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ELEMENTARY EDUCATION AND COVID-19: AN ANALYSIS OF WHAT IT  
MEANS TO SUCCEED IN A PANDEMIC

A thesis submitted in partial fulfillment  
of the requirements for the degree of

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to the faculty of the

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at

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by

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## ABSTRACT

### ELEMENTARY EDUCATION AND COVID-19: AN ANALYSIS OF WHAT IT MEANS TO SUCCEED IN A PANDEMIC

Ashley Kuehn

The Covid-19 pandemic has upended educational systems, but elementary students can and will succeed during remote learning if students are given the proper resources, if teachers create and follow individual goals for each student, and if school districts provide the proper training and protective equipment for their teachers and students. This includes elementary students in special education if the schools follow each child's specific Individualized Education Program's (IEP's) annual goals, if students are provided extra online resources, are sent physical sensory boards, and therapies are continued in a virtual setting. The question that is then presented is what does it mean to succeed? Test scores cannot be counted or measured because states cancelled all state tests in 2020, however, success can be shown through teacher, administration, student and family surveys alongside attendance statistics, percentages of students turning in assignments, or engagement surveys. I will be looking at public, private, and charter networks to see how these schools differ depending upon if they are in middle or upper income areas or if they are in a lower income area and how that effects both what success looks like and if students are given the necessary technology and resources to even attend school in a remote setting.

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## Introduction

Elementary students can and will succeed during remote learning if the right conditions are met and if students are given the proper resources. This includes elementary school students in special education if the schools follow each child's specific Individualized Education Program's (IEP's) annual goals. The Covid-19 pandemic has upended educational systems, which has led to schools not being prepared to run fully synchronous classrooms. Due to this struggle, many schools failed to provide services to children with and without disabilities. Parents have begun suing school districts for not following the IEPs. Vanessa Ince of Hawaii, for example, has a daughter with a "chromosomal abnormality and autism" (Kamenetz) and Ince says how her daughter has "regressed so severely" (Kamenetz) that she had decided to file a lawsuit against the Hawaii Department of Education to pay for the services her daughter needs because she claims that the school did not follow her daughter's IEP once the schools went remote. She is not the only parent concerned because many students come from low-income families that do not have access to wi-fi or technology that will allow them to attend remote classes.

However, some school districts are combating these issues by providing technology resources to students. Success Academy Charter Network, a charter network in New York City that serves mainly children in low-income areas, held a steady 97 percent attendance rate in the spring of 2020 because they "acquired and distributed more than 10,000 Chromebook tablets to students in kindergarten through third grade" (Pondiscio). Students already in fourth through twelfth grade had been given Chromebooks at the beginning of the year and were more prepared to start remotely.

Alongside the charter network, the New York City Department of Education partnered with Apple and T-Mobile to provide iPads to low-income families, Los Angeles partnered with Verizon to give 600,000 students a tablet with internet access, and Atlanta partnered with T-Mobile to provide 9,000 mobile hotspots to families in need (*U.S. News*). As good as these numbers may sound, since many children will be able to attend virtual learning, companies are still profiting off of low income students and families. Eric Yuan, the founder and CEO of Zoom, has profited about twelve billion dollars since March of 2020 and has become one of the top 400 wealthiest people in America (Rogers) and Google has increased profits by thirteen percent (Lerman). Rather than wanting to help children succeed, these larger companies, specifically tech companies, such as Zoom, Apple, Microsoft, and Google, are making money off of virtual learning. However, this is a double edged sword because without Zoom conferencing and Google Meets, many students would not have been able to attend or do virtual school and many teachers would not be able to use online resources, teach live classes, or have personal development and meetings with their administration and faculty peers. These tech companies make it look as if they are partnering with schools and helping out, but they are still making profits off of selling devices and services – even if they are at a discounted price.

This need for resources also extends past just the students. In order for the students to be successful, teachers and administrators must also have the proper resources in order to be able to teach remotely. *Education Week* interviewed Karen Ruark, a third grade teacher in Maryland, in April of 2020 about how she teaches remotely and she was a teacher without access to wi-fi at home. She told the interviewer that “her internet

access is weak and unreliable, so she works in the parking lot of her school in Dorchester County to use the wi-fi there. While Ruark posts messages to her students and downloads class materials, her daughters, who are both in high school, sit in the back seat and work on their assignments. Some days, they spend close to two hours in the car.” How can students be successful in remote learning if teachers do not even have access to the internet or technological resources? On one level then, success is based on who has access, but access also means productivity. Then that productivity is measured – are students and teachers logging on; are students completing assignments; are students able to take assessments and are teachers able to administer assessments? It leads to the problems that there may be access, but how good is it? Is the wi-fi not always working or have a strong connection, how old are the devices, can students type assessments or write them? Even with access, success is hard to measure with the inequalities found in teaching, learning, and giving assessments in this way.

The questions that are then presented are: what does it mean to succeed in remote learning during a pandemic where students have less access to technological resources and constant support from teachers; can there even be student success and how is that success measured; are there any successes for teachers and what does that look like? Test scores cannot be counted or measured because states cancelled all state tests during 2020 and even though, state tests will resume in 2021 in either a virtual or in person context, scores will not look the same as they have in the past years nor will they give accurate data on how students are doing since no student is learning in the same context as they have been. However, to answer some questions, success should be measured by teacher, administration, student and family surveys alongside attendance statistics, percentages of



students turning in assignments, or engagement surveys. Matthew A. Kraft and Nicole S. Simon with Upbeat’s survey “Teachers’ Experiences Working From Home During the COVID-19 Pandemic” found that out of the 7,195 teachers surveyed from GA, IL, LA, MI, NY, SC, TX, VA, and VT, 74% of them “agree that their district has provided helpful PD [personal development] for supporting their students’ social-emotional well-being.” By counting emotional well-being as a sign of success, then by the districts giving support to teachers, teachers were able to make sure their students were engaged and ready to learn. Then again, success can only be measured if the students and faculty have the proper resources in order to make remote learning possible. Therefore success for one school or school district may look different than another school district, but does not discredit their students’ success, just about how that success is looked at and measured.

In April of 2020, Gallop tracked the ways that U.S. elementary students were being educated by having parents fill out a virtual survey. They concluded that from the start of remote learning to April that children “learning remotely through a school-sponsored online distance learning program has grown from 65% to 83%.” They do acknowledge, however, that since this was an online survey parents without internet access could not be included. That then highlights the problem that students cannot be successful in remote learning if they do not have the technology or resources to do so. This means that 17% of families with technology are not learning in a school-sponsored program, but 100% of students who do not have internet access or technology do not have the opportunity to learn with a school-sponsored program at all regardless if the school offers one.

When school districts provide the necessary resources and technology to students, students will be more equipped to attend school virtually and therefore begin learning from their teachers. However, if students do not have the technology necessary, they will be in a position where they will not succeed in these unprecedented times. Even further, students may be given the proper resources from the school including a computer or tablet and a hot spot, but that does not mean the child will still be able to use it. The questions then are, do the students have a place at home where they can use and set up the technology, do they have a place in their home where they can connect it, what if the family does not have electric or it has been shut off, what then? A good step would be to provide the technology, but it does not guarantee that the students will be able to use it, so districts need to go even further in making sure that the students are able to learn. Teachers also need these resources because teachers need to be trained to run fully remote classrooms; need to learn what online resources are available to them either through school funding, their own money, or for free; how to measure student goals and achievements; and how to create online only lesson plans that are both academic and engaging. In April of 2020, *Education Week* wrote about ways in which districts were trying to keep students engaged and talked about public access television. The reported that Amy Shaw, the president of Nine Network of Public Media in Missouri says “Right now, we are the largest classroom in the St. Louis area. You could argue PBS is currently the largest classroom in the country at the moment. That’s a very powerful idea – that we’re not just a nice thing to have. We’re essential and relevant to the learning outcomes of children across the country at this time of crisis” (Rauf). PBS has been working with local school administrations to identify what those students need and playing those

episodes to aid the curriculum. Families who have internet access were given the opportunity to log on to their local PBS affiliate and play games that supplement their online learning. PBS wanted to provide this access through television because “Andrew Russell, president and chief executive of PBS SoCal and KCET, said he received a phone call from the superintendent of the Los Angeles Unified School District. The 700,000-student school system is the second-largest in the country, and about one of every four students lacks internet access at home” (Rauf). Without access to the internet it would be impossible to attend virtual classes, however, with the help of free and public television channels, students are still able to watch certain episodes that could help them with basic skills such as reading, math, or problem solving.

