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Principals' Perceptions of COVID-19 Learning Strategies' Influence on Reading Achievement in Title I Urban Elementary Schools

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Walden University

College of Education and Human Sciences

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Kadian Alicia Grant

has been found to be complete and satisfactory in all respects,
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the review committee have been made.

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Walden University
2025

Abstract

Principals' Perceptions of COVID-19 Learning Strategies' Influence on Reading

Achievement in Title I Urban Elementary Schools

by

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MA, University of Notre Dame, 2016

MA, Towson University, 2011

BS, Mt. St. Vincent University, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education Policy, Leadership, and Management

Walden University

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Abstract

The COVID-19 pandemic significantly intensified reading achievement challenges among Title I urban elementary school students. There was a need to understand the impact of district-implemented strategies to improve reading achievement during the pandemic. Guided by Fullan's educational change theory, this qualitative case study explored principals' perceptions of the influence of district strategies on reading achievement implemented due to the COVID-19 pandemic during the 2021–2022 school year, particularly in Title I urban elementary schools. The study specifically aimed to explore (a) principals' perceptions of the influence of lesson acceleration, (b) principals' perceptions of the influence of personalized learning, and (c) challenges principals encountered in implementing new district strategies during the pandemic. Data were collected through interviews with eight purposefully selected principals with at least three years of experience, knowledge of the implementation of the strategies, and current employment within urban elementary schools in one school district in central Maryland. Data were analyzed using Braun and Clarke's (2006) six-phase thematic analysis method. Key findings revealed that principals viewed the strategies as beneficial, despite challenges associated with their implementation. Findings also provided actionable insights into data-driven decision-making and strategic interventions aimed at addressing learning gaps. These insights suggest the need for tailored instructional practices and instructional resources. This research may result in positive social change by providing recommendations for increasing reading achievement in low-income urban elementary schools, especially in times of educational crisis such as a pandemic.

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Dedication

I dedicate this study to my mom, Donna. You did not finish high school because I came into this world, so this doctorate is for you. Now you know that you gave birth a doctor, and I hope you are very proud of me.

I also want to dedicate this study to my daughter, Genesis. She came into this world while I was pursuing this doctorate. I want her to know that she can be anything she wants if she works towards it. Baby girl, if your mom can achieve this doctorate, then you can be the doctor who takes care of animals. I LOVE YOU!

In addition, I want to dedicate this study my favorite nephew and only Nathan aka Ronaldo. You know you are the best. I can't wait to see the great things you achieve in life.

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First, I want to thank God, my Lord and Savior, for keeping his promise and fighting for me when I do not have the strength to fight for myself. You said I can do all things through you. I believed it, and you made it happen. You did it again.

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Chapter 1: Introduction to the Study

Introduction

In December 2019, the emergence of a new virus in Wuhan, China, ushered in a period of unprecedented disruption to societies worldwide, with profound impacts on education systems. By March 2020, the virus—now known as COVID-19—had been declared a pandemic, prompting widespread school closures in the United States and globally (Tan, 2021). This immediate shift to virtual learning introduced an array of challenges. Notably, it exposed educational disparities among students, especially those in Title I urban elementary schools that serve high populations of low-performing students from low socioeconomic status (SES) communities. The sudden transition significantly disadvantaged these students, who were already grappling with academic challenges (Harmey & Moss, 2021).

Several studies, including those conducted by Hammerstein et al. (2021) and König and Frey (2022), provide compelling evidence of COVID-19's detrimental effects on student achievement in reading. Zierer (2021) further highlighted the pandemic's impact on pupils' performance and learning across several countries, adding to the body of evidence on the global education crisis precipitated by the pandemic. In response to this unprecedented situation, one Maryland school district prioritized lesson acceleration and personalized learning as strategies to offset the negative impacts of COVID-19; these approaches—referring to rapid curriculum progression and tailored instruction to individual student needs—were critical to the battle against learning loss (Zierer, 2021).

Principals, as key drivers of the implementation and evaluation of these strategies, had a unique vantage point to assess their effectiveness. Therefore, through this study, I seek to understand principals' perceptions of these strategies on reading achievement during the 2021–2022 school year (SY 2021–2022). Focusing on the specific context of Title I urban elementary schools, this research aims to contribute to the crucial understanding of educational resilience in an era of crisis.

