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EFFECTIVE RESOURCES FOR ONLINE LEARNING A STUDY ON ELEMENTARY AGED CHILDREN

Marlene Mora-Lopez

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EFFECTIVE RESOURCES FOR ONLINE LEARNING
A STUDY ON ELEMENTARY AGED CHILDREN

A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Social Work

by

Marlene Mora-Lopez

May 2023

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March 2023

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ABSTRACT

The purpose of this research was to identify which resources have been most effective by examining an elementary school site with 22 parent and teacher participants. The increase in online learning in the past 5 years across kindergarten through 6th grade students required educators and students to know which are the most effective and relevant resources that supplement learning. Online Google surveys were used to gather data which was inputted into SPSS to examine a univariant analysis. The results determined Lexia Core 5 to be the best resource for academic improvement and Google Classroom to be the most effective online resource for increasing engagement in this sample. Future research should consider a larger sample size to determine effective online resources.

Key Words: online, online learning, online resource, distanced learning, elementary students.

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CHAPTER ONE: ASSESSMENT

Introduction

In chapter one, the research question is identified and clearly states the focus of this study. The significance and purpose of this study is illustrated by describing the critical impact of academic resources on online education. Both the independent and dependent variables are described, and a hypothesis of the expected outcomes for this study are discussed. The research paradigm and rationale for the chosen paradigm are outlined in accordance with the parameters for the positivism perspective (Morris, 2014). A literature review analyzes the current research for this study, with emphasis on themes, age gaps, and limitations. The theoretical orientation for this study is outlined. Contributions to the social work practice on the micro and macro level are highlighted. Finally, a summary reviews the key points of this chapter.

Research Question

Online learning increased for elementary aged children in the year 2020 due to a global pandemic. Many students and teachers in schools across the United States conducted class instruction via popular online video conference rooms while utilizing online resources to supplement learning. This sudden adaptation had to be learned at a rapid pace, requiring the need for increased support to ensure the academic success for students (Cluver et al., 2020). Deciding which academic resources are the most effective is not outlined in the research revolving academic success for online students. The uncertainty of the

length for a pandemic demands the urgency to have an effective academic plan in place that requires a distanced learning forum. Students who were involved in online learning benefited from additional resources to supplement their academic enrichment (Britt, 2015).

This research sought to find which academic resources parents and teachers thought had the most impact on their child's online learning based on academic performance and educational development. Academic performance was defined by grades and reading fluency (at grade level). Engagement was defined by participation, and attendance. The study determined what resources were the most effective in promoting the academic success and educational development of elementary school students who participated in online-distanced learning. Interventions included academic resources such as online tutoring, online social engagement opportunities with fellow peers, and the use of educational applications (apps) with interactive games related to course material. Academic success was measured based on a passing score in the overall class, as determined by the teachers and parents. The independent variable was the resources that the students used. The dependent variable was academic performance (high or low). The hypothesis was students who participated in the most academic resources will have higher levels of academic success than those who did not.

Paradigm & Rationale for Chosen Paradigm

The positivist paradigm was the approach of this study. Positivism assumes that reality is objective, and that the researcher should approach the study without bias. It also assumes that reality can be measured. This paradigm was appropriate because the goal of the research was to discover an outcome that can be compared against another, in this case an online resource compared to each other (Morris, 2014). According to Morris (2014) data should be quantitative from a positivism perspective. This was appropriate for this study as the researcher was seeking to quantify (rank) the outcomes (Morris 2014).

Literature Review

Introduction

The literature review covered the prevalence of school aged children who participated in online distanced learning in 2020. After conducting a literature review, articles are comprised of studies done on college aged individuals with an emerging literature on elementary aged children. A majority of the research that has been conducted in this area has reoccurring themes revolving around the COVID-19 global pandemic. In this review, issues students faced while utilizing the online learning platform and the factors that cause these issues are discussed. The impact of online learning on elementary students, educators, and parents respectfully, is discussed. Lastly, the most effective interventions and prevention methods were outlined.

Prevalence

It was estimated 93% of students in the United States participated in online learning in the year 2020 (United States Census Bureau, 2020). Among

those who participated in online learning, 80% of students needed to use online resources as part of the curriculum. Worksheets and printed assignments were also included as part of online curriculums, however, only 20% of students reported needing to use them. Credible recent data on online learning participation among elementary aged students for the year 2020 was scarce. There were also disparities of online students among higher income households and lower income households. Those with a higher income reportedly had higher participation rates at 85.8% compared to only 65.8% of lower income households (United States Census Bureau, 2020). Most of the data available show the prevalence for online learning among high grade level students with majority of the prevalence data focused on college aged student. Data was typically self-reported through the use of household surveys.

Challenges with Online Learning

The transition to online learning presented students and teachers with a number of challenges. Those challenges included the need for educators to transition to online platforms, some for the first time. According to Online Education Statistic (Education Data, 2020) only 49% of full-time teachers received formal training on distanced learning in the year 2019. Approximately 14% of teachers adapted an online curriculum developed by another colleague in the year 2019 (Education Data, 2020). There was also a drastic increase of online learners from the year 2019 to the year 2020 was the result of the COVID-19 global pandemic, which led to an increased use of online resources.