Then, on top of that, special education and Integrated Co Teachers (ICT - classrooms that have both special education and general education students) must be given the resources for online schooling because now students with IEP’s are no longer receiving the same supports at home as they would in the classroom but teachers are still expected to provide resources as best as they can and therefore, districts need to provide those resources – whether it be sensory boards, access to reading, writing, and math materials, time for small group, and overall technology for any of this to be possible. This is why many districts do partnerships with larger technology companies – the school gets a good price on the technology itself and the companies still make a profit. However, with these resources, students still need access, but if all are provided, then students will attend online learning.

### **What Does Success Look Like?**

Due to state testing being cancelled in the spring of 2020, there is no way to compare students across the state and then no tests to compare students across the country. During the COVID-19 pandemic, success needs to be measured differently. Educators need to be looking at success from the standpoint of if their students are attending virtual school after already being supplied resources and technology from the state or district, if the students are turning in assignments, if the students and teachers are engaged in the lessons, if parents and teachers are using clear and consistent communication throughout the week, and if the mental well-being of the students and teachers are taken care of. This could also look like if the school does not have the funds to provide children with technology or wi-fi, the schools should be providing paper copies of the assignments and books home to those families. Success can be based on how well the students are doing academically, but also on how well they are growing and still trying to learn in the middle of a worldwide pandemic.

There should be multiple ways to assess a child rather than base it solely on if they pass a test or not. Currently in 2021, state testing has not been cancelled so it will be interesting to see in the fall of 2021 how the scoring process will look. What will happen when more students are failing the assessments than ever before? Will there be a transition period to get ready for the state testing? Then there is the question of accuracy. Students could be taking the state tests online or in person. If online, will lockdown browsers be enforced? Make students remove their phones in front of the teachers? Make sure they are in a room completely alone? There are too many factors to even consider for this to be a fair assessment for the children.

However, this idea of success will also have to look differently if the child has an IEP. An IEP, or Individualized Education Program, is given to a child if they are in need of special education services such as small group instruction, smaller class sizes, additional time or resources on tests and assessments, preferential seating in class, modified behavior plans, counseling, speech therapy, or occupational therapy. Children become eligible for an IEP if they meet one or more of the thirteen classifications of having a disability: autism; deafness; deaf-blindness; emotional disturbance; hearing impairment; intellectual disability; learning disability; multiple disabilities; orthopedic impairment; other health impairment; speech or language impairment; traumatic brain injury; or a visual impairment. Every child who is then granted an IEP through their particular state is then given annual social, academic, behavioral, or physical goals that will be measured by their teachers (NYC Department of Education). Therefore, a child with an IEP needs to have success measured by their goal and not by whether or not they compare to children with general education classifications. The problem that many teachers and families are facing in a remote context is if these goals can be met without being in the school with the physical resources provided. The hope is that parents or guardians will be home to assist the children, but that is not always possible if parents work and the students are at home with family members who may not be familiar with technology or are at day cares with many children the adults need to focus on. Teachers now do not have the roll of being the sole caretaker of the child during school hours, that responsibility has fallen onto families requiring them to have to quickly become familiar with school assessments and standards. If the child does not have the right supports, success for that child may not happen.

Many of these children require therapy: speech; occupational; counseling. As stated in the introduction, parents have been suing school districts who failed to provide these services to their children when the pandemic began. However, there are ways for children to receive these services at home. Peter W.D. Wright Esq. and Pamela Darr Wright, MA, MSW lay out what is available to students at home for these services that legally need to be supplied to the children based on their IEPs. They discuss how there is the option to use teletherapy where “teletherapy sessions are similar to traditional speech, occupational therapy, and mental health sessions except that the student and therapist interact by live video conferencing” (Wright). The students then will use headsets and webcams to be able to communicate with their therapist. The problem that comes around again is who is supplying the services to the students and families? If children do not have the access to wi-fi or updated technology, they will not be able to have these sessions that they are legally required to have.

Tiffany Livingston, with *Smart Brief*, an online news outlet, did an interview with Breana Jamison, a special education teacher in Mississippi. She worries her students will not be getting the best education because for many of her students, their home life is not ideal and found their safe place at school. To try to combat these issues, she constructed plans for each of her students to be in connection with their IEP goals. She has daily individual meetings with the students on Zoom along with weekly group meetings to help the students interact (Livingston). With this model, it would seem that Tiffany Livingston is working more hours than ever before. In order to make sure all of her students have all of their needs met requires hours of one on one coaching and making individual plans for all of the students. Teachers are proving that the education system is flawed because

schools should either be hiring more people to help with the strain or helping teachers in making sure these goals are met, but without that help, it is left to the teachers to put in more hours to make sure the students are learning. That being said, all school districts and special education teachers need to be working with their students' goals in order to see growth and therefore the child's success, but the question then is to what degree should teachers go to to make sure that each child has their goals met.

The National Education Association interviewed Whitney Barber, a special education paraprofessional at Middlebury Union Middle School in Middlebury Vermont, about the pandemic. She said how her role is “not here just to help them get their work done. In fact, I think that’s our least important role. What we should do is let our students know we care and are here to guide them, and to encourage each student to be the best they can be” (Barber). Yes, it is important for teachers to continue to teach and for students to come to lessons and then submit assignments, however, that should not be the gage of if a student is successful. Students may not be in the best environment to learn at home or wherever they may be or may have a technology problem stopping them from completing assignments. Therefore, if students are assessed upon how engaged they are during a lesson, the way education looks at success becomes very different.

The American Psychological Association printed a list of ten ways to monitor success during the pandemic. They state how:

- Teachers should create specific and realistic goals for each student
- Teachers should create assessment questions to measure each of the students' goals

- Teachers should make sure the student is given a multitude of questions to determine if they understand the material that creates their goal;
- Teachers need to use weekly data to create lesson plans that reflect where the students are at rather than following the curriculum as quickly as it is done in the classroom
- Teachers need to be understanding of the student's home life
- Teachers need to be clear in the student's goal
- Teachers then need to use their goals when re-entering the classroom
- Teachers should have daily check-ins with the students on their emotional well-being
- Teachers should make all decisions based upon the child's data
- Teachers should also promote self-care over stressful assignments.

If educators begin looking at success as if a child is growing rather than the assumed where a child should be based upon the month of the grade they are in, success looks different for each child, but is success nevertheless. However, this now requires teachers to be working much longer in order to account for every single one of their students.

Class sizes fall anywhere between the early twenties to mid thirties and if a teacher needs to follow all of these steps in order for their students to be successful, imagine the amount of hours it would take for a teacher with thirty five students to make thirty five individual goals and assessments? Then, take into account ICT teachers and special education teachers. These plans may fall short because they have to now account for the student's goal in their classroom but then their one to five goals written on their IEP. Yes, teachers can monitor how a child is doing and know and possibly give a group of students in the



class one goal to focus on and then begin to bucket groups of kids by specific goals, but students who have IEP's, who have multiple goals that need to be addressed, may fall short of achieving these goals if the teacher now has to do so much at once and virtually.

That being said, special education students can also be successful as long as teachers are following that child's specific goal stated on their IEP. An example of a goal is “ [student name] will increase reading readiness skills in the area(s) of \_\_\_\_\_ (phonics, print awareness, letter knowledge, decoding, word recognition, comprehension) to \_\_\_\_\_ as measured by \_\_\_\_\_ (running records, probes, anecdotal records, work samples, etc.)” (Lightner). In order for this goal to be measured, the teacher would need to plan their lessons in a way where they can hear the child read, speak, or write. This then would mean that whole class Zoom calls would not be the best place to measure the child's goal (being that there are over twenty students on a call and it would be impossible to measure a child's goal specifically). The teacher would then either have to have the child record themselves reading or set up one-on-one or small group lesson with other students who have the same/similar goal and monitor it that way. Teachers could hold smaller sized guided reading groups for the goal above or a small math group if the goal revolves around math. It would require more of the teacher being on the computer for longer and creating multiple lesson plans for the day, but it is possible.

