

St. John's University

St. John's Scholar

Theses and Dissertations

2021

THE VIRTUAL TEACHING EXPERIENCE WITH GOOGLE CLASSROOM DURING COVID-19: A PHENOMENOLOGICAL STUDY

Morlena Titanya Robinson

Saint John's University, Jamaica New York

Follow this and additional works at: https://scholar.stjohns.edu/theses_dissertations



Part of the [Educational Technology Commons](#), and the [Teacher Education and Professional Development Commons](#)

Recommended Citation

Robinson, Morlena Titanya, "THE VIRTUAL TEACHING EXPERIENCE WITH GOOGLE CLASSROOM DURING COVID-19: A PHENOMENOLOGICAL STUDY" (2021). *Theses and Dissertations*. 280.

https://scholar.stjohns.edu/theses_dissertations/280

This Dissertation is brought to you for free and open access by St. John's Scholar. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of St. John's Scholar. For more information, please contact fazzinol@stjohns.edu.

THE VIRTUAL TEACHING EXPERIENCE WITH GOOGLE CLASSROOM
DURING COVID-19: A PHENOMENOLOGICAL STUDY

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

DOCTOR OF PHILOSOPHY

to the faculty of the

DEPARTMENT OF EDUCATION SPECIALTIES

of

THE SCHOOL OF EDUCATION

at

ST. JOHN'S UNIVERSITY

New York

by

Morlena T. Robinson

Submitted Date: February 18, 2021

Approved Date: May 19, 2021

Morlena T. Robinson

Dr. Kyle DeMeo Cook

© Copyright by Morlena T. Robinson 2021
All Rights Reserved

ABSTRACT

THE VIRTUAL TEACHING EXPERIENCE WITH GOOGLE CLASSROOM DURING COVID-19: A PHENOMENOLOGICAL STUDY

Morlena T. Robinson

Technology has been the highlight of the 21st century, and its rapid advancement has undeniably changed the world we live in today. The field has been saturated by digital applications (apps) such as Facetime, WhatsApp, GroupMe, and a plethora of educational apps such as Math Series, The Elements, and History Tools. Additional apps have magnified in popularity since the world moved to virtual learning during the COVID-19 pandemic which devastated the global economy and shut down in person education systems around the globe. Google Classroom from G-Suite for Education was immediately embraced to facilitate the educational process allowing students and teachers to continue communication and engagement during the unprecedented COVID-19 global pandemic. According to (Vynck & Bergen, 2020), Google Classroom has double the active users since March 2020, with approximately 100 million users worldwide to date. Google Classroom's video conference application Meet is being used 25 times more than it was in January of 2020, with a total of 120 million users, up from 90 million in 2019 (Vynck & Bergen, 2020). The purpose of this study was to explore the experiences of teachers using Google Classroom during the COVID-19 pandemic. There were 14 participants from urban and suburban schools in the state of New York, 11 females and 3 males ages 27 through 61, with diverse race and ethnic backgrounds. They taught grades K through 12, diverse student populations, and most held a master's degree. Using a

phenomenological approach, the researcher interviewed each participant on the Zoom platform, engaging them with open ended questions to share their perceptions of virtual teaching. The study analysis revealed six themes which were: The Pros and Cons of Remote Teaching; Cameras and Engagement; “Sink or Swim”: Professional Development to Teach Remotely; I am Not a Techie, But I am Learning; Stress and Disconnect; and Education after COVID-19. This study provides district and school leaders with invaluable information on teacher support and development, parent engagement, closing the digital divide, and the need for social emotional support to address a public health crisis for all to have a healthy mindset moving beyond the COVID-19 pandemic.

DEDICATION

I dedicate this dissertation study to my family, to my *great* grandmother the late Sylvia Martin, she instilled the value of education within me at a young age, although she was denied of the right to be literate. To my mother Verna who raised me as a single parent, and with only a high school education. Your countless years of holding two jobs and working overtime to support us when I was a teen paid off! To my brother Andrew, continue to develop yourself and be the best dad to Amya and AJ. My niece Amya you began college and took a sabbatical due to COVID-19 but know that I am waiting to attend your graduation in the next couple of years! The precocious Mr. AJ, you are so bright! I can't wait to hear you read those children's books from your expanding library! Remember to read, read, read, and write, write, write!

To the Robinson clan, you can do anything you want for yourselves! Thank you for teaching me through your unspoken words. Adrian, thank you for printing all my edits for this project, Lily thank you for support, and to Lomax, you have been a rock for me over these few months! To the Wearers of the Ten Pearls and Two Rubies, who supported me and assisted me during this study, continue to be #Greater! To everyone who helped me in your own special way; Thank you! To God be the Glory!!!

ACKNOWLEDGMENTS

Many thanks to Dr. Evan Ortlieb, my initial contact at St. John's University. You inspired and encouraged me to take flight on my PhD in Literacy journey. The article I wrote for your class was eventually published in an education journal. Dr. Olivia Stewart, thank you for teachings on theories and strategies to becoming a purposeful writer, getting to the heart of the subject while being succinct. Dr. Nikki Chamblee, you relieved some of my anxiety with mixed methods studies, and I enjoyed your course. Dr. Michael Sampson, you certainly helped to propel me into a comfortability with presenting on digital platforms. You maintained creativity and authentic expressions in academia. Dr. Lisa Bajor, I am so grateful to have had you for qualitative methods, your teachings on tools of reflexivity was employed throughout this dissertation project! Thank you to my cohort members! You are the best and the brightest! Thank you Dr. Clare Irwin for your feedback and for serving on the committee.

Dr. Cook, my dissertation chair, and "Advisor of the Year"! Thank you for your meticulous feedback and consistent support throughout this 'pandemic' dissertation. You were always patient and gave sound advice. You designated a standing weekly meeting time in your hectic schedule, and I know that I am not the only candidate you coached, but you made me feel important. You gave warm and cool feedback appropriately and showed your enthusiasm when I experienced success along the journey. I will forever be grateful for your guidance, as you lead with excellence. Thank you to all participants in this study, you made one of the most important contributions in education and history. Blessings to all of you!

TABLE OF CONTENTS

DEDICATION	ii
ACKNOWLEDGMENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
CHAPTER 1: INTRODUCTION	1
Teaching During the COVID-19 Pandemic	3
Purpose of the Study	6
Significance of the Study	7
Research Questions	10
Definitions of Terms	11
Stance of the Researcher	15
CHAPTER 2: REVIEW OF RELATED LITERATURE	17
Theoretical/Conceptual Framework	17
Related Research	18
Summary	32
CHAPTER 3: METHOD	34
Research Questions	34
Research Design	35
Data Analysis	39
CHAPTER 4: RESULTS	40
Overview	40
Description of Participant Characteristics	40

Who is Who?.....	42
Themes Across Interviews.....	50
CHAPTER 5: DISCUSSION.....	93
Summary of Findings.....	93
Interpretation of Findings.....	94
Discussion.....	99
Implications & Dissemination.....	103
Limitations & Directions for Future Research.....	109
Conclusion.....	110
APPENDIX A: TEACHER CONSENT FORM.....	112
APPENDIX B: RECRUITMENT FLYER.....	114
APPENDIX C: OPEN ENDED INTERVIEW QUESTIONS.....	115
APPENDIX D: SURVEY DEMOGRAPHICS QUESTIONS.....	116
APPENDIX E: IRB APPROVAL.....	118
APPENDIX F: VIRTUAL TEACHING RESOURCES DURING COVID-19.....	119
REFERENCES.....	121

LIST OF TABLES

Table 1. Participants' Demographic Information	41
--	----

LIST OF FIGURES

Figure 1. Virtual Resources during COVID-19	70
---	----

CHAPTER 1: INTRODUCTION

As we zoom through the 21st century in a technologically advanced world that is saturated with tons of applications (apps) such as Facetime, WhatsApp, GroupMe, and a plethora of educational apps such as Math Series, The Elements, and HistoryTools, and most important since the pandemic, Google Classroom, we are faced with the challenge of incorporating new literacies and multimodalities into all facets of daily living and specifically into teaching and learning. With the inclusions of multiliteracy platforms, the concept of traditional literacy has evolved, and therefore educators must change how instruction is delivered (Leu et al., 2013). The art of teaching and learning must now involve integration of internet tools and technological resources that are needed in schools. There is a need to provide training for school administrators and teachers to adopt to the changing roles in the new literacy schools. Students also need to be provided with the tools necessary to conduct internet research effectively and successfully. Some of these skills include the teaching of close reading on the internet and how to draw inferences from internet sources and links (Leu et al., 2013). Invaluable information is being presented in digital text formats and some media outlets have gone green by discontinuing the printed paper versions of their publications.

The standard expectation for 21st century citizens now involves being able to communicate, collaborate, create, and think critically as shown through the Common Core State Standards (2010). Therefore, technology and literacy is expected to be integrated in the curriculum across content areas to meet these new world transformations. It is a fact that technology is constantly changing, and researchers are having a difficult time assessing the effectiveness of the latest technology, because there

is always a new and improved program on the horizon (Roberts et al., 2012). Another goal of the Common Core State Standards (2010) was to have aligned standards in English language arts and mathematics curriculum for kindergarten through grade 12 across the United States. The standards were updated in 2016, to include other subject areas such as social studies and a focus on digital literacy. Common Core State Standards (2016) have been adopted by 42 states, with Indiana, Nebraska, Oklahoma, South Carolina, Texas, and Virginia, not participating and Michigan only using the English language arts standards. College and career readiness has been emphasized and there is an increased focus on technology standards as new literacies and multimodal platforms are introduced into classrooms.

This focus on technology has advanced an increase in technological tools in the education sector, which has prompted technology giants, to expand enormously with several tools and resources for education. In effort to support this goal in the United States, Google also introduced Google Chrome and supplied specific schools with its Chromebook laptops, which is operated by the Google Chrome operating system and includes pre-installed apps such as Gmail, Docs, Slides, and Google Drive. Google Classroom was gaining popularity across the United states and according to Futuresource (2017), Google dominated 60 percent of the market for education computers. Prior to the COVID-19, pandemic Google Classroom reported having approximately 30 million users worldwide since 2014 but has reported over 100 million global users since March 2020. Google Classroom's video conference tool known as Meet, has seen its usership rise to over 120 million since COVID-19 (Futuresource, 2020). Teachers, students, parents, and other educators worldwide have turned to G-Suite for education utilizing the Docs,

Gmail, Goobric, Doctopus, Slides, and Drive which are all apps in Google Classroom. Google is experiencing enormous success with the Google Classroom app, because it is user friendly, free, and does much better than competitors such as Canvas and Edmodo (De Vynck & Bergen, 2020). With the recent surge in usership of Google Classroom and a gap in the literature on teaching with the application, this study sought to gain a deeper understanding of teacher experiences with teaching with Google Classroom during the COVID-19 pandemic.

Teaching During the COVID-19 Pandemic

Technology has been used for teaching and learning at all different levels of education and with a diverse set of learners: pre-Kindergarten through grades 12, students with special needs, English language learners, multilingual learners, advanced placement and adult learners (Karchmer, 2001). In March of the year 2020, all teachers and students in schools across the United States had to make a sudden move to virtual academic platforms. Teachers and educators with all levels of expertise spanning from those who avoid technology, absolute beginners, comfortable, proficient, to masters, were suddenly compelled to teach and communicate on a given technology platform due to the COVID-19 pandemic. This mode of teaching has been referred to as virtual, remote, distance, or online learning. These names for the technological mode have the synonymous meaning, which implies that educators and their students were suddenly uprooted from in person instruction, and compulsory positioned in a new learning environment, completely driven by technology, due to the COVID-19 pandemic (Amin & Zimmerman, 2020). According to Vynck & Bergen (2020), there are currently over 100 million people around the world that are currently using G-Suite, the education application started by Google Apps for

Education in 2014. It has grown astronomically since the onset of the COVID-19 pandemic. According to (Vynck & Bergen, 2020), Google Classroom has double the active users since March 2020, with approximately 100 million users worldwide to date. It's video conference application Meet, is being used 25 times more than it was in January of 2020, with a total of 120 million users, up from 90 million in 2019. In the Fall of the 2020 to 2021 school year, many schools across New York state gave students, teachers, and parents the option of participating in in-person learning, virtual learning, or blended learning. Most schools opted to utilize Google Classroom platform to accommodate their educational process (Vynck & Bergen, 2020).

Google Classroom is a free application, and has its own Chromebooks, an online operating system with pre-installed Google apps such as Gmail, Docs, and Slides, and more affordable than Apple and Microsoft products (Futuresource, 2020). These factors make it appealing and popular amongst educators, students, and parents, and has been transforming the face of education as it was known. The application is completely free to schools and has been a most important tool during the pandemic, allowing teachers to engage students in learning and literacy and affords access for collaboration and communication amongst educational communities.

This sudden transformation compelled educators to make some reflections and immediately implement changes to fully integrate technology into their curriculum. The option was no longer there to wait for a new comfort level or supports. According to Hutchison & Reinking's (2010) study on teachers' perceptions of integrating information and communication technology into literacy instruction, technology integration was looked at across some curricular areas, but fell short of depth, or only a single school or

lone district was involved in the study. The researchers attempted to unearth the perception of the role and benefit of using technology in literacy instruction. Karchmer (2001) conducted a similar research project including 31 kindergarten through 12th grade teachers who were classified as being on the “cutting edge” of integrating technology into their curriculum. The results of the analyzed data from semi-structured interviews and emails revealed that the teachers did not have a wide scope of knowledge of the technology, and they did not have much experience with integration. Stolle (2008) conducted a similar study with 16 secondary school teachers who were experts across different content areas. Her focus group interviews brought her to the conclusion that teachers did not integrate technology in their practice because of the lack of knowledge of how to use it, concerns about who benefited from the use, and apprehensions about having access to the technology. According to Roberts et al. (2012) most of the existing research has placed an emphasis on examining the use of technology in the lower grades, however there is a need to look at various grade levels.

Google Classroom

Over the past few years since its inception, Google has developed and enhanced the app, making it more user friendly with the added G-Suite. This has transformed it into an effective time management tool for teachers, since it helps them to store data, create quizzes, and assessments, upload teaching materials, videos, and post questions and assignments for their students. It also has features which help to build and foster communication amongst teachers and learners, and it even possess the capacity to serve as a learning management system in schools, colleges, and higher education institutes (Google Classroom, 2020).

Google Classroom can effectively help teachers with time management and has been recently compared in a survey with the higher education application Blackboard (Google Classroom, 2020). The stark differences were that Google Classroom is mainly free and used in primary and secondary schools. Chromebooks arrive with pre-installed Google applications which students can access from any Chromebook and other computers via the Google app. Blackboard is a paid app and is usually used in higher education institutions. Comparable to Blackboard, the Google Classroom app can be used on devices such as mobile phone, tablets, laptops, or desktops, which allows for flexibility and convenience of utilizing it for collaboration and ongoing communication (Google Classroom, 2020).

Purpose of the Study

The specific issue to be explored and investigated is how the new literacy and multimodality, precisely Google Classroom, is experienced as a teaching tool for teachers and how teachers view student engagement in the Google classroom during the COVID-19 pandemic. A qualitative phenomenological study involving 14 teachers from around New York state, was conducted to address questions on the topic. The researcher's goal was to understand how experience with Google Classroom may be changing the way teachers teach and to understand how this new literacy platform may enhance the learning experience of students, according to the teachers' perspective. The researcher wanted to delve into the virtual teaching experience of using Google Classroom during the COVID-19 pandemic.

Our basic goal as educators is to ensure that our students are constantly learning and developing literacy skills. As Rosenblatt (1994) posited, literacy is not the simple act

of reading and writing, it is a complex process which varies from one individual to the next. There is a transaction that takes place as the reader scans the pages, text, or the environment in which the synthesis of information occurs. Google Classroom is a new literacy environment in which students read, write, engage in discussions, post, and share videos that they create as a mode of learning. Teachers can engage, collaborate, and communicate with their students both asynchronously and synchronously, which generate a dynamic new way of teaching and hence there is a need for further investigation of the topic.

Significance of the Study

It is more transparent today than ever before the COVID-19 pandemic, that the face of education has been changed to include new literacies and multimodalities in the delivery of instruction and the way students learn. The integration of internet tools and technological resources needed in society are now needed in schools, and Google Classroom is the chosen platform for the majority during this time (Leu et al., 2013; Google Classroom, 2020). There has been a concern that the potential of technology has not been realized and there is a need for deeper exploration. Although the widespread use of technology has generated research interest, there is still a gap that needs to be addressed in the area, specifically surrounding the Google Classroom platform, a tool that was established in 2014.

There are limited studies on teacher use, effectiveness, and student engagement with the tool. The platform offers a vast range of teaching and learning resources and provides accommodations for activities such as the teaching of close reading on the internet and how to draw inferences from internet sources and educational application

links. Many teachers and administrators embraced Google Classroom as the platform of choice for remote teaching and learning during the COVID-19 pandemic (Google Classroom, 2020). Google Classroom is a free application made at no cost by Google for Education, and is available to teachers, and students. This is now being adopted and widely used by all types of school districts, since it is affordable and accessible to those with limited budget. The findings from this study will provide some evidence to administrators, teachers, students, and parents, on how efficient and necessary Google Classroom is in promoting digital literacy and instructional outcomes. It has features which assist in the fostering of 21st century skills such as collaboration, communication, creativity, and critical thinking (CCSS, 2016).

The anticipated goal upon the completion of this study, was that the results of the analysis would present new information to educators, parents, and students. This data was to be based on the use of Google Classroom and any new instructional outcomes revealed from the teachers' experience with the application. The 21st century requires a range of digital and technological skills which in turn calls for teachers to prepare students for the new work environment which is vastly different from just a few years gone by. Students will need to be engaged and adequately prepared with effective teaching strategies which promote communication, collaboration, creativity, and critical thinking (CCSS, 2010; CCSS, 2016). Thus, it will be necessary for teachers to have the appropriate professional development and exposure to effectively administer digital platforms to support their instructional delivery to learners in the classroom and beyond.

According to a 2018 report from The Economist Intelligence Unit, school districts will need to allocate substantial budgets for teachers to have the training, proper

resources, and necessary hardware and software to orchestrate their craft. Leu's (2013) theories of new literacies predictions of schools incorporating technology in the classroom in the 21st century, would support this aspiration. Based on these studies, policy makers will need to ensure that the need to have internet access in instruction is viable to all schools, to have a leveled field in the global competition (Leu, 2013). Budgetary constraints cannot continue to remain as a significant barrier between improving teaching strategies with the integration of technology and having the required technologies (The Economist Intelligence Unit, 2018).

It was anticipated that some findings from the study would illustrate that teachers who were appropriately trained to deliver lessons with the Google Classroom application, will experience some success in students' engagement and overall appreciation for learning. Furthermore, there was a potential for the study to fill a gap in the literature by unveiling how technology in general have been changing the way teachers teach and how students are learning in the 21st century. Communication is evolving on different modalities, it is no longer limited to passing a note in class, or sending an email, now there is the possibility of texting, "Insta" messages, or posting in the chat during a discussion on a Meet or Zoom call. Teachers now have the options of engaging students with applications such as LiveBinders and Google Docs for real time collaboration, and allows them to post videos, and make direct comments (Google Classroom, 2020).

Interactive textbooks which are web-based sites containing materials, videos, assessments, and subject area content have emerged, and are becoming more prominent on educational platform such as Edmodo and Google Classroom (Dooley et al., 2016). Devices such as the Chromebook and iPad have boomed in popularity more than ever

before and classroom research has extended beyond just going to the library, and the new literacies and modalities are being employed to drive 21st century teaching and learning (Guo & Woulfin, 2016). This information is of value to educators, as well as the public, considering the recent major shift in education since the COVID-19 pandemic. However, there is a need for further exploration since the available studies only include a small number of participants and no phenomenological studies on the topic (Brown & Hocutt, 2015). There is also an urgent need to understand the dynamics of virtual teaching and remote learning during the novel COVID-19 pandemic.

Research Questions

The present study examined the overarching research questions:

- 1) How do teachers describe their experiences of teaching with Google Classroom during COVID-19?
- 2) How have teachers' perspectives of digital literacy changed since the COVID-19 pandemic?

The following sub-questions were explored:

- 1) How has teaching practice changed since teachers began using Google Classroom during the COVID-19 pandemic?
- 2) How do teachers report supporting their students in the new online learning environment?
- 3) How do teachers report students' engagement and collaboration being maximized in Google Classroom discussions?
- 4) How do teachers report constructing a sense of community in a remote/virtual/online learning environment?

- 5) How do teachers report developing new skills to maximize lessons delivered via Google Classroom?
- 6) How do teachers report communicating and collaborating with other teachers, parents, and educators via Google Classroom?
- 7) What do teachers report about using other forms of technology in conjunction with Google Classroom?
- 8) How do teachers report their experience of internet connectivity issues and that of their students?

Definitions of Terms

Virtual Instruction

Online/Virtual/Remote Learning. These terms are similar and mean that learning is taking place on a digital platform such as Google Classroom or via Zoom. It may be live or recorded for students to complete at their own paced or scheduled.

Distance Learning. Is another terminology for online learning. Prior to technology such as Google Classroom and Blackboard, distance learning used to involve completing assignments on paper and returning them via the mail. Now new technology allows this to occur online and in real time.

Asynchronous Instruction. This is the type of instruction that occurs at a different time and is usually used for online/virtual/remote teaching. It is student-led, since the student can access the material at any time and complete the assignments to post or return to the teacher via email, or another method.

Synchronous Instruction. Refers to the teacher and students at the same time and place, such as live instruction. That would be in the classroom in person at the same

time, or remote face to face online meetings in real time.

Blended/Hybrid Learning. Is a model defining a combination of how teaching and learning occurs. It is referring to a combination of some type of both in person and online learning. It may be asynchronous and/or synchronous at various times. Students usually will have to show some type of self-motivation to access the content when not supervised by a teacher.

In-Person Learning. Is a type of learning that occurs in person, or face to face. Usually, it is within a classroom setting, or it can be one-on-one or a small group experience. It involves teaching and learning exchanges with the teacher and student(s).

New Literacies and Multimodalities. A term for digital literacy which includes multiple non print based and online platforms, and applications usually used for learning and communication. There is a vast amount of these digital literacy tools which the public currently uses, such as Google Apps, Face Book, Face Time, WhatsApp, Instagram and Group Me. Some educational apps included are Google Classrooms, Blackboard, Teams, WebEx and Zoom for educators.

Google Classroom. Google Classroom is a new literacy environment in which students read, write, engage in discussions, post, and share videos that they create as a mode of learning. Teachers can engage, collaborate, and communicate with their students both asynchronously and synchronously, which constructs a dynamic new way of teaching and hence there is a need for further investigation of the topic. Google Apps for Education (GAPE) launched Google Classroom in 2014, it has been a completely free application for use to teachers, students, parents, and anyone who wish to utilize it.

G-Suite for Education. Is the latest terminology used to describe Google Classroom.