Prior to the pandemic, students, educators, and parents experienced limited preparedness in online learning platforms (Britt, 2015 and Cluver et al., 2020). It was an estimated 1.37 billion children that needed to discontinue their educational enrichment with uncertainty of the modifications of academic instruction (Cluver et al., 2020). Lack of experience in fully online curriculums required additional resources to support online distanced learners to support the challenges during this transition (Britt, 2015; Cluver et al., 2020; Eom & Ashill, 2018). Cluver et al. (2020) acknowledges that the global COVID-19 Pandemic was not the first health crisis in history, nor will it be the last, and effective learning alternative plans must be in place during times of uncertainty. Eom & Ashill (2018) highlight that about 63.3% of the population would agree that online learning plans are also critical for the development of a nation, and not just for times of crisis. This same study suggests that an estimated 71.4% of academic professionals would be in support of online learning and claim it is equal to traditional modes of instruction (Eom & Ashill, 2018).

Students had faced struggles with engagement on the online platform (Britt, 2015 and Mayer, 2019). Engagement and limited resources for distanced learners was the greatest contributor to the challenges for online education (Britt, 2015; Cluver et al., 2020; Mayer, 2019). Study done by Britt (2015) suggests that online instruction should be as solid as face-to-face instruction, placing importance on student engagement. One of the ways that Britt (2015) suggests student engagement is encouraged is through role play, which unfortunately was a lacking component during online learning. Problem solving live in groups was

also a missed opportunity for students during the 2020 Pandemic. Britt (2015) finally suggest that online learning can be advantageous through the use of technology, fundamental components in traditional in-person instruction have to be modified creatively to fulfill student engagement needs. It should be noted that literature on the needs of online elementary aged students was limited.

Systemic issues surfaced as a result of the increased number of students enrolled in online learning (Education Data, 2020). Disparities in access to technology was widespread among low-income households (Education Data, 2020). Only an estimated 65% of households with incomes less than an annual income of \$50,000 were able to participate in online learning compared to 85.8% of children in families earning \$100,000 (or more) annually (United States Census Bureau, 2020). Additionally lower income families also opted for paper materials to be sent home due to their inability to participate in online learning. An estimated 21.1% of children in families with an annual income less than \$50,000 were using paper materials compared to 15.3% of students in families earning over \$100,000 annually (United States Census Bureau, 2020). Parents had to take on the challenge of ensuring academic success for their children who were distanced learning at home (Cluver et al., 2020). Some parents were not able to stay home with their children while they participated in at home distance learning due to needing to work (Cluver et al., 2020).

Impact

Student engagement was low due to the limited face-to-face interaction with teachers and classmates (Britt, 2015; Education Data, 2020; Moron-Garcia,

2013). The literature does not highlight the negative impact on TK, Kindergarten, or First Grade students without reading, writing, or typing training/practice for online learning success. Younger elementary students needed additional supports to supplement their entry level academic skills. The resources that demonstrate the increase of academic performance and attendance were not applied to lower age groups. Anecdotal evidence suggests that students who were not utilizing the proper online sources fell behind academically (R. Taylor, personal communication, August 2021)¹.

Online learning allowed students' access to their education regardless of their geographical location (Mayer, 2019). The literature highlighted the advantages of online learning for college students. The online learning option is typically selected at will for college students who wish to participate in remote learning (Britt, 2015). Compared to elementary aged students who did not have a choice during the 2020-2021 academic year, the studies on college aged students emphasizes the advantages of online learning (Moron-Garcia, 2013). These advantages are only due to the advanced academic skillset of college-aged students on the use of technology and online platforms in comparison to elementary aged children. The level of engagement that was noted in studies such as that in Britt (2015), did not easily translate to younger students due to their lower-level skillset of the use of computers. The research does not focus on the online platforms used for the instruction of younger students but rather the

¹ R. Taylor, Therapist, School district Educationally Related Mental Health Services

complicated systems that are used for the purpose of college level online instruction. Studies show that online resources can be used to increase learning engagement (Moron-Garcia, 2013) however, according to United States Census Bureau (2020), students at elementary school age are not given the choice and are typically “forced” into online learning compared to college-aged children.

Intervention/Prevention

The number of academic resources for the students who participated in online distanced learning was dependent on the school district and individual school funding. School districts may have provided technology resources such as free at home Wi-Fi (limited access only during the academic year), laptops or tablets, and free lunch delivery/pickup (Education Data, 2020; Coachella Valley Unified School District, 2021; Cluver et al., 2020). Title 1 schools were given IT support for technical difficulties with laptops or tablets as well as access to online tutoring services (CVUSD, 2021). Some school sites conducted online seminars and support groups for parents to help aid in the online distanced learning structure (CVUSD, 2021). The five resources had not been scored or surveyed to measure the level of participation or quality of success within this school district during the years they were used prior to the pandemic.