However, the only way that these successes are possible if districts and schools come out with plans and schedules that would allow teachers time in the day to hold these small groups, technology is given to all teachers and students, and families are provided with resources that can be used outside of school to aid the children. Possible ways for this to happen is if multiple teachers from a certain grade each take a small group of kids

and all teach on separate online links, putting students into breakout rooms based on a certain goal or need and the teacher popping into each room, or even having certain teachers only teaching certain parts of the curriculum based on the needs of the students. The New York Department of Education came out with an “Overview of Remote Learning for Families” that breaks down what remote learning is going to look like from pre-k through twelfth grade. The children will have access to both asynchronous (Lessons might look like pre-recorded videos, reading, or online discussion boards) and synchronous (live lessons with their teachers). In addition the children will have access to Google Classroom, TeachHub, and Microsoft Office 365 all while being provided online resources that are linked on their Department of Education’s website. Barring the idea that the children and faculty have technology, this is not an impossible plan for learning. Success Academy Charter Schools, as mentioned above, told the *NY Post* that teachers are receiving online training daily, attending planning meetings, and virtually attending other teacher’s virtual classrooms to learn what is and is not going well in this remote context (Pondiscio). The school explains on their website that remote learning is focused on setting routines, motivating students, and celebrating accomplishments. Their day is scheduled much like a regular school day with many breaks in between video lessons. Success Academy is giving free reading resources to families and resources to help their children when the student is not in class such as access to Khan Academy, Tumblebooks, Epic Books, and Audible. Homework is still required in this online setting but is done through Kami, an online editing tool, on Google Classroom.

In Hoboken, New Jersey, the Hoboken public schools came out with plans for the 2020-21 school year that stated:

These plans were crafted by classroom teachers. The plans include special education modifications/ accommodations at all grade levels. Additionally, we have added plans for ESL, Related Services, Self-Contained classrooms and Resource Room classrooms. Now that all families that were in need of technology, have been given Chromebooks, we are no longer distributing paper copies of lessons.

Also attached to their website are social and emotional online resources and access to the school directory. Of course nothing can be concrete in this ever-changing society of the pandemic, however, if systems are put in place now, it will be easier for teachers and districts to then move around what does and does not work more flexibly allowing the possibility of some days being live whole class video lessons where other days could be small groups only live lessons while the other students work independently or even have a schedule that runs like a school day where some parts of the day are whole class and other parts of the day are small group. It is a possible system if the districts provide families the technology and online resources needed. This way teachers are able to monitor the progress of general education students through whole class instruction and online assignments while also monitoring students with IEPs through small group instruction and online assignments.

Although, since the world is currently suffering the effects of a global pandemic, educators should also base the success of their students on the student's and family engagement and if they are still excited to learn - even in difficult circumstances. The University of Southern California conducted a survey of "a panel of close to 6,000 adult U.S. residents since mid-March about COVID-19 and how it has been impacting their

lives. The researchers added education-related questions to the survey on April 1 and analyzed data collected through April 15 from more than 1,450 households with children in daycare or preschool through 12th grade” (Key). The study showed roughly 90% of households with school-age children were engaged in educational activities provided by their specific elementary school. They found that “nearly 80% of parents are satisfied with communication from their schools, and nearly 90% of parents of school-age children say at least one child is engaging in educational activities provided by their schools” (Key). This is a large step towards having children learn in challenging circumstances.

At this point, with remote learning being fairly new, it has to be acknowledged that remote learning is not going to achieve the same results as if the child was in school, however, if students are willing and wanting to learn, educators need to count that as a win for education. The study did understand that “parents in one-quarter of all households [surveyed] show concern that their child won’t be prepared for the next school year. Latino parents appear most concerned, with more than 35% worrying about their children’s preparation for school in the fall” (Key). Naturally, that concern will be there. Parents are going to be concerned that their children will be behind on the standard grade level specific criteria, however, as many schools now in the fall of 2020 have opted to stay remote or do a hybrid model [some in school days and some remote days], most students are going to essentially ‘fall behind’ but it does not mean that they are not learning - if teachers set realistic goals for their students and base lessons around those goals, their students will still grow and therefore will succeed.

### Low Versus High Income Areas

The United States has a persona of being the wealthiest and most powerful country in the world, and yet, when the pandemic hit, thousands of children have lost out on the ability to attend school. Baltimore reported that within 27,000 children surveyed, 1 in 3 do not have computers or reliable internet access and “in Salinas, Calif., a photo of two elementary school girls huddled over their laptops and using free Wi-Fi outside a Taco Bell went viral last month, raising alarms in this majority Latino city and seizing the attention of public officials” (King). When that picture was seen by the school district, the school provided the children with a hotspot and Rebecca Andrade, the superintendent, says that they are now attending school at home. Politico, an American political journal, reported how the Salinas City Elementary School District, where the girls attend school, is 91% Latino and more than 40% of the area is homeless. The school officials said that they were providing families with hotspots and all their families with Chromebooks, but the picture alerted the school to connectivity issues. There may be the possibility that if the information was sent out over email, and the parents do not have wi-fi, that they may not have even known of the resources that were being provided to the students. However, this then also could show the possibility of no at home support for the children and the children finding their own ways to attempt to attend school. This meaning that it is not a lack of support in terms of the parents not caring for their children, but quite the opposite. Parents are struggling more than ever before with finding work or working long hours, trying to provide for their children, and trying to make sure their children continue their education, but without support from the school and the government, the families have no way of helping their children.

Further, this moment shows the lack of aid families are receiving from the government. Children who attend public schools may not have the same resources as those who attend private, so how does the government expect all children to be able to have the same resources to go to school? *Fox News* reported on the children and said how this story got the attention of Jackie Lopez who “learned that the girls’ family was going to be evicted from the room they rented. She then started a GoFundMe campaign for the family that has raised over \$115,000” (Hollan). As many would praise Lopez for helping out a family in need and have this be one of those heartwarming stories people enjoy reading, it really only shows the inequalities that families, and especially minority families are facing in the United States. In a time where nothing is certain and families are losing jobs, children should not have to fear about the most basic human needs of school and housing. It says the children and the mother rented a room and would be evicted. There is no aid from the government and that is what is going to set children back. Clearly the children want to learn and go to school, but without funding and resources, the government is setting these children up to fail.

In addition to not having the correct supports at home for students living in low-income areas, students who are learning/non-native speaking English students who live in low-income areas, are struggling even further. The EdNC, a nonpartisan news outlet for education in North Carolina, interviewed Joan Lachance, an associate director of education for UNC Charlotte’s Teaching English as a Second Language Program. Lachance argued that, “From a language development perspective and even from a brain development perspective, we know that language development is a social construct, and kids need to sit with each other and have lots and lots of peer interaction” (Granados).

She also argued that students are losing out on non-verbal communication, such as body language, which is also key when learning a new language. Learning from home allows students to have more access to translators and less access to other students and their teachers. Communicating with each other and learning from each other has essentially stopped. Being remote gives students less access to seeing that non-verbal communication over the phone or over a computer screen – especially if the wi-fi connection is not strong and students freeze, or the students do not have access to a working webcam. Students are also less likely to speak or write in English at home, especially if their families are speaking their native language. If districts are not supplying the proper support to these students, then these students will not be able to speak English as well and will have a more difficult time in an English only speaking classroom.

Therefore, in a developed country, there should not be any reason that a child does not have access to basic resources - school. Wealthier districts are now opting towards small group instruction and have the ability to do so after distributing technology to their students along with parents either being able to afford at home childcare or by having a parent or grandparent being able to stay home with the child. These families would also then have the means to provide either a laptop or tablet to each of their children making it so the children would not need to share. These wealthier parents could also then pay more money for online tutors and extra at home learning resources that low- income families would not be able to access - already then giving wealthier students an advantage over lower income families.

HelpGuide, a small independent nonprofit, highlighted this fact arguing “With many schools and workplaces closed due to the coronavirus pandemic, many of us have found ourselves dealing with a new, and often very stressful, family situation. As well as having to work from home and run the household, you’re likely also trying to keep your kids on track with their virtual schoolwork – all while enduring the restrictions of social distancing and even being cut off from the support of friends and loved ones” (Weber). This fact, for the majority of the United States, is the reality for the middle and lower classes. If parents do physically go to work, then children are required to go to day cares where they need to be taught to socially distance and parents may even have to socially distance from their families when they come home from work. There is even more added stress if the parent or child contracts the virus and even more distancing needs to be put in place. This pandemic has been difficult for all, but especially for the lower income families.