Zoom. Is an online audio-visual meeting software application that businesses use for communication. At the onset of the COVID-19 pandemic, Zoom was no longer just for business. All types of companies including schools, churches, social organizations, families, and individuals adopted Zoom as a new way to communicate since all in person meet ups were restricted. The New York Times declared, “we live in Zoom now” (Herrera, 2020), and Zoom was named the 2020 Company of the Year by Yahoo Finance (Howley, 2020).

COVID-19 Pandemic

The following terms are helpful to understand the context within which this study took place.

Black Lives Matter. A movement involving mass protests which was resurrected from the civil rights era. It served as a reminder to the world that the need to fight for racial justice, and abolish imprisonment was still prominent in 2020 (New York Times, 2020).

Contact Tracing. Was a strategy used to slow the coronavirus by tracking who people were in contact with when they had a diagnosis of COVID-19. Public school teachers in New York demanded it to be systematic before they would agree to return to school buildings (New York Times, 2020).

Essential Workers. Was the emergent terminology describing the workers who made the sacrifice of reporting to work in grocery stores, bodegas, restaurants, the postal services, mail delivery services, auto body shops, childcare services, bus drivers, train

operators, farmers, and any business who needed to serve the public while everyone else was under stay-at-home orders due to the COVID-19 pandemic.

Flatten the Curve. Is the expression used to describe the efforts to reduce the spread of the COVID-19 virus. Hospitals have been over-crowded and health care workers have been overwhelmed with the exponential rate of the infection which made it into thousands of deaths per day at different times.

Frontline Workers. Are those who work in health care, hospitals, emergence response crews, nurses, doctors, housekeeper, and most workers whose job required them to be the first contact for the public.

Personal Protective Equipment. The shortages of personal protective equipment (PPE) such as masks, gloves, and facial shields were a major concern particularly for health care workers in March 2020 when it was decided it was imperative that they are protected (Clark, 2020). Schools and the general public did not have direct access to PPE and that created a major issue on how the economy would operate with this shortage. The discussion of wearing masks was on a national level (Fleisher et al., 2020).

Pod. Is the terminology many Americans have begun using during the COVID-19 pandemic to describe the concept of limiting in-person socializing to only a small group of friends Schools also organized their classes by pods limiting the teachers and students who are assigned to a classroom (New York Times, 2020).

Social Distancing. Was one of the terms used to remind the world to stay six feet away from individuals in public settings in effort to curtail the spread of the COVID-19 virus. People were encouraged to remain in their social bubbles, quarantine, and maintain physical space.

Unprecedented. The word that rapidly sprouted to a global popularity at the beginning of the COVID-19 pandemic. It was widely used by almost every entity in the media, news, television, and common conversations to describe the pandemic and all the significant events such as the presidential election of 2020. It described a time when people were all told to stay home, and stay six feet apart, as resounded in a supercut of TV commercials (Microsoft Sam, 2020). The Oxford Dictionary used unprecedented as the word to describe the year 2020 (New York Times, 2020).

Stance of the Researcher

As a researcher and educator in New York, I can make my own personal connections to the participants' experience. I utilized reflexivity to consider how my own experience could influence my assumptions and interpretation of the study (Lichtman, 2012). I ensured that I gave due diligence to the study by checking and rechecking the transcript during the transcribing and analysis phase. I reflected on the fact that two years ago, when I began exploring a topic for my dissertation, I considered "new literacies and multimodalities" since I have been a classroom teacher prior to moving to the position of an assistant principal. During the years of my classroom teaching practice, I constantly integrated some type of technology to engage students on different levels and a variety of content. In recent years, with the influx of more advance technology, I have maintained my stance of encouragement to the teachers whom I supervised. I urge them to consider learning new techniques, and to pursue training on new technology that they may incorporate into their practice, to make learning more motivating and to make their practice more efficient. I became aware of the no cost Google Classroom courses that

were being offered by New Visions, a professional development service network that provides workshops for teachers and administrators in New York City.

In April of 2019, I decided to take some of those courses with the intention to hone my personal and professional skills. I have since enrolled in several series of professional development courses in Google Classroom, so that I can adequately support teachers who wanted to use the application. I was scheduled to take the level 1 certification just around the onset of the COVID-19 pandemic. It was free at that point, however, since the pandemic most of the focus has been on getting teachers trained to use Google Classroom for remote teaching. I am sharing this to be transparent on my stance with this chosen platform. It was by chance that it came about as the technological platform choice of many educators across New York state and the country, but I already had a high level of interest in learning more.

CHAPTER 2: REVIEW OF RELATED LITERATURE

Theoretical/Conceptual Framework

Teaching literacy according to the students' wide variety of interest, purpose, learning styles and modalities can help with connection and developing comprehension especially with adolescents (Rowse et al., 2013). It is recommended that educators combine new literacy and multimodality studies with the standard views of education (Rowse et al., 2013). This approach is best aligned with the multiliteracies theory which was developed in 1994 by the New London Group. The goal was to improve inclusivity, communication, culture, linguistic, and technology in the classroom. (New London Group, 1994). Due to the nature of the study, it was grounded in Vygotsky's (1978) socio-cultural theory, since it was up to the free will of teachers and students which is usually an organic exchange and not a specific set of defined variables to control. The expectation was an authentic exchange of learning between the teacher and students, and students learning from each other on Google Classroom platform, individual's process of learning that cannot be separated from language, tools, and practices that mediate his or her experience of the world (Moje, 2009; Vygotsky, 1978).

Digital literacy is a sub-culture of learning, it is a "new language" and a "tool" that we now have available in our plethora of strategies, thus it works well in unison with the socio-cultural theory and the multiliteracy theory. The multiliteracies and socio-cultural theories were best for this study as they emphasize how the individual learns best and includes a wide range of dynamic skill sets that is applicable to many aspects of 21st century learning. This study examined teachers experience using Google Classroom during the COVID-19 pandemic. Using virtual interviews, a total of 14 teachers shared

their lived experiences on using Google Classroom, especially during the COVID-19 pandemic. From this study, we will learn from them how instruction is evolving with this digital platform and we will be able to reflect on the teachers' perspective of student engagement through this tool.

Related Research

New Literacies and Multimodalities

The questions “What is literacy?” “Who benefits from being literate?” and “What specific cultural meaning and practices are involved in becoming literate?” were first asked around the 1980s and 1990s by a group of scholars including: Bloome and Green (1992); Cadzen (1988); Cook-Gumperz (1986); Heath (1983); Luke (1988); and Street (1995). Therefore, this places the idea of new literacies as a relatively new topic since the prominence has been under 50 years. The group of authors were perplexed by the various ways and context in which people read and write and they desired to further investigate the complexities of the thoughts of literacy being conventional or neutral. They were interested in discourse on the ideas of social and culture factors, images, speech, gestures, the internet, and a more linguistically diverse world. The works of these pioneers of new literacies have been known as the New Literacy Studies (Roswell et al., 2013). The term multiliteracies has evolved into the denotation of reading and writing processes deemed as necessary for effective communication in the 21st century. Gee (1999) postulates that literacy includes oral and written language, “nonlanguage stuff,” the way people act and interact, values, beliefs, non-verbal symbols, the internet and technology.

As we are well on our way in the second decade of the 21st century, the concept of traditional literacy has changed, and therefore educators must change how instruction is

delivered. The art of teaching and learning must now involve integration of internet tools and technological resources that are needed in schools. There is a need to provide training for school administrators and teachers to adopt to the changing roles in the new literacy schools. Students also need to be provided with the tools necessary to conduct internet research effectively and successfully. Some of these skills include the teaching of close reading on the internet and how to draw inferences from internet sources and links (Leu et al., 2013). The theoretical shift that has occurred in the use of new literacies has affected all constituents, which includes government, schools, administration, teachers, parents, and students.

Today's students are very adept at certain forms of technology and could possibly lend their knowledge within a unit or lesson of teaching using technology (Leu et al., 2013). Problem based inquiry will need to be integrated in the online reading comprehension realm, and teachers will need to know how to guide students in conducting research to solve problems and answer questions. Students will need to know how to also self-direct and develop the practice of processing and constructing textual knowledge while being simultaneously immersed in several sources of information (Leu et al., 2013). There is a shift in the presentation of materials such as a bullet-point list, versus paragraphs of terms used to introduce sections of the text, or new concepts. Likewise, there is a shift in the way students are learning to read and how they make meaning of text, acknowledging a wide range of complexity in how children read a variety of different text. Teaching literacy according to the students' wide variety of interest, purpose, learning styles and modalities can help with connection and developing comprehension especially with adolescents (Rowse et al., 2013). It is recommended that

educators combine new literacy studies and multimodality with the standard views of education (Rowse et al., 2013).

The Common Core Standards on Technology

According to Roberts and colleagues (2012), the changing nature of technology results in a gap in the available research on the effects on literacy using the “latest and greatest” trends in technology. Fortunately, there are some researched and recommended practices connected to the use of frequently accessed technologies such as particular websites and blogs such as Google Classroom, QuizBanker, Interactive Whiteboard, YouTube, and ScreenChomp (Pilgrim et al., 2012). There are also the Common Core Standards on Technology which provide guidelines on the expectations of use of technology in the classroom (Roberts et al., 2012). Many of these standards are aligned with the literacy standards, since technology is fast-changing; therefore, researchers have not been able to keep up to create all new standards (Common Core State Standard, 2010; Roberts et al., 2012).

Leu’s (1997) study on new literacies is grounded in a constructivist view, which was described as deictic, meaning it is “contextually dependent upon the time and place.” Currently, we are focusing on the 21st century and the place is the United States. Educators have the challenge of ensuring that students are authentically learning the content and not just learning how to use technology. The technology standards overlap with some standards of reading and writing and what students should know in some of these areas (Roberts et al., 2012).

New Technologies in the Classroom

There is absolutely no denying that technology has opened multiple possibilities and ways in which students can be engaged. Thus, the introduction of new technology is compelling educators to change the way they previously thought about education and literacy. The United States Department of Education has supported this push for change, as it provided a national educational technology plan entitled Transforming American Education: Learning Powered by Technology (U.S. Department of Education, 2010). The types of available technology are rapidly changing and extend well beyond the available use of a PowerPoint presentation, a Google search or simply using a laptop with a projector. Most schools have some access to laptops and iPads, but what is rapidly changing is the influx of available applications or apps which students can use at their fingertips in school or at home to enhance their learning experience (Pilgrim et al., 2012). For example, students can use the Dictionary.com app to look up the meaning of a word, and they will not only get the definition, but they will also get multiple meanings of how the word is used and a sample pronunciation of that word. Some schools have reportedly used the FaceTime app to communicate with parents who have difficulties making it to parent teacher conference night. This provides another channel for families to know what is happening in the school which was not available years ago. Students, teachers, and working professionals can utilize Google Docs to collaborate on projects in real time (Pilgrim et al., 2012). The 21st century employer is expecting professionals to be able to interface with touch screen tools, digital platforms, and a wide array of ever evolving technology. Therefore, schools are tasked with preparing students to be equipped with skills necessary to communicate, collaborate, perform research, and compete on a local

and global level in a technologically advanced world (U.S. Department of Education, 2010).

The level of success of the integration of technology into a curriculum is determined by several different factors such as teacher training, teacher attitude towards the use of technology, administrator support, students' perception and use of technology, resources, and planning (Howley et al., 2011). Students' creativity and innovation tends to expand with the integration of digital classroom tools such as three-dimensional printers, user friendly design software and laser cutters, which have shown to be critical tools in science, technology, engineering, and mathematics career (STEM) learning (Smith, 2013). Teachers should be encouraged to utilize a project-based instructional approach when planning to integrate the technology and tools for their lessons as this emulates an authentic real-life experience for their students (Li and Huan, 2017; Vygotsky, 1978).

According to Tamin and colleagues (2011), 40 years of research has shown that integrating technology into classrooms improves instruction and students' learning. However, there are still several impeding barriers which slow down the process of meaningful digital technology implementation. These were identified as attitudinal, social cultural, and pedagogical. They fall into two major categories which Ertmer (1999) describes as first-order barriers and second-order barriers. First-order barriers are variables which teachers and educators do not directly control, such as access to technology, bandwidth, and other resources. Second-order barriers are defined as the attitudes and beliefs held by teachers and educators which inherently influence their pedagogical practices (Ertmer, 1999; Sexana, 2017). Although access to technology has

improved in the United States in recent years, the issue of second-order barriers have persisted, as indicated by the 40% of teachers across the country who do not integrate any technology in their practice (Pittman & Gaines, 2015).

In a qualitative multi-case study conducted by Durff & Carter (2019), the authors examined how to overcome second-order barriers to integrating technology in kindergarten to grade 5. The results indicated that collaboration of teachers, administrators, and technology support staff working together, prove to be the most successful process to gaining strong implementation of technology in teaching practices. It has also been documented that administration support can serve to conquer the hurdles of second-order barriers, as teachers feel encouraged to explore technology when they know that they have the support of their leadership (Durff & Carter, 2019).

The Digital Divide

Although technology has made its presence known in every single aspect of society, and we have agreed that having knowledge of how to access digital tools and multiliteracies is almost compulsory to adequately function in 21st century society, there remains a digital divide (Leu et al., 2013). The term digital divide began surfacing in the 1990 with the influx of dot.com companies being established. The term literally means those who have access to technology, software, and connectivity, versus, those who do not have access (Warschauer et al., 2004). Having access to technology can lead to varying types of opportunities such as the ability to receive information and in a timely fashion. It now informs our status in society in terms of social, cultural, economic, and of course educational.

Since the COVID-19 pandemic, the digital divide conversation has especially

deepened in marginalized school districts and communities where students did not have their own equipment at home, no internet connectivity, or access to Wi-Fi. It illustrates the inequality that exists across the country, across and within states, and amongst schools that are within the same school districts. Some students in New York City got creative by utilizing their mobile phones which provided some limited access, to applications such as Google Classroom to get started with assignments or stay connected until they were able to pick up a loaner or new device from their schools or the New York City Department of Education (Amin & Zimmerman, 2020). In some more resourceful school districts students were already prepared and out fitted with their own personal laptops and iPads at home and did not have to be concerned with missing valuable information to meet their educational requirements. Having easy access to the technological devices create the opportunity to build skills and capacity in so many areas such as communication, collaboration, creativity, coding, and problem solving (Jacobs, Castek, Pizzolato, Reder, and Pendell, 2014). Students who are in schools with adequate resources, and educators who bear the knowledge to expose them to this extremely relevant information, are able to develop the proficiency that will need to become digital literate citizens who are able to compete in an ever-transforming online society (Jacobs et al., 2014).

In today's world, it is imperative to have at minimum: basic skills of keyboarding, knowledge of using a mouse, using email, a digital device, and having internet connectivity to be able to send and receive information. The world has become more of a virtual one and we are depending on technology more than ever before. It is important to close the digital divide gap between the haves and the have nots to allow for some type of

equity in every home allowing the basics of interaction with public service, communicate with friends, engage in political activities, gaining employment, and participate in ongoing education (Jacobs et al., 2014).

Some of the work of the provisions by libraries did not become apparent until the buildings shuttered, and the public no longer had access to hard copies of books, public access computers, Wi-Fi hot spots, online books, and media resources. The COVID-19 pandemic unveiled the extent of how struggling Americans reportedly depend on public libraries for these resources (Ayre, 2020). In effort to address this digital divide, many libraries began a curbside pick-up and drop off service by providing of hard copies of their circulation volume, and other information needed since some people did not have internet access or Wi-Fi in their homes (Ayre, 2020). According to the Urban Libraries Council (ULC), the new focus on lack of digital access in marginalized communities during the COVID-19 pandemic has provoked conversations of the need for a task force on a community, state, and national level, to enforce access for all (Willcox, 2020).

Teacher Engagement with New Literacies

Teachers are charged with the task of ensuring that there is a bridge for students to progress smoothly into the 21st century with the skills required to access these digital literacy platforms. However, often teachers who are not technological savvy or familiar with the latest technology may experience a sense of anxiety when they are asked to integrate new tools in their classrooms (Zoch et al., 2016). Teachers need to be instructed on using new digital devices for them to feel confident, motivated and experience a sense of autonomy when they are asked to utilize new literacies and multimodalities in their classrooms (Tondeur et al., 2017; Uerz et al., 2018) Veteran teachers can benefit from on-

going professional development to support them on the evolving technology (Zoch et al., 2016). It would be prudent for teacher preparation programs to include new literacies and multimodalities in their curriculum so that future teachers can be exposed to the digital literacy platforms that they will need to know and integrate in their curriculums and align with the Common Core State Standards (CCSS, 2016). Uerz et al. (2018) brings to light the fact that most studies that have been done on teacher technology integration have involved teachers self-reporting and were not aligned with a set of standards or competencies to determine how teachers can adequately meet the desired technology literacy level for education.

The fact that school curriculums are being updated to reflect digital literacy in our classrooms, is imperative that teacher education include this same preparation for pre-service teachers and professional development should be made available for in-service teachers to develop their competencies (Zoch et al., 2016). In a report sponsored by Google for Education, The Economist Intelligence Unit (2018) discussed that teachers need a range of teaching skills in order to effectively deliver instruction to meet the learning needs which are required for the preparation of the 21st century workplace. According to Ziad (2016), although the benefits of technology are agreed upon by many, it is also widespread that there has been inadequacies in the usage of technology that moves beyond emails, internet access, and towards more advanced multimedia platforms, due to the lack of available resources.

A mixed method study conducted by Yim, Warschauer, Zheng, and Lawrence (2014) revealed that students and teachers gave positive feedback on the qualitative portion regarding Google Classroom. The sharing features were highly favored, as they

allowed for creativity, communication, and collaboration, which meets the criteria of the Common Core State Standards (2016). The concept of new literacies is certainly not exclusive to the United States, it would be more accurately described as a global movement (Leu et al., 2013). While the United States focus on the Common Core Standards and how to integrate research and comprehension to assess students' learning, college and career readiness, countries such as Australia has its version of the same goal, known as Australian Curriculum and Assessment Authority. There is a global shift from the focus on industrialism, and thus the demand in a post-industrial economy is driving the need for new learning via technology (Leu et al., 2013).

As teachers continue to engage with new literacies and multimodalities, it is becoming more evident that technology is changing the way they teach, and it is also changing how students learn. A recent study by Guo, Meadows, Duan, & Gao (2020) involving 27 pre-service teachers, sharing their perspectives on multimedia technology and environmental education, done in China revealed three main standpoints. The ideas that teachers value and appreciate multimedia resources, but had challenges applying usage to their practice. According to Guo et al. (2020), the teachers indicated that they value the functionality of the resources applicable to environmental education. However, they also indicated that although they valued the role that these new literacies resources employed in education, they were concerned about their own capacity to utilize all of the new resources in the rapidly developing online learning environment. They attributed this concern for their under preparedness to integrate this technology in their new classes, due to the fact they did not receive training on this platform in their preservice courses. The study conclusion revealed that teachers would feel more competent utilizing new literacy

platforms if they had received prior training during their coursework.

Since the 21st century has a driving demand for citizens to be literate in technology, as gate keepers to knowledge, teachers are expected to integrate technology into their curriculum to prepare students for success in college and career (CCSS, 2016). Therefore, teachers need to have the knowledge and skill set in order to effectively accomplish this work. In Dincer (2018) study on determining the technology literacy level using a sample of 712 preservice teachers from 5 universities, and 227 elementary and middles schools, the knowledge, and skills of the teachers, as well as their attitudes towards certain technological concepts were examined. The author stated that knowledge and skills have been examined in other studies, however the attitude about technology variable was needed to accurately determine technology literacy levels of the teachers. The preservice teachers mainly self-reported their perception of personal knowledge and skills on a competency survey on which they rated themselves on a higher level. However, test that measure their skillsets revealed lower values, even when the teachers had a positive attitude towards implementing technology in their practice (Dincer & Dogganay, 2017). According to (Instefjord and Munthe, 2017; Lund et al., 2014) possessing the skills to use technology and being able to use technology specifically for education are two different skill sets. Thus, many may be technology literate, this doesn't necessary equates to them being effective in the use of technology in education. Surveys in Dincer (2018) study informed that the preservice teachers were not properly equipped with training on technology during their teacher education courses. The results suggest that teachers need special technology skills to effectively integrate usage in their pedagogy.

Using Google Classroom

As mentioned above, there is a gap in the literature on the use of Google Classroom in schools. However, a study conducted by Bondarenko and colleagues (2017) discusses the disadvantages that educators should consider when they chose to engage with Google Classroom for the blended learning experience. The article mentioned low levels of motivation, insufficient student readiness, a need for out-of-classroom pedagogical supports, and the lack of guidance on the content on Google Classroom pages.

However, Umamah (2019) lauds Google Classroom as an excellent learning media tool, that can assist in the delivery of instruction and motivate students to learn. Some of the features that received positive feedback from the five sample teachers involved in this were: single views of student assignments, class arrangement, decimal grading, transfer of class ownership, new class integration, code display class, import the Google Form Quiz score to class, and add a profile on the cellphone. The five teachers involved in Umamah (2019) study reported their satisfaction with the usage of the application in their classrooms with a combined total of 170 students. The data reported in the study was managed by the five high school teachers in Indonesia. The teachers concluded that the features and audio-visual components of Google Classroom were conducive to efficient management of their pedagogy.

Heggart and Yoo (2018) conducted a study involving 33 preservice teachers and academics in a teacher preparation course in Australia, who wanted to understand their own usage of internet tools and Google Classroom. The analysis of data revealed that Google Classroom increased student participation, learning, and classroom dynamics. It

is also reported to unveil the teachers concern regarding pace and user experience. There was the mention of more emphasis and value being placed on the growing interest in online and cloud-based tools, ubiquitous use of cell phones, and the possibility of increasing students' engagement by engaging them with the type of tools such as social media.

Budgetary Limitations

A report by The Economist Intelligence Unit (2018) revealed that a large majority of the educators surveyed believe that the integration of different education strategies and techniques would be most effective for successfully developing the skills needed by students who will enter the 21st century workforce. They emphasized that the focus should also be on giving teachers greater autonomy to engage students in hands on learning and complex activities. However, they report that the one of the main challenges that they face in executing these types of initiatives is the limitation of resources. The necessary resources include teacher training on the required hardware and software necessary for instruction, and limited technologies available in schools and policy gaps that keep them from gaining access to resources needed to teach (The Economist Intelligence Unit, 2018). School districts across the country have also reported the challenge of budgetary constraints that keep them from being able to provide educators with the new strategies and technologies to effectively engage students in adopting to the new digital literacy expectations (The Economist Intelligence Unit, 2018).

The COVID-19 pandemic highlighted the major problem of the haves and the have nots in major cities across the United States (Google Classroom, 2020). This was particularly evident in New York City where students waited for months after the

pandemic set in before receiving devices donated devices such as laptops and tablets to complete their virtual assignments (Amin & Zimmerman, 2020). Some of these students also did not have the required internet connection at home for the connectivity to access the online lessons (Amin & Zimmerman, 2020).

According to De Vynck & Bergen (2020) Google Classroom and Google Suite for Education (GSFE) is revolutionizing education because the app is user friendly, Google offers ongoing support, professional development for teachers and administrators, and provides students with free resources. Google Classroom has positioned itself at the top amongst competitors such as Microsoft and Apple, by offering free internet access and Chromebooks to students during the pandemic (De Vynck & Bergen, 2020). The apps' popularity soared around the world, as international school systems made outreach to Google to support their students' education during the pandemic. It is reported that over 30 million elementary school students have received free internet service from Google, and Google continues to provide free resources such as training for teachers and Chromebooks for students during the COVID-19 pandemic (Futuresource, 2020).

