2021

Conflicts in Communication and Academic Needs for Virtual Education Gifted Students

Sarah M. Finley
University of Central Florida

Honors Thesis

for

Conflicts in Communication and Academic Needs for Virtual Education Gifted Students

Sarah M. Finley

AA Education

Miami Dade College

BA Communication & Conflict (2021)

University of Central Florida

Table of Contents

Abstract

Modern education has had to take on various roles and contingencies over the last decade – both for better and for worse. Public school systems are competing with private and now charter schools for student enrollment and virtual or online learning schools. A question many parents and educators struggle with – how do we grow and develop children and young adults' academic needs using technology?

The question may be simple; however, the answer is complicated. Technology provides help in various ways a human being cannot, including instant gratification with Google searches, video education, synchronous education game formats, distant learning from different ends of the country, and so on.

Virtual education has seen a growing demand in the last decade. Many institutions worldwide are implementing online classes as academic needs are switching from traditional to non-traditional. Professional development in virtual settings is rapidly increasing along with education budgets to support these technological mammoths' databases and software programs.

However, is one 'one-size-fits-all' model adequate for all learning styles? Despite the rapid growth of online education, many challenges and dispositions exist with the design and delivery to students on all academic levels. Software engineers and lack of developmental acquisitions for user-friendly formatting necessary for students with exceptional learning styles which differ from the norm.

This paper addresses the question of virtual learning opportunities missed in online programs' software development compared to their physical classroom alternatives in 'brick

and mortar' or face-to-face instruction. The three research questions behind this study were as follows:

RQ1: What are the areas and functions of virtual education that need to be fixed within the public-school setting platforms? If so, what?

RQ2: How are the platforms/software's used 'one size fits all' or individually programmed to grade level, age of user(s), and/or academic needs (Gifted/IEP, mental/physical disabilities, learning disabilities, language)?

RQ3: Areas of recommendation to positively change missing or unsuccessful platforms to accommodate research questions one and two.

Participants included in this study are Kindergarten through twelfth grade teachers, Gifted teachers, and parents of gifted students. Observations, documents and records, and open-ended structured interviews were the data collection methods used in this study to understand virtual education in midst of a pandemic.

The researcher is interested in knowing how children are significantly challenged – internet connectivity, socioeconomic and support systems for both social and emotional needs. Gifted children were compared to their non-gifted peers in the wake of a global pandemic. The Miami-Dade Public School district overlooked many areas causing significant concern for both teachers and parents of student academic needs. To justify a 'one-size-fits-all' approach due to lack of planning necessitated by the sudden pandemic, cannot justify a substitute for education, through resource limitations and declining success tools for students who need it most.

Teachers were split in seeing the progressive advances in fully virtual education which was3 favorited by younger, tech-savvy educators, compared to their older colleagues who

preferred traditional methods of paper and {pen}cils. Public and charter schools have the option to continue fully virtual or hybrid education or traditional methods of education based on student's adaptation, chronological age, maturity, including teachers opting in for lower class size, ability to work from home and provision of more resources to students who are significantly handicapped based on socioeconomic, disabilities, and/or parents' obligations as first/active responders.

Keywords: online education; covid-19; virtual learning; academic needs; learning disabilities; socioeconomic disadvantage; online learning

Dedication

For my mother, Rose. You never stopped believing in me through continuous love and support. I cannot thank you enough for sharing in all the laughs and tears this journey has brought me, knowing I will overcome any obstacle placed in my path. I love you unconditionally for your interminable affection and support.

To my late father, Dr. Finley. Time was taken from you before you were able to see my full potential. If only you could see all I achieved since your passing, as the apple does not fall far from the tree. I miss you.

Acknowledgments

If you would have told me twenty, ten or even five years ago I would be writing a dissertation, I would have had laughed. I cannot believe I made it this far, given the constant array of snags and issues in my way. Nevertheless, I persevered and overcame it all. Through all the tears, blood and sweat, I am truly proud of myself and ability to supersede.

Dr. Littlefield, thank you for stepping in and keeping the blinders on per say. Your words rung resonances in me as I am thankful someone else outside the small circle sees the great potential. If it wasn't for your assurance, I would have been lost.

Dr. Parrish, thank you for jumping in and guiding us through the tumbleweeds. Without you, I do not believe I could have made it this far and hope other students find their spark to work with you as you have inspired me.

Dr. McCafferty, through thick and thin, we did it! Through all your courses together, you taught me to examine my ways of thinking to see the true communication behind every doors and crack. Your mentoring was untraditional and inspired me to push the boundaries for innovation. I hope this study provides new methods of virtual education through communication to utilize with your future students. You always had a way with words -no matter how little or too much given. Thank you for the guidance and support to continue when the road looked dark. I hope to work beside you again.

CHAPTER 2

Literature Review

Introduction

In Spring 2020, the world was hit with the devastating toll of COVID-19 – a deadly upper respiratory virus spread through microscope molecules throughout the air. When the virus became widespread in March 2020, school districts across the country immediately witched to virtual learning as the emergency alternative to continuing in-class education in the academic year. Teachers and school administrators were not prepared to transition overnight yet adapted to the new format on short notice. Sadly, many students were disadvantaged based on learning and behavioral disabilities, lack of parental guidance of technology including socioeconomic downfalls to students whose families do not have personal technology at home or lack the bandwidth /internet speed to maintain participation. According to UNESCO,

> "School closures carry high social and economic costs for people across communities. Their impact, however, is particularly severe for the most vulnerable and marginalized boys and girls and their families. The resulting disruptions exacerbate already existing disparities within the education system but also in other aspects of their lives." (UNESCO, n.d,n.p)

Since the start of COVID-19, we have seen the devastating effects on families due to financial burden, educational crisis, and global shutdowns ending in job loss or furloughs, including the cataclysmic effects of the rapid spread of the human coronavirus. Pandemic related research results from participants has shown that students who have consistent and personalized learning habits, reap the benefits of virtual learning.

The digital divide has caused countless limitations to disadvantaged students based on learning abilities and social-economic status, exacerbated the resources and opportunities for these students made by the Department of Education's significant budget cuts. The education system was not built nor had a contingency plan to handle a national shutdown. The devastating effects on children's academic performance continue to deteriorate together with their developmental skills, mental health, and financial restrictions.

The History of Education. Education has taken on various styles of learning since the original thirteen colonies in 17th century. Nevertheless, education can be dated back to the middle ages' formal education in monasteries of the Roman Catholic Church in Europe with the focus of theology and philosophy to cater to those of elite status; education was meant to mold the minds of the ruling class from just being teaching centers to researching and theories.

The massification of education arrived during the dawn of the industrial revolution in the mid-18th century. Formal education was now available – even to the poorest, though it was not free and was offered in Sunday schools or Dame Schools. By the mid-19th century, theorized education expanded as schooling was considered necessary to both the national economy and individual intelligence of the general population. Pioneering philosopher Adam Smith, a free-market capitalist, argued, "The more they are instructed, the less liable they are to the delusions of enthusiasm and superstition. Besides, instructed and intelligent people are always more decent and orderly than an ignorant and stupid one." (Kandal, 1933, n.d,n.p)

However, our modern K-12 educational system, largely adheres to industrial aged factory models—educator pay based on credentials and seniority, hours per day requirements, and classroom setup. As we embark on the fourth industrial revolution (Schwab, 2018)- technology

has transformed industry after industry, except education. Students today have more knowledge and ability to operate electronic devices such as tablets, laptops and cell phones than writing cursive, counting with flashcards, or sitting for extended periods in an ever-moving world. Students learn at different paces, have different aptitudes and enter classes with different experiences and background knowledge, so students need a customized learning plan to successfully maximize their untapped potential. Why should students who are intellectually advanced or, worse disadvantaged, even alternative language speakers, be tested instead of every child who enters school in their formative years i.e., Kindergarten? (Horn, 2013)

In 1983, Microsoft released its innovative word processor, MS Word. This paved the way for computer usage from typewriters, even the significant change over the next twenty years, from penmanship/cursive to typing speed and accuracy. At the dawn of the 21st century, school systems that had modern technology did not adopt the new technology with a large enough server, bandwidth or infrastructure. Teachers had to consider large class sizes of 28-40 students to use two to four computers simultaneously.

Newly designed whiteboards like Promethean (Prometheanworld, n.d.) allowed user interaction had replaced chalkboards and dry erase boards of yesteryear. Computers and tablets supported research instead of material possessions of books, including electronic grade books, teacher/parent communication platforms, Edmongo and Class Dojo, along with electronic grade books, assignments, and testing abilities. So, where does the lack of fundamentals lay?

Education is a public-funded service unless charter and private schooling is considered, through private funding and public grants. The national deficit continues to make mass budget cuts in education, therefore significantly harming our children's education. Nearly half of the

funding for public schools in the United States, however, is provided through local taxes, generating large differences in funding between wealthy and impoverished communities. (National Center for Education Statistics, 2000)

Education Exclusion. At the start of 2020, COVID-10, AKA Human Coronavirus 19, began to spread throughout the United States, forcing school systems to shut down face to face learning and switch to remote learning. This unique form of 'last-minute' teaching replaced traditional forms of learning. However, the ramifications of the expedited transition overnight to virtual left millions of students with various learning needs helpless.

Without the array of personal help normally received in school mandated by Individualized Education Programs (IEP), remote learning became insufficient and harmful to their learning process. Inequalities showcased in full disclosure that, "Section 504 is a federal law designed to protect the rights of individuals with disabilities in programs and activities that receive Federal financial assistance from the U.S. Department of Education (ED). Section 504 provides: "No otherwise qualified individual with a disability in the United States . . . shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance . . ..", are otherwise illegal per the American with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, (US Dept. Of Education, 2020)

Congress passed the IDEA (Individuals with Disabilities Education Act) in 2004 and most recently amended the IDEA through Public Law 114-95, Every Student Succeeds Act, in December 2015. (US Dept. Of Education, 2020) In the law, Congress states: Disability is a

natural part of the human experience and in no way diminishes the right of individuals to participate in or contribute to society. Improving educational results for children with disabilities is an essential element of our national policy of ensuring equality of opportunity, full participation, independent living, and economic self-sufficiency for individuals with disabilities.

Many students were not accommodated to during the pandemic and remained lost in translation, metaphorically and literally, as their accommodations and help from school systems were forgotten. Children and young adults accustomed to unique learning methods specialized to them, were now forced with anxiety, depression, withdrawal and hostility. The reconfiguration of education from traditional to fully online education failed to provide adequate and appropriate access to academic, social, and mental health or the modifications to their educational needs. Access to proper adjustments to instruction and learning styles left students isolated and continue to do so today. (IDEA, n.d.).

Under the IDEA umbrella, public school systems are mandated to provide special education and adequate services to all eligible students in thirteen categories.

1. Specific Learning Disability (SLD) - dyslexia, dysgraphia, auditory processing disorder, etc.
2. Other Health Impairment (limits on a child's strength, energy, or alertness, i.e., ADHD
3. Autism Spectrum Disorder (ASD)
4. Emotional Disturbance – anxiety disorder, schizophrenia, bipolar disorder, obsessive-compulsive disorder, and depression
5. Speech or language impairment – i.e., stuttering
6. Visual impairments, including blindness.

7. Deafness – even with a hearing aid
8. Hearing impairment - refers to a hearing loss not covered by the definition of deafness. Physical challenges to hearing are completely different auditory or language processing disorders.
9. Deaf-blindness
10. Orthopedic impairment – i.e., cerebral palsy
11. Intellectual disability – i.e., Down Syndrome
12. Traumatic brain injury – caused by an accident or physical force.
13. Multiple disabilities – a child who has more than one condition under IDEA (US Dept. Of Education, 2020)

Gifted Students with Disabilities. Most students are 'average' and can adjust to change relatively well through multiple transitions and paradigms. However, the group of students with learning disabilities need to be provided specialized instruction to maintain the ability and fulfillment of their educational needs. Many students tested are intellectually gifted, IQ seeking a 130 or more. This requires an individually administered, standardized test of intelligence, thus making IQ testing one component of eligibility to measure verbal reasoning, quantitative reasoning, abstract/visual reasoning, and memory. (Bureau of Standards and Instructional Support, 2019) However these tests can also confirm a learning disability. These children and young adults are referred to GLD (gifted with a learning disability) or twice-exceptional (2e) and double-labeled. (NAGC) The most common way to initially identify these children is an inconsistent academic performance that is unpredictable and not explainable. Where remarkable

results in academia may be achieved outside of traditional public-school settings, the same level is not seen during assessments. (NAGC 20)

Since the new wave of the 2020 pandemic, schools have sifted to blending or offering both virtual and face to face models. This shift encompasses technology, which could lead to a range of benefits to above non-disabled students and those with disabilities. Innovation to modern technology can build the educational system with tremendous amounts of opportunities in which every student is provided access and accommodations based on his/her individualized learning style(s).

Students have struggled with virtual based learning based on an assortment failed platforms, communication conflicts between the district-teachers-students, along with students living in low socioeconomic households, students who classify under Exceptional Student Education including a myriad of external forces preventing them from academic success. This study was designed to find the significant data that correlates with student's success – functions of virtual education that need to be fixed, programmed to specific grade/age levels and academic needs.

Cognitive Development. Through theoretical thinking, we must overcome both the intrapersonal and interpersonal development of children through interactive and integrating educational perspectives. Educational models are a 'one size fits all' catalyst, that does not fit each and every child's individual abilities, cultural norms or influences outside of education institutions. We cannot expect children coming from a low-socio economic background be compared to their adversaries who are mid-to-high income households. The disadvantages start

from birth with irreparable changes often sought or determined by the child's own family. (Departments of Education, 2002).