Low income families are at a disadvantage during remote learning than high income families. High income families are more likely to go to schools that can afford technology and resources to give to their students much easier than that of a low income school. The McKinsey & Company Public and Social sector group makes the claim that “The US education system was not built to deal with extended shutdowns like those imposed by the COVID-19 pandemic. Teachers, administrators, and parents have worked hard to keep learning alive; nevertheless, these efforts are not likely to provide the quality of education that’s delivered in the classroom” (Dorn). In person education is much better than online education because when a teacher is in the classroom with his or her students, they can monitor the student’s progress much easier because the child is in front of them.



When the child is online, that same high level of excellence and education changes because the teachers do not know what it is like for the child on the other end of the computer screen. Students may not have the correct resources or support as they would at school. However, even though the same level of education will be different online, that does not mean a child will not still learn in an online setting if the correct technology and wi-fi capabilities are met.

Another issue in virtual learning is teachers not knowing what is happening with the student if the students keep their cameras off and are not unmuting their microphones. This could be for a variety of reasons such as living conditions, if there are other children there or a lot of noise, or simply the child or family does not feel comfortable with strangers looking into their homes. At the same time, however, without knowing if the child is in front of the computer screen, it is impossible to know if the child is on the other end listening. Some schools, much like the one I teach at, Success Academy Charter Schools, uses a program called GoGuardian to monitor students on their Chromebooks. The rationale is that these are school provided computers, so during school hours teachers always have access to what a student is doing on the computer without actually needing to see their faces. At Success Academy, all children and adults keep their cameras on and parents are made aware of this and agreed to this at the beginning of the year, however if there are issues with Zoom or the computer we always have access to GoGuardian. GoGuardian allows teachers to block certain websites, close out of student tabs, and allows teachers to see student browsing history for inappropriate content or cheating. Mainly, the teachers use this so when we assign a worksheet in class, we can monitor what the students are working on and give in the moment feedback. If schools do

not make cameras mandatory, and they gave the children the computers, this could be one way to combat teachers not knowing what the children are doing. Other schools may use lockdown browsers if older students are taking tests. Of course, this does not stop children asking other adults or using other technology or notes that teachers cannot see, but that will always be an issue with remote learning.

Although, the biggest problem with remote learning is that many families across the country cannot afford the technology needed to continue learning at home. Many families do not have computers or tablets at home or access to wi-fi. Many families lost jobs and homes during the pandemic and therefore could be in and out of shelters. In May of 2020, CNBC reported that 51.7 million parents in the United States lost their income (Leonhardt). Or, besides money as a factor, many homes may simply just not be suitable for a child to learn in. According to CNBC, “about 60% of parents in the United States have had no outside help caring for their children during the coronavirus pandemic, according to a recent survey from Boston Consulting Group. “I look at the struggles that parents are going through, and it’s crazy,” (Leonhardt) Dianne Swonk, chief economist with Grant Thornton says. “Finding care in a socially distant world is even more difficult,” she says, noting that while many child-care providers shut down or have limited capacity, for many parents, it’s even harder than usual because many parents are also not able to rely on grandparents as back-up care” (Leonhardt). Besides the technology, children are not in the best place to learn as they would be in school. Children may be home alone being watched by older siblings, grandparents may be there but may not be able to help with school, or children are simply not looked after while their parents need to go to work. This puts children in low income areas at a disadvantage

to those in high income areas. Further, social-emotional learning is critical for children, and at home, they are not able to interact with children their own age and as much as teachers try to put students in breakout rooms, keep them engaged and talking to each other, it is not the same as in person and does make it hard for children to learn.

WBUR, the Boston NPR station, wrote an article in September of 2020 discussing the disparities between low income and high-income families. They note how “with state of emergencies declared at the municipal, state and federal level, teachers, parents and superintendents scrambled to bring public education online. In one fell swoop, the pandemic both exposed and widened the gaps caused by years of defunding public schools. In wealthy districts, students already had access to laptops or tablets. They could receive personalized attention in smaller virtual classrooms and complete their coursework online and on-time” (Espinoza-Madrigal). Parents already are losing their income and do not have the extra money to go out and provide technology for their children. Parents with more than one child would either need to buy a tablet or laptop for each of their children or have their children share, which then leads to the problem of who gets to go to class when and assignments being turned in late because the other child needs to do theirs.

In Chelsea, Massachusetts, roughly 60% of students are considered low income and over 40% are English language learners “where residents are packed together in dense, multigenerational housing, often without reliable internet, and where COVID-19 infection rates are among the highest in the state, remote education has been near-impossible” (Espinoza-Madrigal). On top of that, about 80% of those parents are deemed essential workers and cannot be home with their children to help them with online

schooling. If the “state or districts are unable to provide help and guidance for those families who cannot be present to supervise remote learning, Chelsea’s public school students are in danger of falling behind” (Espinoza-Madrigal). In this remote world, whether or not the family has technology, children are going to be behind where they normally are in the school building, so if these children do not have the accessibility to remote learning, they do not have the opportunity to learn.

Even if lower income families do have some form of wi-fi capability in their home, many of these “low-income households may have lower levels of internet and computer proficiency, competing priorities and/or (in ordinary times) children attend schools that are not well equipped to provide online instruction” (McElrath) or are attempting to learn from a cellphone. If the school was able to provide a computer or tablet, or if the family already had one, access to wi-fi, and wi-fi with a high internet speed, is crucial. If the student cannot connect to the Zoom, or other video conferencing website, or if the student is on the Zoom call but freezes frequently, there is no way that the student would be able to focus in class and thus succeed in class.

Then the McKinsey & Company Public and Social sector group also highlights the disparities between students who are white and students who are of Black and Hispanic heritage. They note how in 2009 there was a study done that showed:

The gap between white students and Black and Hispanic ones deprived the US economy of \$310 billion to \$525 billion a year in productivity, equivalent to 2 to 4 percent of GDP [Gross domestic product is the monetary value of all finished goods and services made within a country during a specific period (Fernando)]. The achievement gap between high-

and low-income students was even larger, at \$400 billion to \$670 billion, 3 to 5 percent of GDP. (Dorn).

That being said “the past decade has seen little progress in narrowing these disparities. The average Black or Hispanic student remains roughly two years behind the average white one, and low-income students continue to be underrepresented among top performers” (Dorn). Now having families in low income areas that cannot provide their children with the latest technological resources or high speed wi-fi, makes the achievement gap now even greater. Related to this data is the amount of Hispanic and Black people who have died during the pandemic. The Centers for Disease Control and Prevention reported that “The distribution of COVID-19 deaths differs by race and ethnicity in the United States as well as by jurisdiction (state or District of Columbia). Data on race and ethnicity for more than 90% of people who died from COVID-19 reveal that the percent of Hispanic or Latino, non-Hispanic Black, and non-Hispanic American Indian or Alaska Native people who have died from COVID-19 is higher than the percent of these racial and ethnic groups among the total U.S. population” (Centers for Disease Control and Prevention). The inequalities have always been there and now the gap is growing larger.

*Politico*, then reported, in September of 2020 that the disparities go well beyond actual education. They report many low-income schools serving black and Hispanic communities do not have windows in their schools that open or proper ventilation, which is crucial for being inside a building during the pandemic. They also quote Cornell University professor Noliwe Rooks, the author of “*Cutting School: The Segregation of American Education*” saying "Covid isn't just revealing racial inequities," Rooks said.

"It's reproducing it. It's making it worse." Many want to say that the pandemic is what has created these inequalities between certain neighborhoods, but those racial inequalities have been here all along. The pandemic has only made those inequalities clearer and ultimately worse. If children are not able to go to the school building to learn, then the school must provide options for the children to continue their education at home. This, unfortunately, is not a reality for many children because their schools themselves do not have the money or resources to aid their students online. Paper packets are an option, however, that would require the student to have to teach themselves if there is no one at home who can help them - and then is the child truly learning at all?