The inequity of access to technology spans through urban, suburban, and rural neighborhoods, with a larger number of students reportedly lacking access in rural areas, in comparison to the urban areas and the suburbs (Sundeen & Sundeen, 2013). There are limited professional development opportunities for teachers in rural areas, which results in teachers lacking the technology skills that they need to improve their pedagogy (Tyler-Wood, 2018). According to Howley and colleagues (2011), some rural teachers may not attend trainings when offered and they refuse to implement new technology due to lack of follow up and support. Although urban school districts showed comparable results in

terms of having access, rural school were reported to have the least access (Lu & Overbaugh, 2009).

Rural areas often have a shortage of infrastructure that is necessary to support the internet, and thus access can be expensive to gain. Wheeler (2014) reported that 41% of schools in rural area doesn't have the appropriate bandwidth strength to accommodate connectivity to the internet, while urban areas schools report 31% with the same issue. Traveling to and from schools in rural areas require more time and resources, than in urban and suburban area, thus more resources are expended on the physical building which reduces the budget for technological resources (Gutierrez, 2016). There is also the concern of not being able to afford the necessary technicians to maintain the equipment due to the shortage of funding (Tyler-Wood et al., 2018).

As mentioned above, urban public-school districts have similar technology resources challenges as rural school districts do; however, they still report an advantage over rural areas. The studies on rural, suburban, and urban schools revealed that there was a significant difference in the ability to secure hardware and software and the technicians to resolve problems in a timely fashion, resulting in rural schools being in the precarious position (Wheeler, 2014).

Summary

Google Classroom made its debut in 2014, and it is still very new in the field of new literacies and multimodalities. This chapter highlights the notion of technology in the 21st century, teaching during the COVID 19 pandemic, and discusses the sudden urgency and importance of Google Classroom as a learning tool. It also discusses the

digital divide that exist between the haves and have nots across school districts, and the need to focus on closing this disparity in access to digital resources.

CHAPTER 3: METHOD

Research Questions

The overarching research questions that guided this qualitative study which took on a phenomenological approach were:

- 1) How do teachers describe their experiences of teaching with Google Classroom during the COVID-19 pandemic?
- 2) How have teachers' perspectives of digital literacy changed since the COVID-19 pandemic?

The following sub-questions were explored:

- 1) How has teaching practice changed since teachers began using Google Classroom during the COVID-19 pandemic?
- 2) How do teachers report supporting their students in the new online learning environment?
- 3) How do teachers report students' engagement and collaboration being maximized in Google Classroom discussions?
- 4) How do teachers report constructing a sense of community in a remote/virtual/online learning environment?
- 5) How do teachers report developing new skills to maximize lessons delivered via Google Classroom?
- 6) How do teachers report communicating and collaborating with other teachers, parents, and educators via Google Classroom?
- 7) What do teachers report about using other forms of technology in conjunction with Google Classroom?

- 8) How do teachers report their experience of internet connectivity issues and that of their students?

Research Design

Creswell (2013) posited that researchers use qualitative research as the method to when an exploration is needed to dissect a problem. It is highlighted that a phenomenological design is best when the researcher is interested in discovering the meaning of shared experiences. According to Moustakas (1994), a transcendental-phenomenological approach enables the researcher to avoid prejudice and limits the researcher's bias. This allows for an open approach to understanding the lived experiences and to view the data from a fresh perspective. The process of bracketing was used, to ensure that the researcher took note of any preconceptions, and presuppositions, in order to rule them out (Creswell, 2013).

This study embarked upon the process of a qualitative design within a phenomenological approach which allowed the researcher to focus on teacher perceptions of teaching with the Google Classroom app during the COVID-19 pandemic. It involved the authentic lived experience of 14 teachers who were the participants who spoke directly to their personal experiences of teaching with the Google Classroom application. Semi-structured open-ended questions were asked during individually scheduled Zoom interviews which averaged from 43 minutes to an hour and 20 minutes. The participants were given the option of choosing between Zoom and Cisco WebEx platform for their interviews, however they all chose Zoom as their preferred platform. All interviews, except one, were conducted with both the researcher and the participants cameras on and audio-video recorded. The one interview which did not capture the video of the

participant, experienced some technical challenges on the participant side. The virtual interviews were conducted throughout the month of November and December 2020. The goal of the study was to bring to life the experience of the participants through the phenomenological study “restorying” (retelling) the experience using the three-dimensional design. The three-dimensional space approach which is based on Clandinin and Connelly’s (2002) approach was utilized for this study. This approach is concentrated on personal and social connection to people, and their experiences. Through the virtual interviews, the participants shared their personal experiences with the researcher. They highlighted their accounts of utilizing Google Classroom for their remote teaching during the COVID-19 pandemic and how their pedagogical practices have changed since they began virtual teaching on the platform.

Sample

The study included 14 teachers from different school districts within New York State. The researcher aimed to access teachers from different geographical locations within New York State, specifically cities, suburban, and rural areas within the state. To support recruitment of teachers, the researcher contacted several school administrators. The administrators shared the recruitment flyer with the teachers. The recruitment flyer was also posted on a few personal accounts on the social media platforms Instagram, WhatsApp, and GroupMe, which alerted individuals, groups, and other entities of the intended study. The researcher also wanted to access a sample of teachers with different range of years of teaching experience and time spent using the Google Classroom app.

All 14 participants represented expertise in various subject areas which included, mathematics, science, English language arts, social studies, and special education. They

represented a span of experience teaching on different grade levels from kindergarten through grade 12. Their student populations served included a diverse range of students from struggling readers and writers, English language learners, special education, general education students, gifted and talented students, and advance placement students. The researcher utilized intentional sampling and aimed to achieve maximum variation in the sample by choosing teachers from the various backgrounds mentioned. After initial contact via email, each participant received the Teacher Consent Form (see Appendix A), which provided the teachers with the protocols of the study and secured their written permission prior to collecting any data from them. The Recruitment Flyer (see Appendix B) was used to announce the dissertation study and was posted on Instagram, GroupMe, and WhatsApp social media accounts utilized by the researcher. The recruitment flyer was also shared via snowball sampling by participants within the study. The final sample included ten urban teachers, four suburban teachers, but no rural teachers participated in the study although they were recruited.

Instruments

The two instruments that were involved in this study were: (a) an interview protocol comprised of open-ended research questions (see Appendix C) and the semi-structured questions that were asked during the teacher interviews that were conducted on the Zoom platform; and (b) the survey demographic questionnaire, issued to the participants after they consented to participate in the study and sent via email in a Google Form for easy access and collection (see Appendix D). The study was approved by the Institutional Review Board (see Appendix E).

Procedures

The study was conducted between November and December of 2020. Prior to collecting any data, each participant was informed about the specifics of the study and the virtual interview process. They were given ample opportunity to read and establish their understanding of the study, ask questions prior to signing the consent form, and agreeing to participate in the study. They were informed by the researcher and all understood that they had the right to withdraw from the study without any penalties for whatever reason, and that they would not be compensated with money or incentives for this study. All 14 participants completed the Teacher Consent Form and the Survey Demographic Questionnaire which contained twelve basic questions, prior to their virtual face-to-face audio and video recorded interviews, which were conducted utilizing the Zoom platform. All 14 saved audio of the interview recordings were later transcribed using the assistance of Otter Voice Meeting application, converting the interviews from Zoom platform to text. The researcher then listened and relistened to each line of the recorded interviews from the saved recordings, to assured accuracy in each transcription. Quotations from the participants were also shared verbatim in the results section. Pseudonyms were used throughout the study. Each participant validated the data prior to final summary through a follow up call of approximately 10-minute as a type of “member checking” (Creswell, 2017). The researcher discussed positionality with each participant during the face-to-face meeting, explaining that the researcher has been exploring the use of Google Classroom on the level of incorporating it into teacher classroom practice to help improve their management practice. The researcher shared that this was done prior to the COVID-19 pandemic and that no previous research was done on teacher experience using the

Google Classroom app. The researcher practiced reflexivity as an important component throughout the data collection and analysis phase, in effort to reduce bias that may be inherent on the side of the researcher, as the researcher acknowledged her own experience in the study (Lichtman, 2012).

Data Analysis

The demographics and interview data were organized and interview data was also organized with some assistance from Delve (Delve.com) with the intention of aligning codes from the raw transcripts. However, the main analysis was conducted by reading the raw transcripts of the data, coding, recoding, and categorizing the findings from the lived experiences of the teachers. The researcher used Creswell's (2009) six steps to prepare data, read through data, code data, categorize data, convey findings, and interpret data to analyze the data from this study. Based on the two general research questions, sub-questions, and other open-ended interview questions, the researcher coded the transcripts looking for patterns, which then morphed into categories based on the words or phrases used by the participants taken directly from the transcripts (Saldana, 2015). Some of the codes which evolved into the six themes were: Google Classroom, pandemic, COVID-19, cameras, apps, connection, organize, techie issues, professional development, teaching, remotely, home, parents, and working. This practice was used to ensure accuracy, as the researcher ensured using codes from the data which emerged into themes based on phrases from the participants' interview and member checking (Creswell, 2017; Saldana, 2015).

CHAPTER 4: RESULTS

Overview

The purpose of this phenomenological study was to explore the phenomenon of teachers using Google Classroom during the COVID-19 pandemic. The participants in the study were 14 teachers from across urban, and suburban school districts in New York state. The six major themes that resulted from the transcendental phenomenological data analysis included: (1) *Pros and cons of teaching remotely*; (2) *Cameras and engagement*; (3) *“Sink or swim”: Professional development to teach remotely*; (4) *I am not a techie, but learning*; (5) *Stress and the disconnect*; and (6) *Education after COVID-19*. In this chapter, participants are described, the results are presented, themes are delved into, and the overarching questions and sub-questions are discussed.

Description of Participant Characteristics

About 40 percent of the teachers’ email and phone contact information was given to the researcher to initiate outreach. The other half of the participants emailed the researcher directly to express their interest in participating in the study when they were informed via the snowball method. The 14 participants completed the required Teacher Consent Form for the study, prior to filling out the Survey Demographic Questionnaire. Their interviews were scheduled at a convenient time (after work or on the weekend) and later conducted on the Zoom platform.

The participants included teachers from kindergarten through grades 12 and represented all core content areas except for technology and physical education. They represented urban and suburban areas of New York state and included diverse racial and ethnic backgrounds. Three participants were K through 3 teachers, two were grades 3

through 5, three were 6 through 8, one was 6 through 12, five were 9 through 12. The K through 3rd grade and 3 through 5 teachers, all instructed math, science, English language arts, and social studies. They were comprised of 3 males and 11 females, with ages ranging from 27 years old to 61 years old. Thirteen of the participants held a master's degree at the time of the interview and one expected to earn the master's degree by January 2021. Table 1 illustrates additional data from the demographics survey questions (see Appendix D).

Table 1. Participants' Demographic Information

No.	Participant	Grade Level(s)	Subject Area	Location	Self-reported Google Classroom rating	Have you been participating in Google Classroom PD?
1	Samantha	K-3	Math, Science, ELA, Social Studies	Suburban	Developing	Yes
2	Simone	6-8	Social Studies	Urban	Developing	No
3	Lisa	3-5	Math, Science, ELA, Social Studies	Urban	Developing	Yes, some
4	Troy	9-12	ELA	Urban	Intermediate	Only very basic usage
5	Anna	6-8	Math, Special Education (SpEd)	Urban	Intermediate	No
6	Judy	K-3	Math, Science, ELA, Social Studies	Urban	Basic Beginner	Yes
7	Richard	6-12	Math	Suburban	Intermediate	Yes
8	Laura	9-12	Social Studies	Urban	Intermediate	No
9	Gregory	9-12	ELA	Urban	Intermediate	Yes
10	Gabrielle	9-12	Social Studies	Urban	Master	No
11	Reese	3-5	Math, Science, ELA, Social Studies	Suburban	Developing	Yes
12	Karen	K-3	Math, Science, ELA, Social Studies	Urban	Developing	Limited
13	Pam	6-8	Math, SpEd	Urban	Google Certified	Yes
14	Brianna	9-12	ELA, SpEd	Suburban	Intermediate	Yes

Below is a brief description of each participant's background which preface their main concerns in the themes that evolved throughout the study.

Who is Who?

Samantha

Samantha identified as a K through 3, general elementary teacher in a suburban school who described her expertise with Google Classroom as Developing. She started using Google Classroom for the first time in March 2020 during the initial COVID-19 pause. She has taught both remotely and in-person since March 2020, using Google Meet for the video component in her practice. Her prevailing concerns were students being distracted about half of the time when they needed to be in the online classroom. She believes that the future of education will come down to a lot of online work, and parent involvement will be integral to accomplish this.

Simone

Simone identified as a 6 through 8 social studies teacher who has been working in an urban school. She described her expertise with Google Classroom as developing. She initially used Google Classroom at the onset of the COVID-19 pandemic in March 2020. She has taught both remotely and hybrid, however, the hybrid situation in her school involved having the teachers in the building while the students learned from home. She has not met any of the six graders she teaches, as they are new to middle school. The video platform that her school employed was Ring Central which she stated is like Zoom. Her prevailing concern is that students are not “activating their own knowledge.” She believed that there is a shift in the priority of learning when students are at home with distractions such as taking care of younger siblings. She also thinks that there has been a reduction in students’ accountability for their own education.

Lisa

Lisa identified as a Grade 3 through 5, school teacher who teaches math, science, ELA, and social studies working in an urban elementary school. She is also certified in special education. She describes her expertise with Google Classroom as Developing and shared that her school did not really promote embracing technology prior to the COVID-19 pandemic. She initially used Google Classroom at the onset of the COVID-19 pandemic in March 2020. She has taught both remotely and in person with students in the building. She chose to use Google Meet for her video component instead of the *Zoom* platform because her school gave teachers the option to use either platform in their individual practice. Her concern was that not all devices are created equally, as some students worked on Chrome Books and Laptops and others worked on iPads or some other type of tablet. She shared that the problem was that some students could not access all the required documents from their tablets and struggled to keep up.

Troy

Troy identified as a grade 9 through 12 English language arts teacher at an urban high school. He described his experience with Google Classroom intermediate and shared that he was using it for a few years prior to the COVID-19 pandemic. He used it mainly for collection of work and the Stream feature with his advanced ELA and Theatre students. Since the transition to fully remote teaching and learning in March 2020, he had been using it with all his courses. His school did not return to the building, so all of his courses are taught remotely. His prior use of Google classroom made the transition to fully remote teaching in March 2020 a more seamless experience for him and some of his students. His school has utilized both Zoom and Google Meet for the video component

during synchronous instruction. He would like to continue using the Google Classroom platform in the future because it enables him to collaborate one on one with his students while giving detailed feedback and engaging them in breakout rooms discussions, which deepened their engagement.

Anna

Anna identified as a grade 6 through 8 mathematics and special education teacher at an urban high school. She described her experience with Google Classroom as Intermediate. She taught classes of six students through 33 students since she serves self-contained and integrated collaborative teaching. Her school began using Google Classroom during the initial shutdown due to the COVID-19 pandemic. She shared that she initially used Google Meet for the video component during live sessions and has since switched to Zoom since the reopening of school. Her concern was students turning in blank work on Google Classroom to meet the “turn in” request. She noted that some students have not been turning in completed work, they turn in a blank document to fill the void, so many are not doing the actual assignments. Her frustration is the fact that students have the option to dismiss the comment feature if the teacher gives feedback that they have turned in an empty document.

Judy

Judy identified as a kindergarten through 3rd grade teacher, responsible for special education and teaching mathematics, science, social studies, and English language arts to her students in an urban school. She described her Google Classroom experience as a Basic Beginner, as she started using it during the initial COVID-19 pandemic shutdown. She has been teaching strictly remote since March 2020 and feel that it is really

challenging to teach young children on a remote platform, especially students with disabilities. She has never met her students. Her concern is that students need parental or family support when working from home. She shared that her students like working on the devices because they are young and exploring shapes. She is concerned with not knowing exactly what students are able to do on their own since she is not in the classroom to demonstrate in person, peruse and see them working. They are receiving help from parents or older siblings who seemed to do some of the assignments for them and therefore she is not certain of a fair virtual assessment of their skills. She believed that students have lost independence working on the Google Classroom platform.

Richard

Richard identified as a grade 6 through 12 mathematics teacher who worked in a suburban school. He describes his experience with Google Classroom as Intermediate. He explored with Google Classroom prior to the pandemic and self-taught and took advantage of professional development on the app before the pandemic. His school chose Google Classroom in March 2020 when the schools initially closed, however, teachers could use any platform that they wanted to use. He began using Google Meet as the video component for synchronous instruction. Prior to the pandemic he was never allowed to teach with video technology in his school. He is concerned that students do not need to turn on their video camera since it is not a requirement by the school. He felt that this makes it incredibly challenging to teach since he doesn't even know when students are in the class or not. He said some will sign in for attendance, but when they are called on for an answer, no answers were forth coming. He also felt a lack of parent involvement perpetuated these issues, as most parents did not respond to his outreach.

Laura

Laura identified as a grade 9 through 12 special education teacher with a focus on social studies and English language arts in an urban high school. She has been teaching fully remote since March 2020 and has never met her 9th graders. She uses Zoom for the synchronous component to meet her student online. She describes her experience with Google Classroom as intermediate. She was previously exposed to Google Classroom in her school a couple years prior to the pandemic, however she never completely embraced it in her practice until the COVID-19 pandemic shutdown in March 2020. Her concern is that some students have issues with time restrictions while learning on Google Classroom, and doesn't understand the responsibility or seriousness of turning in their work on time on the platform. She felt like the students' academic expectations are lower and many of them only complete assignments just to get a grade. However, she also shared that her parents are very receptive and shows support whenever she made outreach regarding students' virtual performance.

Gregory

Gregory was a grade 9 through 12 English language arts teacher in an urban high school. He described his expertise with Google Classroom as Intermediate and he has been teaching completely remote since March 2020 at beginning of the pandemic; although he has some students who are reporting to a building or center to complete their assignments. He used Zoom for the live instruction component of his practice, as it is used schoolwide. He was concerned with the attendance in the synchronous classes, as he said it hovered around 50 to 60 percent based on his reports from the Kinvo app. He alluded to the notion that students believe that they do not need to meet in real time and

believe that they can still get a passing grade. His students are scheduled to meet every other day for 80 minutes of live instruction. He is also alarmed at the low rate of parent responses when he makes outreach about students not being present in class and have missed instruction. He only had 5 parents who attended during open school night, although it was conducted virtually. He also reported being concerned with the feeling a lack of connection or “sense” for his students as human beings.

Gabrielle

Gabrielle was a grade 9 through 12 social studies teacher in an urban high school. She described her level of expertise on Google Classroom as Master. She has been teaching totally remotely since March 2020 at the beginning of the COVID-19 pandemic. She was teaching exclusively 9th grade since the beginning of the school year and has not had the opportunity to meet her students this year and have been conducting face to face instruction on *Zoom*. Her concern is that students need to develop organizational skills to get ready for learning in a college environment. She believed that Google Classroom is an excellent tool that teaches students some of these skills and she has embraced this in her practice prior to the pandemic. She reported a smooth transition as a teacher and feel that society on a whole could benefit from a platform such as Google Classroom. She was also concerned about helping other teachers in her school who were not as technologically savvy to becoming more comfortable and up to par with utilizing the platform during the 2020 to 2021 school year.

Reese

Reese was a grade 3 through 5 elementary school teacher focusing on mathematics, science, English language arts, and social studies in a suburban school. She

rated her expertise with Google Classroom as Developing. She began using Google Classroom in March 2020 and had to learn many other technology platforms since then. When her school reopened, she was initially teaching in person, and remotely to hybrid students. However, as the schools made decisions due to breaking news on the COVID-19 most of her students opted to be fully remote and so she switch to an all-remote schedule. She reported that due to a staffing shortage in her school she was asked to teach a class of 29 general education 5th graders and two students with individualized education plan. She teachers utilizing Google Meet for synchronous instruction. Her concern was students having access to literacy materials at home and has ensured that she explored apps that work in conjunction with Google Classroom. She sought out cross-curricular online resources and content for guided reading, interaction e-books, and educational puzzles.

Karen

Karen was a Kindergarten to grade 3 teacher responsible for mathematics, science, English language arts, and social studies in an urban school. She rated her Google Classroom expertise as developing. She began using the platform in March 2020 when the schools closed and has been teaching both in person and remotely since her school reopened for the 2020 to 2021 school year. Prior to the COVID-19 pandemic she was a library media specialist for eight years and she taught grades 4th and 5th before that. However, the pandemic sent her back to the classroom due to a teacher shortage in her school. She utilized the Google Meet platform to engage students in synchronous learning. Her major concern was moving towards implementing the usage of the breakout room feature to increase students' engagement and get them talking, as she learned from

other teachers that students contribute more to the small discussion groups in their practice. She wanted to focus on explicit instruction to improve students' level of comfort in responding to prompts which sparks discussion. She hadn't anticipated a return to teaching, and reportedly found remote teaching to be one of the "most challenging thing" a teacher can do since they are not there to ensure that the learning is actually taking place.

Pam

Pam was a grade 6 through 8 special education teacher with a focus on mathematics in an urban school. However, due to teacher shortage this year, she was also been tasked with teaching 6th grade science, math, and 7th grade humanities for the 2020 to 2021 school year. She described her Google Classroom experience as Google Certified. She also reported that she has had a profound interest in technology and coding for many years, before realizing that there was a career path for areas such as coding, programming, and technology. She described this as her impetus for avidly enrolling in Google Classroom workshop sessions whenever she could, back in 2014 when Google was initially introduced as Google Apps for Education (GAFE). She has since recertified under G-Suite, the updated version of the app. At the beginning of the pandemic, she used Google Meet for the synchronous sessions with her students but has switched to Zoom for the 2020 to 2021 school year. Her main concern was retraining students to become accustomed to functioning in a digital classroom. She believed that the new 6th graders now have to learn skills such as bringing their devices and chargers if they are not attending virtual classes from their own home. It is no longer "just writing in a planner and copying the homework," according to Pam.

Brianna

Brianna identified as grade 9 through 12 special education and English language arts teacher in a suburban school. She described her expertise with Google Classroom as intermediate. She began using Google Classroom in March 2020 when she worked in an urban school. In September 2020 she continued to use the platform when she began working in a suburban school. She started the 2020-2021 school year teaching both in person, and remotely from the school building, using Google Meet as the synchronous teaching platform. Some of her students opted for the blending learning schedule and others were fully remote. The school had plan on ending in person learning just before the Thanksgiving break. However, a student in her school contracted the COVID-19 virus prior to that time and the entire school went remote. Her pressing concern was that a group of her students never sign on to Google Meet for their scheduled one-to-one arranged sessions. They believed that they receive too many emails and did not really need the extra sessions to support their learning.

