similar outcomes in other situations as well as starting point for additional research (Slater & Gleason, 2012). The main goal of the study was to determine if there is a significant difference in student SEL during the COVID-19 pandemic than before the pandemic with controlling for the potential influences of poverty and minority. Therefore, a quantitative methodology using a causal comparative design was selected as the most appropriate research design for the study.

## **Research Design**

The researcher implemented a causal comparative design to study the possible influence the COVID-19 pandemic had on students' SEL. The causal comparative design investigated the relationship between dependent and independent variables after an event occurred (Fraenkel et al., 2015). Specifically for this study, differences between student SEL measures prior to the COVID-19 pandemic and during the pandemic will be investigated. In addition, the covariates of poverty and minority provided additional information in regards to the influence the COVID-19 pandemic had by filtering other likely influences. Dependent variables for this study consisted of the following student SEL measures: social awareness, grit, emotional regulation, and coping

with anxiety. The independent variables are the years: Fall 2019, Fall 2020, and Fall 2021. The covariances consist of poverty and minority.

### **Participants**

The participants in this research included every elementary, middle and high school within a school district located in a suburb in the Midwest that administered the Panorama Student SEL Survey to students in grades 3-12. Unlike most empirical research, the data set included the entire population of interest, which means there is no need to make inferences from a sample to the larger population. Thus, any differences in results from zero were real differences, and results were not interpreted to make inferences about a larger population. However, inferential procedures were utilized in an attempt to understand how the covariances of poverty and minority affected the differences in SEL levels among Fall2019, Fall 2020, and Fall 2021. Statistical significance values were interpreted as markers for practical significance (Bickel, 2007).

Table 3.1 and Table 3.2 illustrates Fall 2019, Fall 2020, and Fall 2021 demographic data. Table 1 identifies demographic data for students in grades 3-5. Table 2 highlights demographic data for students in grades 6-12.

**Table 3.1***Demographic Data for Grades 3-5 Fall 2019, Fall 2020, Fall 2021*

	Fall 2019		Fall 2020		Fall 2021	
	<i>n</i>	Percentage of Population	<i>n</i>	Percentage of Population	<i>n</i>	Percentage of Population
Students	6,013		5,577		5,665	
Grade						
3	1,964	33%	1,785	32%	1,911	34%
4	2,001	33%	1,860	33%	1,825	32%
5	2,048	34%	1,932	35%	1,929	34%
Gender						
Female	2,975	49%	2,789	50%	2,821	50%
Male	3,038	51%	2,787	50%	2,844	50%
Student FRPL Status						
Free	1,208	20%	903	16%	573	10%
Reduced	420	7%	219	4%	237	4%
Full Price	4,385	73%	4,409	79%	4,855	86%
Ethnicity						
American Indian or Alaska Native	11	0%	11	0%	13	0%
Asian	247	4%	258	5%	268	5%
Black or African American	436	7%	425	8%	389	7%
Hispanic	1,020	17%	951	17%	979	17%
Native Hawaiian or Other Pacific Islander	12	0%	15	0%	17	0%
Two or more	352	6%	316	6%	301	5%
White	3,935	65%	3,600	65%	3,698	65%

**Table 3.2***Demographic Data for Grades 6-12 Fall 2019, Fall 2020, Fall 2021*

	Fall 2019		Fall 2020		Fall 2021	
	<i>n</i>	Percentage of Population	<i>n</i>	Percentage of Population	<i>n</i>	Percentage of Population
Students	14,271		13,950		14,076	
Grade						
6	2,170	15%	1,785	14%	1,911	14%
7	2,214	16%	1,860	14%	1,825	14%
8	2,109	15%	1,932	16%	1,929	15%
9	2,130	15%	2,088	15%	2,204	16%
10	2,035	14%	2,048	15%	2,011	14%
11	1,879	13%	1,950	14%	2,030	14%
12	1,734	12%	1,807	13%	1,849	13%
Gender						
Female	6,954	49%	6,943	50%	6,882	49%
Male	7,317	51%	7,006	50%	7,194	51%
Student FRPL Status						
Free	2,522	18%	1,811	13%	1,238	9%
Reduced	925	6%	476	3%	566	4%
Full Price	10,823	76%	11,587	83%	12,272	87%
Ethnicity						
American Indian or Alaska Native	48	0%	45	0%	47	0%
Asian	660	5%	645	5%	618	4%
Black or African American	996	7%	982	7%	1,021	7%
Hispanic	2,307	16%	2,215	16%	2,317	16%
Native Hawaiian or Other Pacific Islander	25	0%	25	0%	29	0%
Two or more	601	4%	599	4%	672	5%
White	9,634	68%	9,438	68%	9,372	67%

## **Data Collection**

Students were asked to participate in the Panorama Student SEL Survey to provide feedback for educators in efforts to gain greater insight to student perceptions and experience with social and emotional learning. This survey was administered to students in grades 3-12 in the Fall and Spring to track students' perceptions of their SEL; however, for this study only the scores from Fall 2019, Fall 2020, and Fall 2021 were analyzed. Data were collected using a third-party survey software suite through the Panorama Student SEL Survey which utilizes Likert scales for each question on the survey. During the school enrollment process guardians of the students were given survey information and the option of opting out of survey administration.

On the days the survey was administered, a survey link was shared with the students. At the elementary level, school counselors, classroom teachers, or specialist teachers administered the survey. In grades 3-5, the survey questions are read aloud, one question at a time, with examples provided as needed. In grades 6-12, the survey is administered by classroom teachers or school counselors during a time referred to as homeroom which is a time designated for students to complete assignments, study, or participate in SEL lessons.

Students answer several questions on each topic and Panorama Education groups questions into topics to make the results easier to summarize and interpret (Panorama Education, 2020a). Panorama Education (2020a) converts to whole numbers between 1 and 5 and averaged within a topic to produce a mean topic score. A mean topic score of 3.5 or higher is considered a strength in that skill (Panorama Education, 2020a). The results of the Panorama Education Student SEL Survey were shared with the various stakeholders in the school such as classroom teachers, school counselors, principals as well as stakeholders outside of school such as students and families. The results highlight the trend of how students perceive their SEL and provide an

opportunity for reflection and planning in the classroom, at school, at the district level as well as at home.

### Figure 3

#### *Sample of Panorama Education Student Report*

##### **Emotion Regulation**

Students with strong emotion regulation stay relaxed and calm, even when things go wrong.

*The higher the score, the better a student is able to regulate their emotions. (A score higher than 3.5 indicates a strength in this skill.)*



The researcher in this quantitative study collected aggregated data for each SEL category (social awareness, grit, coping with anxiety, and emotional regulation) to investigate the influences of the COVID-19 pandemic on student SEL. In addition to SEL data, demographic data, including student poverty and minority, were also reviewed. Poverty was measured by the percentage of students participating in free and reduced-price lunch, and the identification of minority was based on the non-white races students identified with on the student's enrollment form. The data was downloaded from the Panorama Education website.

### **Data Analysis**

The unit of analysis consisted of 50 schools where students in third through twelve grades were administered the Panorama Education Student SEL Survey. For each SEL measure, the percent favorable represented the percentage of respondents who selected favorable answers, or the two most positive answers to the questions on the Likert scale. Once the aggregated survey results were retrieved from Panorama Education, they were implemented into an Excel spreadsheet and imported into a Statistical Package for the Social Sciences (SPSS) software for a



more detailed level of analysis. Using the SPSS, the analysis of covariance (ANCOVA) will be performed on the data using the dependent variable (the SEL measures), the independent variables (Fall 2019, Fall 2020, and Fall 2021) and poverty and minority as the covariates.

The analysis of covariance (ANCOVA) utilized in this study as it is an advanced form of analysis of variances and is a combination of analysis of variance and regression analysis.

ANCOVA is used to compare a variable in two or more populations while also considering other variables compared to analysis of variance (ANOVA) which is utilized to investigate the difference among two or more populations (Fraenkel et al., 2015). Due to the differences in poverty and minority, ANCOVA is the appropriate test. ANCOVA “provides a means to statistically adjust the dependent variable for these preexisting differences” (Widlt & Ahtola, 1978, p. 17). Using ANCOVA produces an analysis reporting the results indicating the degree to which SEL increased or decreased from year to year, while controlling for the effects of poverty and minority.