Now this is a problem throughout the country and not just in isolated areas, “in New York City, where Mayor Bill de Blasio has said in-person classes are especially important for low-income, Black and Latino students, some school buildings are simply not equipped for all of the new safety measures needed to host classes during a pandemic. Several schools in the Bronx don’t have working ventilation systems, said Dermott Myrie, a teacher at M.S. 391. In District 10, where his school is located, students are primarily Black and Latino. “My school is just ... part of a pie,” Myrie said. “It's just a segment of the same thing. Systems don't work.”” Low income families rely on the school for their child’s education. These families send their children to the local public school because that, for many families, is their only option. Yes, there are charter options out there where children can attend for free, but is never guaranteed as a backup option since these schools enroll based on a random lottery system. Therefore, the families depend on schools that are ultimately failing - and that is when the children are in the school building. Now that the world is facing a respiratory virus, students cannot safely

return to the building if that school building has poor ventilation - but the child cannot also learn at home if the families and schools cannot provide the proper technology needed to do remote learning.

Schools need to be providing the necessary resources to their students or their students have no chance of succeeding. The Pew Research Center, a nonpartisan American think tank based in Washington, D.C, created a survey in April that found “that 59% of parents with lower incomes who had children in schools that were remote at the time said their children would likely face at least one of three digital obstacles asked about” (Vogels) - those being having to do school work from a cell phone; using public wi-fi for school assignments; and not being able to complete assignments because there is not a computer at home. Their study found that, of the parents surveyed, 80% said that it is the schools’ responsibility to provide technology to students who don’t have it and 57% of those parents say that it is the government’s responsibility to provide access to the internet for all Americans during the duration of the pandemic. Many may not see the internet as an essential item alongside food, water, and housing, however, for families with children it is. Low income families are sending their children to public schools and public schools are free because education is a basic human right. There should not be anything in the way of that basic human right because this pandemic is not something that humans can currently control; children still own the right to go to school and if the schools need to be closed because of the virus, money must be distributed to public schools to provide wi-fi and technology resources to families. Education should never just be a privilege for the wealthy.

### Interviews/Methodology

After researching more about whether or not students are succeeding in remote learning, I needed to go to the experts - teachers who are currently teaching. I asked multiple teachers across multiple different districts about how they and their students are fairing during the pandemic. I sent out a post on social media explaining my thesis and asking if there were any teachers interested in being interviewed - after the post was widely shared, many teachers were interested in sharing their story. Each interview was done remotely over the computer for the protection of both myself and the interviewee. I told each teacher that I was interested in how well students are learning and if there are any successes occurring for students and teachers during the pandemic. I told the teachers to only answer any questions that they were comfortable with answering.

I shared the post on Facebook and received eight teachers of the few dozen teachers who liked the post, were interested in telling their story. Two of the teachers teach in Connecticut, five of the teachers teach in New York, and one of the teachers teaches in New Jersey. Seven of the eight teachers are female and one of the teachers is male. The teachers range from early twenties to mid-fifties. All but the one male teacher who liked the post, was female. Each interview lasted about an hour and as said above, were all completely virtual to protect both the interviewee and myself from the virus.

My first question posed to each teacher was if they were in person, hybrid, or completely online. If in person, I asked them to describe how safety measures are being taken at their school and what would happen if a student, teacher, or family member contracted Covid-19. My goal was to understand how students are learning and if schools



were prepared to go remote if necessary and if students had the proper resources to do so.

Informant one, a 5th grade teacher in the district of Windsor, Connecticut said:

My room is socially distanced as best as we can make it. Student desks are 4 feet apart. There is 6 feet in between my teaching space and the students. We are teaching in a hybrid model with 3 cohorts. Cohort 1 goes to school in-person Monday and Tuesday. Cohort 2 goes to school in-person Thursday and Friday. Cohort 3 is 100% distanced. My class is Cohort 1. This means my kids are in-person Monday/Tuesday and virtually learning Thursday/Friday. No matter what cohort you are in, Wednesday's everyone is distanced learning online for a 1/2 day.

The cohorts split the students into groups so that not all students are in the building each day and that there are not more students than are able to socially distance in the classroom. This then means that informant one comes in contact with all her students at least twice throughout the week and then has the possibility of coming in contact with the other students in the school and the other teachers.

These hybrid models are interesting in the conversation of what education looks like in a pandemic because it requires the flexibility of the teacher, students, and families of the students in order to make it possible. Besides the students who are fully remote, these students are more prepared to go remote if needed since they use their technology on a regular basis. However, there is still a lot to be said about what distancing looks like on these half days because the question is where the students are and are they practicing proper distancing at home or at a day care. Then what of the teacher? Is the teacher in the

classroom on these days or are they home teaching? In this hybrid model, there are still a lot of questions on safety.

When those students are in the classroom, the safety of the students and faculty are of the utmost importance and informant one said that when the students are remote on Wednesday, it is so:

the school can get a deep cleaning. Cleaning bottles and gloves are provided to teachers, signage is posted around the school to encourage hand washing and social distancing, lunchrooms now have plexiglass dividers in between students, masks breaks are built into schedules, hand sanitizer is more readily available to students.

The teachers here need to work much harder to keep themselves and the students safe because they need to make sure all desks, chairs, and any hard surfaces and materials are cleaned, not only every day, but after every use. Then needing to make sure that all students are distanced during mask breaks and behind plexiglass in order to not come in contact with anyone and then need to clean the plexiglass after. It seems as if teachers are disinfecting more than they are actually teaching in the classroom and there is a lot of pressure on teachers to make sure that everyone stays safe.

In terms of if anyone contracts the virus she said:

All students have been provided a Chromebook. We use Google Classroom as a hub for all virtual learning. If there is a positive case at school they contact trace through whichever cohort day the case was exposed to. For instance if I were positive and been in contact with my students, our whole class would go on a 2 week quarantine with virtual teaching. My class

switches with another 5th grade class for STEM, since I teach ELA and History. This would mean both classes would go out on the quarantine.

By students already being given Chromebooks by the school, they are much more likely to continue learning in a remote context. The biggest concern, though, is that of the families if they student must quarantine if exposed - however, with the school putting in place contact tracing, the parents would be made aware of the decision to go remote and can hopefully continue the system that is in place for Wednesday remote learning.

The school procedures in the Windsor, Connecticut school district seems to be a common way that districts are creating safe spaces for the teachers and students as seen with informant two who teaches middle school at a private Catholic school in Bayside, Queens, New York. She said that at her school they “sanitize desks consistently, everyone wears masks at all times except when eating, desks are spaced 6 ft. apart, before entering the classroom students must sanitize their hands, and classrooms are fogged once a week.” This model is different than informant one’s school because now there are no mask breaks throughout the day and desks for all students are spaced rather than only having some students come to school on certain days. Only the students who opted to stay home all year are the ones who are not affected. With students being in the building every day, informant two must make sure to sanitize everything all of the time with no extra days without students to clean.

Schools are consistently keeping their classrooms clean, but then how do students learn while also staying safe? Informant two answered “In every classroom we have an iPad set up on a stand to incorporate technology and our at home students into our daily lessons. Every student has a Chromebook, and every classroom has smartboards at the disposal of the teacher.” Therefore, if there is a positive case at the school “We have

everything pretty much set up. Students are more than familiar with the use of Nearpod, Google Meets, Google classroom and anything else they would need to transition.”

Personally, this school then is doing justice to its students by already setting them up to succeed if they must go remote without notice. Since the students already use the technology in the classroom, then they are much more likely to be able to use that same technology at home versus students and teachers who are now playing catch up and trying to troubleshoot each day with new students trying to figure out the technology. However, the only students who may struggle are the ones who have been at home all year because these students do not have the hands on teacher showing them how to use this technology.

Many different school districts have created their own form of hybrid learning. Informant three, a 3rd grade teacher at a different Catholic school in Queens, New York says how she is “teaching 5 days a week in-person. I have a total of 25 students; my kids are split into cohorts of 12 and 13, and rotate weekly. Each week, my students are either learning in my classroom, or in the gym with a designated aid. All students regardless of location are sitting six feet apart on all sides.” This is a third form of a hybrid model, informant three is teaching in person, similar to informant one, however different because one group of students will be in the building and one at home and then they switch whereas informant one sees all her in person students at least twice a week.