Themes Across Interviews

Using Moustakas' (1994) transcendental phenomenological approach to data analysis to address the overarching research questions and the sub-questions, the following six major themes were revealed: (1) Pros and cons of remote teaching; (2) Cameras and engagement; (3) "Sink or swim": Professional development to teach remotely; 4) "I am not really a techie, but I am learning"; (5) Stress and disconnect; and (6) Education after COVID-19.

Theme 1: Pros and Cons of Remote Teaching

The data analysis revealed shared experiences of teachers using Google Classroom to teach remotely during COVID-19. This theme identified the teachers' perceptions of the pros and cons of teaching remotely in particular with the Google Classroom application. The theme is based on significant statements that each participant expressed during their interview. All 14 participants believed that there were both positive and negative aspects of teaching remotely on the Google Classroom platform.

Pros. The following are some positive examples as stated by some of the participants. Samantha commented on the benefits of using Google Classroom saying, "It is interactive, and the kids can do what they need to do, it is easier for grading, and you are able to see what the child is doing and when they are on the computer and not doing anything." Pam expressed similar sentiments:

I like the integration feature. It integrates with a lot of platforms. So, you can use a particular site and you as the teacher don't necessarily have to transfer grades over. Especially if it's a site that automatically grades, then it will automatically upload into Google Classroom. In addition, it provides most of the features that you would want or need an online learning management system all in one place... The other thing that I appreciate is that if there are some issues, for the most part, you are able to contact Google and say, Hey, can you help me do this thing? And if it's not a feature yet, Google will say not a problem, fill out this form and let us know what you want. And then usually, shortly thereafter, you'll see that feature integrated into Google for everyone. And in Google Classroom, they provided certain helpful links like the ability to link a Google Meet to a particular class just in case you're not using Zoom.

Pam was the only Google Certified participant, and she was the only participant to speak on direct feedback from Google Classroom after her personal outreach. Lisa's experience contrasted with Pam's since she started remote teaching as a novice learner to Google Classroom. Lisa shared her closely aligned views during her interview:

Some of the benefits, um, well, right away, I like the fact especially I'm not a real techie person, so what I really enjoy about it is that a lot of items automatically saved a couple of times because my computer's a little dated. If I log on to any device, it's there. So, I like that I can find my work anywhere. Um, I find it user friendly right now compared to other platforms. But in the beginning, what was very funny was that I didn't know that if you start deleting that, it will delete the file to the children. So, I learned that really quick and the hard way!

Gregory, who had some Google Classroom experience prior to the shutdown, shared his perspective on the ease of access. He stated, "Students can access the material at any time, are night owls, or they like to end up working at, you know, two in the morning, you know, weird times." He also said that perhaps that is when students are more alert, or maybe that is the quiet time in their apartment, or it may be the only time they have access to a shared computer. He explained, "I'm not sure...but it allows them to actually access the lesson, the mini lesson, access the materials."

Troy indicated that he has used Google Classroom since 2014 or 2015, since he taught advance students and always had piles of paper to grade. He praised the Stream feature for lightening his workload and he shared:

I teach English and Theatre and they get college credit...it's such a heavy writing based class that I was taking home, so many, you know, stacks of physical essays, and it just got to be a little overwhelming. So that's why I switched at that point to use Google Classroom. Since I could kind of, you know, work on it anywhere off of my phone... that I had access to a computer. And I like the editing features on it...and commenting features on it. And so that's why I used it, then. And I've continued to use it. I don't necessarily use all the features of it. There's a lot that I kind of, well, there's some things I have yet to discover. It doesn't have, you know, hundreds of features like some things do. But anyway, I'm still kind of learning some things about it. But since COVID happened, and since we've been in lockdown in remote teaching, you expect even more for the communication between the students...Stream feature, especially having them contribute to conversations via the Stream, and posting. Which I have done in the past, but not regularly. In fact, some of the students kind of made fun of me because I was, you know, big on using it at the beginning of the year, and then it kind of dwindled off. But since we've been remote, I've used those features pretty regularly, and just seems to be a good way to facilitate a discussion when you can't actually be in the room together.

Gabrielle, who shared that she was skilled with Google Classroom, felt, “Google Classroom is accessible to the students. I was a very big proponent... [of] Gmail, and liked using Google Classroom, even before we went remote. It was a very essential tool for the students to get to know because in college.” She shared that she believe that Google Classroom was like a “free Blackboard version,” that served as a method for college preparedness for her students. They had to be autonomous to engage in asynchronous learning and be responsible as if they were in a college classroom environment. She described herself as a purposeful type of pedagogue and her students understood their responsibilities and her expectations. Thus, she did not have “any issues” with them not showing up online for classes. She also shared:

I didn't have to transition...it was already established in my classroom since the first day of school. That's one of my first assignments, my students have to sign up...I think it teaches skills the kids they are gonna need especially for college...and now everything.

She reported that the parent involvement was also a huge factor with her students.

Simone, who was still developing her skills, shared some similarities as Gabrielle in her belief that Google Classroom was a good platform for college preparedness and parent involvement. She shared:

...that's definitely been a big thing for the scholars using the platforms. Their work is saved, so when it comes time for conferences, we actually have work to show to the parents...the benefits is that students are starting to get a bit more tech savvy, especially ones that I teach. This is their introduction to computers, so they learn how to cut and paste, they're learning how to use *Google Drive* and collaborate on documents. So, there is a light at the end of this dark tunnel that they're gonna learn a lot from this. And I'm excited because a lot of them want to go into fields with tech...they want to be *You Tubers*...and they're starting to use it on their own too.

Brianna shared that she was still in the learning process with many features on and Google Meet, she joked, “It's not bad. I'm still learning. Like, you know, the kids

even try to help me...am I sharing my screen? Can you see? And...they'll let me know if I'm doing things correctly.” Laura explained that she initially struggled with moving completely online and working from home. She referred to herself as a “chalk and talk,” “pen and paper” type of person, “really ol’ school,” according to her. She referred to the research that writing long hand helps to retain information in the brain and it was ...information....and reported that her students rose to the occasion of learning on this platform. She also enthusiastically stated:

So initially, I'm not gonna lie, that's why I jumped on board...leave the timestamps, at least I can get the work out there, I can set the work up before so a lot of it was with timing... put time limits on it, and stuff like that! So that's what I primarily use it for initially.

She reported that she now rate her skills as Intermediate and has learned an enormous deal on the Google Classroom platform.

Theme one (*Pros and cons of remote teaching*) showed that the participants found the Google Classroom application to be user friendly and helped them to become better organized with the management of their online classrooms as they transformed to remote learning. As indicated by Simone during her interview:

Students receive the deliverables and teachers to be able to give feedback in real time, give comments and use different features to organize the information and separate their classes. So, all the information is not scattered and all over the place.

In general, teachers discovered that, even as new users, they were able to navigate the application without too many issues. The more advanced users such as Pam who was Google Certified and Troy who self-rated as Intermediate with Google Classroom, continued to learn about new features as Google Classroom fine tune and develop G-Suite for Classrooms to accommodate new request for the remote and blended learning

environments. Many participants indicated that they appreciated the fact that they can use any device to access the platform and many of them utilized it to document the daily attendance for their classes. They also shared the commonality of employing the post feature to make announcements to their classes. Some shared the enthusiasm that their students were getting a grip of Google Classroom and liking it, while others were concerned with the younger students and some of their parents in the development phase.

Cons. The following are some the drawbacks or negatives that were shared by some of the participants as they taught using Google Classroom during the COVID-19 pandemic. Examples as stated by some of the participants. Samantha reported, “Kids are more laid back, they can be late with assignments, and not do what they are supposed to do online. Parents aren’t as engaged. There are comprehension issues, they don’t do the work and it can stack up overtime.”

During our communication Anna shared the following statements about the drawbacks that she encountered with using Google Classroom to teach her students from home.

Wait, wait! COVID happened so fast and quickly, but no one understood the amount of work that we had to do on Google Classroom...I was learning that system. I've made it quite simple...A lot of kids wasn't coming on to Google Classroom...last year in March, we didn't have Zoom, we were meeting on Google Meet. So, with that, it was easier because as the link is attached to the classroom, so a lot of kids was not showing up into class. But I used to record my lesson for those students who couldn't wake up that early in the morning. But a lot of kids didn't like it because it was on a computer. And we have them for the first period. But it was only for I believe, in March, kids were only supposed to be on live for twenty minutes, but I had my kids live all day, every day. I recorded my lessons so they can see it. Because a lot of kids were not waking up for 8:20 to be in school...that way they still have access to the lesson in the afternoon. Also, a lot of kids are missing a lot of work on Google Classroom, it tells you who turned it in...that does not mean that they turned it in completed work. All it means that they turn in work. And it's like blank.

Richard and Simone shared similar experiences as Anna, as they too reported the frustration with students submitting blank work through the *turn in* feature on Google Classroom. This feature indicated that the students submitted the work, but as the participant clarified, it doesn't mean that the work is completed. They added that submitting blank work was a strategy used by students to convince their parents that they are submitting "completed assignments" while the students turning in blank or incomplete work. Simone was also concerned that students aren't "activating their own knowledge" since she had "caught a few of them plagiarizing" by copying from other students or pulling text directly from the internet and pasting into their Google Classroom documents without giving credits to the original sources and authors. Judy relayed her sentiment on Google Classroom, and she isn't a fanatic about the platform as she indicated in her interview:

The school uses it, so I just went along with them...to me it's not as effective as in person teaching. But I just go with it, because that's what we have now... Sometimes we have problems connecting to the internet...because...two times I had issues with connecting, my assistant has issues connecting. Some parents have issues with connecting too.

During our talk, I inquired about Judy's resolution to this issue whenever it occurs, and her response was:

We have to call tech support for me, you know...have the technology department support us on that... if I'm not getting on...school's tech support the students sometimes, which is not necessarily forthcoming right away you know, sometimes they do miss that.

Both Karen and Reese shared similar issues as Judy, had the need for assistance with technical difficulties and how it can be even more distracting especially to the younger students and parents who are not technologically savvy.

All teachers had their own version of the challenging issues of teaching remotely via the Google Classroom platform. Even teachers at schools with high performing students and fully stacked learning tools and resources shared their frustrations. For example, Brianna explained:

So, it's a private high school, all girls, you know...They're good, really, really good. And like, compared to where I used to work in public school, like the kids weren't doing anything, or not even showing up. But even sometimes these kids will not show up either. I'll set up meetings with them, and then I won't hear anything. And they say things like, "I get so many emails," and I'm like, okay, but you do need this.

Brianna also shared that she had a tremendous learning experience in her old public school, which left her with some unsavory feelings that she had to process prior to moving on with her teaching career. She reported that she was elated to have a new opportunity and felt connected with her new students. Like Brianna, Gregory had his own apprehensions; he was working remotely from home since he had underlying health issues which made him increasingly susceptible to the COVID-19 virus. He was granted the opportunity to work from home, even though he had students who were reporting to the school building. He was also the main caretaker of his 91-year-old mother who was ill. He shared:

I wouldn't be able to forgive myself if I brought the virus home to her. I didn't want to take the chance, you know, gambling... You know, ever since the virus we had to go to either fully remote or this hybrid version which always involves remote learning...which is hard to sustain.

Like Gregory and Anna, Gabrielle was also working fully remote from her home. She shared the fact that she is working a lot more online on Google Classroom than she would if she had to report in person in the building. She shared, "I am about 10 hours. I

have three social studies class with content, and then I have advisory. I also have a few students for supports, kind of like tutoring.”

Theme one (*Pros and cons of remote teaching*) unveiled one of the most common concern amongst all the participants, the amount of time and effort they all invested to ensure that they were still delivering quality content and engaging their students to the full capacity on the Google Classroom platform. They were all passionate about doing the best for their students and going above and beyond the call of duty to ensure that the students were reached. Although they shared many challenges such as the new learning curve of teaching remotely, students’ engagement and learning in an unconventional way, and dealing with the unknowns of the most unprecedented event in their lifetime, they all communicated their desire for success.

Theme 2: Cameras and Engagement

Theme two revealed the participants concerns about whether students turn on the camera during the synchronous instructional delivery. Some of participants used Google Meet and others used Zoom. With the exception being Simone who was the only teacher who reported a completely different platform known as Ring Central, which she described to be like Zoom since it had the capability for meetings, video, and messaging in an app that was compatible on a phone, computer, or tablet type of device. At the time of her interview, Simone was teaching from her school building. However, all her students were still learning remotely from home. She reported that her school does not require students to turn on their cameras on in Ring Central. She explained, “...scholars log on to the Ring Central and we will direct them either to the Google Classroom to complete an assignment or Google Classroom in conjunction with a program called

Nearpod, which is interactive.” She indicated that this varied from teacher to teacher, and ultimately what process worked best in the specific class. She said:

I'll use Nearpod as visual anchors and to make sure that my scholars are still interacting because I have scholars that are logged on to the computer and although we request that their cameras are on you can't force a scholar to have their camera on, right. They may be like outside playing with their friend, or you know, eating breakfast or dinner and they're not actually present.

Simone said that Nearpod helps with engagement since it accounts for “scholars actively working in real time.” She indicated that “Google Classroom is where, like the exit ticket, or the ‘do now’ or heavy assignments” are submitted. Gregory also shared that he utilized the time stamp on Nearpod to see that students are engaged when they do not put their cameras on during the 80 minutes block lessons. He said, “...you have no clue whether they're really participating in the lesson or not...that's a downside, if kids are there, but you can't see them. Maybe they're doing something else and their name is on the screen.” He explained that he can see in a Nearpod lesson as the students post on the bulletin board in real time during the independent portion of the lesson. He also said that he can open up a Google Doc and see if students are actually working on the assigned lessons that they are supposed to be working on. He usually reaches out to his students to ask if they need help if he doesn't see evidence of engagement in the documents. His practice is to place a phone call home as well, whenever this occurred.

Gabrielle communicated that her school and the district did not have a uniform policy on videos cameras being on or off in the Zoom room during live instruction. She made her own rule. She relayed, “Yeah, yes, that's definitely an issue?” When I asked her if students turned on their computer cameras in her classes. She expressed:

Um, but I haven't really made that a choice in my class. Because I won't take your attendance, it's like you're absent, if you don't turn on your camera...if I keep calling you, you're not there. I just put you back in the waiting room.

She indicated that other teachers make comments such as, “well, you know, the kids, they have problems they can't turn it on.” She adamantly stated that, “I've never given them that option. If you're in my class, you need to turn on your camera.” She said that each student received a working computer at the beginning of the 2020-2021 school year, and if they did not pick up their device from the school, a member of the administrative team would drive to their home to drop one off. She elaborated:

I understand there's a lot of other schools that have different needs, right? But I feel like at our school every single parent and every single child has been able to either pick up a laptop or have one delivered. So I feel like there's literally no excuses, like, I should be able to see your face every single day.

Gabrielle was very passionate about her students and ensuring that they are in their remote classes and learning something every day. She reported that the breakdown of her data showed that “kids who don't have their camera on grades are lower than the kids who are consistent with their camera on.”

Similarly to Gabrielle, Brianna shared:

Yeah, no, they have to turn their cameras on! They even have to wear uniform when they're seeing us! They say it's crazy, because they are at home...though you know they probably have pajama pants on, but they have their uniforms. They have to show themselves for the camera.

The major differences in Gabrielle's and Brianna's schools is the fact that in Gabrielle's school, she made a teacher decision for students to turn on their camera to facilitate the synchronous learning process in her practice. In Brianna's school, all students are expected to turn on their cameras for all teachers and staff members when they meet for live instruction or meetings.

Brianna shared some of the “new world” norms of connecting via a video platform, “You see them hanging out in their bed, I see their bedroom, you know, all the decorations?” She mentioned that she made connections and made them feel comfortable by asking, “Are you sitting on your bed?” and some will answer “Yeah,” and she will ask, “You don't have a desk at home?” She said this get them to talk a bit, and she will tell them, “If you're sitting in your bed all day, you're going to be tired, you're going to want to lay down.” She said that sometimes she “could just look at their faces and tell that they are done.” Brianna expressed, “You know, we're working through it,” she said that she tries to ease students into the sessions before instruction by engaging them in what she referred to as “random talk about things” such as what television shows they like, which music they listen to, and which types of books they like to read. She believes that it is important to talk to her students and gauge their feelings prior to moving on to the assignment.

During her interview, Pam shared, “A lot of cameras are off, or they only participate in the chat.” Some of her middle school students have access issues in terms of “they may have broken their device or locked themselves out, have trouble with internet access, all of those different things.” Her school did not have a policy requiring students to put their cameras on, and she believed that definitely impacts student’s participation and engagement in synchronous lessons. However, she said:

I do like the fact that Google Classroom will email the parents to let them know and give them a progress report of what was due, what was submitted, and what the grades are. But that only works if the parents accept the invite from the teacher.

Zoom List. During Troy’s interview, he spoke on his issues with students not turning on their cameras, “...and actually, the tendency beyond that is to call the ones

that have the camera on, and a lot of them don't have their cameras on all the time.” He must train himself to look at his Zoom platform participation list and know who is there, so he can make the effort to call on each of his students to engage them during discussions. He also used the breakout room feature and “bounced from room to room” to check in when his students work in small groups. He shared:

Whenever I do, it's, four or five black squares with the name, don't have their cameras on, nobody's talking...it's odd, because if we were doing this in person, there's a chance they might not be talking about the topic...but they would be talking to each other and socializing. And I can just listen and hear if somebody is off-topic, which you can't do with the breakout rooms in this format. So that's a bit of a minus and a little bit of a letdown. Because in a typical year, and in a normal teaching environment, I would rely a lot on small group discussions, because I like for them to generate ideas together, and then share out. I haven't done as much of that other than, you know, scheduling days where there are small groups and just leading the group myself. But I just feel like when we were in school, they were better at being self-directed. I haven't really seen that since teaching remotely.

Parental Support Matters. During his interview, Richard shared that students are not required to turn on their cameras during lessons in his school. He revealed, “We try to coax them into turning on their camera by having them change their background, so they're not intimidated by...you know, they might be intimidated by what's behind the camera or stirred by what's behind the camera.” When I inquired about how he took attendance, he said that they type in the chat feature on Google Meet where the direction instruction is conducted. He expressed:

I have a class with 24, and I would say less than half participate. I mean, I'll ask questions, and there's only the same five, or six or seven kids that participate in the class of 24 is kind of frustrating, because you know, they're just not there. Some of them aren't very good in math, and they don't ever ask questions, they don't ever participate. And two of the classes I have are considered honors classes. So out of the 91 students that I teach 47 are these two honors classes, and only 31 or 32 are really honors students, in my opinion...marking period just ended and grades just went out yesterday. In a regular school year, about 14 or 15 kids will

be shifted out of that class into a regular eighth grade classes, based on what I was told yesterday, but we're not going to do that because of what's going on.

He also explained that parents aren't very involved, and they are not very supportive, even when he sent out emails, 90% do not respond. He said that this has been historical in his school district and believes that this is the case because the school is located in a marginalized community. He elaborated:

The parents do not get involved with the kids; they don't really care. And that might even be heightened with a pandemic...people have lost jobs and stuff like that nature. This is tradition before this pandemic, so it can only be worse, not better.

Teacher Style Matters. On the opposite end of the “camera on/camera off” spectrum, Judy, Reese, and Karen shared that their students must all turn on their cameras and the parents are very involved. Notably they are from the kindergarten through grade 5 strands. Judy expressed, “...the good part is that the parents are involved in the actual teaching, you know, getting the students prepared and being alert to how they react and relate.” However, Samantha who is also K through 3rd grade as Samantha, shared a completely different sentiment in her practice:

They do on occasion will turn off their videos, and their mikes, so it's hard to really hear them in general, or get their focus...that can be problematic because they have so many other things around them that are distractions, that it really is a lot more frustrating.

She also explained that some of the parents and grandparents are at home trying to help the young students and they are not technologically savvy, so this can also be an issue.

Lisa who teaches grades 3 through 5 shared that she engaged her students on camera the way she would in a physical classroom by introducing her lessons in “an interesting way,” she shared:

I introduced it in an interesting way, but it was authentic for me. Because the kids, I'm very honest with them that I'm still learning and I'm excited to teach them. I said, "you know, if we were in the building, we would still start our conversations with saying, I agree with you, or I disagree with," so a couple of times with some of the norming that we were doing in our classroom, I would say something like, ...I will call on the students. Take yourself off mute, and let's have a dialogue. Let's have a conversation. How would we do this if we were in the classroom?

Theme two (*Cameras and engagement*) revealed that participants perceived that students who have their cameras on tend to be more involved in the synchronous instruction and experience more success with remote learning. Although it is not a perfect learning environment, as Karen shared, "the teacher can't correct mistakes immediately as she could if she was perusing in a regularly classroom." Whether or not students turned on their camera was majorly determined by the school, with some schools making "camera on" a school-wide policy and others leaving it up to the teacher to regulate. Some participants indicated that the district expressed that students cannot be forced to turn on their cameras. However, they revealed that they did not feel effective if they cannot see that students are actively present in their online classes. The middle- and high-school participants experienced more challenges with students not wanting to turn on their cameras, more so than the lower grades.

Theme 3: "Sink or Swim": Professional Development to Teach Remotely

Theme three revealed whether the participants received professional development and support to teach on the Google Classroom platform and supporting technological applications. All 14 participants shared their personal experiences in this arena. Data from the demographic survey (see Table 1) indicated that seven out of the 14 participants reported receiving some type of professional development on using Google Classroom and other educational applications that they choose to use in conjunction with the

application. Four indicated that they did not receive any professional development or support, one said “very limited, and another, stated, “only very basic usage.” However, one of the participants indicated on the demographic survey that she did receive “some” training, but during the interview she revealed, “To be honest, none!”

When asked about training, Lisa shared:

... just trial and error, or meeting with a few people on different grades and learn different things; we all just tried to help each other. When this all originally happened in March, they told us that there was a couple of PDs, and this is what we're going to do. And this is what roll out, but it was not any like, training like no PD, like I would ever imagine it would be for this...then my administration after a while we set up our own professional development on Google Classroom, and then they started inputting different tools, YouTube videos, and things like that for us to learn from that.

Karen discussed her learning experience and support and she shared:

I wouldn't necessarily call it PD...the first few days of the shutdown...we received a document of links to materials that was supposed to help us navigate...Google Classroom... it wasn't very detailed, or very informative. It was, like, you know, sink or swim kind of deal.

She elaborated that there was a professional development link with some webinars and materials, but there were no organized times for workshops. She joked, “it's almost like, you know, if you seek it, and go out and get it yourself, you find it.” She shared that she believe that teachers would have been offered some type of structured professional development on the Google Classroom application since they were expected to use it for remote teaching.

No Training at All. Anna shared:

So the week that we was off...we were cleaning up our classrooms...we had to call the parents to let them know that we're transitioning from in person to fully online. There was no training at all. We didn't get trained and we haven't received training. One of our teachers who's a technology person sent us like a video PowerPoint, telling us how to use it. And that was I guess, technically that's our training.

She also stated that she did not have time to view the PowerPoint as she was learning as she taught her students for many hours on the app.