Technology Education is a complex system to which the view of learning systemically compromises multiple phenomena of affective states (existing knowledge, beliefs; developmental stages; cognitive and learning styles; perception of environmental-physical and human-traits) including world influences (peers, social and cultural-material-landscape; events, process, contingencies and socio-cultural contexts). (Williams, 2015) The cultural realities we live in rapidly change day to day, without necessary goals being addressed in the pedagogical models for education and technology. As Rogoff and Chavajay (1995) have suggested,

> ". . . individual, social, and cultural levels are inseparable. Analysis may focus primarily on one but not without reference to the others as if they can exist in isolation [. . .] the aim is to understand the developmental processes involved in activities involving individual, interpersonal, and community/cultural processes." (pp. 872)

Theoretical Synopsis. If teachers have a better understanding of how learning works in gifted and non-gifted students, their ability to customize lessons would be beneficial in the long-term. It is believed that students learning abilities mature as the child grows older and develops an understanding of their surroundings and the world. These basic developmental theories have formed the groundwork for teaching and educating our youth. One theory stands out from my formative years as an education major, Jean Piaget's Theory of Cognitive Development. Piaget believed there are four stages of cognitive development: sensorimotor, pre-operational, concrete operations, and formal operations and children think distinctively compared to their adult

counterparts. Since Piaget believed children achieve all four stages of cognitive development, in the same unanimous sequence, nevertheless, some children may never reach the final stage. (Piaget, 1952)

Piaget's theory supports no claim that a particular stage was reached by a particular age; however, the descriptions on when children reached stages indicated an average age of the said reached stage. (Piaget, 1952) From birth until two years of age, the sensorimotor stage, Piaget claims children are able to learn through physical interaction in their environments and surroundings. The child does not carry the ability of object permanence, the awareness of objects that are not visible. During this stage, the child learns action-reason cause. The pre-operational stage is said to occur between two and seven or eight years of age. Children need props, stories or physical scenarios to learn as they have not developed the ability to think abstractly. The third stage, concrete operational stage, children are approximately seven or eight to eleven years old and while they heavily rely on props and situations to learn, they have begun to think abstractly. Situational experiences in their environment have allowed logical thinking and conceptualizing their surroundings. In the final stage, formal operations, children who reach eleven years old and onward, can use conceptual thinking including abstraction to think, understand and process information just as an adult. Hypothetical situations and pervasive developments are considered and manipulated based on environmental experiences and intellectual probabilities.

As student's consciousness or preparedness reach their age-appropriate maturation, this is the limit on cognitive concepts that can be taught. A child of six years of age cannot be expected to search the internet, log in to platforms and navigate a website without already obtaining

previous knowledge. This also works in hand with cognitive ability to operate a mouse, functions on a keyboard and ability to spell words through a prenotion of letters and their sounds.

Based on Piaget theory, classrooms should be student-centered with opportunities for discovery learning because problem-solving skills cannot be taught; they must be discovered. Instead of lecturing, teachers should facilitate learning. In order to facilitate learning, teachers should focus on the process of learning rather than the product of learning (Piaget, 1957). Collaboration and individualized activities along with group work and team building were imperative to a student's development.

Piaget argued that cognitive development may slow down or become accelerated through the influence by environmental factors. If curriculum modifications were not obtainable, a student's cognitive advancements may be slowed or halted, as they are not challenged or able to reach their potential. Students in the pre-operational stage are not equipped to operate technological devices that students in their formal operations and adults can easily achieve, unless customized for their age and learning abilities.

Based on the impact of the pandemic and our understanding of learning, it becomes important to evaluate how educators and parents perceive learning to be functioning under these conditions. If students can grasp the fundamentals, per their age-appropriate instruction, they should be allotted to find additional avenues of learning outside face-to-face classrooms.

CHAPTER 3

Methodology

This study aims to research in 'real-time' the changing effects on children and young adults in virtual educational settings. This research will discover open-ended questions that have yet to be asked, resolved, or adequately monitored by education officials, thus creating long-lasting or irreparable damage to students' education. This study will also address the question of virtual learning opportunities missed in the software development of online programs compared to their physical alternatives in 'brick and mortar' or face-to-face instruction.

The researcher sets to explore the implications of virtual education for student learning in public school settings. The researcher will also compare private institutions and charter schools in the research to find similarities and differences.

Grounded theory is central to this study as it uses a qualitative approach. Grounded theory sets out to discover or construct theory from data, systematically obtained and analyzed using comparative analysis. (Chun, 2019) The research questions in this study are guides, not objectives, for discovery and further analysis in future studies. The findings in this research play tribute to knowledge development and societal reform in modern education.

Research Questions

Analysis of the collected data will be conducted by utilizing the results of (A) Semi-structured interviews regarding education practices, communication behaviors, and conflict management. The interviews will be performed virtually, in a highly diverse, southeastern, school district. The study seeks to answer the following questions:

Research question one (RQ1): Are there areas and functions of virtual education that need to be fixed within the public-school setting platforms? If so what?

Research question two (RQ2): Are the platforms/software's used 'one size fits all' or individually programmed to grade level, age of user(s), and/or academic needs (Gifted/IEP, mental/physical disabilities, learning disabilities, language)?

Research question three (RQ3): What program alterations should be considered in responding to any shortfalls determined in the preceding questions?

Researcher Role

The researcher's role is vital in this study because the researcher will collect the data and then analyze the data as the main instrument in data collection. The researcher will be considered an epitome of the large reality to further innovate 'virtual', 'online' or 'distance' learning. The outcome may have both a positive and negative effect on participants.

Additionally, the disclosure and gender of the researcher is essential which may affect the research participants. For study purposes of this research, the researcher is a white female, mid-thirties, single mom with experience as a substitute teacher, including a higher education degree in education and experience personally working with children from six years of age up to eighteen years in both traditional and non-traditional educational facilities along with private tutoring which may add biases. Any first-person qualitative effort involves the researcher herself.

Research Setting

The research setting for participants would be where they are most comfortable, in a quiet and distraction free environment, may if be there home, or place of employment.

Subjects

Participants will be screened based on current profession (i.e., educator), parent of students, student demographics (age, school attendance, race, income level, {free and/or reduced lunch}, school selection rating, learning/mental/physical disabilities, IEPs, and socioeconomic status (private school vs. public school vs. charter school). Semi-structured interview subjects are based on personal contact and networking.

Research participants will be asked if they are interested in participating in a study regarding virtual education. The researcher will contact participants via word of mouth who have shown interest in this research and/or personally contact**.** This is developed through direct networking of researcher including asking for further potential interviewees from those respondents in the initial interviews.

The target population is active teachers and parents of school-aged children under seventeen years of age. Individuals who are not presently working in education (teacher, school director, school board, etc.) are not considered along with non-childbearing adults, incarcerated adults, or adults with severe mental handicaps. It is not uncommon that participants of the semi-structured interviews remain anonymous to no self-identify, leading to workplace retaliation, harassment, and/or including jobless/wages from participating.

Informed Consent Process

The interview portion is a recorded video conference set up on Zoom. Participants will be asked on camera if they consent to this audio and video recorded interview. Each interview will not last longer than 30-45 minutes long. Participants' time to answer the asked open-ended questions can range from a few seconds to a few minutes (three-five) in length. These video interviews will be done virtually in the comfort of both the researcher and the participant's own home.

The researcher will use audio and video during the interview portion of this study. If the prospected subject does not want to be recorded, he/she will not be able to be in the study. If the prospected subject is recorded, the recording will be kept in a locked, safe place. The recording will be erased or destroyed when the five years commence per minimum requirements per University of Central Florida.

IRB approval was secured with this study.

Data Collection

Subjects in the interview portion will be asked ‘Icebreaker’ style questions to feel comfortable with the researcher. Researcher will let subjects know that if they are not comfortable answering a question, let the researcher be aware, and move on to the next question -no questions asked about the skipped/passed over question. Additionally, consent for this research will be given upon the beginning of all video recorded interviews.

All research will be conducted at the researcher’s home, including but not limited to; Video recorded interviews, survey-based questionnaire, data retention of interviews/surveys. All

contact made with research participants will be done electronically (i.e., email, text messaging, telephone).

Data retention will be retained for the minimum of UCF policies five years after study closure. This includes all recordings (audio or video) and electronic survey submission forms, including any contact information on a pair of password-protected zip drives/external hard drives (not stored on internet connected machine).

Data will be stored on a pair of password-protected zip drives/external hard drives (not stored on the internet connection machine). No names or contact information will be attached to the data; video recordings are maintained for 5 years for risk mitigation only. No sharing of raw data with anyone outside the committee.

Interview Protocol

Interview protocol will be adhered to for data collection and data analysis. The interview protocol consists of multiple open-ended questions. Interviews will be conducted virtually in the comfort of both the researcher and the participant's own home.

The research participants will remain anonymous. During the video interviews portion of the research, participants will have full image and voice identifiable imagery and sound, including demographics data such as age, sex, race, education placement, school registration, and city. The researcher will find reoccurring similarities among research participants.

Participants in this study, including all responses and identifiable information, will be kept confidential. All references to a research participant will be a pseudonym, including any direct quotes, observations, and areas that need improvement. IRB approval was secured with this study.

Process is as follows:

Interviews- After the participant provides consent with verbal agreeance to be recorded, video interviews will be recorded with the participants.

Data Storage - collected will be verbal/audio questions and answers via video recording programs i.e., Zoom and stored in a separate device offline i.e. external drive, etc. and will be secured in a location only the researcher as access to. Only the researcher, Thesis Chair and thesis committee members might know the participants' images in this study, including name(s), ages, locations, employments, salary, sex, marital status, etc. All recordings will be stored in zip drive/external hard drives for five (5) years.

Data Analysis - For the video interview portion, subjects' personal image, including audio voice recognition, will be stored in a external hard drive for five (5) years. This is required by the IRB and this study to avoid seizures of personal identifying information, job loss, retaliation, extortion, and alike.

If the researcher experiences adverse reactions from participants such as hostility, verbal assaults, threats of harm, or if the participants show multiple signs of lying or falsifying information (scratching nose, sweating, loss of eye contact, etc.), video will be terminated.

Interview Questions

The interview questions are created based on personal experience as an educator and parent, including prior research, intensive literature review, and this study's purpose. Each question during the video interview will help the research questions in section "Research Questions".

Overall Data Analysis

Due to the nature of open-ended interview and survey questions, there is a high likelihood of the research participants offering a variety of responses. This may cause difficulties in analysis-based, on complexities and multiple options selected. However, for the purpose of this study, the researcher prefers open-ended questions with a variety of responses, rather than simple 'yes/no' responses, as the subject matter is complex.

The researcher will collect and analysis the data in this study with the intent to collect patterns of similarities and differences. Each interview session will be recorded in participants and the researchers own homes with transcription of audio. The survey portion will also be at the participants own home or a neutral location and will remain anonymous to the researcher.

After all interviews were transcribed thoroughly and processed, the researcher has undergone a process of manual coding information for patterns of interpretation using grounded theory. Ground theory is a process of open coding- break up data to distinct sections; axial coding-draw connections between open codes; and selective coding-find thematic categories which connects both open and axial codes within the research.

Additionally, the research participant's direct words and phrases may be used to illustrate research significant data and patterns including, but not limited to, ideas and core values to be used in a descriptive narrative within this research study.

Chapter 4

Results

Themes from Coping Process. To understand the primary results of online learning, we must look at the contributing factors that may determine the student success rate with virtual education. The most frequently connected themes fell under four essential areas; Logistical Adaptation, Cognitive Personalities, Accountability, and Human Contact, including each of their sub-themes: Connectivity; Age Appropriation; Socioeconomic Challenges; Extrovert/Introvert; Learning Styles; Accommodations; Self-Advocating; Parental Involvement; Districts Responsibility to Provide Adequate Services; Group Projects; Extracurriculars; Sociability/Enrichment. The sub-themes include a breakdown of how the themes relate with quoted remark.

The first essential theme, Logistical Adaptation, includes the ability for students to transition from traditional, face to face learning over to virtual or online learning. Having proper technical components allows a higher success rate versus inability to obtain and/or maintain proper requirements. Logistical Adaptation is divided into sub-themes that include the following: Connectivity, Age Appropriation**,** and Socioeconomic Challenges.

The first sub-theme, Connectivity, focuses on the students and teachers experience with maintain an internet and/or browser connection. This includes internet speed, Wi-Fi, system glitches and platform.

The second sub-theme, Age Appropriation, focuses on ability for users of different ages to have the mental maturity and experience with using technology-based systems and devices.

The third sub-theme, Socioeconomic Challenges, focuses on diverse populations that may have higher or lower privileges around technology due to economic capabilities within their household.

The second essential theme, Cognitive Personalities, is centered around students' individuals needs and capabilities to adjust from face-to-face learning versus virtual learning. Cognitive Personalities was divided into sub-themes that include: Extrovert/Introvert, Learning Styles, and Accommodations.

The first sub-theme, Extrovert/Introvert, focuses on the student's ability to adjust to virtual education and the types of individuals that may benefit more. This area also discusses a student's duress to conform to surroundings outside their ability to properly function.

The second sub-theme, Learning Styles, focuses on the different ways a student is successful at learning. Some of these styles include: Auditory (oral), Visual (spatial), Verbal (linguistic), and Physical (kinesthetic)

The third sub-theme, Accommodations, focuses on selective services students receive. This can range from paraprofessionals, timing, tutors, scheduling, and curriculum modifiers.

The third essential theme, Accountability, is addressed as personal responsibility for classroom expectations and academic success. Accountability was divided into sub-themes that include: Self-Advocating, Parental Involvement, Districts Responsibility to Provide Adequate Services.

Self-Advocating, the first sub-theme, addresses the ability for students to speak up for themselves and take responsibility.

Parental Involvement, the second sub-theme, is centered around the idea that parents must take an active approach in their child(rens) academic success.

Districts Responsibility to Provide Adequate Services, the third sub-theme, focuses on their cooperation for maintaining and the need continuance in selective and special services and provided to students who need them most.

The fourth essential theme, Human Contact, is centered around the implementation of students interacting with one another virtual and/or in-person, provided restrictive guidelines or democratic participation. Human Contact was divided into sub-themes that include: Group Projects, Extracurriculars, Sociability/Enrichment.

The first sub-theme, Group Projects, focuses on the modern ability for students to continue collaborating may it be in-person or virtually.

The second sub-theme, Extracurriculars, focuses on the ability to continue post-education groups that both in-person and virtual students can opt-in to participate. This includes sports, clubs, teams, and other related activities normally scheduled on school grounds at the end of the day, after school hours.

The third sub-theme, Sociability/Enrichment, focuses on lack of traditional educational functions to provide alternate learning venues which include: field trips, in-house assemblies, classroom demonstrations, and ability to master social skills outside the classroom setting.

Participants

The seven participants from Miami-Dade County who were numbered for anonymity as follows: Participant 1, Participant 2, Participant 3, Participant 4, Participant 5, Participant 6, Participant 7.

Participants were a mix of public-school teachers from Kindergarten through twelfth grade of Miami-Dade County Public Schools, parents of children attending Miami-Dade County Public School, parents of gifted children in Miami-Dade County Public School, and/or a mix of participants being both teachers and parents of Miami-Dade County Public Schools.

Participant 1. Participant 1 is a teacher for Miami-Dade County Public Schools. Participant 1 has both an undergraduate and master's level degree in Science Education. They acknowledge teaching physical science and earth space science to both ninth and tenth grade students. Participant 1 has over thirty-three years' experience as a teacher. Participant 1's now-adult children are former students of Miami-Dade County Public Schools.