Informant three’s school so far is the school taking the most precautions because:

Students from grades K-8 are seated in rows, six feet apart. Masks must be worn at all times, with the exception of lunch and the occasional mask break. Students contributed cleaning supplies as part of their back to

school list, however additional supplies and PPE are available upon request from my admin. Students in all grades have a staggered entry and dismissal time, to avoid unnecessary contact. Specials Teachers are stationed at all 3 entrances and do temperature checks before students can walk in the building to their designated location for the week. We have “overflow rooms,” or rooms/areas that allow us to teach all students simultaneously while abiding by the 6 foot policy. Some classrooms were converted to overflow rooms (ie computer room, STREAM room, etc/) while some classes learn in our gym with dividers. Each overflow room/area has an aid that assists the students in making sure they are on task, help with classwork, etc. Our school is cleaned thoroughly daily: banisters are wiped down multiple times a day, and our cleaning staff cleans every student’s desk among the other responsibilities.

It is interesting to note here that students were required to bring in cleaning supplies to help the teachers when it should be the responsibility of the district and government who are making these teachers teach in the building. At the beginning of the pandemic, cleaning supplies were limited and hard to find, so by making students bring in their own shows how little the government cares about its students and teachers. If teachers and students are told they need to be in the building, they should have provided any and all resources.

Also, informant three here talks of how the gym, art, and music teachers all go beyond their roles to take the temperature of each student who comes into the school building and then needs to assist in calling parents when that student does have a fever

and will need to quarantine. In terms of students with disabilities, these changes can be very stressful in terms of having to stay distant from peers and trying to learn in places that may not even be a classroom. However, these precautions that the school have put in place are for the safety of the students and faculty, but, as cautious as the school can be, students and families may still contract the virus causing others to be exposed and needing to quarantine. Therefore, students, teachers, and families must be prepared to go fully remote. When the pandemic first forced schools to come up with these models back in March of 2020, the schools were making things up as they went along because at the time, no one knew the severity of the virus, how quickly it spread, or if it could be spread on surfaces or just by contact. Now, by early to mid 2021, schools have a better understanding of the virus, but are still not fully equipped to teach and protect themselves from the virus, especially if a student or teacher contracts the virus and the class needs to quarantine.

In this case, if the students need to go remote, I asked how well are students prepared to be fully technology based? She answered:

All students in our school are equipped with 1:1 iPads or Chromebooks (K-3 iPads, 4-8 Chromebooks) so that students in the overflow may video into the classroom to watch while the teacher is instructing. Papers and pencils are being used (greater use the younger they are) however much of our assignments are digital. In my classroom, we heavily use: Google Classroom, Google Meet, Misc. Google Apps (slides, docs, Jamboard, etc.) SAVVAS, Spelling City, Freckle, Prodigy, Flipgrid, and EdPuzzle. If a child is absent, they do not need to sign on to the daily meets, however

they must sign on if they have been exposed to Covid and remain home for the 2 week quarantine period. Students who opted to stay home exclusively are not part of my class; the Diocese of Brooklyn created a “St. Thomas Aquinas Distance Learning Academy” which is a virtual school with its own administration and teachers. Parents may opt to go between our school and STADLA at the end of each trimester.

There are still many disagreements that young students should not be using technology at all times, by using these forms of technology in the classroom, students will be more prepared to learn at home – or at least, that is the hope. Informant three, here, discusses how she uses many online resources to try to help her students adapt to this new push for technology use that students have to use in order to learn from home.

The question then I think of is why does she use, or think she has to use so many, but the answer is clear, she wants her students as prepared as possible to be as fluent as possible in many ways so that they can continue their education at home. By the end of the pandemic, or at least a vaccinated time, students will know more software and be more digital literate than ever before. However, of course, there is a downside to all these resources because teachers need to first teach themselves how to use the platforms, then teach the students, and also need to be prepared to know how to troubleshoot any issues that may arise with all of the platforms at any moment throughout the day. This overload of technology can be overwhelming for all parties involved – the teacher wants the best for their students and want their students to learn but they too need to learn and teach at the same time; the students can become overwhelmed with the amount of information presented to them; and parents are too overwhelmed with the state of the world, their own

jobs, and then their child's education especially if the technology does not work in order for their child to learn. There is no right answer right now. Teachers are doing everything possible to continue to teach and unfortunately, even after a year in lockdown, there is no clear way that is best for students to keep them learning but also to keep them, the teachers, and their families safe.

Since positive cases are going to happen, regardless of the precautions, I asked how she felt about her and students needing to go remote if necessary and she said:

At this point in the school year, we would be prepared to go remote again with such short notice. We did it in March, and we could do it again (though I feel it would be difficult emotionally for all!) In March, we were up and running on Day 2 of quarantine, and with trial and error, teachers and returning students have a much better grasp of what could come. Personally, my mission in 3rd grade was to teach as much technology usage as possible, so that in the event of school closure, my students would have a seamless transition to remote learning. One of the biggest hurdles of remote learning is how to use various learning apps, and many families are not available to help their child. My students have grown tremendously in their technology usage, and at this point are not only independent, but they are even teaching me new things! If we were to go remote again, the only difference is that we would be teaching for an entire school day, with class periods on a specific schedule much like ours already. Specials classes will also be held as part of this schedule. When



we were remote the first time, we met 2 times a day, teachers had more flexibility in creating their own schedule, and specials met once a week.

At this stage, everyone is still learning. The administration is trying to figure out schedules and procedures, teachers are trying to relearn how to teach students in a new context while also possibly taking care of their own home and family, students need to learn in ways that they never have before, and parents have to juggle also learning alongside their child while also taking care of their home and own job. As stated earlier, there is no right way and no one way of doing this. In our lifetime, we have not had to face a lockdown like this. Everyone is learning and trying their best to learn technology on the fly.

Informant three saw success in her student's ability to use technology efficiently for coursework "Technology usage is a HUGE accomplishment in my classroom. In September, my students were afraid to click on a harmless error message. Now, I do not need to think twice when I need them to complete an online assignment." I was interested in seeing if any other teachers saw any successes in their classroom (technological success; student and parent communication success; academic success; etc.) throughout the pandemic. Informant four, the EL Coordinator for K-12 in the entire district of Ellington, Connecticut, saw that, for her students that are remote, "Our younger kids are so good at using technology and typing." Typing is a skill that will be used for their entire lifetime and it is a success that students of such a young age are able to master this skill. However, that brings in another question of what about students who have iPads and tablets with no keyboards? What skills are they learning in terms of technology? Many of these tablets have styluses so possibly students are still handwriting some but for many at

home assignments, students may need to get detached keyboards for some may find typing to be easier on a screen. Then again, the problem is who will pay for these resources. Depending on what the school needs for a certain assignment, districts should provide all possible resources that the child will need. Beyond the technology aspect of success, since students are now using technology more than they ever have before, I wanted to see if any teacher saw engagement as a form of success.

Informant five, the district substitute for a Long Island school district in New York disagreed that there has been little to no success when teaching virtually. She says that in her district's model of students being in person and online that:

Kids would meet with me days they were not at school [and] lots of them didn't show up. The ones that did come, some were motivated, others were not. It was difficult to get them engaged online. I had a 4th grade ESL student write in the Google Meets chat "can't hear video, playing fortnite please don't ask questions miss k" being at home has a TON of distractions.

This fear that students will simply not show up on the online call while at home is a natural fear for educators. If the children do not have the supports at home (whether that be the parents, guardians, or caretakers of the child) and these people watching the children are also working or simply are not home, the child will ultimately not go to school. This is when, and as much as they are able to, teachers need to create engaging online presences that make children want to come to school.

Informant one noticed the disengagement of her students and has tried to combat disengagement throughout the day because "I know now that including games, trivia,

show/share time, music, bitmojis and gifs into lessons I'll engage 5th graders." This is not the only way, and teachers and families need to work harder than ever in the pursuit of education, but student engagement, even briefly throughout the day, is a success when they are home with multiple distractions.