Troy, who had been using Google Classroom for a long time stated, "...not really a whole lot. I mean, we had another teacher who's been using it for several years as well and she kind of showed us, her systems with it. That's about it." He also mentioned that other teachers may have attended additional training that he "might not have volunteered to do" because he had already been using it for several years. However, he mentioned that during a department meeting another teacher was showing the use the rubric feature, which he had never actually used, and he deemed it as useful:

I was like, "Oh, that's kind of useful." I definitely have more to learn. But in terms of formal, you know, training on it, not a whole lot, for the most part, it's been jump in and figure out how to swim.

During her interview, with a sense of relief, Reese stated:

It was the hard part in the beginning! And I know this was, for a lot of my colleagues, we were unfamiliar with the technology. We didn't know all the things that we were capable of doing at this point. Now I feel a little bit more proficient, that's not saying a lot...you know, we're still not friends! I consider Google Classroom and I acquaintances because I'm still learning new things!

On the opposite end of the spectrum, Pam discussed in her interview the fact that she is a Google Certified educator. She exclaimed, "I love Google!" and "...we were offered the training for free!" She said that her current school had been using the application and all teachers were previously trained and used Google Classroom. In fact, all her students received a Gmail email address, and the schoolwide practice was to use Google Docs for collaboration prior to the pandemic, so it was a seamless transition for her school to move to fully remote learning at the beginning of the COVID-19 pandemic.

Teacher Training Matters. Judy reflected on her previous teacher training during her interview, she said, “The main thing is all the teachings that I have had left me at a disadvantage. I was not so savvy with the technology part, so it’s a real challenge.” She continued, I hear a lot of teachers had that challenge, particularly the older ones like myself.” She reconfirmed that prior to the pandemic some teachers in her school used technology but not on a consistent basis. She spoke about the 8am trainings that the school and how stressful it is for her when they do occur. She felt overwhelmed by all the information, especially at that time in the morning, and admit that she still finds it very stressful to operate certain applications, as she just isn’t technologically savvy.

Theme three (*“Sink or swim”*: *Professional development to teach remotely*) reveals that teachers collaborated and helped each other, especially at the beginning of the COVID-19 pandemic. The participants who were previously exposed to Google Classroom and other technology applications, had a more seamless transition when they were compelled to move to remote learn within mere days. Some administration were supportive from the inception, while others took their time adjusting to the new conditions and trying to reimagine the education of students on a virtual learning platform.

Theme 4: “I am Not Really a Techie, But I am Learning”

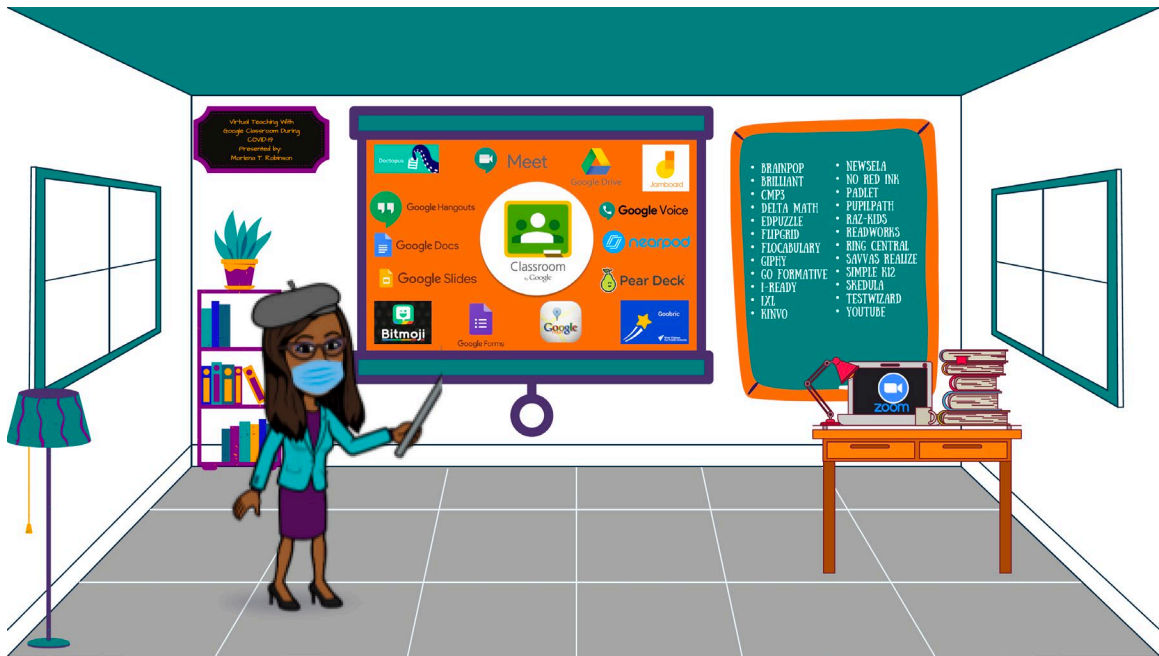
Theme four revealed the participants perceptions of a new form of technology platforms and the learning processes while using them to teach remotely during the COVID-19 pandemic. The commonality of this theme is the usage of the *Google Classroom* application to teach remotely. However, all participants reported using at least one other technology application and a video platform in conjunction with Google

Classroom. Some utilized *Zoom* and others met on *Google Meet* for the synchronous instructional time with their students. Some started with Google Meet at the inception of the pandemic and had since switch to Zoom. Simone was the only participant who used *Ring Central*, which is said to be very similar to Zoom, except that it has a co-host feature. Participants from the lower grades reported meeting on Google Meet, while the middle and high school teachers reported meeting more on the Zoom platform more frequently, although a couple such as Anna and Richard reported meeting on Google Meet at different points.

Tons of Apps. The following is a list of applications, links, or website which the participants reportedly used as resources for remote teaching. Not all platforms were used by each participant; each participant added to the list of technology used in conjunction with Google Classroom. The apps were: G-Suite for Education, which includes Google Classroom, Jamboard, Google Docs, Google Forms, Google Slides, Google Maps, Google Atlas, Google Hangout, Stream for posting and sharing thoughts in Google Classroom. Padlet is also used for discussions and thought sharing. There is also Goobric and Doctopus which are both rubrics for grading students work and activities in Google Classroom. Khan Academy has a plethora of education resources in every content area and was used by some participants. Nearpod and Pear Deck are Microsoft apps which both works within Google Classroom and used for interactive asynchronous learning. Teacher created information is shared on these platforms. There is Savvas Realize for assessment and content, Clever app, Raz-kids, an online guided reading program which features interactive e-books and reading quizzes for the lower grades. EdPuzzle, Bitmoji, GIFs, Simple K12, Flip Grid, and YouTube are widely used, especially in the lower

grades. Skedula and PupilPath which are both grading and data management applications, however they do not sync with Google Classroom, but they can be accessed by parents for relevant data such as attendance and grades. Skedula and Kinvo can also be used to take students attendance online. Google Voice phone numbers are used by teachers for parents to contact them, so they do not need to furnish their personal phone numbers. There are apps specifically for mathematics and these areas reported by participants, Delta Math, CMP3, and IXL. Saavas Realize, and FloCabulary a library of songs and videos which help with vocabulary building across different content areas. No Red Ink is a writing application which allows students to submit work and get feedback on grammar usage and mechanics, NewsELA assist with prior knowledge and making connections to current events, Read Works provides access to reading articles on a variety of subject matters and these are all integrated within Google Classroom. GoFormative permits live instruction and adjustments and TestWizard is used to create assessments, they act similar to Google Forms, but they contain subject specific content to assist teachers. Some participants who work with special education students reportedly used I-Ready, BrainPop, Brilliance, and IXL for diagnostic exams. Figure 1 shows the collection of the technological apps used for virtual teaching by the participants which they shared during the interviews. The apps' logos are listed on the screen and on written on the chalkboard in this illustrated classroom. (See Appendix F for a full-size graphic and list of hyperlinks to the resources listed.)

Figure 1. Virtual Resources during COVID-19



A Plethora of Devices. The participants also reported types of devices that were used by themselves and the brands that were most widely used by students. These were, Thinkpad by Lenovo, iPad, Chromebooks, Apple MacBook, Mac Airbook, Apple Smartboard used inside building classrooms. A couple participants reported taking home an extra computer monitor, which provided by their school, or having access to taking home a new laptop if needed. It was reported that in the beginning of the pandemic, internet companies such as Spectrum, Verizon, and Optimum, offered free Wi-Fi to students and teachers. However, some teachers reported that they no longer had that option, or never received free services. Many were not sure if their students received this service. There were a couple participants such as Anna and Judy, who reported that they still had students who did not have access to adequate devices at the time of their interview. There was also synopsis of a few students who were still using their mobile phone for online learning. For example, Judy shared,

I have students with disabilities, and I find that they are good with being on the devices. You know, they like and don't mind being on a device. The only challenge we have is that not all my students have a device. Some parents have to use their phones. So, when they are able to use the device, they will tend to go to the activity or be somehow engaged in the activity...their parents helped by trying to figure it out, and so forth. If it's a game, or if it's, you know, touching, my kids are small, so they are basically identifying things, objects and so forth.

Similarly to Judy, Ann shared that she had a few special needs students who did not have devices and worked on their phones. She also shared that she was teaching fully remotely from home and had a two-year-old who has been her side kick everyday while she teaches her students online. She said that he also attends school online and log onto his classes twice per day. She used her phone for him to access his classes, because she needed the computer to teach her students classes.

Simone reported that not many of her students' parents were checking in on Google Classroom, and instead they used her work phone and email whenever they had questions. She stated, "I realized that a lot of my scholars are first generation, so their parents aren't tech savvy. So, they're not as heavily involved in that process as much as other parents are." It was clear that some participants were overwhelmed at times and felt that they were not supported, or perceived that they needed to give additional support to parents and families.

Reese expressed that she was becoming accustomed to the technology and liked Google Classroom for how it allows her to organize each class and content with dates, so that it is easy for her students, and also their parents to follow. She shared,

I can link in the *Savvas* for them to do some independent work. So, I like that aspect of it...and use it with a lot of the technologies... We've been using *EdPuzzle* a lot, but kids seem to like it. Um, we're trying to find things that have music to it also, um, just to break things up, and to give them something else that that's going to be stimulating while they're learning. We're using *RazKids* for reading, because, you know, we left so abruptly.

Reese shared that a lot her students might not have had books at home due to the sudden shut down. Thus, the online resources helped with accessing E-books, which she assigned based on the students reading levels from the year before they left.

Embracing the Challenge. The need to try to break up the monotony was frequently mentioned across all interviews from kindergarten through grade 12 teachers. They all embraced the challenge of attempting to impart instruction remotely while ensuring that they maintained active engagement and rigor. The expertise to effectively execute these new remote teaching strategies varied according to the teachers' prior experience with technology. Some were learning how to use new technology, while trying to teach the content. Some reported having to teach new content that they never taught before, due to teacher shortage or shift in their grade position.

Some participants also found additional challenges in constantly teaching through the video platform. With mounting exhaustion, sometimes they felt an imbalance in the workload when they had a co-teacher who struggled with learning how to use the screen sharing feature on Zoom or Google Meet. As Anna shared, "I do believe in having small groups... we are in a large class of 33 students and my co-teacher doesn't know how to work Zoom." She reported that the co-teach is the lead teacher and should be in charge of sharing the screen. However, the lead teacher always experienced difficulties doing so which resulted in Anna taking over, when she needed to focus on the smaller groups. Anna explained, "...she doesn't have to utilize the breakout rooms and I have kids that should be with me in the breakout room, but I have to be the lead teacher since she doesn't know how to do it."

The Breakout Room. Gabrielle shared that she utilize the breakout room on Zoom platform for her students by splitting them into groups according to their levels or she give them a chance to self-select.

So sometimes I do like an automatic split them up into two, three, but you have to be very purposeful, because one of them even half the self-contained kids come into my class, twice a week. So that gets to be a lot. Sometimes I have to be very purposeful in putting, like the self- contained together in their group, putting the sped students again. Sometimes the speech teacher comes, so I have to put her with her kids as well.

Karen reported her experience and feelings on using the breakout room feature on The Google Meet application:

I mean, I have a colleague, she teaches the gifted class, and fifth grade, as well, and she's finding great success with it. You know, she said, there are some of them, who will say to her, you know what, but we don't like talking in the large group. But I'm not finding that...I don't know if it is the group of kids that I have, I don't know...it'll select kids randomly to go into the breakout rooms. I can do it by hand, but I've tried to let it randomly select kids, so that you have different kids...some kids are normally more talkative and will initiate conversation, and then you have others that won't. So sometimes they need that lead in. But again, I didn't, I didn't find that it was working for us.

Lisa shared her success with her students in the breakout room on Google Meet:

[It] was exciting, because the old me would think it can't happen, right? I'm like, Oh, this can't happen. There's no way and it worked! The kids loved it. They knew how to take turns they; they were really excited about having good dialogue with one another.

She explained that she used additional educational apps such as taking a classroom poll on Google Classroom, to determine what students' preferences were. She utilized Bitmoji and GIFs on her Google Slides since students find them to be lively and engage more in the lessons with these additives. However, she also reported that her school administration advised her to limit the usage of these, because they “may be distracting to students.” She shared:

So one of the big crazes was Bitmoji, I got into that and started putting that on my slides and made it a little more engaging the GIFs, those were kind of cool. But as far as just Google and engagement, it didn't really hit the mark by itself.

She found that combining other educational applications enhance her lessons.

Pam expressed her thoughts about using Jamboard for her middle school students:

Yeah, I think they use it a lot more in the lower grades...we use it in upper grades too because it's helpful. If you want to give a test and you don't want students to have spellcheck on, it doesn't automatically correct for them or even suggest that the word is spelled incorrectly.

She appreciated that it allows for collaboration, and a lot of teachers in her school uses it to explore KWL charts, to have students respond to a picture or quote, and have students use posters to respond. She also likes the fact that her math students can use the *free write* feature in Jamboard, which she said, "A lot of the other Google platforms don't allow."

She also reported engaging her students with Edulastic to assess her students' growth and assessment, EdPuzzle, Padlet, and BrainPop. She likes No Red Ink, Read Works, as she elaborated,

It allows for the students to submit their writing, and you can grade their writing within that document. It also provides prompts to let them know, oh, you might want to include this. Or this is where you would want to put your beginning. And don't forget to include century words and those kinds of things, which is a helpful feature considering that although the students can write, and create a document in Google Doc, they don't necessarily have the guiding prompts right there in the document.

Although she reportedly enjoys a lot of the new technology and applications and identified many of them as effective, she also reported that the school tends to want to get on board with a lot of new resources, but "whether or not the kids gravitate to it, that part, we're still fine tuning because there's so many different things out there."

The participants all reported using additional technology in conjunction to Google Classroom. They all use at least one other video platform for the synchronous part of

their instruction. The upper grades tend to use more of the assessment applications, however participants with special needs students also use diagnostic applications. Nearpod and Pear Deck was popular from K through 12, however, most of the apps varied from one individual teacher to the next.

Theme 5: Stress and Disconnect

Theme five unfolded the level of stress and disconnect that is experienced by teachers and their perspectives of the disconnect that students and others may be experiencing during remote learning. Simone expressed that in March 2020 at the beginning of the pandemic, she taught in a different school and there was no video component involved, the students only had Google Classroom, but weren't exposed to synchronous instruction. She said that had a very negative effect on students' interaction in her previous charter school. In her current school, she said that the workload can be also impossible:

Because I teach about a little more than 60 students [...], I'm not able to give each of them as much personalized feedback as I want in the time constraints that I have, unfortunately, we're still expected to produce the same amount of work. Not that I'm expecting the standard of work to change, but the amount of work that's requested in the special circumstances, it's pretty much humanly impossible to get it all done, and still make sure that you're giving each scholar that one on one attention.

Simone expressed her concern with the fact that this takes away from being able to let her “scholars” know that they need to make sure they are checking their grammar and have accurate information. She was intensely worried that:

One of the downfalls is that they're starting to plagiarize early, and I'm being a little harder on them, just because I don't want them to go into 6th, 7th, and 8th grade, not knowing that they're plagiarizing, because in their heads, they're just answering the questions.

Simone believes that Google Classroom creates a sense of isolation within classrooms, because teachers cannot see what's going on in each other's classrooms, unless they are co-teachers. She expressed that:

As much as you want to be in the other Google Classrooms, it is a bit overwhelming to have multiple tabs of classrooms. My administration, they're in every single classroom, so they get every single alert of what's going on in all classes, all posts and everything.

It creates a very rigid separation between the classes, and if teachers were in person:

We would be able to go into the other classes and have conversations with other teachers in real time about, hey, this scholar is doing the work for your classes, the scholars not doing work for my class, what's going on?

She was dismayed by the isolation it created and reduction in communication amongst teachers. According to Simone, parents could not see the bigger picture of what was going on in Google Classroom, as opposed to a specific content. She sighed, "How do we fix this...it kind of just isolates everyone from communication." She believes that the separation makes it more work for everyone to communicate and parents expects teachers to know what's going on in each other classes, which is impossible when they do not have access. She commented, "...although we have grade level meetings, content meetings, there's other things that have to be discussed, except, you know, besides just okay, how is Molly doing in all classes?"

A Silver Lining. Gabrielle identified a "silver lining" during working remotely. She said, "Online learning has been good for me physically, because I've been able to take care of myself more now that I'm not physically in the building." However, relatedly to Simone, she felt stressed by the emotional distance she experienced, as she puts it:

But emotionally, it's been really difficult. Not being near the kids, you know... there and it's just the support, like, just seeing other people, you know, just getting

out of my classroom to see someone else. Like I realized, how valuable that is, you know, I'm out by myself all the time.

Troy found it disconcerting that it was more difficult to facilitate classroom conversations on Zoom, due to the fact that it did not allow him to easily glance around the room and call on someone. In the brick-and-mortar classroom he could see everyone at the same time, but the Zoom platform he did not allow him to see all the names simultaneously, and he said, "...you know if I am doing a presentation, I am only seeing three or four." He had to be aware of the tendency to want to call on the same students who were visible on camera. Troy shared, "I only see, you know, three or four. And then the tendency is to want to call the ones who are there and that creates stress."

A Health Crisis. Troy also shared that teaching remotely during the COVID-19 pandemic doesn't solely have instructional implications:

Especially early on, less so now, but early on we did have a lot of students who were affected by it personally...you know, they wouldn't come to every class, but, you know, it was an individualized thing. And then eventually, students will kind of be back.

He expressed his thoughts on how the COVID-19 pandemic had an effect on everyone, as he stated:

I think everybody's had heightened anxiety...I know, the students are sick of being indoors, and they're lacking the exercise that they're used to, and that has to be affecting them. And that affects everything in your whole life, you know, your energy level, your thinking, your ability to focus, all of that. So, I know, that affects me, I'm sure all of that is affecting them as well. The lack of, you know, the fact that our homes are not designed for many of us to be workspaces.

He expressed that he was also personally affected by sharing workspace with a partner and "basically do all my teaching from bed." He said, "I can't be out in the living room, we can't be working in the same space at the same time. So I'm relegated to the

bedroom.” Troy also spoke on the fact that some of his high school students have younger siblings and they are the caretakers when their parents must go to work. Those type of responsibilities detracted from his students being able to focus on themselves, according to Troy.

Similarly to Simone, Anna shared some identical sentiments of feeling overwhelmed. She supported special needs students and also carried the responsibility for coordinating the individualized education plan. However, since the pandemic, she had been expected to co-teach with another teacher. She exclaimed:

Thirty students is a lot, and it's two teachers...it's kind of hard, because I'm the one that's sharing my screen every day. So, it's kind of a hard time. And we cannot assume that we got to have the classroom, online, it's unimaginable. I don't think that is realistic, I think that we need to change our approach that you can have a regular classroom, online. Students, and you have to change the structure of how you completed the lesson.

Frustrations Abound. Lisa expressed her frustration with doing additional professional development in order to accommodate her students, only to find out that they do not have compatible software to engage in the lesson on their school issued iPads.

I did a PD for Jamboard, which is nice until my iPad kids told me they can't see anything. Oh, wow! Alright, I took the whole training, thinking each kid would be able to do it! You send them a slide; they can do it. You can watch it and work on it together. Until one of my iPad kids could not do the work. So, guess what? I stopped doing it! I said, I'm not doing this until we all can do it together, or until I find something that we all have access to. And even the poll, the kids can't see when I give that question a day. But I still made it excitable, because I asked each kid anyway to tell me how they are feeling if I give a daily question or something, but they have no access to that as well. They can't even submit an answer when I launch a poll!

Her frustration was in alignment with the same sentiment mentioned by Anna and Judy, who had students who still did not have the appropriate devices to complete their assignments at the time of the interview. They also expressed the inequity with the type

of digital devices that students received. Students who were issued laptops were able to access most of the applications without too many problems, (with the exception of bandwidth and connectivity problems). However, students who had iPads had problems using programs like Jamboard and launching a poll. Teachers reported that some parents would print out the assignment for the students to complete the work. Lisa shared that she spoke with a parent and asked:

“Why are you printing all the work?” And the parent responded, “it's hard to do this on a tablet, you can't...but if you're on a laptop, you can write on the slide.” And this is when I started to learn that it's not all equitable, right?

Like Lisa, most of the participants who taught kindergarten through elementary school had some concerns about the parents being stressed out due to these types of issues. Lisa commented:

How many parents are frustrated with the teacher saying that kids are not doing work, when they see their kids doing the work, but it's not being submitted...that's one downfall...Google Classroom, depending on device...kids should have had Chromebooks or something.

She said that although Google Classroom works best with Chromebooks none of her students were given those devices. She said her class data showed that a good population of students were doing the work in her class, but she had a “slew of kids” who couldn't get the work done and that is stressful for her. Participants such as Judy and Lisa, shared that some parents were also concerned that the students were not capable of keeping on their masks to protect them from the COVID-19 virus, for hours at a time in the school building and chose to have them learn remotely from home solely based on that reason. Judy commented that parents are also very stressed with their new involuntary position that was bestowed upon them by the pandemic. She said:

They now have to be there...then they'll have to be taking an active role in having to do something that they have no idea what they're doing. You know what I mean? So, I think some parents see some of the kids are a little out of control.

Judy also added, “Just being there and maintaining a schedule is a challenge for the parents, it becomes overwhelming. There's no separation from the home and school.”

Karen reported her frustration of “being thrown back into the classroom” after being out for the past eight years and serving in the capacity as a library media specialist in her school. She left the classroom because she felt the need for a change after not being able to make certain shifts as a classroom teacher, as she explained. She was weary of parents getting upset that their kids weren't passing a particular subject, however she said the kids would also skip that subject. Some students' attendance was notably an issue, when she was a classroom teacher, but the students would always pass at the end of the year. She desired to make an impact in literacy in general, so she took a position as a library media specialist. The pandemic caused her to become a blended learning teacher and she stated, “I'm shared between two classes, so I needed to try to manipulate my time to be able to meet with parents in one class, and the other classes, and some of the meetings overlapped. So, it was a little crazy in that sense.” However, she shared that she also felt some positivity, “But it really gave me an opportunity to develop some relationships with the parents. And you know, because we did it in this kind of Zoom setting.” She embraced the fact that she virtually met some parents face-to-face and hadn't been able to meet them at all, prior to remote teaching. She felt like she could offer some support in this type of meeting, as she shared, “And, you know, even just for some of the parents, it was an opportunity to just to pat them on the back and tell them that they were doing a great job in supporting us.” Although Karen has been extremely

frustrated, she works very hard to ensure that the needs of her students are being met to the best of her ability.