In this chapter, I outline the study's goal, the problem description, the research questions, and the conceptual framework associated with principals' perceptions of change within their organization. I also outline the nature of the study, involving critical meanings used throughout this research. In addition, I discuss the assumptions, scope and delimitations, limitations, and significance of the study including implications for positive social change to provide readers with a host of introductory information about this research.

Background of the Study

This investigation explored principals' perceptions of the influence of district strategies implemented due to the COVID-19 pandemic on reading achievement during SY 2021–2022, particularly in Title I urban elementary schools. These observations are particularly crucial within the context of Title I urban elementary schools, a setting the COVID-19 pandemic has heavily impacted. These schools are predominantly populated by students from low SES backgrounds who were already academically vulnerable before the pandemic. The abrupt shift to remote learning and subsequent educational disruptions introduced by the pandemic exacerbated the pre-existing difficulties, creating an urgent

need for effective intervention strategies (Tan, 2021). Through this study, I sought to gain insights from principals who are key drivers of these interventions and to understand their perceptions of strategy effectiveness.

In March 2020, COVID-19 caused nationwide school closures, leading to a scramble for effective virtual instruction methods. School districts embraced a myriad of online learning modes, ranging from Google Classroom and Zoom-based instruction to television broadcasts of lessons. However, the accessibility of these virtual learning environments varied dramatically, particularly in high-poverty areas (Zierer, 2021). A significant number of students, especially those from disadvantaged backgrounds, struggled to gain full access to instruction, leading to considerable learning loss (Domina et al., 2021; Harmeey & Moss, 2021).

As the pandemic extended into its second year, districts grappled with various reopening strategies amid continuous disruptions. König and Frey's (2022) meta-analysis underscores the significant impact of school closures on student achievement, providing a stark backdrop to the challenges faced. SY 2021–2022 witnessed this evolving educational landscape, with school districts resorting to partial openings that leveraged measures like A/B week schedules and limited in-person attendance to maintain social distancing guidelines. These adaptations presented a complex environment for learning and instruction (Domina et al., 2021).

In response to these unprecedented educational disruptions, a central Maryland school district implemented two primary strategies: lesson acceleration and personalized learning. Lesson acceleration, as defined by Lambert and Sassone (2020), is the

purposeful teaching of concepts and skills for immediate or future use. According to research by Darling-Hammond et al., (2020), this strategy fosters rapid improvement in student learning, especially when tailored to individual student needs. Implementing these interventions provided a foundation for addressing the severe learning losses during the pandemic.

In conjunction with accelerated learning, the district introduced personalized learning, an instructional approach tailored to meet the unique needs of each learner (National Forum on Education Statistics, 2019). This approach, which is in line with the pedagogical principles proposed by Lokey-Vega and Stephens (2019), is aimed at delivering equitable, relevant, and often self-initiated learning experiences for all students. Such a strategy acknowledges the diversity of student backgrounds and learning styles, seeking to foster an inclusive and effective learning environment (König & Frey, 2022).

As the primary communicators and overseers of these strategies, principals have a unique vantage point to assess their effectiveness. Their responsibilities span a wide range, from receiving training and supervising the strategies' implementation to analyzing student performance from the beginning to the end-of-year assessments (Zierer, 2021). Therefore, I intend in this study to capture the critical insights from these principals regarding the influence of district strategies implemented due to the COVID-19 pandemic on reading achievement during SY 2021–2022, particularly in Title I urban elementary schools.

This research may be a vital contribution to the ongoing discourse on post-pandemic education. Focusing on principals' perceptions addresses a significant gap in the existing literature, providing invaluable insights into the effectiveness of these educational strategies. The findings may be instrumental in informing district leaders' future decisions about reading instruction and may have the potential to influence broader educational policies. Ultimately, the effects of these strategies could extend beyond individual schools and districts, contributing significantly to societal change and the resilience of education systems in the face of crises (Tan, 2021).