Participant 2. Participant 2 is a teacher for Miami-Dade County Public Schools. Participant 2 is certified in subject area K-12. Participant 2 teaches Social Sciences, Geography, Cold War, Social Science at the standard level, Honors level and Advanced Placement for student in ninth through twelve grade for twenty years. Participant 2 is a former YMCA Sports Director and Soccer Coach for Miami-Dade County Public Schools. Participant 2 is also a parent to students in Miami-Dade County Public Schools.

Participant 3. Participant 3 is a teacher for Miami-Dade County Public Schools. Participant 3 is certified in subject area K-12. Participant 3 teaches theater – Improv and Acting to for student in ninth through twelve grade for two years. Participant 3 has an undergraduate

degree in Fine Arts & Theater and is certified to teach English, Writing, Reading SAT prep, and Drama. Participant 2 is not a parent to students in Miami-Dade County Public Schools.

Participant 4. Participant 4 is a parent of two children – Pre-Kindergarten and second grade. Both children are in private institutions and do not attend Miami-Dade County Public Schools. Participant 4's older child is exclusively virtual education from home. Participant 4 is a certified crime analyst and a Senior Crime Intelligence Analyst for the Florida Department of Law Enforcement for over seventeen years.

Participant 5. Participant 5 is a teacher for Miami-Dade County Public Schools. Participant 3 is certified in subject area K-12 with endorsements in Gifted and ESOL. Participant 5 teaches fifth grade mathematics, fifth grade science, sixth grade science, and second grade gifted for twenty years. Participant 5 is also a parent to three students in Miami-Dade County Public Schools. All three students are documented as Gifted learners: one with ADHD and one the spectrum for mild Autism.

Participant 6. Participant 6 is a teacher for Miami-Dade County Public Schools. Participant 6 has two higher degrees: Master's in Business and Ph.D. in Education. Participant 6 conducts research within the education field. Participant 6 has career experience in Higher education, Research, and technical training for virtual learning. Participant 6 is a parent to two students, Kindergarten and third grade in Miami-Dade County Public Schools.

Participant 7. Participant 7 is a certified substitute teacher for Miami-Dade County Public Schools. Participant 7 has a higher-level degree, Bachelor of Culinary Science and Product Development. Participant 7 has worked in Miami-Dade County Public Schools for

almost ten years in K-12 subject areas. Participant 7 is a parent to two students, at the middle school 6th-8th grade level in Miami-Dade County Public Schools.

Logistical Adaptation

Connectivity. In discussing the areas and functions of virtual education that need to be fixed, I was trying to discover small technical hiccups that could be upgrade or a small enhancement for better performance. Across the board, every participant agreed multiple issues still continue to be problematic which include internet speed, Wi-Fi, system glitches and platform.

When asked, Participant 1 says the school district provided outdated computers to staff and students that are not compatible with the latest features for operation. The mainframe is old, the system could not deliver a properly functioning integration and continues to freeze.

Participant 2 said there is constant glitches and slow connectivity within the school building. When I asked what they meant, Participant 2 explained.

> "The school has yet to upgrade to a faster Wi-Fi that can process hundreds of individual devices simultaneously. The bandwidth is close to none and I'm not able to upload to teach live to students at home virtually as the internet continues to crash."

For Participant 3, other than internet crashing, nothing else was stated.

Participant 4 did not make a comment.

Participant 5 explained the school district could have done a better job upgrading technology, especially five months later and still having to suffer with poor bandwidth and other technical issues.

Participant 6 was proactive in discussing the delivery platform failure, K12 at the start of the school year. They continued to add:

> The school district has had plenty of time to fix the problems since August, yet we continue to have connectivity issues.

In my final interview with Participant 7, they struggled to teach students online, Wi-Fi would drop sporadically, or the website would crash. They also mentioned:

> "My kids cannot get their work done because the portal (Miami Dade County Public Schools HUB website) continues to freeze or crash. This is ridiculous! How can anyone get anything accomplished if more time is spent fixing a problem than actually learning?"

After scrutinizing the participants responses, I could easily see this was an on-going issue, even before school closure caused by COVID19, that manifested into a district-wide issue that has not been resolved almost a year later. Through interviews of teachers and parents of students K-12, both sides agree school district issued computers are of cheap, poor quality and lacking technological upgrades, showing the dated hard drive and mainframe. Not only does the outdated technology add to stress and strain of not functionally property, but it also continues to hinder students from academic advancements, a constant complaint across the board. Participants interviewed agreed the inferior laptops and tablets, issued by the district are not efficient enough to operate properly leading my students to walk away in absence of updated technology.

Additionally, continuous technology concerns arise from the MDCPS platform and district-issued technology, that almost one year later have yet to be addressed or properly fixed by the district's IT department, concerns include Bad Wi-Fi/No Wi-Fi, Slow Connectivity,

Glitches, Platform Crashes, Cameras Not Working, and Stuttering/Freezing daily. Many of this easy to fix concerns frustrate students leading to stress, frustration, anxiety, and other emotional behaviors- especially younger aged students who do not have technology literacy, or the adequate knowledge to fix the problems. Parents who are not technological savvy struggle alike to find solutions for their child(ren).

Age Appropriation. In discussing age-specific websites or features with participants, I wanted to discover if participants were able to customize features based on student age, learning ability or computer literacy. I also wanted to understand if there was an option, and if so why it wasn't being utilized or if this is a feature not currently available.

Participants 1, 2, 3 all said there are no customization features available for teachers or students and not meant for younger students.

Participant 2 agreed that an age-appropriate platform would be better for younger students, not so much at high school level.

Participant 4 mentioned younger students, those in primary grades rely on their parents for turning in assignments, projects and tests that need to be handwritten. When asked to explain further, Participant 4 explained.

> "Parents need to take a photo on their phone or scan to upload to their computer. Once the file is in the computer, parents then need to upload to specific platform and submit for their child. Ultimately, parents are 'co-teachers' who need to help younger children who are not computer literate or proficient."

When I asked Participant 5, they stated technological learning takes away from hands-on learning, a vital component younger students' need to be successful. I then asked areas of virtual education that need to be fixed on the public-school platform.

> "On elementary level, children who are in elementary should not be able to do schoolwork by themselves. Children need to learn hands-on and not virtually. Students' ability for independence and maturity come later in life and are better suited for virtual learning."

When Participant 6 was asked, their answer was contrasting from the other responses. They mentioned students had the option to be creative and utilize their skills and talents through stories and video submissions. However, Participant 6 then continued with further details regarding age:

> "Kindergarteners need parents to guide them at every step and log on to every platform. Create and use an external device for fingerprint 'logins' or use pictures for age-appropriate younger children that is customizable by the teacher.
>
> Half of the participants were fully able to answer as they are parents of young students enrolled at Miami Dade County Public Schools. Their feedback from the direction of a parent and teacher to children under eight years of age, shows a lack of appropriate programming for young generations of students."

All participants agreed that elementary aged child(ren) need to have age specific platforms implemented. Utilization of pictograph options for Kindergarten students or a TouchID, similar to Apple's iPhone fingerprint scanner, even a voice recognition device that easily logs-in a younger child were suggested by participants of gifted children.

However, when asked, all participants agreed that virtual education is not meant for elementary aged children, especially younger children aged six to eight years of age due to lack of computer literacy, self-independence, and reliability of an adult for navigating and operating a computer and/or tablet.

Socioeconomic Challenges. I wanted to understand how demographics could play a significant role in the student's ability to handle virtual learning. I also wanted to understand how students of both higher and lower privileges could be impacted by virtual education.

When asked to Participant 1, the mentioning of internet connectivity would discourage students from low socioeconomic households causing them to 'give up'.

> "The computers the school handed out to those who need it most were old, outdated and useless."

When asked to Participant 2, they believed that low bandwidth, slow Wi-Fi, and glitches would cause students from low socioeconomics to do poorly academically caused by non-operable technology.

Participants 3, 4 and 7 did not mention anything that falls under this category.

Participant 5 said the school could have upgraded to better technology for the students who needed it the most. I asked about problems with low grade technology.

> Students who are distracted or having family issues at home, school is not a priority for them. They have bigger issues to worry about like food and keeping the lights on.

When asking Participant 6, their response was students with high socioeconomics already knew technology and had several devices compared to those opposite on the lower end who

maybe had one device, such as a computer for the whole house and the parents were not knowledgeable about the computer.

Socioeconomics plays a huge rule in student success- proper internet services down to the personal knowledge, can all hinder a student from academically succeeding. Internet service main factor is speed- or how fast data can travel, is vital for a stable internet connection. Lower grade service causes slow bandwidth or data transfer, glitches, loss connections and a slew of frustration for the student.

The district provided devices for students who did not have a computer or tablet at home, however participants 1,2, and 5 all agreed that the devices were old and outdate, causing continued problems: loss service, glitches and prevented students from successfully completing coursework.

Cognitive Personalities

Extrovert/Introvert. Discussing personality and academic needs, I wanted to know if students were able to conform to surroundings outside their ability to learn in a classroom. I also wanted to understand how a student reacted to the social change of being face-to-face versus independently learning with the only social interaction of their family if any at all.

Participant 1 did not have a say about students. However, older teachers had to adjust which caused significant difficulties to their teaching style and ability to learn a new system.

When asked to Participant 2, mentioned it was up to the student and they should have the option between in-person, virtual or a hybrid of the two. When asked about age:

> "A certain age should be required for a student to work from home and be fully

virtual."

When asked to Participant 3, they strongly felt students want to be in class for hands-on related course such as theater and dance. I asked about the changes of traditional to virtual.

> "Theater is like a team sport; you have to be there in person. Students want to be 1 in class, at least my theater class, since they get to be creative and act through characters."

When asked to Participant 4, they saw a difference in behavior that their child is more independent, speaks up for himself more virtually, and is more communicative with family.

Participant 5 mentioned that students have become either more talkative or mute since going virtual. I asked about changes from face to face and virtual.

> "Students who are normally talkative are now quiet and reserved virtually compared to being introverts face to face are now extroverts with big personalities and not afraid to say anything virtually. Some students have learned to self-advocate for themselves and are doing better academically virtually than when in person. In all depends on the child and their personal ability to be successful."

When I asked Participant 6 about their observations of personality and academic needs, they mentioned students in-person have the freedom to 'walk up to' the teacher, whereas virtual students are not given the ability and have to interrupt a class to ask a question and won't do it. I asked for further explanation.

> "Virtual students would need to stop a lesson and all eyes focused on them. This leads to a form of 'stage fright' to ask a question, that

> ultimately shuts a child down from asking for any help as to not be singled out."

When asked to Participant 7, they noticed their own children doing better academically since they were able to work from home. As a teacher, she noticed students who were doing poorly at home caused by distractions and the inability to self-advocate.

After analyzing this area, students' personalities have shifted, both positive and negative based on their ability to effectively communicate. In connection with this sub-theme, I see a connection for students who can take control and conform to the change for their own benefit. Caused by these changes, there is a positive rate of students performing better virtually versus face-to-face, which should be discussed further.

Learning Styles. In discussing how a student can learn, I wanted to know the different ways of learning and how it can affect the student's ability to grasp information. I also wanted to know how these learning styles may contribute to alternate learning methods and educational institutions.

When I asked Participant 1, they mentioned some students are less engaged at home compared to being at school.

When asked to Participant 2, they clarified some students are working better independently from home than in a classroom. I asked if virtual learning was working.

> "Yes, however a certain age is required for students to be home alone and fully virtual. Students who are more successful virtually then in a classroom setting, should be given the option of where to attend school."

Participant 3 said it's the reflection of the student. I asked what he meant.

> "Students are more communicative online and are conducting themselves. professionally in both their verbal and writing skills."

When I asked Participant 4, they see more independence and self-advocating skills like organization, time management and routines with virtual students.

Participant 5 agreed with students are self-advocating, which is dependent on their personally style. I asked what they meant by dependent on their personally style.

> "Some students in elementary are able to focus and be successful by their own will. Majority of students cannot work independently and need motivation and a desire to keep going. Some students benefit more by socialization with their peers."

When I asked Participant 6, they stated students at home rely on outside assistance and support compared to students who are face-to-face.

After reviewing the interviews, I saw a pattern that introverted students are more successful working independently than extroverted students who rely on structure in a classroom setting. However, this is not fixed as some students who show extrovert personalities can have introverted skills. A student attitude on how they will direct their attention and energy could also be a result of internal distractions, emotional consciousness, and other external factors that are happening in their home.

Most participants bring up the topic that students are more communicative or talkative online versus face-to-face. Parent participants noticed their children were eager to ask

for help virtually from behind a computer than when they would raise their hand inside a classroom. Additionally, students may encounter more distractions at home.

Accommodations. In discussing specific accommodations for a student's success, I wanted to know how migrating to virtual learning may have or has positively and negatively affected students. I also wanted to know who is responsible for providing such accommodations, parents, teachers, schools, or the district.

When I asked Participant 1, they said students have the option to complete assignments anywhere – at home, on vacation even when sick.

When I asked Participant 2, who stated students can still participate and collaborate from distance learning.

When I asked Participant 3, they felt strongly that hands-on courses were not capable of being taught virtually. I also asked what some common struggles are.

> "Students are not able to understand written instructions. They generally have difficulties understanding written directions when they are used directions being explained to them orally."

Participant 4 was insistent that frustration was prominent in ADD and ADHD students who did not understand an assignment, instructions, or where to navigate to find something. I asked if there was a positive change in virtual transition.

> "We are able to ease into our day – no rushing to get ready, dealing with traffic, and the option for more breaks in the day as its less structured. My child has become independent and get his work done and submitted as they are now more

structured from virtual learning."

When I asked Participant 5, they mentioned how obstructive virtual learning was for gifted students. I asked her to provide more details.

> "Students who are visual learners or auditory learners have a harder time. Visual learners no longer have labs, hands-on activities, even group work in which they learn best. Auditory learners are dealing with muffled sounds from masks, distorted voices and miscommunication from differences in vocal pitch and tone by the teacher from wearing masks and frequencies of the internet. Elementary level students are not able to handle internet issues, microphone issues, and family distractions. It is also hard stimulating and engaging in activities to do at home as they would in a virtual setting, there is no interaction."

When I asked Participant 6, they said no special services for gifted students. I asked what the disadvantages are.