The variables for analysis are presented in Table 3.3. The analysis illustrates the independent and dependent variables and the covariates.

**Table 3.3**

*Variables for Analysis*

DV	IV	Covariates
Social Awareness	School Year	Poverty Minority
Grit	School Year	Poverty Minority
Coping with Anxiety	School Year	Poverty Minority
Emotional Regulation	School Year	Poverty Minority

An interrupted time series (ITS) design was used for this study to answer Research Question 2. Interrupted time series (ITS) is an experimental design that measures differences in outcomes over time before and after an event, for the purpose of investigating whether the event is associated with differences in the outcomes (Biglan et al., 2000). The researcher utilized an ITS design to identify and describe the relationship between student SEL data, distinct time intervals (Fall 2019, Fall 2020, Fall 2021) and an exact time when the event occurred (prior to the pandemic and after the start of the pandemic). A visual analysis was used to investigate differences in student SEL data among grade levels 3-12 during Fall 2019, Fall 2020, and Fall 2021 to show implications for the interpretation of data as the data provides valuable information (Gains, 2002).

### **Reliability and Validity**

The Panorama Student Survey was developed to address the multifaceted needs of the educational system and provide information to better understand which sub-groups of students face possible risk factors so educators can intervene (Panorama Education, 2015). Gehlbach and Brinkworth (2011) developed the Panorama Student Survey using a six-step process that include “literature review, interviews and focus groups, synthesis of indicators, item (question) creation, expert review, and cognitive pre-testing and interviewing” (Panorama, 2015, p.4). The purpose of the six-step process was to ensure the rigor of the survey and to minimize survey error (Artino et al., 2014; Messick, 1995). After the six-step process was completed, revisions were made to the survey questions and pilot studies in school districts in the southeastern United States began (Panorama, 2015).

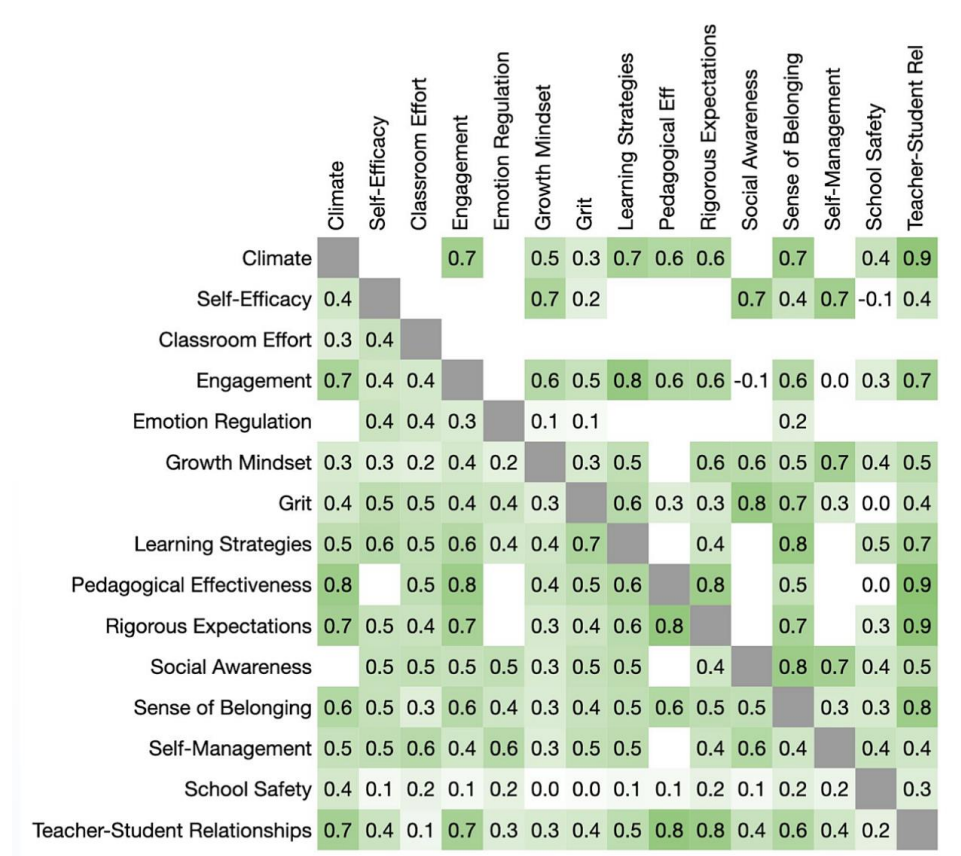
Reliability, structural validity, and convergent/discriminant validity were closely examined during the pilot studies (Panorama, 2015). “Reliability is the property related to

whether the item will consistently elicit similar results under similar conditions, so that differences in responses can be attributed to differences in perceptions” (Panorama, 2015, p. 5). Through the validity report, the estimates for coefficient alpha for every scale is .70 or greater which is considered adequate reliability for a survey scale ( DeVellis, 2003; Panorama, 2015). In effort to address structural validity, Panorama Education used confirmatory factor analysis which allowed the survey scales to undergo a highly rigorous analysis structure compared to an exploratory factor analysis or principal components analysis (Fabrigar et al., 1999; Panorama Education, 2015). To assess validity, Panorama Education compared the Panorama Student Survey to other scales such as the measures used in the MET study and Dweck’s mindset scale which resulted in evidence of convergent and discriminant validity (Panorama Education, 2015).

In 2020, the Panorama Education research team took data from approximately 3,500,000 student survey takers in more than 5,900 schools to assess reliability and validity of their student survey measures (Panorama 2020b). On average, 96% of students answered every question on the survey which is significant because the high response rates show that non-response bias is a mute issue (Holt & Elliott, 1991, Panorama 2020b). When examining reliability and structural validity, the data indicated that Panorama’s Student Survey was strong in both suggesting that the questions making up a topic belong together as a single topic (DeVellis, 2016; Streiner, 2003; Messick, 1995, Panorama 2020b). Furthermore, the findings revealed the student surveys demonstrated convergent and discriminant validity by having “higher correlations with theoretically related constructs and lower correlations with theoretically unrelated constructs” (Panorama, 2020b). In other words, *the patterns of correlations reveal the survey topics measure what they intend to measure.*

**Figure 4**

*Topic Intercorrelations*



(Panorama Education, 2020b).

*Panorama Education (2020b) calculated Spearman rank-order correlations to minimize measurement assumptions. Values above the diagonal are school-level correlations and the values below the diagonal are student-level correlations. Blank cells suggest topic pairs with fewer than 20 schools or 500 students, which was considered insufficiently sized samples (Panorama Education, 2020b).*

### **Ethical Assurances**

Ethical considerations related to the study were utilized to protect the rights of the participants. In an effort to conduct an ethical research study, the researcher completed required

training from the Collaborative Institutional Training Initiative (CITI) to ensure ethical principles would be utilized throughout the study. Following committee approval, the researcher and her dissertation chair submitted the Institution Review Board (IRB) application for approval. Once approval was granted, the researcher obtained permission from the school district's research review board to use the Panorama Education district data. As per the IRB, the researcher coded the schools and posted the coding, all data, and analysis to the Principal Investigator's KSU OneDrive to protect the confidentiality of the data and the analysis.

### **Summary**

The purpose of the study was to examine the differences among student SEL, measured by Panorama Education's SEL student perception data, and the COVID-19 pandemic. The researcher utilized a causal comparative design to study the possible differences between student perception SEL measures in the context of the COVID-19 pandemic. The covariates of poverty and minority provided additional information in regards to the influence the COVID-19 pandemic by filtering other likely influences. Furthermore, the researcher utilized an interrupted time series (ITS) design to investigate the potential differences of SEL measures among grade levels during Fall 2019, Fall 2020, and Fall 2021. The visual line graph illustrated differences among student SEL results by grade level during Fall 2019, Fall 2020, and Fall 2021.