Problem Statement

This study was conducted to address that COVID-19 pandemic disruptions have exacerbated existing academic struggles, particularly in reading achievement, among Title I urban elementary school students (Bailey et al., 2021; Hammerstein et al., 2021). Burkart et al. (2022) and Conto et al. (2021) noted that the unintended consequences of school closures to limit the virus's spread posed substantial threats to student well-being and academic achievement, with disadvantaged students facing disproportionate impacts. With the pivot to virtual teaching and learning, school principals found themselves in crucial positions, necessitating rapid adaptation to the changing educational landscape (Metcalf & Perez, 2020).

Principals played a vital role in understanding and communicating directives from district leaders, managing school operations, and observing the effects of district strategies on reading achievement, their staff, and the entire school community (Grooms & Childs, 2021). Widespread school reopenings, the aftermath of school closures, and the

shift to alternative instructional methods continue to be causes for concern (Dorn et al., 2020). Bailey et al. (2021) recommended additional resources beyond SY 2021–2022 to mitigate the pandemic’s learning effects, especially for Title I schools. Consequently, school districts developed strategies to support affected students.

Despite these measures, a knowledge gap remains to be seen regarding principals’ perceptions of these strategies’ impact on student academics in the post-reopening phase of in-person learning. I therefore focused this study on principals’ insights regarding the influence of district strategies implemented due to the COVID-19 pandemic on reading achievement during SY 2021–2022, particularly in Title I urban elementary schools. By bridging this knowledge gap, the study may provide invaluable information to guide future decision making and resource allocation for student learning recovery and improvement.

Purpose of the Study

The purpose of this qualitative case study was to explore principals’ perceptions of the influence of district strategies implemented due to the COVID-19 pandemic on reading achievement during SY 2021–2022, particularly in Title I urban elementary schools. The COVID-19 pandemic resulted in widespread disruptions across all sectors, with the education sector among the most profoundly affected (Pillai et al., 2020). As containment measures forced schools to shut down indefinitely, educational institutions had to adapt swiftly, implementing various distance learning strategies (Burgess & Sievertsen, 2020; McCluskey, 2021).

This transition to remote education posed significant challenges. One of the most substantial hurdles was the digital divide, with many families lacking access to reliable internet or adequate technology (Béché, 2020). Economic hardships exacerbated this issue, with job losses rendering some families unable to afford necessary equipment (Amzat et al., 2020). Furthermore, skepticism concerning the effectiveness of online learning led large numbers of parents to suspend their children's education until physical classrooms reopened (Kathula, 2020).

Simultaneously, teachers grappled with the challenge of adapting to new instructional platforms. Older teachers faced difficulties acclimating to these unfamiliar systems (McCluskey, 2021). To mitigate the negative impact of the pandemic on student learning, particularly reading achievement, one school district implemented two primary strategies: lesson acceleration and personalized learning (Hammerstein et al., 2021).

The role of principals is pivotal in these interventions. As the primary point of contact between district leadership and individual schools, principals are responsible for disseminating information, implementing strategies, and monitoring their efficacy (Lambert & Sassone, 2020). Therefore, principals' perspectives on the impact of these strategies are instrumental in understanding their effectiveness. Through the findings of this study, I aim to provide valuable insights for district leaders, informing future decisions about instructional strategies to support reading achievement. Additionally, this research could facilitate positive social change by contributing to improved educational outcomes for students in low-performing schools, especially amid unprecedented challenges, such as a pandemic.

Research Questions

RQ1: How do principals perceive the influence of lesson acceleration strategies, implemented in response to COVID-19, on reading achievement in Title I urban elementary schools?

RQ2: How do principals perceive the influence of personalized learning strategies, implemented in response to COVID-19, on reading achievement in Title I urban elementary schools?

RQ3: What challenges do principals encounter in implementing new district strategies as a response to the COVID-19 pandemic in Title I urban elementary schools?

Conceptual Framework

The conceptual framework underpinning this study draws on Fullan's (1982) educational change theory, providing an appropriate and comprehensive framework to explore the changes in educational settings due to the COVID-19 pandemic. Fullan's theory, premised on the notion that effective change is inherently strategic and engages all stakeholders, presents three stages of change: initiation, implementation, and institutionalization. These phases offer a dynamic and in-depth understanding of the extraordinary shift toward remote learning prompted by the pandemic (Fullan, 1982).