> "Schools say they are doing a lot of support groups for students, but parents are not receiving them for their children. Auditory issues are constant as mask wearing by the teacher muffles and changes the tone and sound of words and letters making it harder for younger students to understand and perform correctly. Parents are forced to find outside help like tutoring or virtual paraprofessional. Online materials are very minimal and a lot of repetition. Also tests and quizzes are timed, which makes gifted students stressed and anxious as they fear to answer wrong or run out of time by seeing a timer or clock counting down on the screen."

When I asked Participant 7, they saw a significant change in student participation and lack of curriculum when compared to face-to-face instruction. I asked what she means by change in student participation.

> "Students who are physically in school can have paraprofessionals sit with them to help keep students motivated, on task and following schedules. Students at home virtually do not have a paraprofessional with them and no one really redirecting their focus and attention as they would in person. Unless the parent is physically next to them for the entire school day, they are not motivated to participate."

Because students have different personalities, learning abilities and accommodations based on a variety of factors, the individual student can be successful virtually or more so with traditional face-to-face instruction. This is based not only on the students age and maturity level, but also strategizes multiple perspectives on whether a student has the will power and capability of doing so virtually. Participants mentioned specific requirements that are federally, and state mandated for specific modifications to benefit students are underutilized or not available. This causes discord for both the student and parent(s) who are fighting for what the district is required to provide to them.

Accountability

Self-Advocating. In discussing student success and self-advocating with participants, I wanted to know how this was beneficial for the student in short- and long-term goals.

When I asked Participant 1, they said unless the student is willing to be self-advocating, this is not a long-term solution.

When I asked Participant 2, they stated students should have the option to choose virtual or face-to-face education based on their ability to successfully complete work.

When I asked Participant 3, they mentioned students are speaking up and questioning their own autonomous position of their work. I asked if this is beneficial for long term success.

> "It does provide real word training; however, students need socialization and how to communicate in person not just on a device."

When I asked Participant 4, they stated a difference in their children's ability to be responsible and independent. I asked how they feel about virtual long term or short term.

> "I prefer my children at home. That way I can personally over-see what they are doing and control distractions. Luckily, my job allows me to work at home, but children need interaction. Maybe including field trips or other activities outside that can merge virtual and in-person students for social interaction can be created."

When I asked Participant 5, they have personally witnessed with their children and students that some are very vocal while others are mute.

When I asked Participant 6, they assured being at home virtually fostered self-advocating skills as the students would have to ask parents or find other ways to answer their questions.

Participant 7 says, they were unable to see long term results unless the student obviously did not care or did the work without being told.

Because students were forced to go virtual, many adjusted well and took advantage of working from home. Learning how to be speak up for their interests has helped provide teachers with new and innovative teaching methods, including students learning how to prepare for life outside the classroom.

Parental Involvement. In discussing parental involvement with participants, I wanted to learn what is required of parents and what should be expected. Additionally, I was curious about consequences towards students and parents, if they did not follow guidelines set by the district.

When I asked Participant 1, they claimed many students' parents went to work outside the house leaving them home alone with little to no care about school.

When I asked Participant 2, they stated teachers, parents and students who work together make the student more successful. I asked participant to elaborate.

> "Parents who do not care only add to the problem. If a student is not doing the work, as a teacher we email and call the parent. Many don't respond back and have no intention to do so. They are setting up their child to fail. I know in charter schools, parents must be involved in both the student's education and volunteer a certain number of hours during the school year or risk their child(ren) being kicked out of charter school."

Participant 3 did not provide a comment.

When I asked Participant 4, makes sure her children are on task and continuing their routines.

When I asked Participant 5, they stated parents who don't cooperate only lead to student failure. However, parents who are proactive in their child(ren)s education should have a choice on type of education method- virtual, face-to-face or hybrid.

When I asked Participant 6, she mentioned parents of gifted students are more interactive and help in their child(ren)s education versus non gifted student parents.

When I asked Participant 7, they mentioned all parents should be involved in their child(ren)s education.

Since teachers are not the only ones preparing students for life after school, all participants agreed that parents need to take an active role in education. Checking assignments for errors, scheduling, deadlines, even making sure the child logged in and participating are major components for parental responsibility.

A sub-question of this theme is what consequences should be required for parents not responding or participating in the student's academics. Participant 2 compared the difference of public school to charter schools which require parental involvement to the school. Participant 4 mentioned 'off record' that students who fail to complete work and parents who fail to respond to emails and phone calls from the teacher after 'X' number of occurrences, should have a wellness check done by either the local police or Department of Children and Families, as many unknown influences to the student and/or parent may be the result in lack of communication and/or participation.

Both parent and teacher participants agreed that consequences should be obtainable towards the parent if they fail to aid academic success to their child(ren). Some parents must work outside the home or care for other children in the home and are not able to assist the

younger school aged children or make sure the child is actively online and participating in virtual education.

Districts Responsibility to Provide Adequate Services. In discussing Districts Responsibility to Provide Adequate Services, I wanted to learn how much delegation was required by the district versus individual schools.

When I asked Participant 1, they mentioned the district pointed fingers and named blamed schools for not accommodating, including better training for teachers to help students with particular needs and accommodations.

When I asked Participant 2, they mentioned a platform where teachers could teach 'live' and have virtual office hours.

When I asked Participant 3, they stated teachers cannot teach virtually and in-person. Smaller class sizes (virtual) are beneficial to see multiple screens simultaneously.

When I asked Participant 4, they did not have an answer as their children did not meet qualifications for services.

When I asked Participant 5, they were concerned that virtual students did not have the same services provided to them as face-to-face students. I asked for some examples.

> "Students who are in the school can walk up to the teacher and ask for help. Virtual students must send emails and parents have to call the school to request a counselor meeting. There is no help outside class hours, no virtual chat room or Zoom appointments. The district says schools are independently responsible for providing services, but when you call the school, they say call the district. No

> one is taking responsibility. Office hours are available for in-person students but not virtual which can be done using Zoom."

When I asked Participant 6, they stated the district and schools have had since August to fix and correct these problems, which has turned into finger pointing and blame games. I asked what some struggles are.

> "In the classroom, students walk up to the teacher. Virtually, students are left to fend for themselves. It's a mixture of teacher, school and district responsibility. The district needs a better platform with multiple resources on how to make appointments with teachers for office hours, school counselor meeting, testing services, and more materials and resources."

Because students who require certain accommodations and services are required to have them by federal law, it is the responsibility of the school district to see each school is providing sufficient resources to both teachers and students.

Human Contact

Group Projects. In discussing group projects, I wanted to learn how group work was possible, if not better coordinated, in a virtual setting versus face-to-face.

When I asked Participant 1, they mentioned the ability to work anywhere provided group members be on task.

When I asked Participant 2, they said students have the capacity to work together from school or home, allowing them to participate from distance locations.

Participant 3 claimed theater group projects cannot be transitioned to virtual setting as students have to be in person to coordinate.

When I asked Participant 4, they stated group projects foster teamwork and socializing.

When I asked Participant 5, they were adamant students could use platforms for instance Zoom and Microsoft Teams. I asked what the benefits to students are.

> "Students can also use Google Documents to edit and share in real time, papers or notes for the project instead of trying to schedule everyone to meet at the same time. Zoom and Teams allows them to see each other, talk, chat for sharing links, and sharing screens."

When I asked Participant 6, they mentioned using platforms for video allows socializing and could be used for online clubs and activities to blend face-to-face and virtual students. Participant then added how it helps teachers.

> "Teachers and administrators are able to have virtual meetings instead of face-to face with the option to share information, resources, and other work related documents using Google Documents or Microsoft Teams. It is as much beneficial to the adults as it is more the kids."

Participant 7 agreed that group work online is more cohesive versus traditional face-to-face as student are more organized and less distracted.

Other than Participant 3, all other participants agreed group work done virtual was better coordinated, organized and overall a better option. Participant 6's discussion really stood out, as virtual groups would be beneficial to teachers and administrators. This allows meetings to take

place virtually anywhere instead of at the school, including the elimination of papers that may get lost in transit.

Participant 2's discussion brought up a similar idea. Virtual or online education eliminates handwritten papers and materials, that teachers must physically handle and carry home to be graded. This reduces paper waste, workload, and the risk of transmitting bacterial spores and other viruses that may lay in paper assignments.

Extracurriculars. In discussing extracurriculars**,** I wanted to learn the ability to continue offering post-school day activities normally held on school grounds. I was also interested in learning what changes or scheduling options were available for both virtual and face-to-face students.

When I asked Participant 1, they did not have a comment as she was neither involved nor paid attention to extracurriculars.

When I asked Participant 2, they mentioned Zoom meetings would allow students who are not physically present in school to participate in clubs and other functions.

When I asked Participant 3, they mentioned student would deal with less conflict virtually including smaller groups in-person as students would also be virtual.

Participant 4 stated children need interaction and to be social and the school should provide virtual options to clubs and activities for children who are at home learning.

When I asked Participant 5, they stated children who are hands-on learners can participate in virtual, after school clubs by working together with students who are on school grounds. I then asked Participant 5 to elaborate.

> "For example, students in art club could paint and still be taught techniques and share through video chat. Art is a form of creativity, something that is reduced or eliminated in most schools due to budget cuts. This provides an extra resources for students to use their imagination and be creative – both at home and at school. Why should schools only allow physical students for clubs and cross out virtual students? They have as much right to clubs as physical students. Students have also learned a new method of instruction through virtual learning and video chats."

When I asked Participant 6, the affirmation of online clubs and activities were beneficial to students who are virtual and an option to participate without them physically being at school. I asked Participate 6 to explain in further detail.

> "Kids are missing these after school activities, field trips and other creative alternatives for fun stuff besides curriculum-based education. Almost everything has been omitted from virtual students. Schools should encourage social interaction – in person and virtually -which builds collaborations and team work skills."

When I asked Participant 7, they stated all children should be able to participate in afterschool clubs and functions without it being limited to only students physically in school.

All participants agreed that extracurricular activities are important. Virtual students should be allowed the option to participate in after school clubs, however they have been excluded as they are not physically at the school. For example, Participant 4 explained that social interaction was a stimulus for children, especially young children. Participant 5 agreed hands-on

learning is through after school activities, and Participant 6 feels schools should allow the option to be involved no matter a student's location.

It is human nature to be social creatures, and lack of opportunities for students to be social is manifested in social anxiety and lack of collaboration. Children enjoy spending time with their friends and doing activities they share in common with others. Schools need to investigate alternative methods of post-school hour activities that are inclusive for all students, just as they did when they were closed towards the beginning of the pandemic.

Sociability/Enrichment. In discussing Sociability and Enrichment with participants, I wanted to understand sociability and enrichment in alternate learning options other than the formal classroom setting. Additionally, I was interested to know how such activities can be implemented during a pandemic with social distancing measures in place by local, state and national laws.

When I asked Participant 1, they discussed the option for students who are home sick, missed the bus, or out of town on vacation, the option to attend school virtually was possible. They also insisted teachers should have better training on different methods of teaching that utilize student success.

When I asked Participant 2, they insisted the district should have everything in one, uniform portal and/or platform instead of cross-utilizing different platforms, software programs, and websites. I asked how that would be beneficial.

> "It's a one stop shop for everything that teachers and students can use instead of multiple websites, log in names and passwords and confusion on where to find

> and submit work. It also provides the ability to complete work from home – students can complete and submit assignments holding them accountable, along with teachers grading. No more paper and pens."

When I asked Participant 3, they mentioned some students prefer the classroom over virtual. Options for learning should be implemented by the district that include methods for socialization virtually and face-to-face.

When I asked Participant 4, they were adamant that younger children needed socialization and external learning advantages, i.e., field trips, in-class visitors and presenters.

When I asked Participant 5, their response was strong for younger student needing to be face-to-face versus older students who have a higher level of maturity and independence. They also mentioned students should be provided the choice of virtual or face-to-face settings.

When I asked Participant 6, they stated the reduction of technology platforms to a single, unified platform that is adjusted based on particular criteria for student's grade level and core function. Additionally, the participant mentioned schools should led efforts in adding online activities that include virtual and face-to-face students. I asked for a further explanation.

> "Kids are missing fields trips, clubs, and other creative ways of learning. There needs to be an alternative for the fun stuff- playground, school assemblies, guest presenters, - all which were omitted. Schools can plan science shows with virtual and face-to-face students interacting as volunteers, plays that can be watched in house or virtually, fundraisers like game shows which are already live and watched on the television. There are many opportunities missed."

When I asked Participant 7, they mentioned all students both virtual learning and face-to-face should be provided equal opportunities to participate in after school activities.

All the participants stated sociability and enrichment is missing from the school setting. They realized a lack of perception by schools and the district to focus on this topic. Most were able to give examples of pre-COVID activities, including examples on how to implement the former activities to be adjusted to both virtual and face-to-face students.

To meet student needs for socialization and enrichment for both face-to-face and virtual students, the district and schools would have to adjust traditional methods and ways of doing such activities. This discussion was the most influential and appreciated by participants. Their personalities became more energetic and enthusiastic when compared to other themes in their interview. The participants enjoyed sharing ideas about new learning experiences that could be applied.

Chapter 5

Discussion

Analyzing the Results

Even before I had the notion for a thesis research study, I have believed for over a decade that the education system continues to fail students with outdated methods of instruction and the refusal to jointly modernize itself into a digitally transitioning world. We cannot expect students to graduate from high school and enter the career force or even higher education institutions without an overall induction of technological literacy. The 2020 pandemic, because of COVID-19, was a disastrous tsunami for students, parents, teachers and districts across the nation and globally. The inability to transmission from face-to-face over to virtual settings proved the lack of planning and implementation by school districts to have a backup plan. The result not only had the fourth largest district in the United States fail to meet the needs of its students and teachers but continues to ignore and explore permanent solutions that are equal and innovative for a highly, diverse community.

The participants explained in detail, the devastating experiences along with positive outcomes, both students and teachers have had to face over the last twelve months. The district has not seen the full and clear picture resulting from the effects of their internal decisions without feedback from those who matter most – students and teachers.

It appears Miami Dade County Public Schools may have a view that shifting back to face-to-face is the best solution. “ The district and school board wish to continue adhering to their own personal opinions and biases based on federal funding and budget cuts, all while not listening to teachers, parents, and students – the population that they serve – who have single

handedly been given enough rope to hang themselves, theoretically speaking. The added pressure to force individuals back to a traditional face-to-face instruction after a year of remote learning continues to cause devastating outcomes and conflicts in those who feel safe and more accomplished in a virtual setting. The traditional Education models are as outdated as they can be, which only hinders learning, providing noteworthy disadvantages to today's young and tomorrow's leaders", stated John Doe, a twenty-plus year MDCPS teacher, who is personally known by this researcher.