Conclusion

To summarize, the literature on this topic was limited, particularly with regard to studies done on elementary aged students. Existing research was focused on mainly college aged students. The prevalence of school aged children who participated in online distanced learning in the year 2020 was approximately 93% (United States Census Bureau, 2020). While online learning

has been described as a positive extension to education for college students, the challenges of online learning were for elementary aged students. The literature encouraged the use of online learning to increase engagement but failed to address the differing levels of skillsets among college students and elementary students, respectively. This study sought to fill the gaps that exist in the literature for online learning with school aged children. Results from this study identified which age-appropriate resources impact the academic success among elementary students. Research from this study contributed to the literature by analyzing specific online learning platforms that are rarely mentioned in distanced learning research for elementary aged children.

Theoretical Orientation

Learning theory was applied to this study. The three categories of learning theory: behaviorism, cognitivism, and constructivism were used to analyze the level of effectiveness of academic resources for students. Considering the online platform, learning theory was used in various facets of this study, paying close attention to the academic outcomes of the students (Moron-Garcia, 2013).

Learning theory offers three components that provided the framework for the entirety of this study.

Behaviorism in education focuses on the retention of the material through negative and positive reinforcement (Eom & Ashill, 2018). The challenge for an educator was to identify what resources they would utilize to motivate their

students. This study determined the response of the teachers towards each of the resources.

Cognitivism focuses on additional resources that promoted the discovery of new skills learned during a lesson (Moron-Garcia, 2013). In this study cognitivism was used to analyze the effectiveness of interactive learning applications used by distanced learners. Each application had data tracking capacities so that teachers could see student participation and proficiency.

Constructivism was used to analyze the value of implementing social interactive platforms for peers. Constructivism focuses on social components that supplement learning in a group setting (Moron-Garcia, 2013). The distanced learning platform was challenging in this category due to the lack of in-person interaction among students.

Learning Theory (Moron-Garcia, 2013) served as a concrete theoretical basis for this study to analyze positive and negative outcomes based on parent and teacher perceptions. Analyzing academic improvement and engagement determined the effectiveness of each resource. Educators who were competent in learning theory provided valid feedback on the resources they have used to ensure the success of their online students. The researcher applied learning theory to determine which resources were most effective and rated them on a scale (most-least effective) based on how parents and teachers scored each resource. The researcher applied learning theory to analyze how each resource was received by online learners based on engagement and academic improvement.

Potential Contributions to the Social Work Practice at the Macro/Micro Level

Presently, research on online learning consists of studies done on students in higher level education, who are 18 years of age or older (Mayer, 2018). At the macro level, this study added to the existing research with the focus on school-aged children, grades kinder through sixth grade. The study served as an indicator for which online resources increased academic success and engagement. The schools can now determine which resources they will provide for their students to improve academic outcomes. This list can be distributed to multiple elementary schools on the state level. The study provided a list of effective resources for supporting students experiencing challenges with an online school platform. In contrast, it has weeded out resources that are not as effective to supplement online learning.

At the micro level, research on this topic helped construct a guide for educators on making executive decisions on which resources are necessary to increase the academic success of their students. Consequently, the research helped guide parents of students in distanced learning, to decide which resources they should take advantage of to support their child. By encouraging the use of the effective resources discovered in this study, students will have an increased level of success through online learning.

Summary

Chapter One covered the focus of the research, identified the research question, and purpose of the research. The positivist research paradigm was

chosen and the rationale for the why this paradigm best suits the research was given. The literature review demonstrated the prevalence of students experiencing issues with distance learning, causes of the issues for online learners, consequences, and current interventions. Learning theory was used as the framework for this study to describe the issues related to online learning. Lastly, Chapter One describes the contributions of this study to the field of social work at the micro & macro levels.

CHAPTER TWO: ENGAGEMENT

Introduction

In chapter two, the study site is described. Engagement strategies for each of the gatekeepers of that research site are presented. An effective self-preparation strategy is outlined. Diversity, ethical, and political issues that were anticipated were discussed as well as the solutions to these issues. Finally, the role of technology was also discussed at the end of this chapter.

Study Site

The study site was a local elementary school that has participated in a fully online schooling for the 2020-2021 school year. The study site had a majority of their students enrolled in the online curriculum utilizing multiple online platforms. The chosen study site was an elementary school that was part of a public school district with approximately 1000+ students. Although there are some schools that may already been considered, it was up to the school district to allow a study to take place at any particular school site. The school site was in a rural desert city located in Southern California. The school was located in an area that was predominantly Hispanic/Latinx residents. The city is considered to be a low-income community and the elementary school was considered a Title 1 school. Students enrolled in the study site are in grades 1st-6th grade and range in age from approximately 6-11 years old. Teachers at this school site have had at least one month of training in developing an online curriculum for their grade level respectively. Teachers would have spent a minimum of one month of

training prior to the start of the school year in prepping for online distanced learning.

Engagement Strategies for Gatekeepers at Research Site

Gatekeepers included school district leadership who preapproved the study before the researcher could contact an individual school. A formal petition to research and collect data was authorized by the school district. In order to engage and build rapport with the district, meetings via telephone were scheduled with board members of the district. A supplemental letter was delivered to the board members so that they had an overview of the purpose and value of the research. Once a petition was received, and approval was acquired, the researcher was free to contact the school. Upon acquiring a clearance to contact the campus and conduct research, any digital materials must be printed such as surveys must be approved and stamped by the district administration. Failure to comply with these guidelines would lead the school site to deny access to the researcher.