Recognizing the pivotal role of principals in educational change, the theory emphasizes their influence as change leaders. This perspective aligns with this study's research questions, focusing on principals' perceptions of district-implemented strategies to mitigate learning loss due to pandemic-induced school closures. Fullan (2015) emphasized that the principal, as the district and school intermediary, significantly

influences the probability of successful changes within their schools. Their wide lens allows them to understand the various district strategies' influence as they interact directly with the district, teachers, students, parents, and the community. Therefore, understanding principals' perceptions of these district strategies is crucial to comprehend the effectiveness and potential areas of improvement in these strategies.

Principals have been deeply involved in this change process since the pandemic's onset, providing a unique and insightful perspective. Their viewpoints concerning these district-imposed strategies are critical to this study and will offer insights that other stakeholders might need to provide. While other theories of educational change exist, I chose Fullan's theory for its explicit emphasis on the role of principals and its procedural perspective on change, which is crucial for the context of the rapid and sweeping changes triggered by the COVID-19 pandemic (Levin, 2008). By utilizing Fullan's theory, I sought to provide a deeper understanding of principals' experiences and perspectives during this period of immense change. Their interactions with various stakeholders and their actions in implementing and navigating district-initiated strategies offer valuable insights into these strategies' actual impacts and potential improvements. In conclusion, Fullan's educational change theory provides a robust foundation to explore the influence of district-implemented strategies on reading achievement in Title I urban elementary schools during the COVID-19 pandemic, given its focus on the integral role of principals in managing and implementing change.

Nature of the Study

Addressing this study's research questions necessitates employing a qualitative case study research design (Creswell & Poth, 2016; Yin, 2018). This approach is especially fitting for an in-depth examination of complex phenomena within their real-world context, such as principals' perceptions regarding district-implemented strategies (Schoepf & Klimow, 2022). The research will involve comprehensive interviews with principals from Title I urban elementary schools in a particular school district in central Maryland. The method of interviewing is a pivotal tool for data collection in qualitative case studies, yielding rich and detailed data (Creswell & Poth, 2016; Zarestky, 2023).

The selection of participants will be guided by purposive sampling, targeting eight to 10 principals from Title I schools. This number will help ensure that I capture diverse perspectives while permitting a thorough analysis of each case (Makel et al., 2022). The selected principals do not need to have been the principal in the identified Title I elementary school during the COVID-19 pandemic SY 2019–2021. However, they need to have access to students' assessment data for the reopening of school and during the implementation period beginning SY 2021—2022. Participating principals also needed to have met the inclusion criteria of having a minimum of 3 years of experience as a principal at the time of the interview, knowledge of the strategy's implementation, and be working within urban elementary schools in central Maryland (Byrne, 2022).

In this study, I delve into the principals' perceptions of the influence of the district-implemented strategies on reading achievement in Title I urban elementary schools. Consistent with the qualitative case study design, the focus was on providing an

in-depth exploration and understanding of the participants' perspectives on the issue, offering a comprehensive depiction of the phenomenon (Yin, 2018). I ensured confidentiality during all interviews to encourage honest and open participant responses. The format of the interviews suited the convenience of the participants, providing the collected data are as accurate and exhaustive as possible (see Zarestky, 2023).

During the analysis phase, I emphasized identifying emergent patterns, categories, and themes after the interviews. Strategies such as member checking and reflexivity helped me to uphold the credibility of the findings (see Creswell & Poth, 2016; Yin, 2018). In addition, the Maryland Comprehensive Assessment Program (MCAP) assessment results further strengthened the triangulation of the data. The data show if students' reading achievement coincides with the perceptions of the principals. These procedures will strengthen the study's credibility, transferability, dependability, and confirmability, ultimately reinforcing the overall trustworthiness of the research (Makel et al., 2022).

Definitions

Lesson acceleration: Teaching concepts and skills in the purposeful context of immediate (and future) learning. Lesson acceleration can be in the form of heterogeneous small group instruction with grade-level academic support for all students, especially those who are struggling, alongside their more successful peers (Lambert & Sassone, 2020).

Low-performing schools: According to the Maryland State Department of Education, low-performing schools are defined as "schools identified as a 1-star or a 2-

star school in 2 of the three most recently available years of the Accountability System are classified as low-performing schools” (Choudhury, 2022). Specifically, West’s (2021) Annotated Code of Maryland Education.