The overall study provided significant data which corresponds to major changes which need to be implemented. Presently, we are in a 'Technological Revolution': a motivating force behind this transition is a new model of growth which harnesses the potential of digital services and technologies without forgetting the importance of social inclusion and ecological sustainability. (Valenduc, 2018). This is the modernization of traditional school methods of paper, pens and books that has been replaced by computers, tablets, and virtual settings. Education systems have known the outdated use of paper and ink forms for over ten years yet refuse to accept and adapt to the changing times. Matter it be budgeting or refusal to acknowledge change.

Many schools within the district stuck with homogenous instructions of platforms and website to utilize, while others allowed teachers to make use of what they were comfortable with and ease of use for their students. A mishmash of direction and lack of uniformity has created chaos within the classroom settings and home environments, under no mean is beneficial. In the homogenous schools, students were found to be more proactive, independent, and self-advocating differentiated by non-homogenous schools in which students struggled with

academics, emotional disruptions, even giving up all together. Schools form lower socioeconomic areas are hit the hardest by lack of uniformity, structure and disparate knowledge of technology and user-ability.

Gifted students are resilient and able to pick up almost anything if taught in ways catering to their learning types and abilities. Students who are visual learners will not persevere in lecture-based education, as compared to students who grew up around tablets and computers who are disadvantaged from learning to write with legible penmanship. Nevertheless, gifted students are wired differently than their colleagues. Therefore, their emotional, social, and academic needs must not be ignored for them to reach their full potential. Services must be maintained and provided that best fit their individualized learning styles, as set forth by their IEP, or Individualized Education Program. To meet the needs of students in face-to-face classroom but not a virtual setting, hinders the gifted student from releasing their potential and is an obstruction to his/her education. Gifted students and their parents should not have to battle the school and district to receive the services they are allowed by federal law under three separate statues, The Individual with Disabilities Education Act, Section 504 of the Rehabilitation Act of 1973, and the Family Educational and Privacy Rights Act. (IDEA, 2020)

Initial results of the virtual school option indicate various areas are having both positive and negative outcomes with teachers and students. This is an unexpected finding as one would expect to see results align with one side or the other, either positive or negative, instead of a composite of findings. Additionally, as parents were self-selecting for either traditional face-to-face models or virtual options of My School Online (MSO) or Florida Virtual School (FLVS) it is difficult to account for factors of district-based instruction versus state-based instruction because

school districts were given ‘free-reign’ on how the program virtual learning and administer instruction via a district wide platform.

As noted above, parents have the choice of sending their child(ren) back to face-to-face instructional school or continuing virtual education based on their child(ren)s academic progress, ability to cope, and concerns over widespread infection of the novel COVID virus. By August 2020, the start of the academic 2020-2021 school year, Miami-Dade County accounted for 25% (148, 093) of the state’s COVID infection rate. (Moise 2020) Given the consistent high rate of COVID in the South Florida region, parents opted to continue virtual education through the district or switched to FLVS. Those who remained virtual through Miami-Dade Public schools held widespread concerns of the lack of a uniform platform and support from the district.

To answer the first question, I personally gathered information from many sources comparing traditional virtual homeschool platforms and compared the value with modern, pandemic related platforms, including answers during personal interviews of participants who are MDCPS teachers, parents or both in the county. The value is defined as the overall performance:

1. Student success
2. Technological components utilized in students’ academic achievements.
3. User capability of electronics devices
4. Web-based platforms and software programs

To answer the second question, I examined the forementioned results as a comparison. Synchronous across the board was the inability to provide a uniformed and adequate platform for students, leading to large numbers of unmotivated, non-engaged students. Younger

students, those in Kindergarten to third grade, depended on their parents and/or guardians to fully operate household computers, laptops, tablets, and/or cell phones. This included logging the younger student into multiple websites and platforms, scanning or photographing work to upload and submit, also lacking was teacher support through virtual 'office hours', one-on-one conferences for academic progress, and younger students also experienced long waits and sitting for multiple hours equivalent to a regular school day in front of a screen.

To answer the third question, I computed the above results along with participant suggestions based on anecdotal experience to better enhance or develop a fully functional platform that is appropriate to all age levels, academic needs, and services not currently available through Miami Dade County Public Schools. This section also includes positive outlooks to virtual education in a public setting which can carry over to traditional face-to-face (face-to-face) methods of instruction.

Reviewing the Findings

This study focused on:

1. Are there areas and functions of virtual education that need to be fixed within the public-school setting platforms? If so what?
2. Are the platforms/software's used 'one size fits all' or individually programmed to grade level, age of user(s), and/or academic needs (Gifted/IEP, mental/physical disabilities, learning disabilities, language)?
3. What program alterations should be considered in responding to any shortfalls determined in the preceding questions?

As discussed during the interviews, there was a high rate of agreement among the interviewees on the good and poor points of virtual versus face-to-face education. The only differences noticed is teacher participants who were not aware or nor paid attention to particular issues of concern or did not mention anything outside their own person experience with students.

At the start of this study, I was expecting to find Gifted Students were not as successful academically as their non-gifted student counterparts. There are several federal mandates that require districts and the schools within to provide proper services and accommodations to students based on their learning abilities. This would be obvious for face-to-face or virtual learning. As I interviewed the participants, especially those who are teachers with gifted endorsements from Florida Department of Education and parents of gifted students, I discovered that services were not provided as they should be or at all, in a face-to-face setting. When I asked Participant 6, they responded as follows:

> "Schools say they are doing a lot of support groups for students, but parents are not receiving them for their children. Auditory issues are constant as mask wearing by the teacher muffles and changes the tone and sound of words and letters, making it harder for younger students to understand and perform correctly. Parents are forced to find outside help like tutoring or virtual paraprofessional. Online materials are very minimal with a lot of repetition. Also tests and quizzes are timed, which makes gifted students stressed and anxious as they fear to answer wrong or run out of time by seeing a timer or clock counting down on the screen."

By federal law, services must be provided, and several parents have chimed in that their child(ren) have not had services or accommodations. This could be extra time on tests or for turning in assignments, a paraprofessional to keep the student focused and on task, even parent counseling and training to help their student virtually. Participant 6 has been fighting for proper services for their two virtually educated gifted children since March 2020. They claim the school says they are providing services, even after she has letters written from parents of other gifted students who have not received services since going virtual.

Parents of gifted students were highly involved in their child(ren)s education, more so than in pre-pandemic. They fostered their ability to control distractions, created social interactions, maintained schedules, including hiring outside tutors, music teachers, art teachers, along with innovative methods of education through life scenarios and locations. Learning doesn't have to be in a classroom setting as proven by methods set forth by parent participants with their child(ren).

As I started this study, I was surprised by the lack of logistical advancements and age appropriation of the district. While I was aware the district had less than two months to switch to fully virtual, almost eight months later, the systems in place are lagging, with outdated software and continuous technology concerns across the board. When I asked Participant 1, they explained the district provided outdated devices for students who would have not had any otherwise, and provided a lackluster operation system:

> "The mainframe is old, and the devices could not deliver the functions properly or maintain the integrations required and continued to freeze or crash."

Students need modern technology with updated programs and software to participate and engage in their school required activities and coursework. To deny reasonable technology to those who need it most, is a clear set-up to fail those students and to add insult to injury, then place judgement of failure on these students as if they brought it upon themselves.

Each participant mentioned a multitude of technology problems; slow bandwidth, slow Wi-Fi, continuous glitches, connectivity issues, including the devastating reports of the $15.3 Million dollar sham, Miami Dade County Public Schools agreement to produce the failed virtual software, made by K12, that made national headlines. The result was a game of finger pointing as the contract was never finalized or properly executed nor input from the teachers who were required to use the horrific platform. This whirlwind of devastation forced schools and teachers to fend for themselves and backtrack to Zoom and Microsoft TEAMS, caused by poor-decision making by the district to centralize a brand-new platform for serve over 300,000 students, teachers and administrators.

As the study continued, I found a difference in opinions for pro-virtual versus pro-traditional school methods. While I knew in depends on the student's personal take and ability to successfully fulfill the requirements of either method, I also found the cause of a student's success could ultimately depend on their personality type. When I asked Participant 5, they said some students have learned to self-advocate and are doing better academically on a virtual perspective than they were in a face-to-face classroom setting. Participant 6 mentioned what she saw as a teacher and parent:

> "As a teacher, I notice students who are doing poorly at home virtually which is caused by distractions in the household – babies crying, siblings

> and parents arguing, family members interrupting and pulling their attention away from lessons. However, as a parent I noticed my children doing better academically since being at home and taking initiatives to be organized and self-reliant. Personality and environment are two major factors that can help or hinder a student's success rate."

I found this interesting and falls under a nurture versus nature theory, that human behavior is influenced by their environment. Gifted students have higher intelligence, with a minimum IQ of 130 to qualify as a gifted student. Intelligence is a complex trait, influenced by genetics and environmental factors related to the child's upbringing, parental involvement, learning resources, nutrition, among other influences on their intelligence. Parents who have a more direct approach to their child(ren)s education at home, could be a direct influence of their being more successful virtually versus face-to-face.

Reexamining the Literature

Piaget's Theory of Cognitive Development. When we examine Piaget's theory, he claims hierarchical puts forward cognitive stage, although cognitive development is able to slow down or speed up based on environmental factors and stimuli. Play helps children to develop imaginary and memory which are essential for thinking about past, present and future (Klein, Wirth, & Linas, 2003). In numerous ways, play, shapes a child's cognitive development through their imagination and memory, vital tools needed for thinking and fostering advanced stages of cognitive development. Nevertheless, if younger students are expected to use technology beyond their years and capabilities, their cognitive growth is significantly delayed or stopped. On the second note, high schoolers who do not revive ample modifiers or who are not suitability challenged, may see delays in their cognitive growth, that is delayed as a result from insufficient challenges holding them back from their full potential.

The participant who are gifted teachers and/or parents to gifted children, agreed that gifted students were not being challenged nor provided corrective modifiers to exemplify their cognitive abilities at the maximum potential. Those of younger children and students, described if it weren't for them as parents taking the initiative, their child would not have had the proper stimuli to enhance their cognitive abilities. Parents said their older students were not sufficiently challenged other than not taking the opportunity to be creative on projects.

Participants agreed that technology was a monstrous concern no matter the age of the student. Those with younger children needed to 'co-teach' as cognitive abilities to fully operate a computer were not administered or were beyond their ability. The school district is responsible

for providing special services and modifiers to students yet were left helpless if schooling was done virtually at-home compared to their classmates in face-to-face classrooms.

Anecdotal Perceptions.

This section includes personal suggestions and biases for ways to implement better platforms and teaching methods to continue virtual education, that will run parallel to academic performance of face-to-face instruction of their peers. As a reminder, these are mere observances by the researcher, her own observations, and pilot data taken from the interviews of both teachers and parents.

Technology. Miami-Dade County Public Schools (MDCPS) has delivered over 105,000 laptops, tablets and smartphones to students in low socioeconomic households, as well as including free and low-cost options through internet service providers. (Bakeman, 2020)

Despite MDCPS best effort to present virtual learning, data shows students are not actively participating as expect to with technological devices. “There's the economic uncertainty: Can I pay my bills? Will we eat?” said Pedro Noguera, an education professor at the University of California, Los Angeles. “Basic needs are in jeopardy and in doubt for many families, especially the undocumented. And so that is a huge stress that's going to certainly be a distraction away from learning.” This is known as the digital divide – a large gap of those benefiting through technology and those who are not. (Bakeman 2020)

Through interviews of teachers and parents of students K-12, both sides agree school district issued computers are of cheap, poor quality and lacking technological upgrades, showing the dated hard drive and mainframe. Not only does the outdated technology add to stress and strain by not functioning properly, it continues to hinder students from academic advancements,

a constant complaint across the board. Participants interviewed agreed the inferior laptops and tablets, issued by the district, are not efficient enough to operate properly, leading my students to walk away in absence of updated technology.

Additionally, continuous technology concerns arise from the MDCPS platform and district-issued technology, that almost one year later have yet to be addressed or properly fixed by the district's IT department. Concerns include: Bad Wi-Fi/No Wi-Fi, Slow Connectivity, Glitches, Platform Crashes, Cameras Not Working, and Stuttering/Freezing daily. Many of this easy to fix concerns frustrate students leading to stress, frustration, anxiety, and other emotional behaviors- especially younger students who do not have technology literacy, or the adequate knowledge to fix the problems. Parents who are not technological savvy struggle alike to find solutions for their child(ren). The MDCPS district does not have a support number or chat box option on their portal for IT help, only an email which can take days to a couple weeks for a response depending on the number of requests.

Teachers who participated in this study agreed synchronously that the ability to collect assignments and tests electronically has saved them money instead of buying paper, printer ink, pens, pencils, and other office related materials. Options to make electronica tests using Quizlet and Testmoz have allowed electronic grading, which is approved by teacher versus manually grading and transporting bundles of papers. Added, work now can be accessed and completed anywhere, anytime allowing for simplicity and ability to participate even if a child is at home sick or on vacation.

In January 2021, almost one year since the start of the Human Coronavirus-19 or COVID-19, Broward County School System implemented the *Ask Bria* program, or Broward

Remote Instructional Assistant, a one-on-one tutoring model to reengage about 8,000 students who are failing or disengaged from school. This free online tutoring program that gives students individualized attention from Kindergarten up to high school in English, mathematics, writing and every other subject a student needs to succeed. At the time of this writing, Miami Dade County Public Schools, the fourth largest school system in the nation, has not implemented any 'online tutoring' or resources for disadvantage students. *The researcher reached out to MDCPS Labor Relations for comment and has not received feedback at time of writing*.

A support system to the educational system is Substitute Teachers - a division of certified individuals who fill in the gap when teachers are not able to work due to meetings, doctors' appointments and the alike. Many schools did not want substitute teachers as they 'rotate' to multiple schools which may help in the spread the COVID-19. Substitutes can provide a notable boast to virtual education by providing tutoring services and help during and after school hours. Broward County Schools provided a taste of this service which can be implemented and carried over to allow a permanent rotation or placement of full-time virtual school or block scheduling (half virtual, half face-to-face). However, Broward Schools Superintendent Robert Runcie, has preached for an 'All hands-on deck' attack to return both students and teachers to brick and mortar schools. Many parents refuse to send their children back not knowing what other families practices and activities include when not during school hours, including many virtual educators who are being denounced for visiting Disney World, Biden rallies and visits to the Zoo while maintaining social distancing and *still* fully getting their work responsibilities completed. (Vela, 2021) This included both photo and video footage extracted from their Broward Schools own educator's social media accounts and displayed in the court ruling.