## **Chapter 4 - Results**

### **Introduction**

This study examined the differences among student SEL, measured by Panorama Education's SEL student perception data from students in grades 3-12 and the COVID-19 pandemic. Furthermore, the researcher analyzed the differences among student SEL results related to grade level during Fall 2019, Fall 2020, and Fall 2021. The results of this study can help guide educators, legislators, and other stakeholders in gaining insight which can be used to best help students. In this study, the research compared student perception SEL data before the COVID-19 pandemic and during the pandemic. In an effort to mitigate the influence of covariance factors on the results of that comparison, the research design statistically controlled for variables including poverty and minority. The following two research questions guided the study:

RQ1: What are the differences among student SEL, measured by Panorama Education's SEL student perception data, and the COVID-19 pandemic.

- a. What differences exist in the level of social awareness reported by students during Fall 2019, Fall 2020, and Fall 2021?
- b. What differences exist in the level of grit reported by students during Fall 2019, Fall 2020, and Fall 2021?
- c. What differences exist in the level of coping with anxiety reported by students during Fall 2019, Fall 2020, and Fall 2021?
- d. What differences exist in the level of emotional regulation reported by students during Fall 2019, Fall 2020, and Fall 2021?

RQ2: In what ways and to what extent, if any, is student SEL results related to grade

level during Fall 2019, Fall 2020, and Fall 2021?

- a. Do social awareness results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?
- b. Do grit results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?
- c. Do coping with anxiety results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?
- d. Do emotional regulation results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?

This chapter contains the results of the study. The presentation of the analysis of the data has been organized around the two research questions and their sub questions, all of which guided the study.

### **Descriptive Statistics**

Although the study's population consisted of 50 schools that reported SEL student perception scores from students in grades 3-12 during Fall 2019, Fall 2020, and Fall 2021, the results are reported by SEL measures and the year of the survey for the first research question. The results for the second research question are reported by SEL measure and how it differs by grade level during a three-year timeframe. For the first research question, the dependent variables are the four SEL measures: social awareness, grit, coping with anxiety, and emotional regulation. The independent variables are the years: Fall 2019, Fall 2020, and Fall 2021. The questions on the student survey addressed students' perceptions of their social and emotional competencies. For each SEL measure, the percent favorable represented the percentage of respondents who selected favorable answers, or the two most positive answers to the questions on the Likert scale. The aggregated survey results were retrieved from Panorama Education,

inputted into an Excel spreadsheet, and imported into a Statistical Package for the Social Sciences (SPSS) software for a more detailed level of analysis.

For SEL measure, social awareness, in Fall 2019, the mean score was 69% and the scores have slightly decreased over the years. The results for social awareness reported by students in grades 3-12 are presented in Table 4.1.

**Table 4.1**

*Descriptive Statistics for Dependent Variable: Social Awareness*

Year	Mean	Std. Deviation	N
2019	.6940	.04828	50
2020	.6931	.04552	49
2021	.6820	.05895	49

For SEL measure, grit, in Fall 2019, the mean score was 56%. In Fall 2020, the mean score declined to 54% where it remained in Fall 2021. The results for grit are presented in Table 4.2.

**Table 4.2**

*Descriptive Statistics for Dependent Variable: Grit*

Year	Mean	Std. Deviation	N
2019	.5578	.04739	50
2020	.5363	.05065	49
2021	.5378	.06049	49

The mean score in Fall 2019 for SEL measure, coping with anxiety, was 46%. In Fall 2020, the mean score increased to 49% with a slight decline in Fall 2021 at 48%. The results for coping with anxiety are presented in Table 4.3.



**Table 4.3***Descriptive Statistics for Dependent Variable: Coping With Anxiety*

Year	Mean	Std. Deviation	N
2019	.4640	.08633	50
2020	.4880	.09399	49
2021	.4839	.09244	49

The mean score for SEL measure, emotional regulation, in Fall 2019, was 50% and decreased to 46% in Fall 2020. The mean score in Fall 2021 slightly declined yet remained at 46%. The results for grit are presented in Table 4.4.

**Table 4.4***Descriptive Statistics for Dependent Variable: Emotional Regulation*

Year	Mean	Std. Deviation	N
2019	.4986	.05725	50
2020	.4641	.04821	49
2021	.4600	.05323	49

## Results

For research question one, an analysis of covariance (ANCOVA) was performed on the data using the dependent variable (the SEL measures), the independent variables (Fall 2019, Fall 2020, and Fall 2021) and poverty and minority as the covariates. Using ANCOVA produced results that highlight the differences in SEL from year to year, while controlling for the effects of poverty and minority. For the second research question, an interrupted time series (ITS) design was utilized to measure differences in outcomes over the three-year timeframe and is presented through a visual analysis to display the differences in student SEL measures among grade levels 3-12 during Fall 2019, Fall 2020, and Fall 2021.

## Data Analysis For Research Question 1: Differences Among Student SEL

### Research Question 1a

*What differences exist in the level of social awareness reported by students during Fall 2019, Fall 2020, and Fall 2021?*

Differences among social awareness reported by students in grades 3-12, while controlling for poverty and minority, are highlighted in the in Table 4.5. The results reflect the mean score for social awareness has been on a steady decline since Fall 2019.

**Table 4.5**

*Estimated Marginal Means Dependent Variable: Social Awareness*

Year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
2019	.696 <sup>a</sup>	.008	.681	.711
2020	.693 <sup>a</sup>	.007	.679	.707
2021	.680 <sup>a</sup>	.008	.665	.695

a. Covariates appearing in the model are evaluated at the following values: Poverty = .2291, Minority = .3631.

**Table 4.6**

*Tests of Between-Subjects Effects Dependent Variable: Social Awareness*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.046 <sup>a</sup>	4	.011	4.823	.001	.119
Intercept	10.608	1	10.608	4474.177	<.001	.969
Poverty	.001	1	.001	.552	.459	.004
Minority	.004	1	.004	1.661	.200	.011
Year	.005	2	.003	1.092	.338	.015
Error	.339	143	.002			
Total	70.792	148				
Corrected Total	.385	147				

a. R Squared = .119 (Adjusted R Squared = .094)

ANCOVA revealed that after controlling for poverty, there was not a significant effect on social awareness  $F(1,143) = .552, p=.459$  nor was there a significant difference for minority  $F(1,143) = 1.66, p=.20$ .

#### Research Question 1b

*What differences exist in the level of grit reported by students during Fall 2019, Fall 2020, and Fall 2021?*

To answer this question, the researcher calculated the means of the student reported SEL criteria, grit. As shown in Table 4.6 scores in 2019 were the highest at 56% and declined in 2020 at 54%. There is a .002 increase yet the mean remains at 54% in 2021. An ANCOVA revealed that after controlling for poverty, there was not a significant effect on grit  $F(1,143) = .012, p=.913$  nor was there a significant difference for minority  $F(1,143) = .591, p=.443$ .

**Table 4.7**

*Dependent Variable: Grit*

Year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
2019	.558 <sup>a</sup>	.008	.542	.574
2020	.536 <sup>a</sup>	.008	.521	.551
2021	.538 <sup>a</sup>	.008	.521	.554

a. Covariates appearing in the model are evaluated at the following values: Poverty = .2291, Minority = .3631.

**Table 4.8***Tests of Between-Subjects Effects Dependent Variable: Grit*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.024 <sup>a</sup>	4	.006	2.123	.081	.056
Intercept	6.415	1	6.415	2296.642	<.001	.941
Poverty	3.364E-5	1	3.364E-5	.012	.913	.000
Minority	.002	1	.002	.591	.443	.004
Year	.012	2	.006	2.064	.131	.028
Error	.399	143	.003			
Total	44.230	148				
Corrected Total	.423	147				

a. R Squared = .056 (Adjusted R Squared = .030)

**Research Question 1c**

*What differences exist in the level of coping with anxiety reported by students during Fall 2019, Fall 2020, and Fall 2021?*

The results indicate that the differences in scores between Fall 2019 and Fall 2021. Each year, the mean score has increased which means students are reporting they feel they possess a little more grit over the past three years. An ANCOVA revealed that after controlling for poverty, there was not a significant effect on Coping With Anxiety  $F(1,143) = 1.62, p=.205$  nor was there a significant difference for minority  $F(1,143) = 2.90, p=.091$

**Table 4.9***Dependent Variable: Coping With Anxiety*

Year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
2019	.456 <sup>a</sup>	.014	.429	.484
2020	.488 <sup>a</sup>	.013	.463	.514
2021	.492 <sup>a</sup>	.014	.463	.520

a. Covariates appearing in the model are evaluated at the following values: Poverty = .2291, Minority = .3631.