Personalized learning: The practices that tailor the pace and focus of instruction to address the needs and goals of individual students. (Hughey, 2020).

Socioeconomic status (SES): The economic and social combined total measure of a person’s economic and social position in relation to others, based on income, education, and occupation; however, SES is more commonly used to depict an economic difference in society. SES typically comprises three levels (high, middle, and low) to describe the three places a family or an individual may fall in relation to others. Recently, interest in economic inequality and its relation to the health of populations has been increasing (Worthy et al., 2020).

Title I school: A federal program that provides financial assistance to local school systems and schools with high percentages of poor children to support the academic achievement of disadvantaged students. All 24 local education agencies in Maryland receive Title I funds. These funds provide additional academic support and learning opportunities to help low-achieving children who attend Title I schools master challenging curricula and meet state standards. Title I funds support extra instruction in reading and mathematics, additional teachers, materials of instruction, as well as after-school and summer programs to extend and reinforce the regular school curriculum (Title I, Part A., n.d.).

Assumptions

Assumptions in a study are factors that researchers consider factual or accurate without absolute evidence (Smith et al., 2022). In relation to this study, I have made the following assumptions. I assumed that (a) the selected principals would have access to student data, which would enable them to assess how the strategies they have employed have affected pupils' reading achievement; (b) that the participating principals would respond to the research questions honestly and without reservation; and (c) that the district strategies—specifically, lesson acceleration and personalized learning—were implemented in the selected Title I schools. These assumptions were necessary because the study was conducted with the intent to understand principals' perceptions of the influence of the district-implemented strategies on reading achievement in Title I urban elementary schools. In addition, these assumptions are necessary because they help to increase the trustworthiness of the study.

Scope and Delimitations

Scope refers to the areas the research will cover, while delimitations involve decisions made by a researcher to limit the study's range (Josselson, 2022). The primary source for data collection in this research was interviews conducted with principals to understand their perceptions. I confined the scope of the study to interviewing eight to 10 principals from Title I urban elementary schools in a single school district in central Maryland. The delimitation of this study is that the perceptions of teachers or other school leaders within the targeted school district were not explored. Principals addressed the strategies implemented within their respective school buildings.

Limitations

Limitations of a study refer to potential weaknesses or issues that might affect the research findings or generalizability (Camic, 2021). During this study, there was potential to encounter several limitations. First, the school district that was the focus of this study has a research approval board, which may have delayed or even hindered the approval of the study. Another possible area for limitation was the recruitment of principals for interviews, as their workload or other commitments may prevent their participation. To address this, I provided flexible interview options via phone call, in-person, or other virtual platforms to accommodate the principals' schedules. Additionally, while the \$25 gift card incentive may have encouraged participation, it may also have subtly influenced the principals' responses, posing a potential bias. Lastly, separating my perspective as an assistant principal from a researcher may have presented a challenge. I conducted reflection and continuous communication with my committee chair and faculty members to mitigate any potential personal bias and maintain the study's integrity.

Significance

This study is essential as it serves as a preliminary qualitative study exploring principals' perceptions regarding the impact of district strategies implemented due to the COVID-19 pandemic on reading achievement in Title I urban elementary schools. According to Smith et al. (2022), qualitative studies such as this are particularly significant for their ability to provide a thorough comprehension of complex phenomena from the perspectives of those experiencing them. In relation to the pandemic, many school districts had to close schools for an extended period, which necessitated a shift to

virtual learning and required students of all ages to attend classes online. Challenges accompanied this instructional method, especially for students attending Title I schools, who face disproportionate disruptions to their educational continuity (Hammerstein et al., 2021).

Through this research, I sought to illuminate principals' perceptions regarding the influence of district strategies implemented during the COVID-19 pandemic on reading achievement in urban Title I elementary schools. A better understanding of principals' perceptions could guide district leadership in developing and refining these strategies, potentially influencing practice related to curriculum and instruction and addressing performance gaps in Title I elementary schools (Josselson, 2022).