Uniformity. Subsequently, participants interviewed all agreed the district should have developed a unified platform at the start of summer 2020 instead of waiting to see what was to become of the Pandemic. Initially, MDCPS used K12, a platform that is set up for homeschool based education, which was a disaster within itself. K12 had all materials, lesson plans and grading already preprogramed in which took the 'teaching' ability away from teachers forcing them into facilitators-type roles. There was not teaching, only navigational help, mentioned two-thirds of interviewed teacher participants.

Since the lack of a proper platform created unnecessary chaos for the district, teachers, students, and parents, MDCPS allowed schools and teachers to choose their own methods of teaching in conjunction with the MDCPS portal. Lack of training on how to use specific platforms, including district provided resources via an on-line directory has yet to be implemented. Teachers and their departments use a mixture of platforms and website such as: Microsoft Teams, MDCPS Portal, Google Documents, Remind, Class Dojo, Edmundo, and YouTube for resources and educational materials as MDCPS has not utilized a uniform platform or online resource directory for teachers and staff. Multiple platforms for assignments, quizzes/tests, projects, group collaborations, contacting the teacher, and video conferencing creates unnecessary turmoil, especially for younger students who need help logging into sites and navigation as reported by 100% of participants interviewed in this study.

As a one-size-fits-all method was broken down to localized dependence of the schools themselves, lack of user-friendly options still prevails. All participants of elementary aged child(ren) agreed that age specific platforms should be implemented for younger students. Participant 5, a parent of two gifted students and a former gifted teacher suggested students in

Kindergarten and first grade need picture-based platforms that are user friendly, not word-based sites that upper divisions student scan easily navigate. “Equivalent to educational game ABC Mouse, a graphic website is more promenade than words to younger students who lack the basic computer literacy skills such as typing and using a cursor (mouse) to navigate a website”, they replied. Another participant also mentioned the ability for TouchID, like Apple’s iPhone fingerprint scanner or a voice recognition device that easily logs-in a younger child versus a parent or another adult needing to continuously log into multiple sites. However, when asked, all participants agreed that virtual education is not meant for elementary aged children, especially younger children aged six to eight years of age due to lack of computer literacy, self-independence, and reliability of an adult for navigating and operating a computer and/or tablet.

Age-Appropriate Programming. Miami Dade County Public Schools originally was to use a platform named K12 as mentioned in *Technology* in the previous section. Giving teachers less than one week of breakout group training – a non-conducive training method of large groups of between thirty to sixty individuals at once, training was non-complete leaving teachers to forcefully understand and learn a new platform within days before the start of the academic school year. Overall, K12 was a false positive as it forced teachers into a facilitator role instead of a teaching role as the platform was designed for a homeschool child with no to little interaction with the teacher. Miami Dade County Public Schools withdrew from the contractual deal of $15.3 million with K12 after a thirteen-hour, marathon school board meeting and 400 speakers over the controversial online learning platform. (Hill 2020)

Students in higher grades, were provided platforms such as Microsoft TEAMS and Zoom as educational alternatives in the lack of a unified and operating platform. Students and parents

were given the option to remain virtual or return to brick-and-mortar instruction. Many students, nearly 1/3 of the student high school population, opted to return to school versus remaining home in a fully virtual setting. It is interesting that many decided to return to face-to-face due caused by lack of motivation, personal teacher-student help and at-home distractions plaguing their educational studies. Furthermore, there is no difference in academic instruction of face-to-face versus virtual learning as teachers would teach to both sides concurrently.

Initial results show older students better understand technology, have a higher level of self-control and maturity level making them to be self-reliant, compared to their younger cohorts in primary school (K-5) which makes up approximately 150,366 high school students – over one-third of the school district population.

Because younger students are not as cohered with technology as their older colleagues, these students relay on the dependence of adults to navigate and maintain their academic performance. Adults are needed to log-in the student to not one but multiple platforms and websites, assist with scanning/photographing assignment, quizzes, and test to upload in software's, fix connection problems, glitches, and site crashes, including typing out papers, motivate the child(ren) through repetition questions, and act as counselors through meltdowns, anxiety attacks, referees of siblings and create beneficial stimuli for nutrition and exercise.

Socioeconomic Disadvantage. Throughout virtual learning since the pandemic began, parents were never provided training on platforms including tech issues and shortcoming of technological knowledge. Socioeconomic status is a free/reduced price lunch. To qualify families must fall under criteria from Federal Income Eligibility Guidelines based on mean salary classifier in Miami-Dade County Public Schools as 72.9% of elementary students are on

free/reduced price lunch. To qualify, families must meet criteria from Federal Income Eligibility Guidelines (MDCPS, 2019) based on household size and income. A household of four would make under $48,470 annually equal to $4,040 a month or $933 per week. Miami-Dade County Public Schools as a district average of 67.8% of students on free/reduced lunch. Because more than half of the households, in 4th largest school system in the country meets criteria for improvised or poverty level income with an average household income of $43,495 annually. (Public Schools K12. 2011) Many families do not have nor can afford adequate technology including the proper broadband speed to maintain internet functionality for student success. Even with free or reduced services partnered between MDCPS and internet providers, multiple members of the household using the internet across various devices leads to system crashes and connectivity disruptions.

Adding to technological concerns, many adults and child(ren) in these households are not technological savvy and unable to fix such issues, as agreed upon by all participants interviewed. Socioeconomic status plays a significant figure in this discovery. Training was not provided for parents to understand or fix basic computer issue such as website crashes, glitches, and failure to upload assignments required by the student's teacher. Disadvantaged students are either failing or have given up entirely as their disadvantaged compared to middle- and higher-income students.

Academic Needs (Gifted). Even after many tried and failed attempts, teachers initially stood up and took it upon themselves to fix the technological issues by choosing their own established platforms. They continued to supersede their district through improvising and

working around the constant problems. As students learn differently, many students struggle with the basic needs and understanding, yet have had to deal with the lack of help from the district.

Parents of students who would normally receive service in face-to-face module style of teaching are not receiving the same or any services while their child(ren) attend virtual education. Students who used to have paraprofessionals, speech therapy, physical therapy, behavioral therapy have been ousted in the face of virtual diversity. Subsequently, teachers who teach both in-person and virtual classrooms must wear masks as required by the Florida Department of Education and Center for Disease Control and Prevention. Mask wearing prevent the spread the invasive and highly infectious COVID virus, however it creates problems for students who are deaf/hard of hearing, have an auditory processing disability and/or need to read lips. Auditory conflicts included muffled voices, loss of tone/change of pitch, and vocal distortion via microphones and speakers on both the teachers and students' side of the screen. For younger students learning how to pronounce syllables and words, this adds to speech concerns that would be diagnosed later in life.

Gifted teachers can switch lesson plans from face-to-face methods of teaching and utilize creative alternatives for their students. Some methods of instruction from participants of this study who are gifted teachers and/or parents of gifted students described projects outside of posterboard and PowerPoint modules including videos, short movies, and instructional videos. Teachers and parents also noticed students are more vocal online compared to classrooms in participation and actively seeking help when needed. Nevertheless, virtual settings do not provide hands-on learning which pulls students into more group projects and sharing for information i.e. Google Documents.

Depending on the child, some students are performing at the bare minimum as their specific learning style, maturity level or technological savviness is adding a concoction of stress, anxiety and inability to proper function and participate in a virtual setting. Based on participant answers, there is less variety of materials to utilize and learn causing teachers to be repetitive thus losing student's interest. Opposite, study participants noticed some student populations are high achievers since going fully virtual in March 2020 due to more structure, time managements and organization processes noted in the IEPs as strengths and building these real-world skill sets to use post diplomacy.

Support/Tutoring. Historically, Miami Dade County Public Schools, provides homework help via a telephone prior to the pandemic which support students from all backgrounds and demographics. Since COVID till today, there I no support system established, and students relay on asking teachers via email and Remind.

Remind is a private messaging system comparable to instant messaging for teachers, parents, students, and administrators of K-12 schools. (McDonnell) The messages are sent in real time to individual students, small groups, or entire class(es) along with schedule, photos and videos in over ninety languages for instant gratification through live responses to virtual students. Nevertheless, support for afterhours questions, technology issues and malfunctions along with tutoring has yet to make an appearance or placement in the fourth largest school district in the nation. Broward County Schools recently implemented *Ask Bria in January 2020* targeting help towards students between 3:30pm and 8pm Monday-Friday, a support platform way ahead of MDCPS.

Participants noted teachers provide further assistance and support to face-to-face students compared to virtual students. The lack of an option to speak with teacher's one-on-one in video conference 'office hours' are not available, versus face-to-face students who can actively walk up to a teacher in person for help. Additionally, participants mentioned after a Zoom conference, the system closes and does not allow for further instruction of support to students based on school hours and scheduling conflicts. This holds the district accountable for lack of resources and support for virtual students when compared to their counterparts in face-to-face instruction. It is noted by study participants students can and have been sharing information and resources via google Documents and Microsoft Teams.

Socialization/Extracurriculars. Prior to the pandemic, schools offered extracurricular activities such as clubs, sports, field trips, and school community fairs and events. Extracurriculars were based on student academic progress and allowed safe and nurturing social groups to take place on campus of classmates sharing the same interests. "These clubs and sports team enrich students' advancements toward Ivy League Universities, maintained a safe haven for at-risk populations inducing providing social and emotional support to students outside their academic classes and households" mentioned Participant 5.

Some schools continue to offer after-school based clubs and extracurriculars, however many have not made this all-inclusive to virtual students, excluding them from attending via video conferencing software's such as Zoom and WhatsApp. Virtual students are forgotten in this area leaving various student populations vulnerable with no outlet for creativity and companionships outside their immediate households.

It is noted by more than half of participants mentioning specialty classes such as Art, Music, Physical Education even school organized assembles exclude virtual students as substitutes or live video streaming is not possible. Participants also noted that outside instruction can be utilized into lesson plans yet has been omitted to seclusion both face-to-face and virtual modules. Substitute teachers are the 'fillers' in a classroom when a teacher becomes ill. An unspoken question on everyone's minds, *"Who is going to be comfortable stepping in not knowing if the regular teachers' absence was due to COVID-19?",* states Amanda von Moos, co-founder and managing director on Substantial Classrooms, a national nonprofit focused improving and the enrichment of substitute teaching. Before the pandemic, districts across the nation already had a substitute shortage, where administrators, paraprofessionals, and counselors had to fill in at times. In many districts, substitutes are paid a daily rate and do not receive benefits such as health insurance. The national daily rate for substitute is $100 a day. (Labor Statistics) Miami Dade County Public Schools pays $75 a day to Associate Degrees Substitutes and $100 a day to Substitutes with bachelor's degrees. *"Add in cost of travel and health costs, many long-term and knowledgeable substitutes do not see the job being worth it",* says a study participant who is a Substitute Teacher.

Teacher participants agreed that lack of discipline affects more then 2/3 of their students along with household distractions (younger siblings crying, parents on the phone, family members walking around, etc.) adding to unmotivated students and/or stressed students who eventually give up by shutting off the camera and logging out in the middle of video meetings.

Parent participants of this study mentioned distractions based on other student's audio during video conferences and listening to their households, along with the inability to help their

child(ren) with socialization, activity and proper structure as they also worked at home. This allows contrasting scheduling conflicts adding to higher stress and anxiety levels of both students and household members.

Daily Schedule/Hours. Historically, school hours are 8:10am-2:00pm (Kindergarten); 8:10am-3:05pm (1-5); 8:50am-3:55pm (6^{th}-8^{th}) and 7:15am-2:20pm (9^{th}-12^{th}) for scheduling of crossing guard and bus drivers who overlap school times in their daily shift. As with the shift to virtual learning, Miami Dade County Public Schools continues to mirror the school day of face-to-face with virtual learning, having both virtual and in-person students follow the same schedule and attendance for each class. (MDCPS 2020)

"What is surprising is the district expects students at home to sit and wait all day in front of a screen for and during instruction continuously up to eight hours", reported by study Participant 3. "Teachers don't use breakout rooms when doing spelling or vocabulary quizzes. This forces up to eighteen first graders to sit and wait quietly, in-front of a screen as the teacher goes from student to student. Not only does everyone hear and sees everything happening at once with no privacy, but it also doesn't allow the students to have a break, stretch, get something to eat or drink, even mingle until there turn is called-no matter if they are virtual or in-person as class rules have to apply to EVERYONE", says Participant 5.

Compared to virtual homeschooling, experts recommend less hours of online instruction based on student's grade level along with one hour of outside activity i.e., recess.

Consequential, districts and teachers cannot balance a correct time frame for teaching in-person (face-to-face) and virtual as many teachers are teaching both synchronously. "I worried

about my children's physical and mental health sitting in front of a computer screen for six to eight hours a day", a study participant parent mentions, "The amount of eye strain, headaches, light sensitivity when the go outside and vision issues is adding to their negative emotional and behavioral development. As adults we struggle working eight-hour days online so why should we expect the same for elementary aged students?" Per Miami Dade County Public Schools:

> "Through videoconferencing, teachers will be able to interface with their entire class, a small group of students, or individual students. During lessons, teachers can respond to students' questions and provide real-time support and progress monitoring. Additionally, teachers will be able to host parent and student conferences during planning periods, before and after school as appropriate. Students will participate in videoconferencing with their teacher, collaborate with peers, complete independent work, and take part in specials or electives, lunch, recess, and brain breaks." According to both our teacher and parent participants in this study, the forementioned dialogue is not true and exaggerates the actual success rate and ability of student- teacher communication and collaboration with student peers."

An interesting fact is both sides of participants agree on easing into their days with little to no traffic congestion in the morning. Additionally, noted observations of parent participants; are extra hours of sleep from not waking up early and rushing child(ren) off to school. This has allowed proper nutrition and exercise regimes to become established and maintained since the start of the pandemic.

New Literature

As mentioned in Chapter two's Literature Review -Education Exclusion, schools and the district are required by Federal law to provide services unique to the student's based on their IEP.

Many students who require special accommodations have yet to receive some if not all their federally required modifiers, especially those who remain in a virtual setting. During the interviews, the topic of responsibility came up and was it the school of district. Therefore, districts responsibility for adequate services became a sub-theme of accountability.

Secondly, many participants brought up students were able to take the initiative to become independent and self—advocating. Some students were far more successful in virtual environments when compared to their performance in the face-to-face setting. Consequently, extrovert/introvert became a sub-theme of cognitive personalities.