**Table 4.10***Tests of Between-Subjects Effects Dependent Variable: Coping With Anxiety*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.042 <sup>a</sup>	4	.011	1.281	.280	.035
Intercept	5.337	1	5.337	650.284	<.001	.820
Poverty	.013	1	.013	1.622	.205	.011
Minority	.024	1	.024	2.903	.091	.020
Year	.028	2	.014	1.734	.180	.024
Error	1.174	143	.008			
Total	35.104	148				
Corrected Total	1.216	147				

a. R Squared = .035 (Adjusted R Squared = .008)

**Research Question 1d**

*What differences exist in the level of emotional regulation reported by students during Fall 2019, Fall 2020, and Fall 2021?*

To respond to this question, the researcher analyzed how students reported their emotional regulation. The results report students perceived their emotional regulation to be 49% in Fall 2019 which is the highest mean score reported over the three year timeframe. The mean score in Fall 2020 was 46% and it has slightly increased in Fall 2021 at 27%. An ANCOVA revealed that after controlling for poverty, there was not a significant effect on Emotional Regulation  $F(1,143) = 2.91$ ,  $p=.090$  but there was a significant difference for minority  $F(1,143) = 11.67$ ,  $p=.001$ . This is likely due to the increase in the percentage of students that identify as non-white.

**Table 4.11***Dependent Variable: Emotional Regulation*

Year	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
2019	.493 <sup>a</sup>	.008	.477	.508
2020	.464 <sup>a</sup>	.007	.450	.478
2021	.466 <sup>a</sup>	.008	.450	.481

a. Covariates appearing in the model are evaluated at the following values: Poverty = .2291, Minority = .3631.

**Table 4.12***Tests of Between-Subjects Effects Dependent Variable: Emotional Regulation*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	.093 <sup>a</sup>	4	.023	9.262	<.001	.206
Intercept	5.505	1	5.505	2188.863	<.001	.939
Poverty	.007	1	.007	2.909	.090	.020
Minority	.029	1	.029	11.670	<.001	.075
Year	.020	2	.010	3.955	.021	.052
Error	.360	143	.003			
Total	33.760	148				
Corrected Total	.453	147				

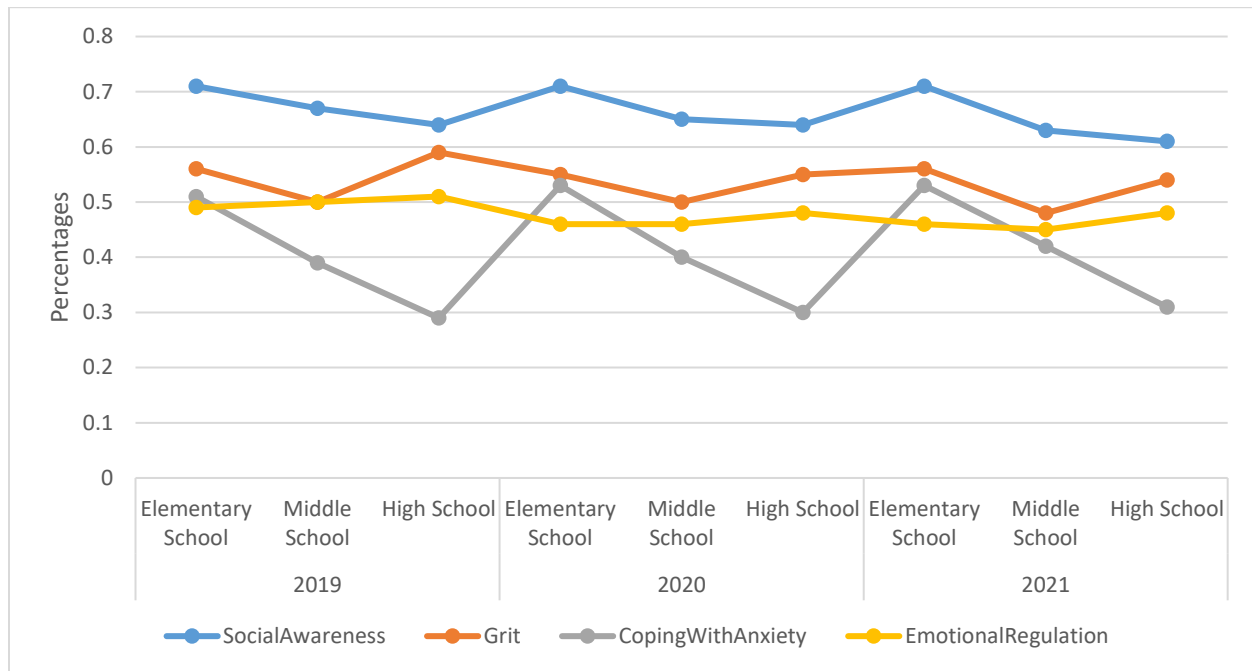
a. R Squared = .206 (Adjusted R Squared = .184)

### **Data Analysis For Research Question 2: Student SEL Results By Grade Level**

To respond to the second research question, the researcher analyzed the SEL measures over the three years students completed the survey. An interrupted time series (ITS) design was utilized to quantify patterns that were identified through visual analysis. A visual analysis presented in Figures 3 and 4 was used to quantify patterns that were identified. Figure 3 illustrates the three grade levels by each year while Figure 4 showcases the differences that occurred among the grade level through the three-year time period.