After all clearances at the district level were passed, engagement at the school site began. A formal meeting via Zoom with the elementary school principal, vice principal, and higher-level administrative staff was scheduled to formally introduce the research process. Questions were encouraged and addressed at this time so that participants felt comfortable with the value and purpose of the research. A second meeting was not needed with teachers who were willing to participate in the research. Researcher worked closely with the

parent liaison to engage with parents. Parents were encouraged to participate through the use of a recruitment letter. Parents were made aware of the benefits of participating in the research. Teachers were recruited via school wide emails sent by office administrators and by the parent-teacher liaison. Parents were recruited at parent events and via parent communication online services.

Self-Preparation

To prepare for the engagement process, a formal petition was drafted and ready to turn into the school district. Official copies of government issued IDs and student researcher identification were ready to turn into district administrators. Before engaging with school site principals and on campus admin, a short script was developed to highlight the value of the research prior to the first meeting. Role play and rehearsal of presentation prior to the online meeting helped strengthen the need for the research. The meeting highlighted the purpose and value of the research to all those who participated. Considering anticipated questions and viable responses prior to the meeting improved the sense of willingness to participate in the research by addressing concerns. Brainstorming potential challenges and obstacles prior to conducting the research helped develop solutions should they arise. Preparing possible solutions to perceived challenges strengthened the opportunity to gain approval from the research site.

Diversity Issues

Considering the demographic of the surrounding area, it was anticipated that majority of the participants and their families was Hispanic/Latinx. Despite

the value of focusing on a single minority group, the research aimed to include a more diverse sample. This would require sampling at more than one school site increasing the likelihood of obtaining a more diverse sample, however, this was not approved by the district. The age group was limited to elementary school aged children which left out middle school and high school aged groups. Due to the age range of the concentration group, the online resources assessed are limited to those utilized at this grade level. Considering the demographic, it was anticipated that participants could speak another language other than English, such as Spanish. To increase participation, surveys were also formulated in Spanish to encourage participation, as well as recruitment letters and consent forms, however, Spanish generated surveys were not completed by the sample collected.

Ethical Issues

Ethical issues that were anticipated from this research could include the credibility of online survey collection. For example, a student could answer a survey instead of their parent which would hinder the data collection. Another similar instance could include an older sibling of the student to be the one who fills out a survey in the place of a parent. These issues could be addressed by emphasizing the honesty policy to all participants. Collecting data in the form of an online survey places the responsibility of who was completing the survey to be honest and truthful in their responses. Discrepancies could compromise the integrity of the data collected such as misunderstood questions or skipped

questions on the survey. To ensure anonymity, online surveys did not ask for personal information such as name, phone numbers, addresses, or email information. Another concern was using online survey links, parents could click on the wrong survey link. For instance, a teacher could click on a parent link and vice versa. Fortunately, none of these issues were presented throughout the research. These strategies improved the quality of privacy and anonymity policy of the research.

Political Issues

Political issues that were anticipated involved the results of the study that are perceived unfavorable by the stakeholders. The district may be required to share the findings at the county and state level regardless of the results. These potential political issues are unknown at this time, however, potential strategies to combat these challenges could include meetings with stakeholders at the city, county, or state levels. Although there was minimal risks to conducting this research, stakeholders may have concerns that the results may reflect negatively on the school site and district. The study should not reflect negatively on the educational practices of the school site, the results were submitted to the district, and it was up to their discretion to share the findings district wide. As for the publication of this research, to protect the integrity of the school site, a pseudonym was created so that the school was not easily identifiable. The risk of the results depicting the school or school district in a negative light are low due to

the qualitative interpretation of the results. Emphasizing anonymity was imperative to ensuring the integrity of the shared findings.

The Role of Technology

Technology was an effective tool for communication and surveying. An electronic version of the survey was emailed directly to parents so that they could complete it on their handheld devices. Technology was used to prepare a script for presentations with both the school district leadership board and for the school site administration. Other programs that were utilized for formulating and analyzing data are SPSS and statistical analytics software. In addition, all online resources utilized by students, teachers, and parents were assessed so that they could be categorized for the purpose of surveying.

Summary

To summarize, chapter two covered the engagement plan for conducting the proposed research. The potential study site was described. Engagement strategies for gatekeepers at the research site were outlined with the goal of addressing barriers to participation. A plan for self-preparation was articulated to improve outcomes related to research pitch to stakeholders. Potential diversity, ethical, and political issues were contemplated, and effective strategies were brainstormed to mitigate these challenges, respectively. Finally, the role of technology was implemented for communication and surveying aspects of conducting the research.

CHAPTER THREE: IMPLEMENTATION

Introduction

In chapter three, the implementation procedures that were carried out are outlined for the study. The study participants are described. Characteristics and criterion of study participants are identified for the purpose of the selection process. The tools for data gathering are listed as well as their purpose. The phases of data collection along with the details of the process are described. Data recording/entry and data analysis strategies are explained.