Environmental factors to social changes can equally have a positive or negative outcome to students, who already who different way of thinking and processing everyday objectives. It takes time to adjust to new surroundings, ways of operating and new methods of instruction. However, to self-impose pressure on teachers, students, and parents to adjust during asinine conditions is inhumane without understanding fundamentals.

Teachers for have the gifted credential understand the importance for normalization and structure for their gifted students. To disrupt this leads to a rapid acceleration of pressures from anxiety, depression including socio and emotional withdrawal. Academic modifications including mental health services needed transitioning, for gifted students to be reassured of their success. Teachers who understood the disruption and allowed creative processes to accumulate

for assignments superseded traditional methods of education proving virtual learning is possible when the correct conditions are programmed and obtainable.

While exhibiting a degree of self-advocation, some students are better suited for virtual learning then their counterparts. Age, cognitive development, and maturity level are contributing factors to a student's success, without overwhelming the student. If students are having a better experience in virtual coursework, they should be encouraged to remain virtual without being pressured or forced to return face-to-face.

Removal of social instances and extracurriculars is one thing, but to exclude a demographic who is not actively, physically on school grounds is a form of exclusion and bullying by the school. Students need socialization, which contributed to a healthy development, cope with emotion and social norms. Student use socializing to fit in or feel wanted. It is also used as a method of escape from their reality at home and a sense of safety. Extracurriculars provide social skills and inclusion which helps children learning about themselves and their peers by build strong friendships. These are creative alternative students would not otherwise have at home. Virtual students have been excluded from participation as virtual meetings are not optional. The school(s) and district are failing their students by reducing social interaction, a stimulus for children, to build their social norms, creative thinking, and enrichment.

Anecdotal Discoveries. Children can understand and operate electronic tablets and smartphones from an early age of fourteen months. This is a 'monkey see, monkey do' phenomenon as the infant watches their elders use the devices in a serious of repeatable thumb and finger movements correlating with screen synchronization. To understand technology, one must be able to think and learned in advance ways through forms of co-evolution in a 'designers'

or inventors world. Through metacognitive, if a child is unable to think for themselves or their actions of those around them, they child will be at a disadvantage to strategies of learning, problem solving and higher thinking.

To fully understand technologically, one must be willing and able to utilize technology to their advantage. Education infrastructures have recently been implementing modern technology over the last thirty years – compared to prehistoric versions; chalkboard, dry erase boards, projectors, etc., yet the ability to fully integrate using technology as informative curriculum via manipulation then development. With enough consensus behind pedagogical value of active engagement- both problem solving and design, the ability to master cognitive and metacognitive skills is rapidly decreasing with the advancement of the Technological Revolution.

Technological Education has the potential to fully grasp both the minds and capabilities of children. The impressive infinia of options expands far greater into both our individual and social lives of world around us. Examples of potential areas include are:

- Collaborative – working with students in distance and trans-Atlantic locations for collaborative design and processing.
- Constructionist Playground- processing tools of yesteryear and newly developed systems (3D printers, robotics, assembly lines) allow for pedagogical challenges to integrate the tools for creative thinking, learning and invention.
- Interactive Curriculum- local and national theater groups perform curriculum-based lesson plans at age-appropriate level for added learning abilities; visual, auditory, and kinesthetic.

- Real-world problems – using design software and technology students can formulate new innovations and problem solve real-life issues for corporations and organizations. Projects based technology can earn student's ability to fellowships, internships, apprentice positions with the company including scholarships, grants and donations towards higher education, non-profits, and community building.
- Virtual Education -continue to offer fully virtual public schooling utilizing updated software programs with a collaborative method using organizational communication with a corporate entity and/or sponsor.
- Alternate Forms of Non-Traditional Education –Technology supported teaching allows freeform education structures through pedagogical models to explore and challenge.
- Non-Profit Collaboration – Enterprises such as Amazon and Facebook, leaders in website hosting and innovation can design, program, and maintain adequate educational platforms. In part of their connection to the educational sector, this companies will receive significant tax deductions and/or financial grants. Additionally, State Department of Education and school districts can utilize customization for specific subject areas, directory of resources, support functions (i.e., chat box, video tutoring.) including filters for age and ESE students' abilities.
- On-Site Learning – Similar to magnet-style programs, students physically attend educational learning through on-site locations using all learning styles and senses to comprehend educational knowledge versus strictly classroom settings. This module allows days per week on location; two days virtual (home, library, etc.), and one day per week determined by academia and needs of student.

Education is much more than a teacher standing in front of a classroom. Studies have proven children learn differently, at different levels with a variety of contracting learning styles and methods. School systems need to take initiative and use the pandemic as their glass door to better fulfill the future now instead of later.

Additionally noted, the researcher found more students graduate in 2019-2020 (COVID year) then previously in the academic school years leading up to the 2020 worldwide pandemic. Study participants 1, 2, and 4 mentioned students were given one simple assignment per week during virtual transition and/or to just 'login' to the school's portal each day for credit. Higher promotion and graduation rates are presumed based on the dismissal of standardized testing, accommodating lessons for technologically inclined families and failure of district wide 'backup plan' to be utilized on the districts portal.

To that extent, children and young adults should be able to grow their skills and abilities by systems to hone their development through a variety of sources and avenues outside the traditional and prehistoric footprint. Professional development in new forms of teaching; virtually (exclusive), remote, hybrid learning or a mix of such can add more light and beneficial resources than four walls and a promethean board. If high schools can adapt to magnet programs allowing young adults to travel and 'work' out organizations outside of school's grounds, then primary and middle school students should not have to wait till there teen years before learning outside the concrete classroom.

If there was a time to travel beyond a cold, germ infested daycare where you learn how to test over solving real world problems, it is now. Incorporating basic skills into everyday life not only enriches students, but it also provides means of emotional, psychological, and social

advantages to use in their adult lives. We can no longer remain in a mundane 'assembly line' created for parents to work and children to obey subordinates. Why keep traditional models of education traditional, yet embed in students minds the advancement technology without providing a window to look out of? School systems were given the ability to transition to other ways of educational teaching methods during the pandemic, yet most have refused to step-up and keep moving forward and remain stuck in old, outdated methods. Educators must innovate their profession in forms of multiple aptitudes that have a significant, positive change before we lose sight on the real reason for teaching – the young minds of tomorrow.

Continuance of Study

There continues to be extensive research that can be studied in virtual education, non-traditional education, and gifted education. I foresee virtual education continuing in public schools, proving option to physical attend and remain distant among hybrid options per academic programs.

As discussed in the literature review, students' cognitive abilities are determined by hierarchical and environmental stimuli. While a child's intelligence cannot be changed, their learning environments can be modified. The pandemic has provided real-time case analysis for future studies, some which I plan to continue onwards in my graduate studies at University of Central Florida. I would like to personally interview students, a protective class by The Code of Federal Regulations, to understand the thoughts, feelings, and opinions during their virtual education experience. This would be a continuance to this study, subjective to the primary population that was affected by the 2020 pandemic. I would be able to understand the cognitive

development, social norms and paramount adaptations that can enhance the virtual learning experience outside a traditional classroom. Only if districts and educators had a clear understanding that a 'one-size-fits-all' method is malicious to students and results in further development delays and repercussions, gifted students would benefit from innovative and modern methods of education that is not permeated by false ideas.

Closure

Virtual education is a captivating innovation to traditional education methods. The options are limitless and the no binding to physical location of the classroom. The gifted students themselves are creative, unique, and emotional beings who foster academics differently, and by understanding and meeting their needs and abilities, educators can harness and excel their full potential.

Finally, the education system is a broken and outdated infrastructure. To surpass the rapid changes in technology, educators, districts, state, and national departments *must* be willing to see potential and make the changes. Ty Howard once said, "To fear change is to fear being challenged". Right now, the education system is fearing change caused by innovations, budgets, and overall rewriting on their manifest. To have students and teachers, use technology only for written reports, slideshows, and textbooks, is a far cry for help and only continues to impair student's potential for success.

I see the educational system preserving and making great additions to development of student abilities and programs that are needed in the real-world, only if they pull-out of their closed minds and induct of brainwashing to systems that are older than my grandmother's

wedding dress. As educators, we want to see our students reach their full potential and excel both personally and academically. We want them to understand how to think for themselves, respond to emotional stimuli, problem-solve, and develop healthy social norms. The pandemic was an eye-opener that change needs to be made and needs to be made now. We owe it to ourselves, our communities, and the future of this country to provide the opportunities to those who may be the next Abraham Lincoln, Albert Einstein, Theodore (Teddy) Roosevelt, Nikola Tesla, Walt Disney, Mother Theresa, Steve Jobs, Gandhi, or Jeff Bezos. If we are prepared as educators to give everything we have to offer, the future generation will be prepared to reach their full potential.

Limitations of this Study

This study will be limited in scope. The researcher acknowledges many different virtual education institutions and programs, including student learning styles, abilities, socioeconomic disadvantages, IEPs, and demographics. This changes the insight over numerous areas, so this study focuses on specific academic needs for intellectually gifted students. Although most students attend traditional brick and mortar schools, the 2020 pandemic has caused learning curves to students' education as not all areas of curriculum-based academic needs meet.

In addition, this study is reduced from the original planned study. This is due to prolonged approval from IRB, resulting in significant hinderance to access all relevant data. This study will expand and continue over 4-6 years into graduate school to mark the continuance of virtual education and student welfare in both traditional and virtual educational settings since the start of the pandemic -COVID19.

Secondly, this study requires participants in the interview portion of research (Phase 1), to provide audio and video recording for research purposes. Each participant must provide consent before the interview begins acknowledging they are being recorded and their image and any other self-identify information will be protected by the researcher for five (5) years. Due to this research study's nature and the audio and video recording of interview-based participants, this may lead to fearful accusations, workplace harassment, and/or job loss, which may lead to non-participation.

In addition, this study is limited in time based on the researcher's ability to interview participants and compete for the data due to prolonged IRB approval. Due to this research study's nature, research participants can justify the effectiveness of emergency transitions to virtual education over the last year, since the birth of the pandemic. Due to the limited time in transitioning, research participants acknowledge facts they have witnessed over the last twelve months, thus the generalization of this study's findings will be limited.

Additionally, due to time constraints, this study had a lack of participants in rural, high-risk schools, age diversity of participants. This significantly hindered a diverse population based on economic differences, at-risk youth, disabilities, English Language Learners, age and sex. Participants, teachers and parents, were from suburban areas that are 'middle-class' categorized. For future study progress, I would submit IRB forms upon entering graduate school to allow amble time to further extend my research to more rural and ethnic diverse populations including ability to interview students on their experience from traditional face-to-face education versus virtual education.

Benefits from this research will allow new-aged software to innovate virtual education at various levels, including new forms of non-traditional education based on cognitive level, mental/physical disabilities, and impairments, learning disabilities, high achiever/Gifted, socioeconomic status integration. However, this is a limitation as the results will not be available immediately in the education sector.

Note: For research purposes, ARDA or known as Assessments , Research, Data Analysis for Miami Dade County Public Schools was taken directly from the Miami Dade Schools website as reference from MDCPS Labor Relations http://oada.dadeschools.net/SchoolPerformanceData/SchoolPerformanceData.asp

APPENDEX

APPENDEX A:
IRB EXEMPTION DETERMINATION

UNIVERSITY OF CENTRAL FLORIDA

Institutional Review Board
FWA00000351
IRB00001138, IRB00012110
Office of Research
12201 Research Parkway
Orlando, FL 32826-3246

EXEMPTION DETERMINATION

January 22, 2021

Dear James McCafferty:

On 1/22/2021, the IRB determined the following submission to be human subjects research that is exempt from regulation:

Type of Review:	Initial Study, Initial Study
Title:	Conflicts in Communication and Academic Needs for Virtual Education Gifted Students
Investigator:	James McCafferty
IRB ID:	STUDY00002500
Funding:	None
Grant ID:	None
Documents Reviewed:	• HRP-251- FORM - Faculty Advisor Scientific-Scholarly Review fillable form.pdf, Category: Faculty Research Approval; • Finley Elligibility Survey.docx, Category: Survey / Questionnaire; • Finley Interview Questions.docx, Category: Survey / Questionnaire; • Finley Recruitment Message.docx, Category: Recruitment Materials; • HRP-254 - Explanation of Research Finley.v2.pdf, Category: Consent Form; • Request for Exemption, Category: IRB Protocol;

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about

whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.

 If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Gillian Bernal

Designated Reviewer

APPENDEX B:
CONSENT SCRIPT

First, I would like to remind you that this is being recorded so that I can make notes and draw on or quote information that helps me understand this issue.

These recordings will be stored on an independent, encrypted disc drive and will not become part of any cloud storage. No identifying information will be recorded in my notes aside from a random number label for each interview. As per university policy, this drive will be held for 5 years after the conclusion of this research project and then destroyed.

While I deeply appreciate that you have agreed to answer my questions, I will remind you that you may decline to answer any question I pose, and I will simply move on to the next question. I will also restate or discuss any question you may have about the questions I ask you. Your participation is voluntary and there will be no compensation.

I am hopeful that this will help me learn more about conflicts in online learning, particularly as it affects gifted students.

Do I have your permission to continue?

Thanks again for helping me with this.

Or

I understand. If you change your mind and wish to participate, you can contact me at sarah.finley@knights.ucf.edu

APPENDEX C:
Questions about Participant Interview

1. Name As you know for research purposes-
2. Career –
3. Years of Experience –
4. Subject Area (s)-
5. Specialties/Certifications –

APPENDEX D:
Participant Interview

1. I *would like to ask you how your online learning platforms are programmed/delivered to gifted student populations.*

    - **How are they programed/delivered for gifted students?**
    - **What are the benefits of the way they are delivered?**
    - **What are the disadvantages of the way they are delivered?**
    - **In what ways are they tailored to gifted students who may have learning challenges?**
    - **In what ways do they foster self-advocacy skills?**
    - **In what ways do they foster teamwork and socializing**?
    - **How can students receive help when engaging in virtual learning**?

2. **What are some common struggles students have with virtual learning**? **What areas of virtual education need to be fixed within the public-school setting platforms**?