While there have been studies on the pandemic's effect on student achievement, limited research exists on the strategies implemented to help affected students (Camic, 2021). Thus, this study might contribute to the corpus of information already known in the field of education. This research also has broader societal implications. The findings could inform educational planning and policy development, potentially impacting students' educational outcomes and life trajectories. For example, increasing student achievement could reduce school dropout rates, which correlate with later life outcomes such as crime (Fox & Veele, 2020). Addressing this issue at the elementary level could lead to a greater chance of influencing positive change in students' lives. Therefore, this study may contribute to positive social change (Smith et al., 2022).

Summary

In Chapter 1, I comprehensively explored principals' perceptions concerning the impact of district strategies implemented in response to the COVID-19 pandemic on reading achievement in Title I urban elementary schools during SY 2021–2022. I provided an in-depth background to the study, demonstrating how the research problem was identified and contextualized within the broader scope of the pandemic's effects on educational environments. The problem underpinning this research is the negative effect of the COVID-19 pandemic on reading achievement, particularly in Title I schools, and the unknown perceptions of principals regarding the efficacy of district-implemented strategies in addressing this issue (Bailey et al., 2021; Hammerstein et al., 2021).

To address this issue, the study was conducted to explore principals' perceptions of these strategies and their influence on reading achievement during a year heavily impacted by the pandemic. To guide this exploration, I introduced Fullan's (2015) educational change theory as a conceptual framework for understanding the roles of principals in implementing and managing change, considering the extraordinary circumstances brought about by COVID-19. I further delineated the nature of the study, applying a basic qualitative design and employing interviews with principals as the primary data collection method, a method praised for its richness and depth in qualitative research (Kamal, 2019; Smith et al., 2022). Additionally, I addressed the scope and delimitations, as well as limitations of the study, acknowledging potential challenges in the research process and detailing strategies to navigate them (see Josselson, 2022; Smith et al., 2022).

I emphasized the significance of the study, discussing its potential to fill a gap in understanding the impacts of district strategies on reading achievement amidst the pandemic, informing future educational practice, contributing to the field's literature, and potentially inciting positive social change (Camic, 2021; Smith et al., 2022). Chapter 2 will provide an in-depth literature review, further contextualizing the study by discussing the COVID-19 pandemic's effects on the educational system, students' reading proficiency, district-implemented strategies aimed at improving reading achievement, and the crucial role of principals' perceptions in influencing educational outcomes.

Chapter 2: Literature Review

Introduction

Beginning in February 2020, educational and learning approaches were adversely affected by the spread of COVID-19 (Sciannameo et al., 2022). Countries worldwide closed their schools for a substantial amount of time due to the spread of the COVID-19 virus (Cen et al., 2020). To ensure learning is ongoing during COVID-19, urban elementary schools had to take proactive measures within the minimal time available to maintain the distance learning environment (Dempsey et al., 2022). Several researchers have already addressed the impact of the COVID-19 outbreak on students' well-being, achievements, and social exchanges (Green et al., 2021).

Empirical study has suggested that the effect of the COVID-19 outbreak substantially affected student education achievement in underprivileged areas and cities (Guo et al., 2020). Although the COVID-19 outbreak has undesirably impacted students' learning, school closures provided a gateway to use different applications such as Google Meet, Zoom, and others (Ranjbari et al., 2021). In this chapter, I address the review of the literature in which various notions and perceptions of different researchers have been studied based on the research objectives. This chapter provides essential information on the principals' perceptions of the COVID-19 strategy's influences on reading achievement in Title 1 urban elementary schools' challenges and strategies. This chapter also considers school leaders' role in mitigating COVID-19's impact and discusses recommendations to mitigate its impact on schools. Moreover, this chapter covers

detailed information based on past research to support the phenomena discussed in the study.

Literature Search Strategy

The literature search strategy I adopted for this research is grounded in methodological rigor, ensuring a comprehensive understanding of existing research relevant to the study. The strategy comprises a systematic approach to identifying, appraising, and synthesizing previous studies to establish a robust theoretical foundation for the research. I developed the search criteria with precision to capture research articles that address a variety of study types related to the topic. I employed pertinent keywords and search terms to optimize the search process. These include but are not limited to *learning and development of students, impact of COVID-19 on education, urban elementary schools, individualized learning, lesson acceleration, educational system, and principals' perceptions*. I chose these terms based on their relevance to the research questions, the conceptual framework, and the nature of the study.