Study Participants

The participants for this study included teachers and parents. Study participants needed to have participated in online schooling curriculum during the 2020-2021 school year. Participants were not limited or categorized by race/ethnicity, gender, or spoken language (however surveys were distributed only in English and Spanish). Parents must have had a student(s) that were in grades 1-6, ages ranging from 6–11-year-olds. The teachers selected had to have conducted online instruction for the 2020-2021 school year. Teachers did not have to have a student included in the survey sample in order to participate. Candidates for teachers were those who had prepared online curriculums for their students while using various online resources to enhance learning. Parent participants were the core of the sample surveyed for this study. Parents selected a student or students who participated in 2020-2021 school year.

Parents who did not have a student who participated in online learning in the 2020-2021 school year were not able to participate.

Selection of Participants

A convenience sample was used for the study participants. Participants were expected to be teachers and parents from one school site. Recruitment of the participants was done through recruitment emails (see Appendix D). The aforementioned criterion would require participants to have participated in an online curriculum for the 2020-2021 academic year. Convenience sampling was used and the data of both teachers and parents was combined. Participants were selected on a volunteer basis upon completion of study survey. Researcher worked closely with parent liaison to reach out to parents so that they may be invited to participate via recruitment email. Online teacher communication platforms were utilized to invite teachers to participate in the study. There were two separate surveys for parents and teachers.

Data Gathering

In order to acquire a list of potential participants, online parent groups and teacher communication forums were utilized. Recruitment emails (see Appendix D) were sent out by partnering with the parent liaison. These emails were sent out at least three times a month in an effort to boost recruitment. Communication apps such as Class Dojo were used to post the link of online surveys so that it was easily accessible for both parents and teachers. Teachers were encouraged to send the link to the parents utilizing the Class Dojo application. Reminders and

reposting of survey link happened on a biweekly basis until the survey window was closed.

Data gathering included conducting surveys of the selected participants. How were the surveys sent out and how did you collect the data? Surveys were no more than 10 questions long (see Appendix A). Surveys were drafted for teachers, and parents, respectively. Quantifiable measures were used to describe the quality of the online resource on a Likert scale of 0 to 10. For example, rating the resource on level of effectiveness on conditions of academic success and level of engagement. The survey asked parents and teachers to consider the student's grades and test scores when rating the resource as influential on academic improvement, however the researcher did not request test scores and grades. The survey asked parents and teachers to consider the student's attendance and level of participation when rating their (student's) engagement. There was no need for participants to provide report cards or attendance records and are instead prompted to reflect on these conditions in a general sense. (See Appendix B and C)

Phases of Data Collection

Consents were obtained from the school site admin, teachers, and parents understanding that there was minimal to no risk in this research (sample of consent found in Appendix A). Consent was included at the start of the online survey link, to which participants had to acknowledge before completing the survey. The first set of surveys were given to the selected teachers who agree to

participate in the survey via email link, one survey per teacher. The second set of survey links were sent to the parents, one survey per parent. Each completed survey was sent directly to the researcher's secured email. A time sensitive window to complete surveys were granted to all participants, approximately three school months (this can fall or overlap with any school observed holidays where class was not in session). While debriefing was not required for this style of research, all participants were encouraged to contact the researcher with any concerns or questions during or after the study. Participants who would like to be provided with the study findings were given the contact information of the researcher or be instructed to reach out to the school parent liaison who was provided with the research results.

Data Recording

Once all the surveys were collected at the end of the surveying window, they were organized by teacher and parent charts to prepare for data entry. Data was inputted into an Excel spreadsheet. Appropriate codes were used to label each of the online resources. Scores were inputted corresponding to the qualitative ratings. All surveys collected were completed in their entirety. Color coding was used for each differing column, for example, teachers were blue, and parents were yellow. Demographics data was not collected for the analysis. These strategies enhanced the effectiveness of data entry and minimized the potential for human error.

Data Analysis Procedures

Descriptive statistics were run to cross analyze the data collected from the surveys and from the qualitative data. In order to evaluate associations between the use of online resources and academic outcomes, a linear regression was run. Academic outcomes were assigned as the dependent variable and parent and teacher effectiveness ratings of online resources were assigned as the independent variable.

Summary

In summary, chapter three covered the implementation procedures of this study. Study participants were identified as parents and teachers. Criterion for the selection of participants was discussed. The process of data gathering was outlined. The phases of data collection and data recording were reviewed. Finally, the data analysis procedures were addressed.

CHAPTER FOUR: EVALUATION

Introduction

This chapter discusses the analysis of the data that was collected through surveys. A univariant analysis using SPSS was conducted. The results are discussed below. Frequency and mean scores were determined, and implications of these findings are considered.

Data Analysis

The study sample consisted of 22 respondents, 13 were parents and 9 were teachers. The tables below report the mean scores for each of the online resources. For each item, respondents were asked to give an assessment from 0-10 of effectiveness based on academic success and level of engagement. Table one shows the mean scores for academic improvement for each of the five online resources for teachers and parents. Table two shows the mean scores for level of engagement for each of the five online resources for teachers and parents.