3. **What recommendations do you have that might positively change missing or unsuccessful platforms to accommodate gifted students?**

APPENDEX E:

Miami Dade Schools Student Membership 2019-2020

STUDENT MEMBERSHIP BY GRADE LEVEL, 2019-2020

Grade	White Non-Hispanic	Black Non-Hispanic	Hispanic	Other*	Total
PK **	411	2,880	6,287	194	9,772
Kdg	1,508	4,505	16,333	478	22,824
01	1,568	4,764	17,361	447	24,140
02	1,596	4,872	18,151	434	25,053
03	1,626	5,531	19,112	403	26,672
04	1,657	4,681	18,432	427	25,197
05	1,671	4,982	19,401	426	26,480
06	1,744	5,257	19,867	479	27,347
07	1,757	4,776	19,830	436	26,799
08	1,846	5,086	20,087	527	27,546
09	1,754	4,883	19,401	575	26,613
10	1,837	4,979	19,101	499	26,416
11	1,877	5,001	18,776	398	26,052
12	1,849	5,511	18,358	440	26,158
TOTAL	22,701	67,708	250,497	6,163	347,069
TOTAL MALE					177,341
TOTAL FEMALE					169,728

* Other includes American Indian, Alaskan Native, Asian, Pacific Islander, and Multiracial categories.
** 2019 FTE membership excludes PreK students enrolled as part of the Teenage Parent Program (TAP).

Source: Assessment, Research, and Data Analysis based on data in the Student Data Base System, October 2019.

APPENDEX F:

Miami Dade Schools- Exceptional Students Education Enrollment

EXCEPTIONAL STUDENT EDUCATION: NUMBER OF STUDENTS ENROLLED IN COURSES AND TOTAL NUMBER OF STUDENTS WITH AN ESE PRIMARY EXCEPTIONALITY, 2019-2020

Program	Students Enrolled in ESE Courses or Consultative Services	Students with an ESE Primary Exceptionality
Autism Spectrum Disorder	4,739	6,495
Deaf/Hard of Hearing	357	481
Developmentally Delayed	1,896	2,641
Dual Sensory Impaired	8	8
Emotional/Behavioral Disability	1,414	1,955
Established Conditions	61	62
Gifted	41,464	45,009
Hospital/Homebound	339	339
Intellectual Disabilities	2,364	2,440
Language Impaired	1,218	1,679
Orthopedically Impaired	127	220
Other Health Impaired	1,862	5,675
Specific Learning Disability	5,190	15,006
Speech Impaired	1,385	1,947
Traumatic Brain Injured	25	37
Visually Impaired	91	134
TOTAL	62,540	84,128

Source: Assessment, Research, and Data Analysis.

APPENDEX G:
US Government Reduced Lunch Income Scale

Federal Income Eligibility Guidelines

U.S. Government Reduced Price Lunch Eligibility Scale

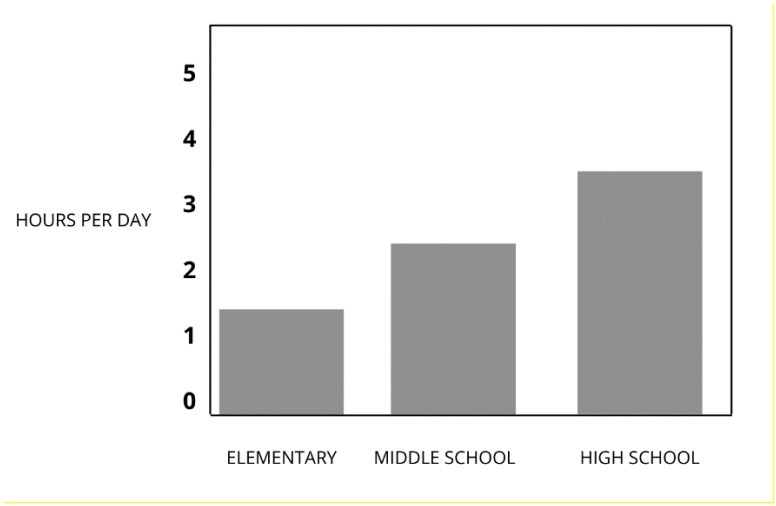
Household Size	Annual	Monthly	Twice per Month	Every Two Weeks	Weekly
1	23,606	1,968	984	908	454
2	31,894	2,658	1,329	1,227	614
3	40,182	3,349	1,675	1,546	773
4	48,470	4,040	2,020	1,865	933
5	56,758	4,730	2,365	2,183	1,092
6	65,046	5,421	2,711	2,502	1,251
7	73,334	6,112	3,056	2,821	1,411
8	81,622	6,802	3,401	3,140	1,570
For each additional family member add...					
	8,288	691	346	319	160

APPENDEX H:
Miami Dade Schools-Reduced Lunch Eligibility

FREE/REDUCED PRICE LUNCH 2019-2020

	Elementary	K-8	Middle	Combined Grades*	Senior	District Average
Eligible Students	72.9%	62.5%	72.4%	49.8%	65.7%	67.8%

* Includes schools with combined grades other than those listed.
Source: Assessment, Research, and Data Analysis.



(Hudson, 2020)

APPENDEX I:
Miami Dade Schools-Student Graduate 2014-2019

GRADUATES

	2018-19	2017-18	2016-17	2015-16	2014-15
High School*	23,303	23,792	21,867	21,427	20,744
Adult School**	161	370	306	407	392

*Excludes Certificates of Completion.
**The decrease in the number of adult school graduating students is due to a change in the data collection method. Comparison to prior years is not appropriate.

Source: High School: Student Data Base System, January 2020.
Adult School: Adult Ed. Data Systems, October 2019.

References

Bakeman, J. (2020). *Virtual Attendance In Low-Income, Immigrant Communities.* WLRN Miami-South Florida. https://www.wlrn.org/education/2020-04-22/miami-dade-schools-see-lower-virtual-attendance-in-low-income-immigrant-communities

Bureau of Standards and Instructional Support (2019). Division of Public Schools. Florida Department of Education. http://www.fldoe.org/core/fileparse.php/5660/urlt/RGEGSF.pdf

Carl, J. (2009). *Industrialization of Public Education: Social Cohesion and Social Stratification.* SpringerLink. https://link.springer.com/chapter/10.1007/978-1-4020-6403-6_32

Coronavirus Outbreak and Kids (2021, January 24). Harvard Medical School. Harvard Health Publishing. Retrieved from *https://www.health.harvard.edu/diseases-and conditions/coronavirus-outbreak-and-kids* https://link.springer.com/chapter/10.1007/978-1-4020-6403-6_32

Chun Tie, Y., Birks, M., & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. *SAGE open medicine*, *7*, 2050312118822927. https://doi.org/10.1177/2050312118822927

Early Learning Standards: Creating the Conditions for Success. National Association for the Education of Young Children, & National Association of Early Childhood Specialists in State Departments of Education. (2002).

Garcia, E. & Weiss, E. (2020). COVID-19 and student performance, equity, and U.S. education policy. Economic Policy Institute. https://www.epi.org/publication/the-consequences-of-the-covid-19-pandemic-for-education-performance-and-equity-in-the-united-states-what-can-we-learn-from-pre-pandemic-research-to-inform-relief-recovery-and-rebuilding/

Hill, P. (2020). *K12, Inc Forced After 270K Miami Students Suffer Disastrous First Two Weeks of Fall Term. Phil on EdTech. https://philonedtech.com/k12-inc-fired-after-270k-miami-students-suffer-disastrous-first-two-weeks-of-fall term/#:~:text=The%20%2415.3%20million%20agreement%20for,procurement%20proce sses%20for%20curricular%20materials.*

Horn, M. & Evans, M. (2013). *A Factory Model For Schools No Longer Works.* Milwaukee Wisconsin Journal Sentinel. Retrieved on October 6, 2020. https://archive.jsonline.com/news/opinion/a-factory-model-for-schools-no-longer-works-b9943187z1-213602131.html/

Hudson, H. (2020). *Kids (and Teachers) Don't Need to Spend 8 Hours a Day on School Work Right Now.* Retrieved January 29, 2020. https://www.weareteachers.com/virtual-learning schedule/#:~:text=Experts%20say%20kids%20should%20spend%20less%20time%20o %20work.&text=It%20features%20recommendations%20from%20the,school%20student s%203%2D4%20hours.

Huitt, W., & Hummel, J. (2003). Piaget's theory of cognitive development. *Educational Psychology Interactive*. Valdosta, GA: Valdosta State University. Retrieved February 21, 2021 from http://www.edpsycinteractive.org/topics/cognition/piaget.html

Kregel, E. (2015). *Addressing the Social, Emotional, and Academic Needs of Gifted High School Students.* (Publication No. toledo14387062190) [Doctoral Dissertation, University of Toledo] Ohio LINK, Electronic Thesis and Dissertation Center.

Lee, A. JD, (Unknown). The 13 Disability Categories Under IDEA. Understood For All, Inc.

https://www.understood.org/en/school-learning/special-services/special-education-basics/conditions-covered-under-idea

Kandel, I. (1933). Comparative education. New York: Houghton Mifflin.

Keengwe, J. (Ed.). (2019). *Handbook of Research on Virtual Training and Mentoring of Online Instructors*. IGI Global. http://doi:10.4018/978-1-5225-6322-8

Klein, T. P., Wirth, & D linas, k. (2003). Play: children's context for development. Young children, 58(3), 38-45.

McDonnel,E. (unknown). *What is Remind?.* Retrieved on February 1, 2020. https://help.remind.com/hc/en-us/articles/201342445-What-is-Remind-

Miami Dade County Public Schools. (2020). *ARDA -Assessments , Research Data Analysis*. Retrieved February 8, 2021. http://oada.dadeschools.net/SchoolPerformanceData/SchoolPerformanceData.asp

Miami-Dade County Public Schools. (2020). Department of Food and Nutrition. Retrieved February 9, 2021. http://api.dadeschools.net/WMSFiles/17/links/20-21 FreeReducedFlyer.pdf

Miami Dade County Public Schools. (2020). Free and Reduced Lunch Application Flyer 2020-2021. Retrieved February 9, 2021. http://api.dadeschools.net/WMSFiles/17/links/20-21-FreeReducedFlyer.pdf)

Miami Dade County Public Schools. (2020) Statistical Highlights 2019-2020. Dade County Schools. http://drs.dadeschools.net/StatisticalHighlights/SH1920.pdf

Miami Dade County Public Schools (2020). Frequently Asked Questions -*What Does a Typical Day Look Like in MSO?* Retrieved on February 8, 2021.

http://reopening.dadeschools.net/faqs.html

Miron, G., Shank, C., Davidson, C., (2018). *Full-Time Virtual and Blended Schools: Enrollment, Student Characteristics, and Performance*. National Education Policy Center. University of Colorado Boulder.

Moise, IK. (2020) Variation in Risk of COVID-19 Infection and Predictors of Social Determinants of Health in Miami Dade County, Florida. Prev Chronic Dis 2020;17:200358. DOI: http://dx.doi.org/10.5888/pcd17.200358

Morin, A. (u.n.k.). Common Accommodations and Modifiers in School. Understood.org. Retrieved March 8, 2021 https://www.understood.org/en/learning-thinking-differences/treatments-approaches/educational-strategies/common-classroom-accommodations-and-modifications

NAGC; National Association of Gifted Children. https://www.nagc.org/resources publications/resourcesparents/twice-exceptional-students. Retrieved December 17, 2020)

National Center for Education Statistics. (2000a). *The condition of education 2000.* Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education.

Piaget, J. (1957). *Construction of reality in the child*. London: Routledge & Kegan Paul.

Piaget, J., & Cook, M.T. (1952). *The origins of intelligence in children*. New York, NY: International University Press.

Prometheanworld.(unknown). *The State of Technology and Education 2020-2021.* Retrieved February 3, 2021. https://resourced.prometheanworld.com/technology-education industry-report/

Public Schools K12. (2011) *Miami-Dade County Public School Statistics / Demographics*. Retrieved December 22, 2020. http://publicschoolsk12.com/all-schools/fl/miami-dade-county.

Rauh, J (2011). The Utility of Online Choice Options: Do Purely Online Schools Increase the Value to Students. *Education Policy Analysis Archives*. Arizona State University

Riché, Pierre (1978): "Education and Culture in the Barbarian West: From the Sixth through the Eighth Century", Columbia: University of South Carolina Press, ISBN 0-87249-376-8, pp. 126–7, 282–98

Rogoff, B., & Chavajay, P. (1995). What's become of research on the cultural basis of cognitive development? Educational Psychologist, 50(10), 859–877.

Rose, J. (2012). *How to Break Free of Our 19-th Century Factory Model Education System.* The Atlantic. Retrieved on October 3, 2020. https://www.theatlantic.com/business/archive/2012/05/how-to-break-free-of-our-19th-century-factory-model-education-system/256881/

Schwab, K. (2018, May 25). *The Fourth Industrial Revolution*. *Encyclopedia Britannica*. https://www.britannica.com/topic/The-Fourth-Industrial-Revolution-2119734

Strauss, V (2020). Virtual education was 'a disaster' for her son with Down syndrome. Here's what students with disabilities really need. *The Washington Post.* https://www.washingtonpost.com/education/2020/07/15/virtual-education-was-disaster-my-son-with-down-syndrome-heres-what-students-with-disabilities-really-need/

UNESCO. (n.d.). *Adverse consequences of school closures.* https://en.unesco.org/covid19/educationresponse/consequences

U.S. Bureau of Labor Statistics. (2019). *Occupational Employment and Wages, May 2018-25-*

3098 Substitute Teachers. Retrieved on December 4, 2021. https://www.bls.gov/oes/2018/may/oes253098.htm#nat

U.S. Department of Education. (2020.). *Protecting Students With Disabilities.* Retrieved January 6, 2021. https://www2.ed.gov/about/offices/list/ocr/504faq.html

IDEA. (n.d.). Individuals with Disabilities Education Act. Retrieved on September 23, 2020. https://sites.ed.gov/idea/about-idea/

Valenduc, Gerard (2018). *Technological Revolutions and Societal Transitions.* SSRN Electronic Journal. 10.2139/ssrn.3180000.

Vela, Hatzel (2021, January 26). Broward Schools Win Ruling vs. Teachers as Controversy Brews Over Social Media 'Spying'. Graham Media Group Company -Local 10 News, Miami/Ft. Lauderdale. https://www.local10.com/news/local/2021/01/26/broward-schools-win-ruling-vs-teachers-as-controversy-brews-over-social-media-spying/

Willams, P., Jones, A., Buntting, C.(2015). *The Future of Technology Education*. Springer Sciences+Business Media

Wormald, C. (2009). *Intellectually Gifted Students Often Have Learning Disabilities.* The Conversation. Retrieved on September 17, 2020. https://theconversation.com/intellectually-gifted-students-often-have-learning-disabilities37276#:~:text=While%20generally%20referred%20to%20as,and%20physical%20and%20emotional%20disorders

Xing, B and Marwala, T. (n.d.). *Implications of the Fourth Industrial Age of Higher Education.* https://arxiv.org/ftp/arxiv/papers/1703/1703.09643.pdf.