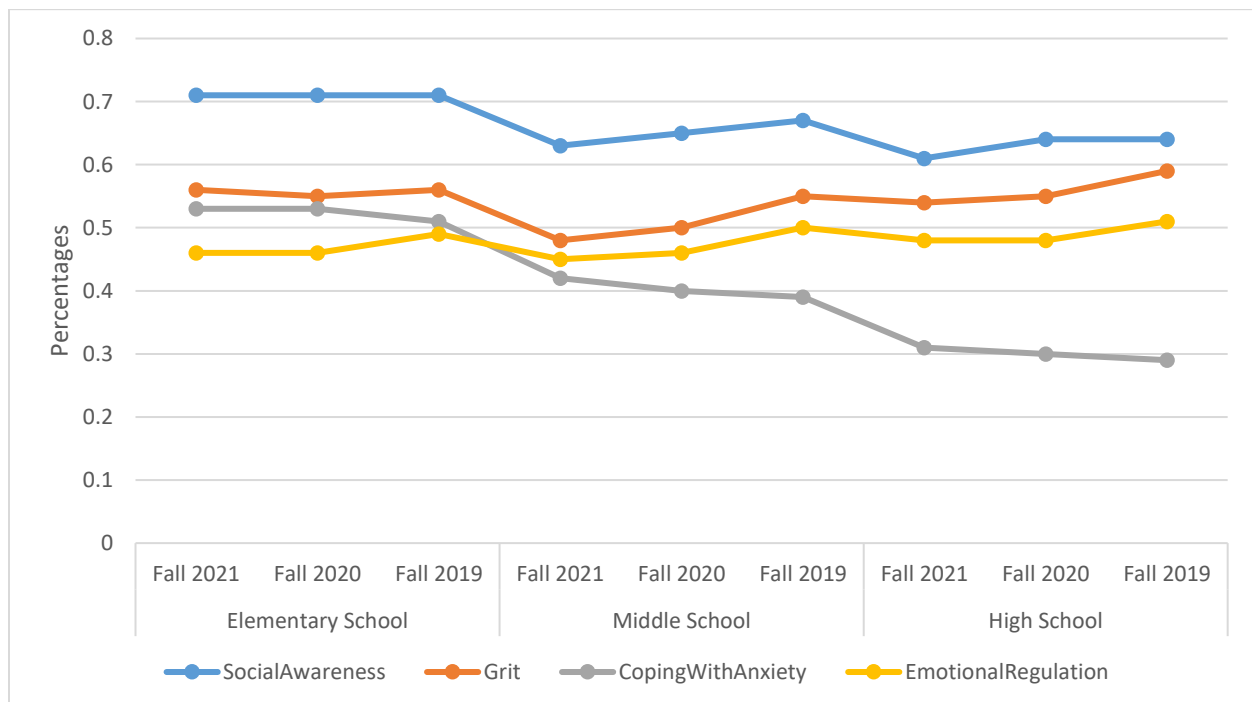
**Figure 5**

*Student SEL Results By Grade Level and Year*



**Figure 6**

*Student SEL Results By Grade Level and Year*

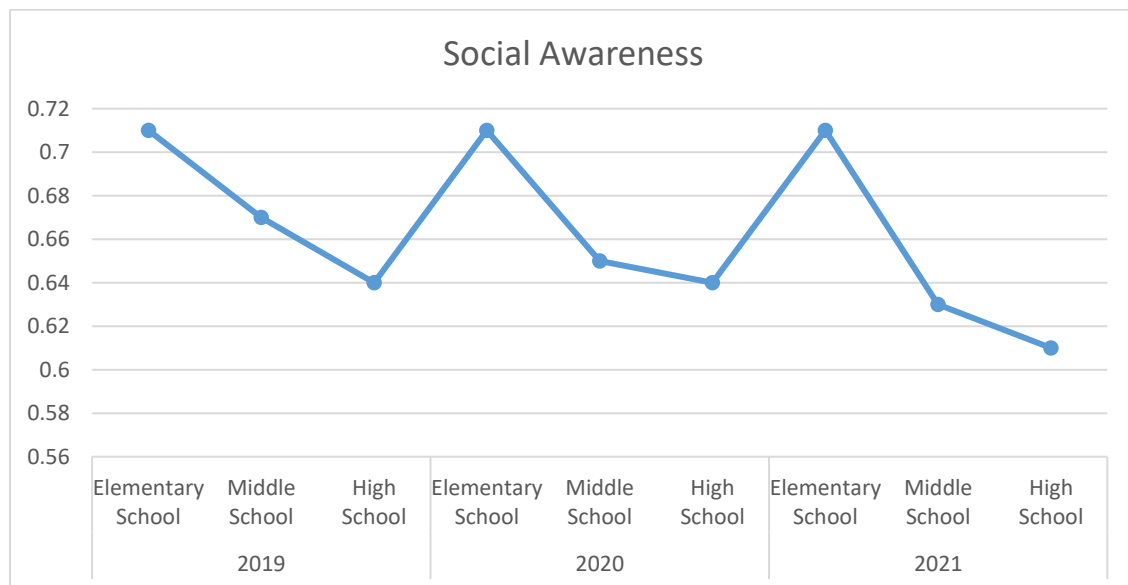


### Research Question 2a

*Do social awareness results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?*

The researcher analyzed the trends in social awareness by grade level during Fall 2019 and Fall 2021. In Fall 2019, the mean score for elementary students was the highest at 71%, middle school was 67% and the high school mean score was 64%. During Fall 2020, the mean score for students in elementary was 71%, 65% for students in middle school and 64% in high school. Fall 2021, the mean score for students in elementary reported was 71%, 63% in middle school, and 61% in high school. As illustrated in Figure 5, students reported a decline in social awareness as the grade level got higher in Fall 2019, Fall 2020 and Fall 2021.

**Figure 7**



### Research Question 2b

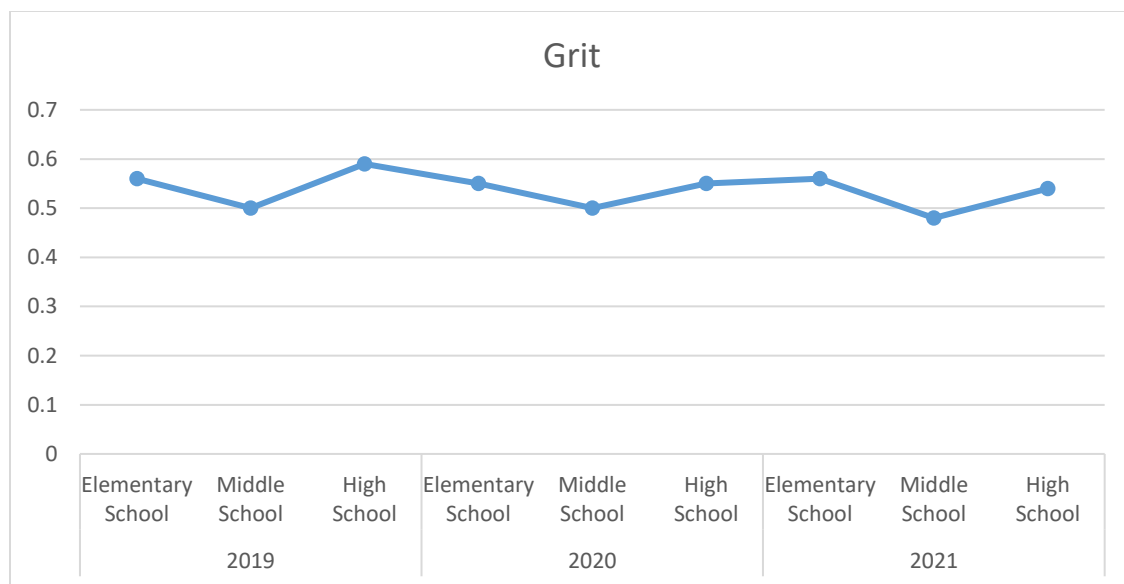
*Do grit results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?*

The researcher analyzed the trends in grit by grade level during Fall 2019 and Fall 2021. In Fall 2019, the mean score for elementary students was 56% and then declined to 50% in



middle school. The mean score for students in high school was 59% which was the highest mean score of the three grade levels. During Fall 2020, the mean score for students in elementary was 55% while middle school held steady at 50%. Like the mean score for students in elementary, the mean score for high school students was also 55%. Fall 2021, the mean score for students in elementary reported was 56%, 48% in middle school, and 54% in high school. As illustrated in Figure 6, the mean score for students in middle school were the lowest which is an indicator student in middle school struggled with grit more than students in elementary and high school.

**Figure 8**



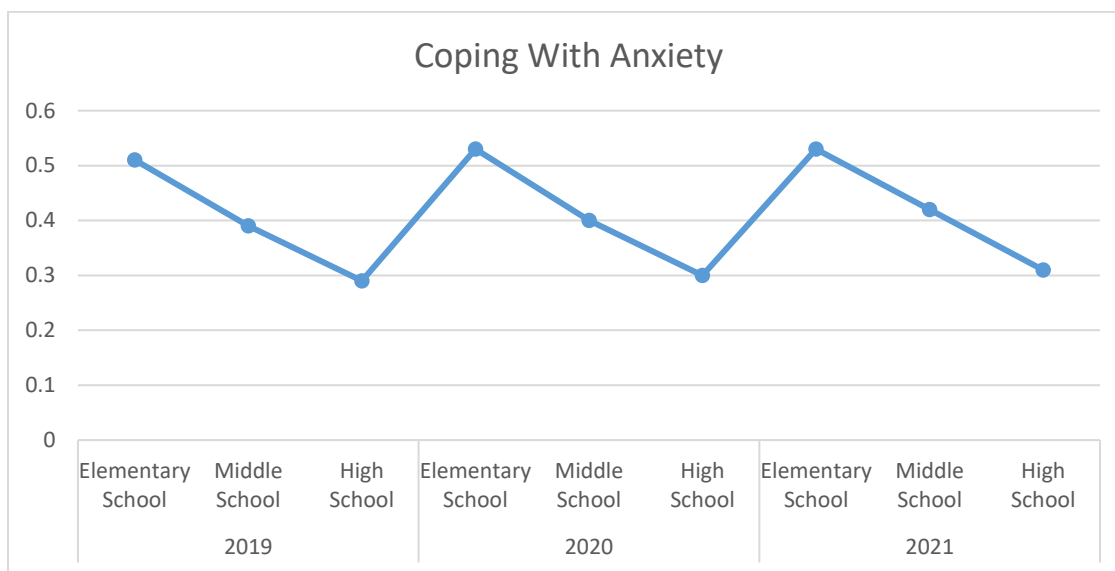
#### Research Question 2c

*Do coping with anxiety results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?*

The results for coping with anxiety which are illustrated in Figure 7 reported a trend where students in elementary report a higher mean score than students in middle school and middle school reported a higher mean score than students in high school. This is the trend for each of the three years examined. In Fall 2019, students in elementary school reported a mean

score of 51%, 39% in middle school and the lowest of 29% in high school. In Fall 2020, the scores were similar to those in 2019 with elementary schools at 53%, middle school at 40% and high school at 40%. In Fall 2021, the difference between elementary and high school widened with elementary schools at 53%, middle school at 42%, and high school at the lowest mean score of the three years with 31%.