Informant five is not the only teacher who expressed their fears to me. Informant six, who teaches a 4th/5th grade self contained bridge class in Mahwah, NJ, expressed her fears for education and student learning during this time and noted that "The students tend to be more engaged in the mornings and less in the afternoons. They usually say they have headaches and their eyes hurt by the end of the day." Not necessarily a win or success for education, however, there is success in the fact that schools are adapting their schedules to meet the children's needs and this flexibility will overall benefit the students. If the students are more engaged in the morning, then they will ultimately learn more than if schools force students to follow a schedule similar to if they are in person. Sara is not the only teacher with fears. Informant seven, a music teacher in Bronx, New York does fear that "One of the biggest problems students are facing is social emotional learning. That is a specific result of students not being in the classroom. These skills are necessary to becoming a good student and citizen" however noted that "The success happenings that I have seen refer to some students who were being bullied in person and now have the opportunity to learn at ease from their home. Some of these students are making the most of their education and doing much better without the disruptions. I consider that to be a success happening for them and their family."

Informant two also said how "It's the little things that make each day worth it. I take it as a success whenever my students ask to continue reading a story that interests them. That is always a battle for them. A new battle is having the in person and online

students interact with each other. I love when that happens.” Currently, in the state of the pandemic, children are not getting the socialization they need in order to develop those lifelong social skills. Children, whose parents decide to keep them at home for their safety, are isolated from those outside of their household. Therefore, she is right in saying that when students who are online and on a web call are able to talk to other students and share their ideas. Further, it is also important to consider teachers who have been fully remote since the beginning of the pandemic, especially younger teachers.

Without talking too much about myself, I have to agree with informant two because I am a fourth grade teacher who has been remote since March of 2020 and will stay remote until the 2021-2022 school year according to my district. I live alone and my only interaction is with my students, co-teacher, and other teachers at the school fully through Zoom. When students have their camera off and are not participating as they would in the classroom, it is challenging, even as the teacher, to be excited to teach and engaged in the lesson that I am giving, but when students are participating and trying and wanting to talk to each other to share ideas, it is exciting, but of course is a challenge to continue to keep up this high level of learning when students are either at home in their rooms, or with other siblings, or like many of my students, at day care centers. Therefore, when the students want to learn, it is exciting, even in an isolating atmosphere.

Further, informant eight, a grades three and four teacher who pulls out students who need extra help and also covers for teachers who are absent, in Franklin Square, New York is different from the teachers above because she teaches in person every day, but sees that the use of technology in her classroom is having a negative impact on her students. She said how:

I don't have many worries because I know that my school and staff are doing everything in their power to teach as best they can and keep the school as clean as possible and abide by every restriction necessary. However, I do worry that the students are not getting the best education possible, with a lack of interaction being allowed. The students definitely seem less engaged than in years past. This isn't true for every class, but overall a lot of the students came into the year steps behind where they should be for their grade level because of being remote last year and many of them lack motivation. Some students are happy to be in school every day, but many seem to be very hindered by all the restrictions, especially the students who benefit from group work.

When thinking through her response, of course students are not interacting in the same ways that they have been because they cannot. In order to keep everyone safe, masks need to be worn and distancing needs to take place. However, as much as students may be 'behind' in terms of where they are last year, we also cannot compare this year to last year because the situation is vastly different. It is not fair to compare a year where students were fully in school than one where they are not. Also, by saying the students lack motivation is not fair. Children, too, are experiencing more stress than they ever have and the fact that children are coming to school, whether that mean virtually or not, is still success. However, there may be kids who just do not care because they are not being engaged in the learning and a lot of that has to do with the teachers. 2020 has made teaching much harder and teachers have been working even more hours than they already do, but teachers need to create strong relationships with parents to see what the child

needs and get them to school and to create engaging virtual lessons that are not simply listening to a lecture because no elementary student wants that. If we find that students are lacking in motivation, teachers need to work with the kids and their parents to push engagement, but also create lessons that get kids using different platforms, moving around, or simply, posting pictures of funny memes and having the kids write captions – they think it is fun, which it is, but is also pushing their imagination skills and writing ability.

The social emotional struggle, lacking motivation, struggling to get students on the call or in the building, and whether there is success or not, will be at the forefront of the issues students will be facing when they are able to safely return to school. When classrooms are able to have students sit on the rug together, sit in their desk groupings, play at recess - we are going to see students struggle interacting in person because for a year, students have not had the chance to fully interact with their peers. It does not mean that this is a wasted year for academics. Teachers like informant one are coming with new and engaging ways to keep their students wanting to keep participating in a remote context; informant three is seeing her students navigating technology in new ways; and informant two, as hard as it can be, is still able to see her online and in person students collaborating together. Teachers play a huge role in these successes and as small as teachers may think these successes are, they are doing the best and most for their students to continue their education.

That being said, we need to keep what informant five and eight said in mind that students may be becoming disengaged especially after a year of being remote or going to school in some form of a hybrid/distanced model. Teachers have been and will need to

continue working more than ever before in order to teach and should be compensated for the number of extra hours that they are putting in to make all of this possible – teachers were already working over contract hours in years prior and this past year they have been working even more. The government needs to acknowledge the strength and determination of teachers and the amount of extra time they have put into their job this year and be paid accordingly. It also needs to be acknowledged that is ok if students are not at the same level where there they were in the past because in addition to learning, it is a success that students are coming because their entire worlds have been flipped around and we may not know all of their home life situations. With each success, there needs to be celebration from the adults showing the kids how excited we are, and it is and will continue to be exhausting, but as we see from many of the participants, teachers and administrators are doing everything possible to keep the students safe and to keep pushing education. That in itself is success.

### The Future of Education

The future of education is currently ‘up-in-the-air’ due to the United States still being in a state of despair fighting the Covid-19 pandemic. There are no current concrete ideas and plans of how school will look once there is a vaccine and the timeline for when students can go back if there is a vaccine. Informant four, the ESL coordinator in Ellington, Connecticut, has the same sentiments “The future is uncertain until there is a vaccine available to everyone.” Even then, once students do go back, teachers are going to be facing learning loss. The *New York Times* reported that:

In Houston, the nation’s seventh-largest public-school district, 42 percent of students failed two or more classes in the first grading period, compared with 11 percent in a normal year. In Fairfax County, Va., an internal analysis found that the percentage of middle school and high school students earning F’s in at least two classes had jumped to 11 percent in the first quarter this year from 6 percent a year ago. In Washington, D.C., internal testing data shows steep declines in the number of kindergartners through second-grade students meeting literacy benchmarks. In Chicago, the nation’s second-largest district, 13 percent of high school students failed math in the fall quarter, compared with 9.5 percent last fall (Nierenberg).

The problem with this data, however, is that this year is being compared to the year prior - a year where students had no interruptions in their learning and were able to have in school learning - a place that was safe for students with their teachers and peers every day. It is obvious that data from years prior is going to be significantly better than



this year because this year schools and educators face challenges that they never had to in the classroom - do both students and educators have technology and wi-fi; are students in a place where they can comfortably learn; both students and teachers need to learn Zoom, WebX, Google Meets, etc. to have online lessons; teachers need to find online resources to show lessons while keeping students engaged at home; teachers may need to make all lessons online or may have to teach in the building and online at the same time; teachers in the building face the fears of getting Covid-19 and need to do more than they ever had to in the classroom to keep their students safe (distancing, less physical resources, no partner work, sanitizing often, etc.). With all of these problems, there was no way that the data from this year would have been close or comparable to years prior. This data attempts to show that students are failing and that online learning is failing, but that is not necessarily true.

What everyone can agree on is that students ultimately need to be given resources in order to learn. These resources have been provided by these large technology companies and they have been making a profit. In terms of if the companies should be making a profit off of children and schools is a controversial issue and it would be charitable of the tech companies to provide some of the profit back into the school districts. Since a main part of the profit is coming from schools, the schools should be allowed to benefit from it – by using the money to provide more technology, online resources, or simply masks for teachers and students and cleaning supplies. Of course, it would be up to the district on how to spend the money, but that money should be shared among the schools.

Rosalie Metro, an assistant teaching professor in the College of Education at the University of Missouri at Columbia, where she teaches TESOL, preparing preservice teachers to work with emergent bilinguals/English learners, wrote an article in *Inside Higher Ed* that lays out how educators should be monitoring student growth throughout the pandemic. Metro believes in goal setting and setting specific goals for individual students to master rather than an overall goal that all students must know certain material by a certain date. She states:

I give students feedback on whether their performance on assignments is developing toward, meeting or exceeding learning targets. If they are meeting or exceeding learning targets, their work is complete. If it is still developing, it is incomplete, and I give them the opportunity and support to revise it. I also welcome students to revise and improve their work into the exceeding range....it keeps all of us focused on the ultimate goal of learning -- and the fact that my job is to *teach* them, not just *tell* them what to do. My assumption is that all students can meet learning targets, although they may need different amounts of time and assistance to do so.