Table 1

Mean Scores for Academic Improvement

Online Resource	Parents	Teachers
Lexia Core 5	8.50	8.22
McGraw Hill	7.54	6.89
Google Classroom	8.18	7.67

Epic	8.13	7.56
Freckle Math	7.77	6.56

Table 2

Mean Scores for Level of Engagement

Online Resource	Parents	Teachers
Lexia Core 5	8.50	7.88
McGraw Hill	7.90	8.33
Google Classroom	9.22	9.00
Epic	8.90	8.67
Freckle Math	7.81	8.11

Data Interpretation

Lexia Core 5 is a language arts learning platform that allows students to build their skills through grammar practice and phonics. McGraw Hill is used as the online workbook, where students complete assigned digital workbook pages. Google Classroom is where students can connect with their fellow classmates and their teacher, this is where teachers held online instruction. Epic is a reading app that encourages students to read more frequently. Finally, Freckle Math is an app for students to practice their math skills.

In Table one the mean scores show Lexia Core 5 as the online resource that was the most effective in enhancing academic improvement. Both teachers and parents rated Lexia Core 5 to be the most effective in contributing to academic improvement. The application that was least effective in advancing academic improvement was Freckle Math, rated by parents and teachers.

In Table two Google Classroom had the highest mean scores for boosting levels of engagement. Both parents and teachers scored Google Classroom the highest for increasing levels of engagement. Conversely, Freckle Math showed the lowest scores for level of engagement rated by parents and teachers.

An overall analysis determines Freckle Math to be the least effective online resource scoring the lowest in both mean score for academic improvement and level of engagement. The most effective online resource is tied between Google Classroom and Lexia Core 5 for both high mean scores for both academic improvement and level of engagement. Both teachers and parents rated each of the resources similarly without much variation in their ratings. This could be attributed to the need for parents to take on a more immersed role in their child's education during the 2020-2021 school year due to instruction being conducted at home. Teachers may have stressed the use of these online resources and discussed this often enough with parents that they became familiar with the names and functions of these applications. Since parents were able to observe their students being taught at home through the use of the

applications, they shared the task of teaching with the teacher and therefore, could determine the level of effectiveness for each online resource.

Implications of Findings for Micro Social Work Practice and Recommendations for Future Research

This study suggests that students did benefit from the use of online resources by increasing their academic success and level of engagement, as assessed by teachers and parents. This evidence supports that online resources should be used in the classroom and students should be assisted in learning how to properly use these applications. Teachers should be encouraged to find creative ways to use these applications in their lesson plans by their administrators. Over time, professional knowledge will be accumulated on what resources work and which are less effective, and this could become a resource for future development of classroom instruction. One of the limits to this study was a small study sample. In the future, to supplement this data, a larger study sample could determine the efficacy of online resources in general.

A considerable implication for the assessment of these online resources is that they were used during a global pandemic while distanced learning which was only conducted during the 2020-2021 school year. Since distance learning did not continue for additional academic years, evidence for efficacy of long-term use would help to support an exploration of this topic. Assessing the efficacy of these resources during standard distance learning would better determine the

effectiveness of each resource under normal environmental conditions in future studies.

Summary

Chapter four covered data analysis, data interpretation, and implications for micro level practice, as well as recommendations for future research. The data analysis showed a univariant output of analysis for each of the five online resources. Data interpretation outlined key findings of this study aligned with the expected outcomes. Finally, the implications of these findings showed the need for a continued assessment of online resources for effective online learning.

CHAPTER FIVE: TERMINATION AND FOLLOW UP

Introduction

In this chapter, the plan for termination and follow up are outlined. The communication of findings as well as the dissemination plan will also be discussed.

Termination and Follow Up

To terminate the study, a debriefing was conducted for the participants via online thank you emails. A faculty letter was also sent for the purpose of thanking them for their participation and debriefing. Parents were sent a thank you letter for their participation and encouragement to participate in future studies via email. A follow up will be conducted for the administration at the school district and school site for the purpose of explaining the findings and debriefing of the research process. The findings will highlight the two applications that were rated the highest for improving academic improvement and increasing engagement: Lexia Core 5 and Google Classroom. The debriefing will reiterate to the participants that this was a minimal risk study consisting of their opinions on select academic applications.

Communication of Findings and Dissemination Plan

The research will be published on the CSUSB scholar works database (<https://scholarworks.lib.csusb.edu/>). An email will be sent to the administration staff with the link to scholar works once the work has been published. A summary of key findings highlighting Lexia Core 5 and Google Classroom as optimal academic applications will be drafted in email as well as a final thanks for their participation in this study. Along with this summary, a recommendation for the continued use of Lexia Core 5 and Google Classroom to be implemented for distance learning based on the findings will be given. It will be up to the discretion of the school district to distribute these findings to neighboring school sites.

APPENDIX A: INFORMED CONSENT

INFORMED CONSENT

The study in which you are asked to participate is designed to determine the effectiveness of online resources on distanced learners. The study is being conducted by Marly Mora-Lopez, a graduate student, under the supervision of Dr. Terresa Morris, Assistant Professor in the School of Social Work at California State University, San Bernardino (CSUSB). The study has been approved by the Institutional Review Board at CSUSB.

PURPOSE: This study will seek to identify online resources that parents and teachers think improve online learning.

DESCRIPTION:

Participants will complete a short survey about their and their student's experiences with online resources.

PARTICIPATION:

Participation in this study is completely voluntary and you may withdrawal your participation at any time. You may skip any questions you do not want to answer.