**Figure 9**

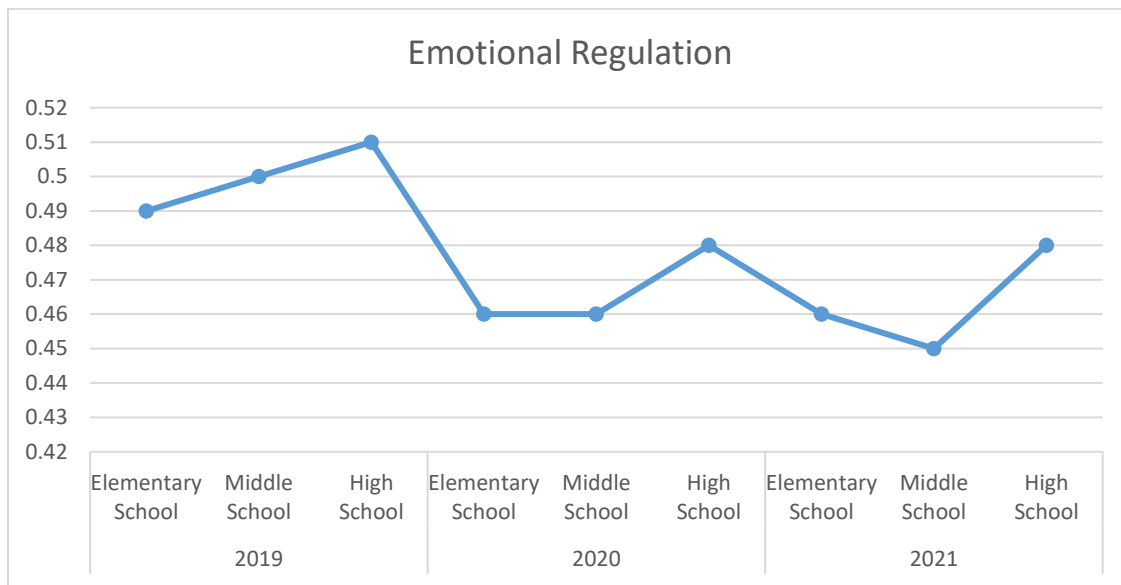


#### Research Question 2d

*Do emotional regulation results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?*

To respond to this question, the researcher analyzed how students reported their emotional regulation. The results from Fall 2019 show students in elementary school at a mean score of 49%, middle school at 50%, and high school at 51%. Fall 2020 scores all declined from Fall 2019 with elementary and middle schools at 46% and high school at 48%. Fall 2021, elementary school remained the same at 46% while middle school declined slightly at 45%. Similarly, to elementary school, high school had the same mean score they had in Fall 2020 at 48%.

**Figure 10**



### **Summary**

This chapter included the descriptive findings and the results of the data collection and analysis of the study. The chapter reviewed the results of the examination of the differences among student SEL, measured by Panorama Education's SEL student perception data from students in grades 3-12 and the COVID-19 pandemic. The covariates, poverty and minority were also investigated. The results indicated that the differences in SEL measures were varied. Additionally, the findings of the differences among student SEL measures by grade level during Fall 2019, Fall 2020, and Fall 2021 were examined. Chapter five provides the implications of the data, summary of the findings and recommendations.

## **Chapter 5 - Discussion**

The results of the study were presented and analyzed in Chapter 4. This chapter contains a summary of the investigation, a discussion on the implications for practice, and recommendations for future researchers.

### **Summary**

This study examined the differences among student SEL, measured by Panorama Education's SEL student perception data from students in grades 3-12 and the COVID-19 pandemic. To strengthen the study, covariates of socioeconomic and minority percentages were included. Furthermore, the researcher analyzed the differences among student SEL results related to grade level during Fall 2019, Fall 2020, and Fall 2021. The instrument used was the Panorama Education Student SEL Survey. The population consisted of 50 schools that reported Fall 2019, Fall 2020, and Fall 2021 data.

### **Discussion of Findings**

#### **Research Question 1**

*What are the differences among student SEL, measured by Panorama Education's SEL student perception data, and the COVID-19 pandemic.*

The participants in this research include every elementary, middle and high school within a school district located in a suburb in the Midwest that administered the Panorama Student SEL Survey to students in grades 3-12. Unlike most empirical research, the data set included the entire population of interest meaning there is no need to make inferences from a sample to the larger population. Therefore, any differences in results from zero were real differences, and results were not interpreted to make inferences about a larger population. However, inferential procedures were utilized in an attempt to understand how the covariances of poverty and

minority affected the differences in SEL levels among Fall 2019, Fall 2020, and Fall 2021.

Statistical significance values were interpreted as markers for practical significance (Bickel, 2007).

- a. What differences exist in the level of social awareness reported by students during Fall 2019, Fall 2020, and Fall 2021?*
- b. What differences exist in the level of grit reported by students during Fall 2019, Fall 2020, and Fall 2021?*
- c. What differences exist in the level of coping with anxiety reported by students during Fall 2019, Fall 2020, and Fall 2021?*
- d. What differences exist in the level of emotional regulation reported by students during Fall 2019, Fall 2020, and Fall 2021?*

For research question 1a, the results of the analysis showed a slight decrease in the mean scores from Fall 2019 at .696 to Fall 2020 at .693 and another decrease in Fall 2021 with a mean score at .680. The results for research question 1b indicated that grit was at .558 in Fall 2019 which has been the highest mean score among the years. During Fall 2020 the mean score declined to .536 and has held steady in Fall 2021 with a mean score at .538. For research question 1c, the analysis of the mean score for Fall 2019 was .456. In Fall 2020, the mean score increased to .488 and increased again in Fall 2021 at .492. For Research Question 1d, the results of the analysis reported the mean score for emotional regulation in Fall 2019 was .493 which was the highest mean score of the three years. The mean score in Fall 2020 was .464 and .466 in Fall 2021.

The purpose of the first part of this study was to understand the differences among student SEL levels as measured by Panorama Education's SEL student perception data from

students in grades 3-12 in the context of the COVID-19 pandemic. Overall, the literature from Chapter 2 supports what students are reporting about their SEL with the exception of one SEL measure which is coping with anxiety. Prior to the COVID-19 pandemic, the Office of the Surgeon General (2021) reported that mental health challenges were the leading cause of disability and poor life outcomes in young people and youth psychiatric visits to emergency departments for depression, anxiety, and behavioral challenges were on the rise (Kalb et al., 2019). However, when the COVID-19 pandemic infected the U.S. in March 2020, the disruption of academic learning and the grief, isolation, and uncertainty that came along with the pandemic impacted students' mental health (Cardona, 2022; Kidman et al., 2021; Pfefferbaum & North, 2020). The literature reported that the pandemic has greatly affected students in various ways, including their social emotional state of being, and have reported an increase in negative feelings during the pandemic (Hill et al., 2020; Leeb et al., 2020).

The findings of this study supported the literature as the scores for social awareness, grit, and emotional regulation all decreased from Fall 2019, prior to the COVID-19 pandemic, to Fall 2020, during the pandemic. A study that surveyed students from April to May of 2020 reported students felt constant anxiety, depression, stress, unhappiness, and experienced a loss of self-efficacy (Cardona, 2022; Margolius et al., 2020). That study correlates with Maslow's (1943) Hierarchy of Needs. Literature has highlighted how the pandemic has influenced one's physiological needs, safety, love and belonging, esteem and self-actualization as people faced illness, death, school and work shutdowns, loss of jobs, fear, grief, and anxiety (Hill et al., 2020; Kenney et al., 2020; Kidman et al., 2021; Leeb et al., 2020; Maslow, 1943). In addition, the environment and social factors learned through imitation, observation, and modeling that

influence behaviors were severely affected during Fall 2020 (Bandura, 1989; Hill et al., 2020; Kenney et al., 2020; Kidman et al., 2021; Leeb et al., 2020).