Family Matters. Like Gregory, Reese spoke of her fears of bringing home COVID-19 to her family. She has an older child at home, who is susceptible to the virus, and was happy when her principal told her she could work from home since her students were fully remote. Other staff members in her school were working remotely due to their own medical accommodations. She expressed that some of her mental anguish was also the fact that everything is online and up until the pandemic she had been a completely “hands-on” type of person. She express the stress that she felt having to keep up with the constant changes and although she had taken home several manipulatives to teach her students online, she did not really have the opportunity to utilize those resources in the virtual setting. However, she did comment that her school administration was supportive and had been willing to have her retrieve any resources from the building if and when necessary.

Gregory highlighted, “It’s a little strange this year, besides the virus and being unable to get together with family, I essentially stayed home and took care of my mother...on top of which she fell and broke her hip...yeah, she had to get surgery.” He shared that his mother was learning to walk with a walker, and “You know, just between that and the remote learning. It’s been stressful.”

Samantha indicated that she was frustrated, and she said, “...it's going to be a lot more of a headache than it is currently. It's been hard enough to get kids online, or in person on the right days, when they're supposed to be in the building versus remote.” She spoke of the challenges experience by the teachers in her school, “...it can be challenging

for us, we will forget what week we're in and what group we have... and I'm pretty sure it's doubly challenging for the kids each week.” She felt rather uncomfortable with the COVID-19 pandemic virus and believe that is safer to work from home as the rate of infection keeps increasing. She stated, “I feel like remote probably is going to end up being the safer route to go into the next six months, which will be by like, spring, so that's just going to be crazy altogether.”

High School Online. Laura stated that her 9th graders are really struggling with remote learning and it is heightened by the fact that 2020 to 2021, is their first year in high school. She believes that being at home is a huge part of the issue because they do not grasp the seriousness of learning, and they do not try to meet the expectations. Being transparent she revealed:

In spring, we were just thrust into remote learning... a lot of things, or regular expectations weren't always put into place by all teachers... ninth graders, go into high school, and you feel like you can do the same things that you did before. So if we were in physical proximity of one another, you will be going to every class on time moving through the hallways, doing your assignments, bringing them in all of those norms.

She said right now those norms are simply “out the window for ninth graders;” however, the 10th, 11th, and 12th graders still get it. She taught grade 12 at the beginning of the pandemic and noted an observed difference in the attitudes and behavior of the two groups. She believe that the pandemic was not as off putting for her 12th graders because they were looking forward to completing this school year, but her 9th graders have no idea what their high school look like. They haven't been exposed to expectations and routines of being a high schooler, and she concluded that being at home lowers their expectations even at a deeper level during the unprecedented time. But for ninth graders, they don't know what high school “looks like, physically, having routines all the time and

have an expectation.” She shared there are statements such as, “I actually did the assignment...yeah, I didn’t do it at 10 pm, but I did it.” She said the problem is they may complete assignments, but it will be days later, not just an hour late, or a couple days late, but “sometimes as late as 30 days!”

Ashley shared her concerns for her seniors:

Then the seniors are so much more overwhelmed. Because I really think like senior year...you know, dealing with like colleges, and you know, seeing their advisors and counselors, it's a lot and they seem to be so much more stressed.

The parents of her students spent thousands of dollars for their children to attend a very prestigious college preparatory high school, and students also worried about having just a virtual graduation after all the effort they have exuded throughout the previous years of their school career. She explained that the students were still excited about the prospects of going to college but felt very disconnected with not being able to even visit the college campuses in person during the pandemic.

Administration Support. Richard spoke about his frustration with students and lack of nominal support from the school’s administration. He stated:

Teachers are feeling the pain, and not really getting the work ethic that's required. So, they must be thinking that, you know, lighten the load in this pandemic, give kids an opportunity to call in for help, which they never do.

He believes that the formatting of the school’s schedule during the pandemic contributed to the problem of the student’s disconnecting from their academic responsibilities as he expressed:

We were in the building Monday, Tuesday, some kids would come in Thursday, Friday other kids would come in. Wednesday was a day of asynchronous learning and professional development, which seems to be a few schools that I know of do it that way.

He did not believe that the “on again, off again” hybrid model was effective, because he perceived that the students did not feel the urgency to complete their assignments. He shared that the staff felt stressed out with the scheduling that did not work in the beginning of September 2020 when his district returned to the school building. It was then changed, but a few weeks later the district reverted to the schedule that was not working in the beginning. Richard shared his frustration:

...believe is counterproductive because the kids have been doing this schedule for two months. And now you're going to go back to a schedule that you know really wasn't educational. You're going from 41 minutes to 30 minutes. Kids get a break in the middle, because the way the schedule works, some kids last class before lunch is 11:30, and then next class is until 1 o'clock, and that schedule is counterproductive to them... So that sort of takes away from finishing lessons. So, we were told all week, to modify our lessons accordingly. They're thinking because of, you know, this situation, that by shortening the periods would have helped the transition to this model. Well, most of the kids are home anyway, most of the kids have not come into the building at all.

Many other participants shared the same frustration as Richard, whether they worked in an urban or suburban school. They complained about the constant schedule change and how disruptive it was to not only the students, but to themselves, and their families. A couple of them revealed that they requested to work fully remote because of that type of inconsistency and the negative effects that it had on their own families.

Several participants such as Judy, Simone, Samantha, and Pam shared the belief that school districts needed to provide more support. They were concerned that there has not been much emphasis placed on the mental health and wellness of teachers and educators in general. They identified that more of the talks have been centered around students, and technology supports. Simone and Judy said that parents need more training on navigating various applications, while Pam expressed greater concerns about the mental wellness needs of school staff. Pam commented, “They basically give information to parents and

maybe to get some response from parents about situations. But in terms of really supporting, I think it's not there yet. I think teachers need some support too, you know.” Pam shared this belief with Judy and Reese, and her idea is in alignment with Reese’s comment,

...we've tried to get across to administration as well. It's not that we're not trying to hold our kids to the same standards that we would if they were sitting in front of us. And it's not that we're trying to back off from the hard work, because I don't remember teaching being as hard as it has been since March.

This sentiment echoed throughout participants’ interviews as they relate to the emotional burden that has been brought on by the COVID-19 pandemic. Working from home may save them the stress of commuting, but sometimes they experienced the sense of isolation or not having enough workspace in their shared home environment.

Theme 6: Education After COVID-19

Theme six focused on the participants perception of the changes which will occur in education post COVID-19. They all believe that the thrust into virtual learning, whether it may be remote, hybrid, or blended, is here to stay to some degree. They shared the general sentiment, “Education as we know it will never be the same again.” Their answers to the open-ended questions “What are some of the challenges posed by the COVID-19 pandemic?” and “Is there anything else you would like to share about your experience using Google Classroom and or teaching with technology in general?” more often led to them sharing their views on what’s to come. For example, Samantha shared,

I think it's really gonna come down to a lot of online work. And in doing that, you're going to have to unfortunately have the cooperation of parents to somehow make sure that their child is online for classes. I don't know if that's going to really come down to them trying to work from home themselves, which I feel is problematic. And then the other part of it is really going to be even if we have the little kids covered, it's the older kids that aren't... Yeah, you'll say you're going online, but how do you know for sure that they are, and then down the road?

You're like, Oh, so and so miss this many days of school? And it's like, why are you telling me this two months out? Why am I not knowing about it? Like, the first or second week?

Compassion versus Standards. A few participants also mentioned the same concern that Samantha had. Some educators may be more lenient, taking into consideration the unprecedented times and that parents may have permitted their students to sit out due to various reasons. However, educators are still held accountable for students not attending classes and parents have reportedly complained if they are not notified of students' absence, but some parents will keep students out of classes to take care of other responsibilities.

Gabrielle had a different disposition, as she believed that students were being “pacified” by some educators. She said that students need to learn to adjust to the “new norm” and expect that the changes are for the future. She emphasize that students need to learn life skills, such as logging on for their virtual classes on time, as in the work environment they would need to be on time for their jobs. She did not believe that showing leniency is preparing them for success for their future in a 21st century environment. She said:

I wish they wouldn't, like keep pushing us to try to just pass kids as much as possible. Because I think that this is the reality, right? I tell my kids that Zoom is the world right now... you being on camera, you need to know how to do this now...this is how your future job is going to be this how your future interviews is going to be. So, you should be able to like come on every day on time.

She believed that students shouldn't be given a false sense of reality, and although they are learning in the middle of a global pandemic, educators should still maintain a high standard and level of expectation in order for students to be successful in the future.

Judy said that Google Classroom has been “sudden and overwhelming...”

something that just comes on you, into your bedroom...right into your face. You have to deal with it. It's like, there's no option. It's just something that has happened that has created a situation.” She explained that she doesn't see it going away. In fact, “it's just a 360, 365 turn around.” She was a bit apprehensive to elaborate when she said, “I think I will leave it at that.” I reassured her that it was okay to skip and move on, but she decided to continue, “And so it's when somebody has to turn around 360 degrees, it's not easy, you know, for any parent, child, or administration or teacher.” She explained that the overall out and “perspective on life is now different.” She said that she recognizes that people's priorities will have to change:

We'll understand that it's not about us just wanting to be great. People are great, principals are great, teachers are great. It's just doing what you can to make a difference in somebody's life and acknowledge the humanity of each person or a human, you know.

Digitization. Pam also discussed that “the humanity seem to have exited from education,” and she commented on the new expectations and resources that educators now need, and students need to be advised on how to be prepared in a vastly different world. She stated,

So now instead of saying you need to have your planner and you need to have your pens and pencils, my checklist looks like you need to have your device, you need to bring your headphones and you need to bring your charger every day. Students aren't used to that life, because they're not used to walking around attached to a laptop. The only thing that they may be used to using is their phone. And even with their phone, they don't necessarily walk around with a charger unless they're in school. And sometimes not even then they just know people who have a charger. And so now they're using technology and consuming it a lot more. And it's not just for recreational purposes. It's for instruction. It's a new, it's a mind shift.

Laura also shared the same ideas as Pam, as they both have the ideology that students have been trained since kindergarten on materials they need for learning, and now the

COVID-19 pandemic will define new routines, new habits, and new technology. In fact, most participants share this sentiment to an extent (except for Gabrielle and Simone), but Pam and Laura's comments were closely aligned. Pam said, "...technically we as a society are still figuring out." She believed that it will be "the survival of the fittest" as she discussed how educators will adapt to the new technology expectations. She commented:

I really take off my hat to those who can continue on...some people, I guess it depends on the age, some people are frozen, you know...if you can move past the shock, you know, then you're able to that's what it is.

She also shared that she knew a significant number of educators who swore that they were going to retire by the end of the school year, because they envision themselves being forced to teach in a virtual environment. They weren't trained to do so in their teacher education programs and felt that it was a major learning curb for them. Their major issue she stated was they were placing a lot of emphasis in learning new tools and did not feel like they were teaching content. They did not think it would get easier, even if they learn how to use new tools, as stated by Pam.

Reese said, "...it's not that I'm happy that other people are going through this too, but it's good to know that other people completely understand the playing field that long" as she referred to her feelings of society finally having a glimpse of the work that teachers do. She continues, "As far as administration, my assistant principals have been wonderful with saying, you know, '...thank you for all you're doing, and we really do appreciate it.'" Reese said that she believe many changes will depend upon the impending COVID-19 vaccine and whether people accept it. She shared her thoughts on parents continuing to teach their children at home and taking precautions to ensure that

school buildings are safe for everyone to return to in person teaching. She said, “As much as I want to go back to normal, and I want to be in the room with my kids...I don't want to be in the room with my kids, if I pose any kind of harm to them, or vice versa.” She elaborated:

I understand the need for some people, for their kids to be in school where they are safe and in there learning. But in the same respect, you don't want to put them at risk. And right now there are two I think far too many more unknowns than there are knowns. So I'm a little, I have a little trepidation.

The Future is Unknown. This sentiment was resounded by all participants in this study. They all alluded to the future and all the unknown variables of the COVID-19 pandemic and if it will ever be safe to return to fully in person learning. All 14 participants expressed that they do not envision a return to what was the norm of the past. They believe that technology is here to stay and will perform a huge role in education. Gone will be the days of teachers handing out manipulatives to students, and students huddling around their lockers during hallway transitions. The focus will no longer be on paper folders and accordion files, as those will mostly have been replaced by electronic folders and files on the technology devices. Perhaps those who take comfort in using paper, will still utilize them, however, there will always be a digitalize version of any handout or paper, so there is a real possibility of them becoming obsolete. Anna, Brianna, Gregory, Richard, Gabrielle, Pam, Troy, and Simone all made similar comments about the future of Google Classroom in education. They believe that it is “here to stay.” They all shared the common feeling that the future of education will include some version of hybrid, blended, remote, or virtual learning. Karen commented that the new snow day will be on Google Classroom, and is doubtful about school districts continuing to give a day off for inclement weather.

All participants held some concerns about the new social distance rules imposed by the Center of Disease Control and how it will continue to change the dynamics in physical interaction in schools. They envisioned that classrooms will no longer be the same as they were in the past, and the capacity in each room will likely remain limited. There will be constraints on physical interactions and educators and students may be deprived from sharing hugs and physical caring jesters such as “pat on the shoulder” which they are naturally accustomed to. Everyone will need to be mindful of their distance and send virtual hugs, handshakes, and augmented forms of affection which COVID-19 imposed upon society. The new concept of personal protective equipment (PPE) is imagined to remain as a standard operation practice in schools for the unforeseen future, as alluded to by many of the participants.

All 14 participants shared the philosophy that educators, including other school staff such as para-professionals, and special education service providers, speech teachers, will need to continue learning and teaching on new technology platforms as they are introduced by the schools and the districts. Parents, families, and of course students will also need to continue to expand their knowledge base of technology, and the tools they need to know to fully participate in learning process. They also believe that COVID-19 presented a much-needed transparency on the digital divide on technology access and resources and many stated that school districts not only in New York, but across America, has been forced to address this issue due to the pandemic. Although some of them spoke on the existing inequity, most were hopeful that the digital gap and division will continue to shrink as technology is no longer just an option in education, it is a requirement.

Throughout the interviews, each participant made commentary on their school administration being helpful in pandemic transitions and some were sympathetic to the fact that no one had previously lived through a pandemic and even school administrators had to learn as well. Judy stated, “Thank God for administrators who understand that this is, this is different. You know, there's so many who would want to say, you know, this is a school year, you need to do this. It's not a regular school year.” However, they all believe that the progress of staff and students in the school will also strongly depend upon the school leadership and their ability to manage resources and provide emotional support to their school communities. Most participants shared the sentiment “...don't remember teaching being as hard as it has been since March.” They referred to the need of always having to be mindful of wearing a mask, sometimes gloves, using hand-sanitizers, and minding personal space. Some reflected on the beginning of the pandemic, and on their concerns about everyday tasks such as checking the mailbox, going to the grocery store, and worrying about having access to toilet paper and paper towels, compounded their worries. They do believe that some of these concerns will be residual and are uncertain if and how the impending COVID-19 vaccine will factor into the future of education. Pam spoke adamantly about educating students during the pandemic and believe that it is not a true measure of the future. She stated,

But again, it's at what costs? We are forcing teachers to teach. We're forcing kids to be in school and we expect them to learn. Meanwhile, their conditions are different in terms of what, when they're teaching, and how they're teaching, when they're learning and how they're learning. They're putting out report cards saying that students are doing poorly in mathematics, and they're really struggling, most students are failing. But again, we are in the middle of a global pandemic.

The future of education is really to be determined once educators can thoroughly conduct their duty to students, and parents can confidently and safely send their children

to school buildings once again, even if technology will be a mainstay in the curriculum. According to most participants the uncharted nature of the pandemic is unreliable in making a measurable judgement on the future of education.

CHAPTER 5: DISCUSSION

The purpose of this phenomenological study was to examine the phenomenon of teachers using the Google Classroom application to teach during the COVID-19 pandemic. This chapter further summarizes the findings of the study and included a discussion of the theory and empirical findings that are connected to the research. The implications for district and school-based leadership, teacher preparation programs, technology companies, and the general health and wellness of all constituents, which includes teachers, parents, and students, and other educators in school communities are discussed. Furthermore, Chapter 5 comes to a closure with the limitations of the study, recommendations for future research, and a final summary of the study.

Summary of Findings

The study was conducted virtually on the Zoom application platform, and the participants included 14 grades Kindergarten through grade 12 teachers, who utilized the platform to teach their classrooms during the COVID-19 pandemic. Due to the timing of the study at one of the most unprecedented times, no in-person interviews were allowed to take place. The researcher and the participants needed to adhere to the social distancing guidelines for COVID-19 that were set by the Center of Disease Control and Prevention. The participants shared their lived experiences which were organized into six themes: (1) the pros and cons of teaching remotely with the Google Classroom application; (2) the usage of cameras and the effects on students' engagement; (3) sink or swim depends on support and professional development; (4) the fact that they were not well-versed in all the new technology applications, but they were willing to learn; (5) the

stress and disconnect of the remote school environment; and (6) their thoughts on what's to come for education after the COVID-19 pandemic.

Interpretation of Findings

The two overarching questions guiding the study asked:

- 1) How do teachers describe their experiences of teaching with Google Classroom during COVID-19?
- 2) How have teachers' perspectives of digital literacy changed since the COVID-19 pandemic?

Each of the 14 participants shared pros and cons or positives and negatives in utilizing Google Classroom to teach during the pandemic. All participants reported that the application was very efficient, user friendly, and an excellent management and organization tool, even to those who were using it for the first time. Many participants complained about the glitch of students' having the ability to submit work, which was blank, but it was stamped as "turned in." The common scrutiny amongst most of the high school and middle school participants, was that their students were "turning in" blank work to appease or convince parents that they were doing the assignments. A major shared perception amongst all participants on using a digital platform was that it was extremely challenging and couldn't replace the social interaction and human connection experienced in a traditional classroom setting. They accepted the reality that they had to teach remotely or teach in learning pods for in-person learning, due to the stipulation of the pandemic by New York state and the requirements to open and close schools at sporadic times to "flatten the curve." However, no participant believe that fully remote teaching was the ideal long term-way to educate students.

Changes in Their Practice Due to Remote Teaching

The participants shared the experience of how their teaching practice changed since they began using Google Classroom during the COVID-19 pandemic. Answers to this question formulated theme one, the pros and cons of teaching remotely. They all reported their appreciation of the platform allowing students to work asynchronously but were concerned about students who did not have the motivation, discipline, or even the digital resources to access the platform to participate in remote learning. A few of the teachers had prior experience, and their transition to the virtual application was seamless, versus those who were completely new to Google Classroom and had never had much exposure to technology in their classroom practice. A few of the participants embraced the platform and believed that their students will benefit and be prepared for college by using this type of platform since it is like Blackboard which is used in higher education settings. They believe that the application offered students and staff opportunities to collaborate and work on documents, and it provided a lot of transparency for teachers, students, and parents.

Supporting Students in an Online Environment

The participants reported on supporting their students in the new online learning environment was formulated from theme one (*Pros and cons of remote teaching*), theme two (*Cameras and engagement*), and theme five (*Stress and disconnect*). The participants focused on theme one as listed in the above paragraph. Many participants shared the same sentiments in theme two, they perceived that students who had their cameras on during the synchronous lessons, experience more success in the remote learning environment. Participants reported that they felt more connection from students who had

their cameras on, and some of them reported the breakout room as an effective tool to support small group of learners during the direct teaching sessions.

Students' Engagement and Collaboration Maximized in Remote Teaching

The participants reports of maximizing students' engagement and collaboration in Google Classroom discussions evolved from themes one and two. Some participants such as Simone, Gregory, and Gabrielle shared the same experience of being able to see student's active engagement in various applications such as Nearpod and Pearpod which works in G-Suite. They also reported using the time stamp to track students' asynchronous assignments. However, again they needed to examine the submission to ensure that it was completed prior to grading. The participants shared the appreciation of Google Docs collaboration feature which allows for the exchange of ideas and working together. Some reported Jamboard and Padlet as apps that were high on students' engagement.

Constructing a Sense of Community in Virtual Learning Environment

Theme two (*Cameras and engagement*) and theme four ("*I am not really a techie, but I am learning*") highlighted the participants' perspectives on constructing a sense of community in a remote/virtual/online environment. The participants perceived that being able to see their students, and their students being able to see each other on the virtual screen, offered a better sense of community building in the remote learning environment. They did not find it effective to look at little "black boxes" on Zoom or Google Meet. Even though they needed to look at the participants list to call on their students in a full remote class, they reported a better sense of connection. Many participants such as Troy, Reese, Ann, and Gabrielle, perceived the breakout room as a safe space for students to

engage in small group discussions or to have one-to-one conversations with students in a larger class to help them clarify the lesson.

Teachers Developing New Skills Teaching Remotely

Theme three (*“Sink or swim”*: *Professional development to teach remotely*) focused on teachers’ perception of developing new skills to maximize their lessons delivered via Google Classroom. The participants reported receiving various levels of support from their school districts, school administration, colleagues, and self-support. All participants completed a demographic survey answering the questions: (1) Have you received any training on the Google Classroom platform?; and (2) How would you rate your experience teaching with Google Classroom? All participants shared the perception of growth in their level of mastery and new skills in Google Classroom, although a couple reported that they are still learning. Table 1 illustrates how each participant self-rated on the questions.

Communicating and Collaborating via Google Classroom

Theme one (*Pros and cons of remote teaching*) and some of theme two (*Cameras and engagement*) highlighted the participants reports on how Google Classroom allowed them to communicate and collaborate with other teachers, parents, and educators to be connected to a particular class. In order to access a course, the parent or educator needed to accept the invitation to be a part of a specific class. The participants reported that although this is a positive feature, they can still feel isolated since the connection was not in person. They also reported the trap of feeling overwhelmed if they are connected to too many classes. They reported that parents believe that teachers know what is going on in each class but also stated that it is impossible to know everything in Google Classroom

classes, due to the volume of information. They shared the common sentiment that it was easier and more efficient to have traditional face to face conversations with other teachers on students' performance. However, they also shared the positive feeling of having all the students information in one place where they could present it to parents during a conference. Most participants shared the concern that some parents weren't technologically savvy and had problems using Google Classroom, thus they still used a phone call or email to communicate with the teacher. The participants reported that a few of their students' parents have communicated with them via Zoom or Google Meet during parent conference night or by request.

Using Other Forms of Technology in Conjunction with Google Classroom?