DURATION:

Surveys take approximately 15 mins to complete. Once you have completed the survey, your participation in this study is complete.

RISKS:

There are no foreseeable risks to your participation in this study.

BENEFITS:

Although there are no direct benefits to you, the results of this study will produce a list of effective resources to improve online learning.

CONTACT:

Any questions or concerns can be shared with Marly Mora-Lopez.

Cell: 760-238-6500 | Email: 006261550@coyote.csusb.edu

RESULTS:

Results of the study can be obtained from the Pfau Library ScholarWorks database (<http://scholarworks.lib.csusb.edu/>) at California State University, San Bernardino after July 20.

CONFIRMATION STATEMENT:

I understand that I must be 18 years of age or older to participate in your study, have read and understand the consent document and agree to participate in your study

SIGNATURE:

Mark with an X if you agree to participate in this study _____ Date _____

APPENDIX B: PARENT SURVEY

SURVEY (PARENT)

On a scale of 0-10 rate your child's academic improvement (grades and test scores) while using the following resources with 0 being no improvement, 5 being neutral, and 10 being significant academic improvement.

- 1) Please rate your child's academic improvement after using the app Freckle Math.

0	1	2	3	4	5	6	7	8	9	10
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- 2) Please rate your child's academic improvement after using the app Lexia Core 5.

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

- 3) Please rate your child's academic improvement after using the app McGrall Hill.

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

- 4) Please rate your child's academic improvement after using the app Google Classroom.

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

- 5) Please rate your child's academic improvement after using the app Epic.

0	1	2	3	4	5	6	7	8	9	10
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On a scale of 0-10 rate your child's level of engagement (attendance and level of participation) while using the following resources with 0 no engagement, 5 being neutral, and 10 being significant level of engagement.

- a. Please rate your child's level of engagement after using the app Freckle Math.

0	1	2	3	4	5	6	7	8	9	10
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- 6) Please rate your child's level of engagement after using the app Lexia Core 5.

0	1	2	3	4	5	6	7	8	9	10
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- 7) Please rate your child's level of engagement after using the app McGrall Hill.

0	1	2	3	4	5	6	7	8	9	10
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8) Please rate your child's level of engagement after using the app Google Classroom.

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

9) Please rate your child's level of engagement after using the app Epic.

0	1	2	3	4	5	6	7	8	9	10
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APPENDIX C: TEACHER SURVEY

SURVEY (TEACHER)

On a scale of 0-10 rate your student's academic improvement (grades and test scores) while using the following resources with 0 being no improvement, 5 being neutral, and 10 being significant academic improvement.

- 1) Please rate your student's academic improvement after using the app Freckle Math.

0	1	2	3	4	5	6	7	8	9	10
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- 2) Please rate your student's academic improvement after using the app Lexia Core 5.

0	1	2	3	4	5	6	7	8	9	10
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- 3) Please rate your student's academic improvement after using the app McGrall Hill.

0	1	2	3	4	5	6	7	8	9	10
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- 4) Please rate your student's academic improvement after using the app Google Classroom.

0	1	2	3	4	5	6	7	8	9	10
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- 5) Please rate your student's academic improvement after using the app Epic.

0	1	2	3	4	5	6	7	8	9	10
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On a scale of 0-10 rate your student's level of engagement (attendance and level of participation) while using the following resources with 0 no engagement, 5 being neutral, and 10 being significant level of engagement.

- 6) Please rate your student's level of engagement after using the app Freckle Math.

0	1	2	3	4	5	6	7	8	9	10
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- 7) Please rate your student's level of engagement after using the app Lexia Core 5.

0	1	2	3	4	5	6	7	8	9	10
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- 8) Please rate your student's level of engagement after using the app McGrall Hill.

0	1	2	3	4	5	6	7	8	9	10
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9) Please rate your student's level of engagement after using the app Google Classroom.

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----

10) Please rate your student's level of engagement after using the app Epic.

0	1	2	3	4	5	6	7	8	9	10
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APPENDIX D: RECRUITMENT EMAIL

RECRUITMENT EMAIL

Dear Parent or Teacher,

My name is Marly Mora-Lopez and I am a MSW student at the California State University, San Bernardino. I am conducting a study on the effectiveness of Freckle Math (math practice activities), Lexia Core 5 (language arts skills), McGraw Hill (online worksheets), Google Classroom (online instruction/assignment submission), and Epic (online reader - eBooks) learning resources used in the 2020-2021 academic school year. This research study has been approved by both the CSUSB Institutional Review Board and the primary investigator/research supervisor, Dr. Teresa Morris.

If you are interested in participating in this study you will be asked to complete a short online survey of 10 questions (5-10 minutes). Identities of all participants will remain anonymous. The information collected from this survey will help create a list of the most effective resources to improve online learning. Your time and effort are most appreciated, and you have my sincere thanks for your participation.