In Fall 2021, scores for grit and emotional regulation have slightly increased from Fall 2020, each by .002. This is hopeful yet shows the need for interventions to be implemented and the need to continue to focus on SEL. For the SEL measure social awareness, the scores have decreased each year with the most dramatic decline from Fall 2020 to Fall 2021. Research question 2 provides a more in-depth examination of this decline by breaking it down by grade level. The one SEL measure that does not align with the literature (Deolmi & Pisani, 2020; Orgiles et al., 2021; Patrick et al., 2020; Verlenden et al., 2021; Xie et al., 2020) was students' perception on their ability to cope with anxiety as the scores steadily improved with each year. The results could be a direct correlation to how the school district responded to the COVID-19 pandemic by focusing on student SEL when schools closed their doors and went to a virtual platform in March 2020. When students reentered the school buildings in Fall 2020, SEL remained a focus due to the research about ACEs and trauma and how both effect the brain which effects students' ability to learn (Parker & Hodgson, 2020). The phrase, "Maslow before Bloom" was a common phrase used to emphasize the importance to put student safety and social emotional needs before academic demands (Mann et al., 2021; Raschdorf et al., 2020). Educating the whole child means schools need to focus on student SEL needs and make them as much of a priority as academics. The finding of this study support that.

### **Covariates**

This study included two covariates: poverty and minority. Analysis of the data revealed that poverty and minority did not have a statistically significant influence on Social Awareness, Grit, and Coping with Anxiety therefore did not account for some of the variance in student SEL

measures. The results for Emotional Regulation differed from the other SEL measures, however, as an ANCOVA revealed that after controlling for poverty, there was not a significant effect on Emotional Regulation  $F(1,143) = 2.91, p=.090$  but there was a significant difference for minority  $F(1,143) = 11.67, p=.001$ . This is likely a result of the increase in students that identify with a race that in non-white.

## Research Question 2

*In what ways and to what extent, if any, is student SEL results related to grade level during Fall 2019, Fall 2020, and Fall 2021?*

- a. Do social awareness results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?*
- b. Do grit results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?*
- c. Do coping with anxiety results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?*
- d. Do emotional regulation results differ by grade level during Fall 2019, Fall 2020, and Fall 2021?*

For research question 2a in Fall 2019, the results indicated a decline in social awareness as the ages of the students increased (elementary- 71%, middle- 67% and high school- 64%). This was also the trend for Fall 2020 (elementary- 71%, middle- 65% and high school- 64%) and Fall 2021 (elementary- 71%, middle- 63% and high school- 61%). Overall, that data shows elementary students perceived their social awareness to be higher than students in middle or high school perceived their social awareness. This was the case for each of the three years. On the other hand, among the three grade levels, students in high school reported their social awareness to the lowest each of the three years.



For research question 2b, the data shows little differences among the grade levels yet middle school came in with the lowest score each year. In Fall 2019, students in elementary reported a mean score of 56%, students in middle school reported a mean score of 50%, and students in high school reported a mean score of 59%. In Fall 2020, all grade level reported similar mean scores (elementary- 55%, middle- 50%, and high- 55%). Again, the mean scores were similar in Fall 2021 (elementary- 56%, middle- 48%, and high- 54%). Each year, students in middle and high school reported a slight decline in their perception of their level of grit.

For research question 2c, students at the elementary level perceived their ability to cope with anxiety better than students in middle and high school. In Fall 2019, elementary students had a mean score of 51% while students in middle school had a mean score of 39% and students in high school had a mean score of 29%. That is a 22% difference from elementary to high school. This trend was similar in Fall 2020 (elementary- 53%, middle- 40%, high- 30%) and Fall 2021 (elementary- 53%, middle- 44%, high- 31%). Like the SEL measure, social awareness, students in elementary reported the highest scores while students in high school reported the lowest score for each of the three years. Within each grade level, there was not much of a change from year to year (elementary – 51%, 53%, 53%; middle - 39%, 40%, 42%; high – 29%, 30%, 31%) but there was a significant difference among the grade levels. This particular SEL measure had the most drastic differences each year among the grade levels with high school having noticeable lower scores than elementary.

For research question 2d, the results are fairly steady, much like the results were for the SEL measure grit. Students in high school perceived their emotional regulation to be stronger than students in elementary or middle school perceived their emotional regulation. Fall 2019, mean scores were close (elementary- 49%, middle- 50%, high- 51%) which was also the case in

Fall 2020 (elementary- 46%, middle- 46%, high- 48%) and as well in Fall 2021 (elementary- 46%, middle- 45%, high- 48%). Each year, there was no more than a .02 difference among the grade levels. It is important to note that Fall 2021 was the only year students in middle school perceived their emotional regulation to be lower than students in elementary perceived their emotional regulation.

The purpose of the second part of this study was to examine the ways and the extent, student SEL results related to grade level during Fall 2019, Fall 2020, and Fall 2021. Like the first question, this question highlighted the importance of student SEL and supports the literature from Chapter 2 which found that the pandemic greatly affected students' social emotional state of being (Hill et al., 2020; Leeb et al., 2020). During the COVID-19 pandemic people dealt with grief, isolation, and uncertainty which ultimately affected students' mental health (Cardona, 2022; Kidman et al., 2021; Pfefferbaum & North, 2020). The findings of this study support the current literature yet goes further in-depth by examining students' SEL perception data in elementary, middle and high school.

When examining the four SEL measures related to grade level, one measure in particular that varied the most among grade levels was coping with anxiety. Although the scores within the grade level either remained the same or increased, students in elementary school perceive their ability to cope with anxiety at a much higher level than students in middle school and high school. This could be due to many factors such academic demands, social awareness, and social conditions. The results of this question aligned with the literature in that students in high school and in middle school are struggling with their anxiety (Deolmi & Pisani, 2020; Orgiles et al., 2021; Patrick et al., 2020; Verlenden et al., 2021; Xie et al., 2020). The next SEL measure that varied the most among grade levels was social awareness with a similar trend as coping with

anxiety. Bandura (1977) believed people developed skills to establish strong, positive relationships by observing others in socially situations. Yet the pandemic made the development of social learning skills a great challenge and the data in this study is showing that. The findings also showed that students reported a decline in their perceptions of emotional regulation and grit in all grade levels, with middle school reporting lower scores than elementary and high schools in Fall 2020 and Fall 2021.

Through the lens of Bandura (1973, 1977, 1986) the findings of this study could be a result of the conditions that schools and communities implemented as a result of the COVID-19 pandemic. Similarly, when looking at the lens of Maslow (1943), the conditions implemented could have influenced students' needs such as physiological, safety, love and belonging, esteem and self-actualization which could have influenced how students perceived their SEL. During the pandemic, the phrase, "Maslow before Bloom" was commonly used as it emphasized the need to put student safety and social emotional needs before academic demands (Mann et al., 2021; Raschdorf et al., 2020). This is especially critical for students who have experienced adverse childhood experiences (ACEs) or trauma, which was experienced during the COVID-19 pandemic. In effort to educate the whole child, schools need to strive for a culture that emphasizes a supportive, positive, and safe learning environment and attends to the academic, physical, mental, and social emotional needs of students (Centers for Disease Control and Prevention, 2021; Jones et al., 2017).

### **Limitations**

One limitation of this study that must be mentioned is due to the of the administration of the Panorama Student SEL Survey. Each building within the school district had autonomy for how they administered the survey. At the elementary level, the survey was read to the students

while at the middle and high school level, the survey was self-paced. Although the grade levels attempted to keep the administration similar, differences in how the survey was administered could have influenced how students responded to their SEL perception survey.