Theme two (*Cameras and engagement*) and theme four ("*I am not really a techie, but I am learning*") highlighted the participants' usage of other education and technology applications in conjunction with Google Classroom. Theme two focused on the video component which the participants utilized for their synchronous lessons for remote teaching. Zoom and Google Meet were reportedly used by 13 out of 14 participants and 1 participant used Ring Central, a platform which is similar to Zoom. Most of the participants teaching lower grades used Google Meet, while teachers of upper grades preferred Zoom. All participants reported a plethora of new technology applications which they have been introduced to by their school districts, schools, or colleagues to enhance their teaching. Nearpod, and Pearpod were very commonly used, amongst numerous others as detailed in theme four. Most participants reported that they have grown, improved technology skills, and have built confidence since the beginning of the pandemic. All participants reported that they have much more to learn in the area of

technology, as it keeps expanding, and they also have to keep abreast in the specific content area(s) they have been tasked to teach.

Experiences with Internet Connectivity Issues

Theme one (*Pros and cons of remote teaching*), theme two (*Cameras and engagement*) and theme five (*Stress and disconnect*) show the aspects of the participants experiences of internet connectivity issues and that of their students. Some participants such as Ann, Judy, and Pam reported that students did not have the necessary digital resources such as a laptop or iPad in order to participate in the remote learning. Others such as Lisa reported that the type of devices were inadequate, and their students lacked access to the programs that they needed to operate. Some reported low bandwidth in the school building, especially during inclement weather, and weak home Wi-Fi that their students reported, especially at the beginning of the pandemic.

Discussion

The current research on teachers using Google Classroom is limited; thus, this research was developed to understand the lived experiences of teachers using Google Classroom to teach remotely during the COVID-19 pandemic. I discovered that the participants believed that their skills and expertise in using Google Classroom improved since the beginning of the pandemic, as it became their main tool of delivering instruction online. However, participants still have challenges teaching synchronous classes on Google Meet and Zoom platform. Although there are a plethora of challenges, the teacher data from the interviews revealed that they continued to exhibit their best efforts to successfully engage their students. They continued to reshape their thinking, their previous customs, and pedagogical practices, while adopting to new technology to

accommodate their students learning needs during the unprecedented COVID-19 pandemic. The challenges extended well beyond the confines of the Google Classroom platform and using technology in general. The teachers ramped up to the sudden charge of teaching remotely in a new type of school without walls, and in many cases, without preparation. The study reveals that the need for direct connection and social interaction is a challenge. Teachers needed students to turn on their cameras to facilitate what they deemed as interactive and effective engagement.

Theoretical

These findings aligned with Vygotsky's (1978) sociocultural theory and can be used to further develop an understanding of the processes of virtual teaching during the pandemic. Teachers, educators, and students have spent most of their school days prior to the upheaval of the COVID-19 pandemic in a school with walls, where they were able to exchange social cues and interact in the in-person learning environment, which is a process that Vygotsky (1978) regarded as a requirement. Teachers are learning a new way of functioning in a virtual classroom during the COVID-19 pandemic.

Teachers' adaptation to new technology and the development of confidence in using the Google Classroom application and other technology to teach their remote classrooms resounded throughout the study. Theme one, which highlighted the participants pros and cons of teaching remotely, revealed the positive and negative aspects of teachers' perception of being able to use the tools and features efficiently and effectively on the platform. Although the participants were thrust into remote teaching at the onset of a global pandemic and they had unfamiliar barriers that were in opposition to them and their usual work environment and practices, they persevered. The lack of proper

technological resources such as devices and access to Wi-Fi noted as an external barrier by Ertmer (1999). In most instances it was the students who did not have the appropriate devices and internet connection; however, this was a barrier to virtual teaching since everyone need to be connected and prepared with adequate resources. Thus, these issues were not supported by the concept of teachers utilizing a project-based approach to integrate technology and tools for their lessons to emulate an authentic real-life experience for their students (Li and Huan, 2017; Vygotsky, 1978). The nature of the COVID-19 pandemic obstructed this type of opportunity, especially as they try to adopt to the evolving technology applications (Roberts et al., 2012).

Empirical

The existing research on using Google Classroom is scant, and the related literature primarily focused on Common Core Standards, professional development, teacher perception, teacher engagement with new literacies and the digital divide. Theme one (*Pros and cons of remote teaching*) filled some of the gap by confirming that technology such as Google Classroom in conjunction with other technological apps can be resourceful in meeting the Common Core Standards of collaboration, communication, creativity, and critical thinking when properly utilized by both teachers and students (CCSS, 2010; CCSS, 2016). Theme one also helped to answer the question of whether or not remote learning is effective. This study revealed that all teachers felt although teachers valued the learning adjustments that they were able to make on a virtual platform, they all felt that in person-learning was more effective, especially for younger students.

Theme two (*Cameras and engagement*) which discussed cameras and the

connection with student engagement connected with theme five (*Stress and disconnect*) with both highlighting issues of the digital divide. The study is in alignment with previous research on access to technology which shows the significant gaps between wealthy communities versus urban and marginalized communities and the reports of students not logging on to their remote classes (Dorn et al., 2020). Theme three (*“Sink or swim”*: *Professional development to teach remotely*) and theme four (*“I am not really a techie, but I am learning”*) alluded to the research of teacher perception and professional development, with concerns that technology may be everywhere, and we now have the ability to leave the classroom, enter museums, laboratories, and other countries around the world with only the click of a mouse. However, educators need to have the training to build their confidence of accessing and efficiently using these new resources in their practices (Reimagining the Role of Technology in Education, 2017). The participants confirmed this when they shared all of the new resources they have been introduced to since they began teaching remotely.

Although some participants did not have a lot of support with professional development, they reported that they were still developing their comfort level with all the different tools and online applications (Bilecik, 2020; Zoch et al., 2016). Theme five (*Stress and disconnect*) and theme six (*Education after COVID-19*) answered the questions about the readiness of both teachers and students to work in the virtual classroom and the future of education after COVID-19. It revealed the stress and disconnect felt by all constituencies and highlighted some despair and lack of confidence that some students feel (Harris, 2020). As we move forward in this pandemic, we are reminded that teachers are extremely important and cannot be replaced by remote, virtual,

or distance learning. Teachers do more than teach academic content. They serve as role models, motivators, and inspiration to their students Spencer (2020). They will continue to determine how education will evolve after COVID-19.

Implications & Dissemination

It is the hope and intention that this completed dissertation study will be shared with teachers and school leaders in New York state and possibly around the country in effort to inform educators about the lived experience of the sample. It is the expectation that the gathered key findings will be transferable in school districts in other states and possibly on a global level since it focuses on Google Classroom and is connected to the COVID-19 pandemic. The findings of my study examining the lived experience of teachers using Google Classroom during the COVID-19 pandemic, can provide all constituents with valuable information to improve education after COVID-19. These constituents includes, district and school leadership, teacher preparation programs, teachers, parents, and students, and society at large. The specific implications are the need to address the digital divide, teacher training and on-going support, and health and mental well-being for all.

Close the Digital Divide

Students who are in schools with the adequate resources and educators who bear the knowledge to expose them to this extremely relevant information, are able to develop the proficiency that they will need to become digital literate citizens who are able to compete in an ever-transforming online society (Jacobs et al., 2014). In today's world, it is imperative for citizens to have at minimum basic skills of keyboarding, knowledge of using a mouse, using email, a digital device, and having internet connectivity to be able

to send and receive information. The world has become more technologically advanced and the COVID-19 forced almost everyone to utilize technology to communicate and collaborate since the policy of social distancing had been instituted to flatten the curve. Many places of employment, businesses, schools, places of worship, families, and even “virtual happy hour” have been conducted on Zoom platforms since the corona virus pandemic has wreaked havoc on the world. COVID-19 illuminated the disparities amongst the haves and the have nots; the wealthy, and the marginalized. As results from this study indicates, it has become evident that technology is critical and necessary for all to have access for the basics, and to even be able to communicate with family and friends at this time when many may be feeling isolated because of the physical distance that is required.

The priority needs to be on fair funding of schools so that all educators and students will have technological resources in order to continue teaching and learning and be able to compete in a global economy in the future (Leu et al., 2013). Since home schooling became the status quo when schools went completely virtual, or to blended learning, students and parents needed Wi-Fi and internet access at home. Those who lack the necessary devices, were left in turmoil as they were shut out of basic education access because their homes weren't equipped with the basics (Goldstein, 2020). Some had to utilize their mobile phones for learning, which proved to be inadequate for much progress. Some underfunded schools in urban and rural areas suffered with poor bandwidth and shortage of digital resources. Poor communities endured even more suffering when their libraries were shuttered, and they couldn't utilize it for public access to digital resources.

Thus, there is a need for advocacy and intervention on a community, state, and national level to rectify the problem of what has become a very basic need for all. It is time to close the digital divide by supplying broadband and Wi-Fi to everyone including homes, and schools. Marginalized parents and families also need to have basic access for free or at maximum, a discounted cost (Antonucci, 2020). The public also needs to be able to have access to medical resources such as telehealth apps, which are used by doctors and health professionals to provide consultation when health facilities become overwhelmed with servicing COVID-19 patients.

Professional Development and Support

The “reimagination of school” has become a common phrase used in the media, by educators, and parents alike. Schools are no longer restricted to the confines of buildings and floors, but instead school can be from held from anywhere where there is a computer and adequate internet connectivity (Goldstein, 2020).

As the public tries to flatten the curve, many school buildings have remained closed, or partially open, with virtual/remote school with students at learning from home being the status quo. As this study reveals, teachers have had to change the way they teach, parents have had to learn to teach, and administrators have had to work miracles in hiring new or temporary staff and creating different schedule models such to conform to the new hybrid learning models (Goldstein, 2020). School district leaders will need support from their local and state governments to provide their schools with adequate resources which includes professional development for leaders and teachers, and parent/family development resources. School building leaders will need to have the autonomy to make decisions which are best suited for their distinct school communities,

as each school has its own unique characteristics, and every principal should know their staff and students' needs (Cavanna et al., 2006). Teachers will need the professional development and resources to successfully engage their students in both in-person and virtual learning. Teacher pedagogical programs may consider changing their curriculum to include preparation for blended learning, considering the fact that teachers are the most important factor in education (What Matters Most, 1996). The COVID-19 pandemic has tremendously illuminated the highly important role, and great responsibilities, along with the depth of dedication of teachers across the country. This notion has been resounded across kitchen tables in homes, and span through multiple media outlets to remind, and on other cases inform the public on the miracles that teachers have been working to create out of the box lessons on remote platforms to continue to engage students in learning beyond walls (Spencer, 2020). Teachers will need even more support in order to continue educating beyond COVID-19. They will need the support from school districts, administrators, the public, and even from parents and students to encourage and acknowledge the significance of their work. Parents will also need support as they have been learning to teach at home in order to successfully facilitate virtual learning, as noted by the participants in the study. All students need support, and in particular minority students who may have lost any educational gains due to remote learning. Students can be supported with differentiated approach in assessment of their educational progress. Standardized test should be reserved for the future and authentic assessments would take the place in order to know what students know based on where they are at this time (Chapman et al., 2005). This concept of alternative assessments was also shared by the participants in the study.

As we continue to endure through the COVID-19 pandemic and seek resolutions to ensure that students are learning, schools still have the autonomy to support their learning communities. It is important that the socio-emotional components are addressed for all constituencies in order to facilitate successful teaching and learning strategies during this unprecedented time. Schools can ensure that this transpires by allocating a specific time each week for staff, students, and parents to debrief as needed. School administrators can offer workshops based on a needs assessment for their unique school communities. This will ensure that each voice is heard, and the targeted workshop or resource can be provided to match the desired outcomes. Thus, if teachers need guidance on designing coherent instruction for remote lessons, then the administration would assist by providing the professional development or other resources in order to help move the instruction to another level. Likewise, if students need support with asynchronous instructional engagement, the administration can help by providing additional resources such as access to a knowledge bank of videos, or available tutorial services to assist students outside of synchronous instruction. Parents can also be assisted by the school through guidance to outside resources that are available to them. These resources may be digital, socio-emotional support, or other dynamic needs. It is most important that everyone knows that they are not alone, and that it is safe to communicate their needs in order to receive the appropriate assistance.

A Public Health Crisis

The COVID-19 pandemic has not only affected teachers, students, and parents, it has had some impact on everyone around the world. Physical health and mental well-being will need to be a focal point to successfully rise above this health crisis. Thus

wellness and self-care will need to be prioritized and our general knowledge base must be expanded to include how to take care of our physical, mental, emotional, spiritual, and financial well-being as we heal from the wounds of the global pandemic. The abrupt shutdown of the world brought on all types of stress and isolation, and students and educators have also felt their share of emotions as alluded to by the participants in the study. The loss of lives to COVID-19, with the death rate amounting to almost 450,000 by January 2021, the loss of employment in the thousands, economic inequity, peaceful protests such as those from the Black Lives Matter movement, which resulted in violence and police brutality, social injustices, the illumination of racism, white supremacy, civil unrest, and on January 6th, 2021, the historical siege of the United States of America Capitol, the “citadel of democracy” (CNN, 2021, January 6). All these renowned events have compounded the stress of the COVID-19 pandemic and virtual learning. The public is experiencing unprecedented emotional and economic distress and economic has not been experience in their lifetime. It is critical that health and mental wellness will be prioritize for all constituents to return to a sense of normalcy in the future. There will be a need for a plethora of services and supports for all people. The abrupt closure of schools and the move to virtual learning with the need to learn new technology and new ways of teaching and learning, have brought on much stress and disconnect for educators, students, and families alike.

It will be imperative that schools across the country institute a culturally responsive curriculum, which will give students the opportunity to understand themselves and others in society. Students learn through reading stories and seeing characters with similarities in gender, race, ethnicity, language, economic status, religion, sexual

orientation, and abilities. It will also be critical that the curriculum is embedded with narratives and characters who are acknowledged and valued in text. The problems stemming from the COVID-19 pandemic inadvertently created evolution and awareness, and it is the duty of educators to help with the cultivation of students who are socially and culturally aware and exhibit political consciousness which may lead to becoming successful citizens with the capacity to intelligently question and challenge systems of inequity to access, privilege, and power. A healthy future for education will require healing from the trauma and emotional despair that have become the standard during the COVID-19 pandemic (Teaching Matters, 2021).

Limitations & Directions for Future Research

While this study has many strengths and provides a unique look at teaching with technology during the COVID-19 pandemic, limitations must be noted. One limitation of this study was that there were no participants representing a rural area. The researcher targeted rural and semi-rural area participants by contacting school administration in those areas. There was email evidence that the administrators forwarded the recruitment flyer to staff members, but they did not follow up with the researcher. My sample may be different from another due to the fact that they were highly entrenched in the belief that it is imperative to share their perspectives on virtual teaching during the COVID-19 pandemic, although they have their personal challenges. Others who did not make it their priority to have their voices heard through this study, may have been too overwhelmed with their daily challenges and mounting responsibilities of a new type of teaching. Another limitation is that the sample was a small and involved only teachers within New York state. However, this was purposely done based on the fact that the study was a

dissertation requirement, which the researcher would like to expound upon its fulfillment. It is a widely known fact that the unprecedented dawning of the COVID-19 pandemic, has presented huge challenge to parents and students in the school system and brought on a very unconventional education pathway for students at this time. The research concluded that it was prudent to only focus on teachers in this initial study.

A future direction of this research would be a long-term study of the effectiveness of remote instruction and learning utilizing multimodal platforms during the COVID-19 pandemic. Future studies could be mixed method with a wider range of participants such as school leaders, teachers, students, parents, and families. Perhaps there will be more qualitative and quantitative data available in the near future to conduct a more in-depth study on the effects of virtual teaching on student's instructional outcomes.

Conclusion

This study found that all participants believed that in-person learning cannot be completely replaced by virtual or remote learning. The teachers all expressed their beliefs that the future of education after COVID-19 will involve some variant of virtual learning. The study's analysis revealing six themes which were: The Pros and Cons of Remote Teaching, Cameras and Engagement, "Sink or Swim": Professional Development to Teach Remotely, I am Not a Techie, But I am Learning, Stress and Disconnect, and Education after COVID-19, will provide district and school leaders with invaluable information on teacher support and development, parent engagement, closing the digital divide, and the need for social emotional support to address a public health crisis, for all to have a healthy mindset moving beyond the COVID-19 pandemic. It will be imperative

that all constituents obtain and maintain the necessary skills in order to thrive and successfully contribute to the new dynamic way of teaching and learning.

APPENDIX A: TEACHER CONSENT FORM



St. John's University
The School of Education
PhD in Literacy: Google Classroom & COVID-19

November 2020

Dear Teacher,

My name is Morlena T. Robinson. I am a New York City educator and doctoral student conducting research on teachers' experiences using Google Classroom. I would like to invite you to participate in my doctoral dissertation study, "New Literacies and Multimodalities Experience: A Phenomenological Study on Teaching with Google Classroom During COVID-19" by participating in a virtual interview.

My objective is to learn more about the lived experience of teachers delivering instruction via Google Classroom during the COVID 19 Pandemic. This study will be conducted as part of my PhD requirements for The Literacy Program, The School of Education at St. John's University.

Prior to the virtual interview you will be asked to answer some basic demographics questions. You will receive a Google Form Survey which you will utilize to answer these questions.

You will be asked to participate in a one to one 45 minutes virtual interview to be conducted via the Cisco WebEx platform (Zoom can be used if you prefer), to share your experience with Google Classroom. During this interview you will be asked more open-ended questions for example, "Why do you use Google Classroom in your practice?" "What are some of the benefits of using Google Classroom?" "What type of training have you received on Google Classroom?" "What are some of the challenges posed by the COVID-19 pandemic?" The interview will be audio-video recorded, and later transcribed for data analysis purposes.

Prior to beginning the interviews and collecting demographic surveys, I will need you to sign and date the Teacher Consent Form which will be sent back to me via email. This will give me permission to include data from our interview in the study analysis and results.

Confidentiality of your records will be strictly maintained by using codes, and your

identity will not be linked to any information you provide. There will be usage of pseudonyms in the drafts and published dissertation. Data will be maintained on my personal laptop and kept secured with a passcode. Any printout or hard copy will be kept secured in a locked safe in my home until the completion of the dissertation project. Your participation in this study is voluntary, and you will not be paid for participating. You may refuse to participate or withdraw at any time without penalty.

If you need clarification on any part of this study, please feel free to contact me at Morlena.Robinson18@StJohns.Edu or my faculty sponsor Dr. Kyle DeMeo Cook at CookK@StJohns.Edu. If you have any questions about your rights as a research participant, you can contact the University's Institutional Review Board (IRB), St. John's University, Dr. Raymond DiGiuseppe, Chair Digiuser@StJohns.Edu/718-990-1955 or Marie Nitopi, Coordinator, Nitopim@StJohns.Edu/718-990-1440.

Sincerely,

Morlena T. Robinson
Ph.D. in Literacy | Candidate, Spring 2021
St. John's University, New York
The School of Education

PERMISSION TO PARTICIPATE

In

“New Literacies and Multimodalities Experience: A Phenomenological Study on Teaching with Google Classroom During COVID-19.”

First Name

Middle Initial

Last Name

Signature

Date

I give permission to be a participant in this study and be AUDIO-VIDEO TAPED during the virtual interview.

YES

NO

APPENDIX B: RECRUITMENT FLYER

CALLING ALL EDUCATORS!!!

- ✓ **Are you a CLASSROOM TEACHER?**
- ✓ **Are you using GOOGLE CLASSROOM?**
- ✓ **Have you been working Prior to and During the COVID-19 Pandemic?**

**If You Answer YES to these questions,
then PLEASE SHARE Your Experience in the Research Study Entitled:**

New Literacies and Multimodalities Experience:
A Phenomenological Study on Teaching with Google Classroom During COVID-19



WHEN: November 2020

WHERE: Virtual Meeting on WebEx or Zoom

**WHO: Morlena T. Robinson
PhD in Literacy | Candidate Spring 2021
St. John's University, New York**

CONTACT INFORMATION: Morlena.Robinson18@StJohns.Edu

**TIME COMMITMENT: One Hour
(including 45 minute 1:1 interview)**

**BENEFIT: Your Contributions to the Field of Literacy During the COVID-19
Pandemic**

PARTICIPATION: Confidential!!!

APPENDIX C: OPEN ENDED INTERVIEW QUESTIONS

Open Ended Interview Questions will be used for the face-to-face interview recorded via Cisco WebEx platform semi-structured interview portion of this study. (Zoom can be used if preferred by the participant).

Script:

Hello...Jane/Jim (Pseudonym)

I genuinely appreciate that you are taking this time to meet with me today, thank you! The purpose of this interview is to learn about the lived experiences of teachers using Google Classroom during the COVID 19 pandemic. Please feel comfortable sharing your thoughts and expressing how you feel about your experience on this platform. I also want to remind you that I am recording our conversation so that I can remember all the details that you share with me today. Do I have your permission to record the interview?

Our conversation is completely confidential, and you may choose to stop the interview at any time. You may also skip any questions.

Can you confirm that you received and signed a copy of the consent form? Do I have your permission to begin the interview?

1. What is the main reason why you use Google Classroom in your practice?
2. What are some of the main benefits of using Google Classroom?
3. How does Google Classroom impact student engagement in your practice?
4. How does Google Classroom facilitate or promote discussion in your practice?
5. How does Google Classroom help with your organization versus not using Google Classroom?
6. Please comment about communicating with Google Classroom.
7. What are some of the issues you encounter when using Google Classroom?
8. What type of training have you received on Google Classroom?
9. Do you have adequate devices available for all students in your practice?
10. How has your experience been with internet connectivity issues while teaching remotely?
11. Can you speak to any other forms of technology that you have used in conjunction with Google Classroom?
12. Have you received training and support on all required and new technology that you are expected to implement in your practice?
13. How has your practice changed since teaching remotely with Google Classroom?
14. What are some of the challenges posed by the COVID-19 pandemic?
15. Is there anything else you would like to share about your experience using Google Classroom?

APPENDIX D: SURVEY DEMOGRAPHICS QUESTIONS

1. What gender do you identify with?
 - Male
 - Female
 - Non-binary
 - Other (Fill in the blank)
 - Prefer not to say
2. What is your age? (Fill in blank)
3. What is your highest level of education?
 - Bachelor's degree
 - Master's degree
 - Doctorate degree
 - Other
4. Which subject area (s) do you teach?
 - Art
 - English language art
 - Foreign Language
 - Health
 - Mathematics
 - Physical Education
 - Science
 - Social Studies
 - Technology
5. Which grade level (s) do you teach? [Check all that apply]
 - Pre-Kindergarten
 - K-3
 - 3-5
 - 6-8
 - 9-12
 - Transfer High School
 - Special Education
 - Gifted & Talented
 - Other
6. How many students do you teach in your practice? Write in answer
7. How many teachers and administrators work in your school?

8. Which area of New York State is your school located in?

- Urban area
- Suburban area
- Rural area
- Other

9. Have you received any training on the Google Classroom platform? Write in answer

- _____

10. How would you rate your experience teaching with Google Classroom?

- Basic Beginner
- Developing
- Intermediate
- Master
- Google Classroom Certified
- Other

11. Have you been participating in Google Classroom professional development sessions since school went to remote learning during the COVID-19 Pandemic?