I used multiple search engines and databases to ensure a broad spectrum of literature was accessed. These search engines and databases included Google Scholar, Web of Sciences, Science Direct, and PubMed. I selected these platforms for their comprehensive coverage of academic publications across disciplines and their accessibility to full-text articles.

Additionally, I examined reference lists of pertinent articles to identify potential additional studies not captured in the initial search. Additionally, I considered gray literature (such as technical reports, conference proceedings, and dissertations) to ensure

the inclusion of a diverse range of viewpoints and study approaches. The process was iterative, with the search strategy being revised as new relevant terms or resources emerged. My goal was to ensure the review of the literature was as comprehensive, relevant, and current as possible.

Conceptual Framework

The educational change theory developed by the conceptual framework for this study from Michael Fullan (1982). Fullan's (1982) theory posits that change is not an isolated occurrence but a dynamic and complex process involving all stakeholders. The theory further emphasizes the critical roles of collaboration, leadership, and adaptability in driving successful change initiatives in educational institutions (Fullan, 1982, 2015, 2022). This theoretical lens is particularly relevant when examining the significant adjustments in the educational system brought on by the COVID-19 pandemic.

The COVID-19 pandemic forced a swift and radical shift in the traditional educational paradigm, transitioning from in-person to online instruction environments. These changes were unprecedented; the public health crisis necessitated that educational leaders ensure all students' education continuity (Moorhouse & Wong, 2022). Fullan (1982, 2022) emphasized in his theory that critical stages in the change process include acceptance, rejection, and modification, which require deliberate and concerted efforts from all stakeholders. Such a perspective resonates strongly with the education sector's response to the pandemic, particularly for the more disadvantaged children in Title I schools (Ford, 2022).

The systemic shift to remote learning was a significant transformation for which school districts held overarching responsibility. However, implementing and monitoring this change rested primarily on principals' shoulders. Fullan's theory underscores the pivotal role of principals in facilitating effective change in their schools, a role further amplified during the pandemic-induced educational adjustments (Fullan, 2022). Principals effectively acted as a bridge, linking districtwide policies to school-level practices and ensuring the transition to remote learning was as smooth and effective as possible.

As Fullan (1982) and Walsh et al. (2022) suggested, principals' perspectives regarding the influence of these district strategies hold valuable insights. Principals' roles put them at the intersection of district-level policies and school-level implementation, affording them a unique and comprehensive perspective on the effects of these changes on teachers, students, and families. Principals' insights can illuminate the realities of implementing such systemic change and offer a granular understanding of its impact across stakeholder groups.

This research was firmly grounded in Fullan's change theory and aimed to explore these principal perceptions in depth. Principals were in a unique position to provide comprehensive and contextual observations because they were heavily involved in the transition process since the pandemic's start. Their input is critical to understanding the full impact of district-initiated programs and, by extension, the broader changes in the educational system during the COVID-19 pandemic.

Fullan's theory has been used in several studies, particularly those related to change in education. For example, le Roux (2021) used Fullan's educational change theory to help in identifying the changes to implement and the process for implementation. In addition, Ramlal et al. (2020) used Fullan's theory to focus on how change occurs by utilizing an understanding of the eight organizational variables, including a focus on student growth, district-level support, and leadership that is curriculum- and instruction-focused. This study is designed to explore principals' perceptions of the COVID-19 strategy's influences on reading achievement, which is a district change implemented in Title I schools following how this pandemic has affected students' reading achievement.