### **Recommendations for Practice**

The results of this study could be used by teachers, schools, school districts, and legislation as a resource for professional development for staff, identifying disparities among students, and providing additional supports and interventions as needed. Educators are able to identify which students are in need of more support and create groups to monitor students' progress and evaluate the impact of Multi-Tiered System of Supports (MTSS) interventions over time (Panorama Education, 2015). Furthermore, the results could be a guide to addressing school climate and culture by emphasizing the importance of SEL in schools and the best way to implement SEL practices.

### **Recommendations for Future Study**

This study provides a basis for annual research to better understand the differences among student SEL, measured by Panorama Education's Student SEL survey that involved students in grades 3-12. This study looked at the year prior to the COVID-19 pandemic as well as the years during the COVID-19 pandemic. It is recommended that additional studies continue to examine the trends in data for years to come to determine any differences as the world continues to navigate the COVID-19 pandemic.

In addition to examining the trends for the SEL measures in the years to come, it is also recommended to expand the study by including numerous school districts across the U.S. which would give a broader perspective on how students are perceiving their SEL. Continuing to examine student SEL perception data prior to the COVID-19 pandemic, during, and after the

pandemic ends will also provide essential information to how students are perceiving their SEL and how school districts and legislators can help students.

Investigating more thoroughly the SEL measure coping with anxiety to see if the results are unique to the school district used in this study or if other students are reporting an increase in their ability to cope with anxiety. Furthermore, interviewing students to gain a more in-depth understanding of what has helped them cope with anxiety over the years would be insightful. This would be valuable information as to what school districts are doing to help students find success in coping with anxiety since literature reports anxiety is a growing concern in youth.

Research on student SEL perception data as well as teachers' perceptions on SEL implementation practices and the connection between student success is another recommendation. The possibilities of this study will allow other school districts to replicate SEL practices in their schools as well as help advocate for the need of SEL in schools. Exploring classroom teachers' perceptions of implementation practices will also help fine tune which practices they are likely to adhere to and which ones are not as effective. This could inform future research by focusing more on teacher perceptions and how powerful they are when studying student success.

## **Summary**

This study provided a glimpse into student's SEL perceptions over a three year timeframe, prior to the COVID-19 pandemic (Fall 2019) and during the COVID-19 pandemic (Fall 2020 and Fall 2021). The findings for social awareness report students' perceptions has declined with every year. The findings for grit and emotional regulation show scores greatly declined from Fall 2019 to Fall 2020 and have slightly increased in Fall 2021. The results from

SEL measure coping with anxiety differ from the rest in that the scores have increased with each year.

The findings also showed the data for social awareness and coping with anxiety had a steady decrease with the age level while grit and emotional regulation were fairly steady among grade levels. Students in middle school consistently reported they struggled with grit compared to the other two grade levels yet have increased their scores over the three-year period. Students in high school consistently reported they struggled with social awareness and coping with anxiety compared to the other two grade levels. In addition, coping with anxiety had the most differential range in scores among the grade levels.

The results of this study reinforce that SEL matters and stakeholders, such as educators, legislators, parents, and other key stakeholders, need to listen to what students are sharing regarding their SEL state. Student perception data gives a direct look into how students feel and allows educators to better address students' SEL needs. Research has shown addressing student SEL needs also benefits students' mental health, social skills, and academic achievement (Durlak et al., 2011; Wiglesworth et al., 2016). Students have endured a lot over the three-year timeframe of this study (Fall 2019, Fall 2020, and Fall 2021) and it will be important for stakeholders to continue to examine student perception data to help students in the present moment and for their future.

It is recommended for future studies to continue to examine the differences in student SEL measures prior to, during and after the COVID-19 pandemic. Expanding the study to include other school districts across the United States of America would also provide information that school districts and legislators could use to best help students. Additionally, it is recommended for future studies to take a closer look at the SEL measure, coping with anxiety as

the results from this study were different than the literature. Lastly, it would be beneficial to expand this study to include teacher perceptions of SEL as well as possible student interviews regarding their SEL.

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## Appendix A - Approval to Conduct Research



TO: Judith Hughey  
Spec Ed, Counsel & Student Aff  
Manhattan, KS 66506

Proposal Number: IRB-11009

FROM: Rick Scheidt, Chair  
Committee on Research Involving Human Subjects

DATE: 02/01/2022

RE: Proposal Entitled, "Social Emotional Learning (SEL) Matters: Differences in Student Perceptions of SEL Before and During COVID-19?."

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §104(d), category:Exempt Category 4 Subsection i.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

Electronically signed by Rick Scheidt on 02/01/2022 1:59 PM ET

## Appendix B - Panorama SEL about Self

**Social Awareness** – How well students consider the perspectives of others and empathize with them

During the past 30 days....					
How carefully did you listen to other people's points of view?	Not carefully at all	Slightly carefully	Somewhat carefully	Quite carefully	Extremely carefully
How much did you care about other people's feelings?	Did not care at all	Cared a little bit	Somewhat cared	Care quite a bit	Cared a tremendous amount
How well did you get along with students who are different from you?	Did not get along at all	Got along a little bit	Got along somewhat	Got along pretty well	Got along extremely well
How often did you compliment others' accomplishments?	Almost never	Once in a while	Sometimes	Often	Almost all the time
How clearly were you able to describe your feelings?	Not at all clearly	Slightly clearly	Somewhat clearly	Quite clearly	Extremely clearly
When others disagreed with you, how respectful were you of their views?	Not at all respectful	Slightly respectful	Somewhat respectful	Quite respectful	Extremely respectful
To what extent were you able to stand up for yourself without putting others down?	Not at all	A little bit	Somewhat	Quite a bit	A tremendous amount
To what extent were you able to disagree with others without starting an argument?	Not at all	A little bit	Somewhat	Quite a bit	A tremendous amount



**Grit** - How well students are able to persevere through setbacks to achieve important long-term goals.

How often do you stay focused on the same goal for several months at a time?	Almost never	Once in a while	Sometimes	Frequently	Almost always
If you fail to reach an important goal, how likely are you to try again?	Not at all likely	Slightly likely	Somewhat likely	Quite likely	Extremely likely
When you are working on a project that matters a lot to you, how focused can you stay when there are lots of distractions?	Not at all focused	Slightly focused	Somewhat focused	Quite focused	Extremely focused
If you have a problem while working towards an important goal, how well can you keep working?	Not well at all	Slightly well	Somewhat well	Quite well	Extremely well
Some people pursue some of their goals for a long time, and others change their goals frequently. Over the next several years, how likely are you to continue to pursue one of your current goals?	Not at all likely	Slightly likely	Somewhat likely	Quite likely	Extremely likely

### Coping with Anxiety

How stressed do you get about other students at school liking you?	Not at all stressed	Slightly Stressed	Somewhat stressed	Quite stressed	Extremely stressed
How often do you worry about what other students think of you?	Almost never	Once in a while	Sometimes	Frequently	Almost always
How stressed do you get about doing well in your classes?	Not at all stressed	Slightly Stressed	Somewhat stressed	Quite stressed	Extremely stressed
How often do you worry about grades?	Almost never	Once in a while	Sometimes	Frequently	Almost always
How stressed do you get about things outside of school?	Not at all stressed	Slightly Stressed	Somewhat stressed	Quite stressed	Extremely stressed
How often do you worry about things outside of school?	Almost never	Once in a while	Sometimes	Frequently	Almost always

**Emotional Regulation** – How well students regulate their emotions

When you are feeling pressured, how easily can you stay in control?	Not easily at all	Slightly easy	Somewhat easy	Quite easily	Extremely easily
How often are you able to pull yourself out of a bad mood?	Almost never	Once in a while	Sometimes	Frequently	Almost always
When everybody around you gets angry, how relaxed can you stay?	Not relaxed at all	Slightly relaxed	Somewhat relaxed	Quite relaxed	Extremely relaxed
How often are you able to control your emotions when you need to?	Almost never	Once in a while	Sometimes	Frequently	Almost always
Once you get upset, how often can you get yourself to relax?	Almost never	Once in a while	Sometimes	Frequently	Almost always
When things go wrong for you, how calm are you able to remain?	Not calm at all	Slightly calm	Somewhat calm	Quite calm	Extremely calm