This concept is one that should be used throughout this current educational crisis because then students truly are learning - even if it is considered slower than the standard pace if the students were full time in the classroom. This way the future of education looks more goal oriented and learning based, versus standardized and teaching to the test. That also means that these are individualized goals for each student. In order to teach the students, teachers need to know where each student is at, what they need to work on in order to

master a certain skill, and then individually touch upon each goal within the lesson, independent work time, or in small groups.

Informant seven, the music teacher in the Bronx, New York, sees the future of education

has changed completely. Teachers who were used to only utilizing paper and pencil will now be responsible to incorporate more technology in their lessons. Students and teachers alike will be versed on in-person and remote learning platforms causing education to be consistent through adversity. Due to technology becoming the norm, the art of typing will make a comeback to help students complete their assignments more efficiently. There will be no such thing as a snow day anymore. (Teachers will always keep extra lessons on their pages for such occasions) I feel the right mix between remote and in-person learning is the key to success for all learners.

There is no guarantee that when students and teachers go back to normal that the students will be in the same position academically, socially, and emotionally as years past.

Teachers and students now have an abundance of new resources to use that were not known before the pandemic. Now that we have been dealing with this pandemic for roughly a year, there is no going back to the way things were. Education may include having online options for students, hybrid models, using more technology in both the classroom and at home. There is no true way of knowing, but it is certain that education will not look the same as it did pre pandemic and classrooms will not fully be in person again until the population is fully vaccinated and Covid-19 is no longer a threat. It also

will be interesting to see schools cleaning their buildings and classrooms much more regularly and having the option to wear a mask when you feel ill – or a radical thought, teachers being given sick days without the guilt of being forced to come in when ill.

Since students will be familiar with these online and technological resources, teachers should be using them in the classroom or it would be a disservice to the students. The students have been able to quickly adapt to these technologies and their successes should be honored. The Clayton Christensen Institute, a nonprofit, nonpartisan think tank dedicated to improving the world through Disruptive Innovation, founded on the theories of Harvard professor Clayton Christensen, wrote an article looking at “blended learning” and how these methods of in person and technology based learning could be a possible future for education. Even though students are learning at a different pace than they would be in the classroom, they are still learning valuable skills - how to troubleshoot computer/tablet/wi-fi issues; how to work independently; how to safely navigate online resources; and even how to communicate better with teachers and parents. Online only schools may also become more popular now that teachers and students are well versed in using the technology. However, children with disabilities still need to be taken into account and their services provided in whatever model of learning schools will begin using.

The first method is called the “The Flipped Classroom” (Arnett) and focuses on how “educators maximize time spent with students” (Arnett) by having students learn basic skills at home using online resources and videos created by the teacher and then “educators typically reserve face-to-face time for activities that deepen students’ understanding, strengthen relationships, and make learning meaningful. Top priority

activities include things like class discussions, group collaboration on projects, feedback on higher-order thinking, and targeted instruction to address misconceptions” (Arnett). This would be a mixture of synchronous and asynchronous learning. This method would then allow students to use the online resources at home that they are already familiar with and then be able to go to school and apply what they had learned at home. This type of learning could essentially take place anywhere with most of it being remote but also, when the class decides to meet, could take place outside or at different field trip type locations. There could be a lot of problems with this method. There may be students who may not watch the videos their teachers provide, may not understand certain concepts, may ask their parents or guardians for help who may know a different strategy and will ultimately end up very confused when they get to school probably having to have their teacher teach it to them at school. Many students may not be able to learn at home on their own without access to their teacher to ask clarifying questions. This type of learning may benefit some very independent students, but students with learning disabilities who need access to their teacher or students who do not pick up concepts as quickly as others will struggle with this type of learning.

The second method is the “Enriched Virtual model” (Arnett) that is similar to the first method but the student would be at home receiving live teacher instruction to learn the content (much like remote learning) and then having students only come to school a few days out of the year for teachers to address “particular challenges that hinder students’ independent learning—be those due to misconceptions about content, counterproductive learning habits, social-emotional difficulties, or other learning challenges” (Arnett). This method may be a good starting point for easing back into the

classroom. With Covid-19 cases continuing to rise, and the vaccine only now beginning in late December 2020 and early January 2021 to be distributed, easing back into the classroom in the fall is going to be the best option because then it would be much easier to monitor student achievements, by assessing in person what they have been learning online, while also keeping Covid-19 under control. However, there will be challenges with this model as well. Better than the first method because in this case the students will be able to have contact with their teacher to learn the material, however, students who need tactile learning, who have not currently been receiving that in remote learning, will continue to struggle because they do not have the proper manipulatives at home. This also would mean that the teacher may have to work more hours in order to accommodate students and their needs.

The last method is the “A La Carte method” (Arnett) and it is the most complex of the three models because it involves four key parts – the school, an online teacher, a learning lab, and home learning. This model favors older students because it is for students who go to class in person but then can “take one or more courses online. Under normal circumstances, students usually enroll in A La Carte courses when they need additional flexibility in their schedules or when they are interested in courses—such as Arabic, sound production, or AP Psychology—that may not be offered at their local schools” (Arnett). This method will use the school for basic core classes and then at home the student will have an online teacher and online resources for the courses not offered in the school. If the model is altered, younger students could use this model of learning for extra classes such as typing, computer basics, or additional online reading recourses like Lexia or Amplify that teaches students basic reading skills.

Of course the future of education is not certain in what it will look like however, it is certain that students and teachers will still continue learn and educate in the best ways they know how. The future of education also is going to focus on public education whether that be the district public school or public charters because through this pandemic, public schools have shown to be the most important place for low income families. Most likely schools are where students are able to go when parents work, are able to provide food to the students, provide after school organizations and clubs, and provide other necessary resources to children who suffer. The pandemic only emphasized the importance of public schools. The Brookings Institute, a nonprofit public policy organization in Washington DC argues that “strong and inclusive public education systems are essential to the short- and long-term recovery of society and that there is an opportunity to leapfrog toward powered-up schools” (Vegas). For the Brookings Institute, powered-up schools are in communities where schools are at the center and focus on the mental health of the students and faculties and are a school where the community helps bring “life learning experiences in and outside the classroom” (Vegas). With this understanding that schools should be the focus in our community, we also now need to teach to the children’s strengths.

The National Conference of State Legislatures discussed the issues facing children during the pandemic. They reported that:

spring projections suggested that students may have returned this school year with less than two-thirds their normal annual learning gains. Fall studies suggest substantial variations, but clear losses across states: most students are behind where students stood last year, particularly in math,

and student performance in schools with a majority of students of color may lag other schools by at least ten percentage points. The gap between low-income students and students of color and their peers may be attributed to a higher likelihood of these students learning remotely, and more representative data in the future may show even greater learning loss and larger equity gaps (Olneck-Brown).

In these lower income neighborhoods, the public schools receive less money and children are the ones being affected the most. All children should have the same access to resources but this pandemic has only shown a light on the inequalities faced by people of color. This is why we will begin to see a rise in the charter networks who aim to help students in these neighborhoods using both public and private funding while providing free education to students. The only issue with the charter networks that they run based on a lottery system and students are randomly chosen to be accepted at the school – an unfair way to try to create equity since not all children will benefit from these schools.

With these resources, however, there are many debates about whether or not educators are content with the amount of technology young students are using, it would not make sense to completely cut technology out of their lives once students are safely able to return to school. Students have succeeded in figuring out technology in new ways and the Institute says how “Innovation has suddenly moved from the margins to the center of many education systems, and there is an opportunity to identify new strategies, that if sustained, can help young people get an education that prepares them for our changing times” (Vegas). Whether teachers and family like it, kindergarteners through college students have needed to use technology more than ever before to continue their



education, so we should and most likely will continue that use in the future – even if the use is decreased or used in other ways, it will be used.

In whatever way the future of education will look post pandemic, it is certain that education will be at the forefront of rebuilding our society. Technology will be used more in the classroom since students have learned so much about it, online resources will be available at home for parents and families, communication between teachers and parents will be better than ever, and schools will become more sensitive to matters of health and mental well being.

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