For any questions please email: 006261550@coyote.csusb.edu

[Survey Link \(Parent\): https://forms.gle/bTi9tYKmkneGJA839](https://forms.gle/bTi9tYKmkneGJA839)

[Survey Link \(Teacher\): https://forms.gle/qJkRoKYKGBqVCVCm7](https://forms.gle/qJkRoKYKGBqVCVCm7)

Respectfully,

Marly Mora-Lopez

APPENDIX E: IRB APPROVAL LETTER

IRB APPROVAL LETTER



Marlene Mora-Lopez <006261550@coyote.csusb.edu>

IRB-FY2022-192 - Initial: IRB Admin./Exempt Review Determination Letter

do-not-reply@cayuse.com <do-not-reply@cayuse.com>
To: 006261550@coyote.csusb.edu, tmorra@csusb.edu

Fri, Jun 3, 2022 at 3:51 PM



June 3, 2022

CSUSB INSTITUTIONAL REVIEW BOARD
Administrative/Exempt Review Determination
Status: Determined Exempt
IRB-FY2022-192

Teresa Morris Marlene Mora-Lopez
CSWS - Social Work
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Teresa Morris Marlene Mora-Lopez:

Your application to use human subjects, titled "Effective Resources For Online Learning" has been reviewed and determined exempt by the Chair of the Institutional Review Board (IRB) of CSU, San Bernardino. An exempt determination means your study had met the federal requirements for exempt status under 45 CFR 46.104. The CSUSB IRB has weighed the risks and benefits of the study to ensure the protection of human participants.

This approval notice does not replace any departmental or additional campus approvals which may be required including access to CSUSB campus facilities and affiliate campuses. Investigators should consider the changing COVID-19 circumstances based on current CDC, California Department of Public Health, and campus guidance and submit appropriate protocol modifications to the IRB as needed. CSUSB campus and affiliate health screenings should be completed for all campus human research related activities. Human research activities conducted at off-campus sites should follow CDC, California Department of Public Health, and local guidance. See CSUSB's [COVID-19 Prevention Plan](#) for more information regarding campus requirements.

You are required to notify the IRB of the following as mandated by the Office of Human Research Protections (OHRP) federal regulations 45 CFR 46 and CSUSB IRB policy. The forms (modification, renewal, unanticipated/adverse event, study closure) are located in the Cayuse IRB System with instructions provided on the IRB Applications, Forms, and Submission webpage. Failure to notify the IRB of the following requirements may result in disciplinary action. The Cayuse IRB system will notify you when your protocol is due for renewal. Ensure you file your protocol renewal and continuing review form through the Cayuse IRB system to keep your protocol current and active unless you have completed your study.

- Ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.
- Submit a protocol modification (change) if any changes (no matter how minor) are proposed in your study for review and approval by the IRB before being implemented in your study.
- Notify the IRB within 5 days of any unanticipated or adverse events are experienced by subjects during your research.
- Submit a study closure through the Cayuse IRB submission system once your study has ended.

If you have any questions regarding the IRB decision, please contact Michael Gillespie, the Research Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7558, by fax at (909) 537-7028, or by email at mrgillesp@csusb.edu. Please include your application approval number IRB-FY2022-192 in all correspondence. Any complaints you receive from participants and/or others related to your research may be directed to Mr. Gillespie.

Best of luck with your research.

Sincerely,

Nicole Dabbs

Nicole Dabbs, Ph.D., IRB Chair
CSUSB Institutional Review Board

ND/MG

References

- Britt, M. (2015). How to better engage online students with online strategies. *College Student Journal*, 49(3), 399–404.
- Coachella Valley Unified School District (2021). *CVUSD community-students*.
<https://www.cvusd.us/>
- Cluver, L., Lachman, J. M., Sherr, L., Wessels, I., Krug, E., Rakotomalala, S., Blight, S., Hillis, S., Bachman, G., Green, O., Butchart, A., Tomlinson, M., Ward, C. L., Doubt, J., & McDonald, K. (2020). Parenting in a time of COVID-19. *The Lancet*, 395(10231), e64. [https://doi-org.libproxy.lib.csusb.edu/10.1016/S0140-6736\(20\)30736-4](https://doi-org.libproxy.lib.csusb.edu/10.1016/S0140-6736(20)30736-4)
- Education Data (2020). *Online Education Statistics*.
<https://educationdata.org/online-education-statistics#distance-online-learning-components-of-online-courses>
- Eom, S. B., & Ashill, N. J. (2018). A system's view of e-learning success model. *Decision Sciences Journal of Innovative Education*, 16(1), 42–76.
<https://doi-org.libproxy.lib.csusb.edu/10.1111/dsji.12144>
- Mayer, R. E. (2019). Thirty years of research on online learning. *Applied Cognitive Psychology*, 33(2), 152–159. <https://doi-org.libproxy.lib.csusb.edu/10.1002/acp.3482>
- Moron-Garcia, S. (2013). Review of Learning theory and online technologies. *Innovations in Education and Teaching International*, 50(1), 104–105.
<https://doi-org.libproxy.lib.csusb.edu/10.1080/14703297.2012.757034>

Morris. T. (2014). *Practice informed research methods for social workers*. T.

Morris.

United States Census Bureau (2020). *Schooling during the COVID-19 Pandemic*.

<https://www.census.gov/library/stories/2020/08/schooling-during-the-covid-19-pandemic.html>

World Health Organization. (2021). *Health Topics – Coronavirus*.

https://www.who.int/health-topics/coronavirus#tab=tab_1