12. Are you currently teaching virtual/remote classes on Google Classroom? Yes/No

- _____

APPENDIX E: IRB APPROVAL

From: irbstjohns@stjohns.edu <irbstjohns@stjohns.edu>
Sent: Monday, November 9, 2020 3:09 PM
To: Kyle Cook <cookk@stjohns.edu>
Subject: IRB-FY2021-163 - Initial: Initial Submission - Expedited - St. John's



Federal Wide Assurance: FWA00009066

PI: Morlena Robinson
CO-PI: Kyle Cook
Education Specialties

Re: Expedited Review - Initial - **IRB-FY2021-163** *New Literacies and Multimodalities Experience: A Phenomenological Study on Teaching with Google Classroom During COVID-19*

Dear Morlena Robinson:

The St John's University Institutional Review Board has rendered the decision below for *New Literacies and Multimodalities Experience: A Phenomenological Study on Teaching with Google Classroom During COVID-19*. The approval is effective from November 9, 2020 through November 8, 2021

Decision: Approved

PLEASE NOTE: If you have collected any data prior to this approval date, the data must be discarded.

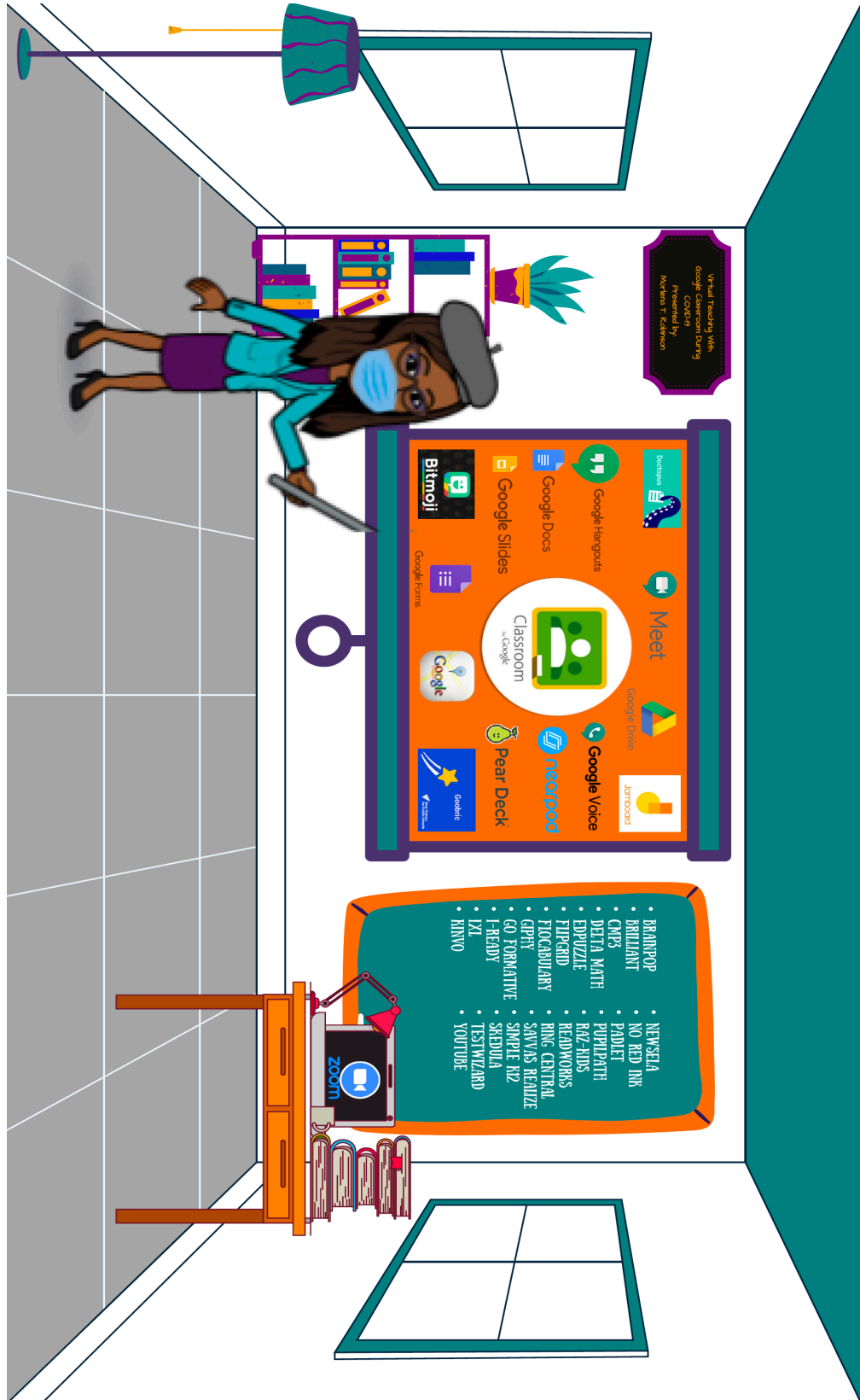
Selected Category: 6. Collection of data from voice, video, digital, or image recordings made for research purposes. 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Sincerely,

Raymond DiGiuseppe, PhD, ABPP
Chair, Institutional Review Board
Professor of Psychology

Marie Nitopi, Ed.D.
IRB Coordinator

APPENDIX F: VIRTUAL TEACHING RESOURCES DURING COVID-19



Resource	URL
Bitmoji	bitmoji.com
Brainpop	brainpop.com
Brilliant	brilliant.org
CMP3	mymathuniverse.com/cmp3
Delta Math	deltamath.com
Doctopus	tinyurl.com/doctopus-MTR
EdPuzzle	edpuzzle.com
FlipGrid	info.flipgrid.com
Flocabulary	flocabulary.com
Giphy	giphy.com
Go Formative	goformative.com
Goobric	tinyurl.com/goobric-MTR
Google Docs	docs.google.com
Google Drive	drive.google.com
Google Forms	forms.google.com
Google Hangouts	hangouts.google.com
Google Maps	maps.google.com
Google Meet	meet.google.com
Google Slides	slides.google.com
Google Voice	voice.google.com
I-Ready	login.i-ready.com
IXL	ixl.com
Jamboard	jamboard.google.com
Kinvo	kinvo.kinvolved.com
Nearpod	nearpod.com
Newsela	newsela.com
No Red Ink	noredink.com
Padlet	padlet.com
Pear Deck	peardeck.com
Pupilpath	pupilpath.skedula.com
Raz-Kids	raz-kids.com
Readworks	readworks.org
Ring Central	ringcentral.com
Savvas Realize	savvasrealize.com
Simple K12	simpleK12.com
Skedula	skedula.com
Testwizard	testwizard.com
YouTube	youtube.com

REFERENCES

- Amin, R. & Zimmerman, A. (2020, March 16). With NYC schools closed, many parents become reluctant homeschoolers. <https://www.ewa.org/latest-news/new-york-city-schools-closed-many-parents-become-reluctant-homeschoolers>
- Antonucci, M. (2020, May 18). Analysis: Reimagining schools — or reverting to pre-COVID classes? As states & teachers unions draft plans for an unknown future, will they even work? *Union Report*.
<https://www.the74million.org/article/analysis-reimagining-schools-or-reverting-to-pre-covid-classes-as-states-teachers-unions-draft-plans-for-an-unknown-future-will-they-even-work/>
- Ayre, L. (2020). What more can we do to address broadband inequity and digital poverty? *Information Technology and Libraries (Online)*, 39(3), 1-6.
<http://dx.doi.org.jerome.stjohns.edu:81/10.6017/ITAL.V39I3.12619>
- Bondarenk, O.V., Mantulenko, S.V., Pikilnyak, A.V. (2019). *Google Classroom as a tool of support of blended learning for geography students*. arXiv preprint arXiv:1902.00775.
- Brown, M. E., & Hocutt, D. L. (2015). Learning to use, useful for learning: A usability study of Google apps for education. *Journal of Usability Statistics*, 10(4), 160-181.
- Cavanna, Anthony et al. (2006). Research matters: The potential of the portfolio approach. Vol. 63. No. 8. Washington, D.C.: ASCD. Educational Leadership.
- Chapman, C., King, R., & King, R. M. (2005). *Differentiated assessment strategies: One tool doesn't fit all*. Corwin Press.

- Clandinin, D. J., Connelly, F. M., & Chan, E. (2002). Three narrative teaching practices—One narrative teaching exercise. *Narrative inquiry in practice: Advancing the knowledge of teaching*, 133-145.
- Clark, D. B. (2020, November 17). Inside the chaotic, cutthroat gray market for N95 masks. *The New York Times*.
<https://www.nytimes.com/2020/11/17/magazine/n95-masks-market-covid.html>
- CNN (2021, January 6) Breaking news: Insurgence at the Capitol. CNN News.
<https://www.cnn.com/2021/01/06/politics/us-capitol-lockdown/index.html>
- Common Core State Standards Initiative. (2016). *About the standards*. Retrieved from <http://www.corestandards.org/about-the-standards/>
- Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Thousand Oaks, CA: SAGE.
- DelveTool (2020). Retrieved from <https://delvetool.com/>
- De Vynck, G. & Bergen, M. (2020). Google Classroom users doubled as quarantines Spread. Bloomberg. <https://www.bloomberg.com/news/articles/2020-04-09/google-widens-lead-in-education-market-as-students-rush-online>
- Dinçer, S. (2018). Are preservice teachers really literate enough to integrate technology in their classroom practice? Determining the technology literacy level of preservice teachers. *Education and Information Technologies*, 23(6), 2699-2718.
<http://dx.doi.org.jerome.stjohns.edu:81/10.1007/s10639-018-9737-z>

- Dinçer, S. & Doğanay, A. (2017). The effects of multiple-pedagogical agents on learners' academic success, motivation, and cognitive load. *Computers & Education*, 111, 74–100. <https://doi.org/10.1016/j.compedu.2017.04.005>
- Dooley, C. M., Lewis Ellison, T., Welch, M. M., Allen, M., & Bauer, D. (2016). Digital participatory pedagogy: digital participation as a method for technology integration in curriculum. *Journal of Digital Learning in Teacher Education*, 32(2), 52-62.
- Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2020). COVID-19 and student learning in the United States. McKinsey and Company.
- Durff, L., & Carter, M. (2019). Overcoming second-order barriers to technology integration in K–5 Schools. *Journal of Educational Research and Practice*, 9(1).
- Ertmer, P. A. (1999). Addressing first-and second-order barriers to change: Strategies for technology integration. *Educational Technology Research and Development*, 47, 47–61. doi:10.1007/BF02299597
- Fleisher, O., Gianodorli, G., Parshina-Kottas, Y., Patanjali, K., Peyton, M., & Saget, B. (2020, October 30). Masks work. Really. We'll show you how. *The New York Times*. <https://www.nytimes.com/interactive/2020/10/30/science/wear-mask-covid-particles-ul.html>
- Futuresource (2017). *Devices Shipped to Schools*. Futuresource Consulting.
- Futuresource (2020). *Top of the Class*. Futuresource Consulting.
- Garcia, A., Stamatis, K., & Kelly, M. (2018). Invisible potential: The social contexts of technology in three 9th-Grade ELA Classrooms. *Research in the Teaching of English*, 52(4), 404-426.

- Gee, J. P. (1999). Critical issues: Reading and the new literacy studies: Reframing the national academy of sciences report on reading. *Journal of Literacy Research, 31*(3), 355-374.
- Goldstein, D. (2020). Research shows students falling months behind during virus disruptions. *New York Times*.
- Google Classroom (2020), Retrieved from <https://edu.google.com/products/classroom>
- Gutierrez, D. (2016), Little school on the prairie: The overlooked plight of rural education. *Harvard Business Review*. Accessed 28 June 2018, from <https://tinyurl.com/yxb5a6bp>
- Guo, J., & Woulfin, S. (2016). Twenty-first century creativity: An investigation of how the partnership for 21st century instructional framework reflects the principles of creativity. *Roeper Review, 38*(3), 153-161. doi:10.1080/02783193.2016.1183741
- Harris, C., Straker, L., & Pollock, C. (2017). A socioeconomic related 'digital divide' exists in how, not if, young people use computers. *PLoS One, 12*(3) <http://dx.doi.org.jerome.stjohns.edu:81/10.1371/journal.pone.0175011>
- Harris, D. N. (2020, April 24). How will COVID-19 change our schools in the long run? Brookings. <https://www.brookings.edu/blog/brown-center-chalkboard/2020/04/24/how-will-covid-19-change-our-schools-in-the-long-run/>
- Hegart, K. R., & Yoo, J. (2018). Getting the most from Google Classroom: A pedagogical framework for tertiary educators. *Australian Journal of Teacher Education, 43*(3), 9.
- Herrera, T. (2020, December 21). The 20 phrases that defined 2020. *The New York Times*. <https://www.nytimes.com/2020/12/18/style/words-of-the-year-2020.html>

- Howley, A., Wood, L., & Hough, B. (2011). Rural elementary school teachers' technology integration. *Journal of Research in Rural Education* 26(9), 1–13.
- Howley, D. (2020, December 7). *Yahoo Finance 2020 company of the year: Zoom*. Yahoo! Finance. <https://www.yahoo.com/entertainment/zoom-yahoo-finance-company-of-the-year-2020-093100056.html>
- Huck, S. W. (2012). *Reading statistics and research (6th ed.)*. Upper Saddle River, NJ: Pearson.
- Hughes, J.E., Kerr, S.P., & Ooms, A. (2005). Content-focused technology inquiry groups: Cases of teacher learning and technology integration. *Journal of Educational Computing Research*, 32(4), 367–379.
- Hutchison, A. & Reinking, D. (2010). A national survey of barriers to integrating information and communication technologies into literacy instruction. *59th Yearbook of the National Reading Conference*. Milwaukee, WI: National Reading Conference.
- International Reading Association. (2009). New literacies and 21st century technologies: A position statement of the International Reading Association. Newark, DE.
- Instefjord, E. J., & Munthe, E. (2017). Educating digitally competent teachers: A study of integration of professional digital competence in teacher education. *Teaching and Teacher Education*, 67, 37–45. <https://doi.org/10.1016/j.tate.2017.05.016>
- ISTE (2017). *ISTE standards for teachers*. Retrieved from <http://www.iste.org/standards/standards/standards>

- Jacobs, G., Castek, J., Pizzolato, D., Reder, S., & Pendell, K. D. (2014, April). *Production and consumption: A closer look at adult digital literacy acquisition*.
<http://archives.pdx.edu/ds/psu/15422>
- Jacobs, H. H. (Ed.). (2004). Getting results with curriculum mapping. ASCD.
- Karchmer, R. (2001). The journey ahead: Thirteen teachers report how the Internet influences literacy and literacy instruction in their K–12 classrooms. *Reading Research Quarterly*, 36(4), 442–466.
- Leu, D.J. (1997). Caity's question: Literacy as deixis on the internet. *Reading Teacher*, 51, 62-67.
- Leu, J. D., Kinzer, K. C., Coiro, J., Castek, J., & Henry, A. L. (2013). New Literacies: A dual-level theory of the changing nature of literacy, instruction, and assessment. In Alvermann, D.E., Unrau, N.J., & Ruddell, R.B. (Eds.), *Theoretical models and processes of reading* (6th ed.). Newark, DE: International Reading Association.
- Lichtman, M. (2012). *Qualitative research in education: A user's guide*. SAGE.
- Lu, R., & Overbaugh, R.C. (2009) School environment and technology implementation in K–12 classrooms. *Computers in the Schools* 26(2), 89–106
- Lund, A., Furberg, A., Bakken, J., & Engelién, K. L. (2014). What does professional digital competence mean in teacher education? *Nordic Journal of Digital Literacy*, 9(4), 281–299.
- Mhlanga, D., & Moloji, T. (2020). COVID-19 and the Digital Transformation of Education: What Are We Learning on 4IR in South Africa? *Education Sciences*, 10(7), 180.
<http://dx.doi.org.jerome.stjohns.edu:81/10.3390/educsci10070180>

- Microsoft Sam. (2020, April 15). *Every COVID-19 commercial is exactly the same*.
<https://www.youtube.com/watch?v=vM3J9jDoaTA&feature=youtu.be>
- Moje, E. B. (2009). A call for new research on new and multi-literacies. *Research in the Teaching of English*, 43(4), 348-362.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
- National Governors Association Center for Best Practices and Council of Chief State School Officers. (2010). Common Core State Standards for English language arts and literacy history/social studies, science, and technical subjects (Appendix A). Washington, DC. Retrieved from <http://www.corestandards.org/ELA-Literacy>
- National Reading Conference. International Reading Association. (2009). *New literacies and 21st century technologies: A position statement of the International Reading Association*. Newark, DE.
- New London Group (2000) A pedagogy of multiliteracies: Designing social futures. *Harvard Educational Review*, 66(1): 60–92.
- Pilgrim, J., Bledsoe, C., & Reily, S. (2012). New technologies in the classroom. *Delta Kappa Gamma Bulletin*, 78(4), 16-22.
- Pittman, T., & Gaines, T. (2015). Technology integration in third, fourth and fifth grade classrooms in a Florida school district. *Educational Technology Research and Development*, 63, 539–554. doi:10.1007/s11423-015-9391-8
- Reimagining the Role of Technology in Education. (2017, January). Office of Educational Technology, US Department of Education. <https://tech.ed.gov/>
- Roberts, K., Shedd, M., & Norman, R. (2012). The common core standards on technology: A *SHIFT* in focus for states. *New England Reading Association*

Journal, 48(1), 56-65,114-115. Retrieved from
<https://jerome.stjohns.edu/login??url=https://search-proquest-com.jerome.stjohns.edu/docview/1114879281?accountid=14068>

- Rowse, J., Kress, G., Pahl, K. & Street, B. (2013). The social practice of multimodal reading: A New Literacy Studies–multimodal perspective on reading. In Alvermann, D.E., Unrau, N.J., & Ruddell, R.B. (Eds.), *Theoretical models and processes of reading* (6th ed.). Newark, DE: International Reading Association.
- Saldaña, J. (2015). *The coding manual for qualitative researchers*. Sage.
- Saxena, A. (2017). Issues and impediments faced by Canadian teachers while integrating ICT in pedagogical practice. *The Turkish Online Journal of Educational Technology*, 16, 58–70.
- Smith, S. (2013). Through the teacher’s eyes: Unpacking the TPACK of digital fabrication integration in middle school language arts. *Journal of Research on Technology in Education* 46(2), 207–227
- Spencer, G. (2020, June 17). *Schools after COVID-19: From a teaching culture to a learning culture*. Asia News Center.
<https://news.microsoft.com/apac/features/technology-in-schools-from-a-teaching-culture-to-a-learning-culture>
- Stolle, E. (2008). Teachers, literacy, & technology: Tensions, complexities, conceptualizations & practice. In Y. Kim, V. Risko, D. Compton, D. Dickinson, M. Hundley, R. Jimenez, K. Leander & D. Wells-Rowe (Eds.), *57th Yearbook of the National Reading Conference* (pp. 56–69). Oak Creek, WI: National Reading Conference.

- Sue, V.M., & Ritter, L.A. (2007). *Conducting online surveys*. Thousand Oaks, CA: Sage.
- Sundeen, T. & Sundeen, D. (2013), *Instructional technology for rural schools: Access and acquisition. Rural Special Education Quarterly 32(2)*, 8–14
- Tamin, R., Bernard, R., Borokhovski, E., Abrami, P., & Schmid, R. (2011). What forty years of research says about the impact of technology on learning: A second-order meta-analysis and validation study. *Review of Educational Research, 81*, 4–28.
- Teaching Matters (2021). <http://www.teachingmatters.org>
- The Economist Intelligence Unit. (2018). *Fostering exploration and excellence in 21st century schools*. The Economist.
https://services.google.com/fh/files/misc/eiu_briefingpaper_jan2018.pdf
- Tondeur, J., Aesaert, K., Pynoo, B., van Braak, J., Fraeyman, N., & Erstad, O. (2017). Developing a validated instrument to measure preservice teachers' ICT competencies: Meeting the demands of the 21st century. *British Journal of Educational Technology, 48(2)*, 462–472. <https://doi.org/10.1111/bjet.12380>.
- Tyler-Wood, T., Cockerham, D., & Johnson, K. R. (2018). Implementing new technologies in a middle school curriculum: a rural perspective. *Smart Learning Environments, 5(1)*, 1-16.
<http://dx.doi.org.jerome.stjohns.edu:81/10.1186/s40561-018-0073-y>
- Uerz, D., Volman, M., & Kral, M. (2018). Teacher educators' competences in fostering student teachers' proficiency in teaching and learning with technology: An overview of relevant research literature. *Teaching and Teacher Education, 70*, 12–23. <https://doi.org/10.1016/j.tate.2017.11.005>.

- Umamah, N. (2019). Google Classroom as a media of learning history. In *IOP Conference Series: Earth and Environmental Science* (Vol. 243, No. 1, p. 012156). IOP Publishing.
- U.S. Department of Education, Office of Educational Technology. (2010). Transforming American education: Learning powered by technology. *National Educational Technology Plan 2010: Executive summary*. Washington, DC.
<http://www.ed.gov/technology/netp-2010>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Boston, MA: Harvard University Press.
- Warschauer, M., Knobel, M., & Stone, L.A. (2004). Technology and equity in schooling: Deconstructing the digital divide. *Educational Policy*, 18(4), 562–588.
- What Matters Most: Teaching for America’s Future. (1996). *Report of the National Commission on Teaching & America’s Future*. National Commission on Teaching & America’s Future, New York, NY.
- Wheeler, T. (2014). Closing the digital divide in rural America. Accessed 28 June 2018, from <https://www.fcc.gov/news-events/blog/2014/11/20/closing-digital-divide-rural-america>
- Willcox, J.K. (2020). Libraries and schools are bridging the digital divide during the coronavirus pandemic. *Consumer Reports*. <https://tinyurl.com/y5qbfdez>
- Yim, S., Warschauer, M., Zheng, B., & Lawrence, J. F. (2014). Cloud-based collaborative writing and the common core standards. *Journal of Adolescent & Adult Literacy*, 58(3), 243-254.

- Zhao, Y., Pugh, K., Sheldon, S., & Byers, J. (2002). Conditions for classroom technology innovations. *Teachers College Record*, 104(3), 482–515.
- Zoch, M., Myers, J., & Belcher, J. (2016). Teachers' engagement with new literacies: Support for implementing technology in the English/language arts classroom. *Contemporary Issues in Technology & Teacher Education*, 17(1), 25-52.
- Zyad, H. (2016). Integrating computers in the classroom: Barriers and teachers' attitudes. *International Journal of Instruction*, 9, 65-78.

Vita

Name	<i>Morlena T. Robinson</i>
Baccalaureate Degree	<i>Bachelor of Science University of Maryland College Park, MD Major: Health Education</i>
Date Graduated	<i>xxxx</i>
Other Degrees and Certificates	<i>Master of Arts in Applied Psychology New York University New York, NY</i>
Date Graduated	<i>xxxx</i>
	<i>Certificate of Advanced Study in Educational Leadership & Administration College of St. Rose Albany, NY</i>
Date Graduated	<i>xxxx</i>
	<i>Master of Science in Education College of St. Rose Albany, NY</i>
Date Graduated	<i>xxxx</i>