Literature Review Related to Key Variables and Concepts

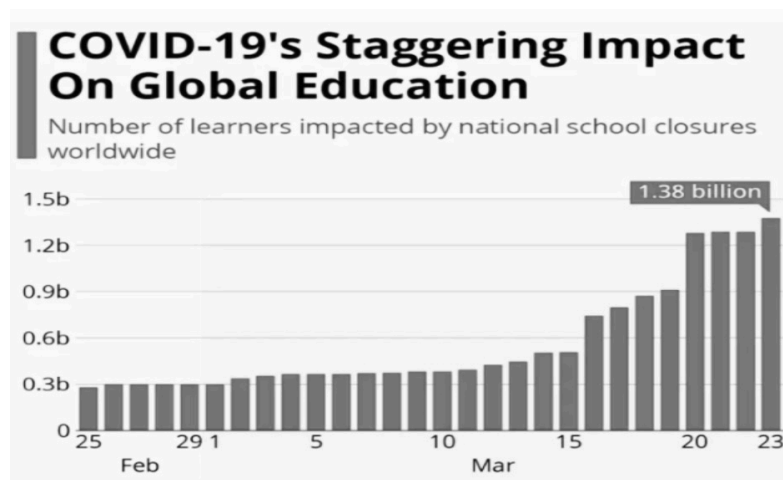
The following sections in this chapter comprise a detailed literature review, which involves key variables and concepts related to the research study. I first discuss COVID-19's impact on urban elementary schools and students' learning. I also highlight the challenges tackled by urban schools leading up to the time of the pandemic.

COVID-19

The impact of COVID-19 created unprecedented interruption in the primary educational system; thus, negative consequences have been observed globally (Maqsood et al., 2021). To deal with these negative occurrences, almost every country imposed restrictions to maintain social distancing (Zeng et al., 2021). The impact not only disturbed the stability of the educational system but also drastically impacted other societal systems (Bear et al., 2018). Schools, including private and public, needed to

prepare for sudden closure. The outbreak forced educators and students to maintain social distancing and made it necessary to take other measures (Sciannameo et al., 2022). With COVID-19, students had to use social networking sites for learning purposes and were encouraged to use various tools such as Zoom and Telegram (Susanto et al., 2021). In addition, pupils who lacked broadband internet access faced significant challenges with online learning. The pandemic had multifaceted effects in almost every sector, including the health, educational, and economic sectors.

Figure 1 illustrates the impact of COVID-19 on global education. The figure represents the number of people infected by the pandemic worldwide. It shows an upsurge in learning impacted by national school closures in an increasing pattern (Hargis, 2020). According to Hargis, almost every country's prime concern was lowering the spread of the virus (Goldberg et al., 2019). Shipman et al. (2021) suggested that many educational sectors, business stakeholders, administrators, and parents were only partially prepared for school closures and government officials' restrictions.

Figure 1*COVID-19 Impact on Global Education*

Note. From “The COVID-19 pandemic has changed education forever,” by C. Li and W. Lalani, 2020, World Economic Forum.

Many students need help gaining access to an education. People also face challenges associated with environmental and societal factors (Bear et al., 2018). The challenges imposed by global COVID-19 restrictions, such as encouraging people to maintain social distancing, closure of schools, and decline in communities, collectively weakened the entire social and educational system and altered children’s learning approach. Many students and youth endured disengagement, depression, irregular attendance, and a considerable decrease in academic achievement. The decrease in credit attainment has also been observed during the COVID-19 pandemic (Barrot et al., 2021).

Global organizations, including the United Nations Children’s Fund and the United Nations Educational, Scientific and Cultural Organization, have also shown concern about the adverse impact of the pandemic and its detrimental effect on children’s

education (Whitley et al., 2021). Approximately 1.5 billion people suffered during the closure of schools worldwide, which negatively impacted students' learning potential. Apart from the educational sector, other sectors, such as businesses, industries, healthcare, and communities, were severely impacted by the COVID-19 outbreak (Sharifi et al., 2021). Additionally, the healthcare sector faced threats from around the world. However, the extraordinary preventive methods taken in various business and educational institutions helped prevent global COVID-19 outbreak exposure.

Additionally, the effects of COVID-19 have begun to impact the classroom and online learning programs (Sharifi et al., 2021). Aside from this significant reduction in learning time, the COVID-19 epidemic decreased the effectiveness of schooling due to advancements in reading and development. Moreover, different approaches have been utilized to address and reduce the consequences of the COVID-19 pandemic, in which policymakers focus on theoretical consideration and teacher and parent surveys during the disease outbreak. The global outbreak of the COVID-19 virus has negatively impacted the educational system worldwide (Zeng et al., 2021).

According to Pokhrel and Chhetri (2021), the global outbreak has created expansion from self-adoption to changing situations. The outbreak created difficulties in four areas. First, researchers have observed that during COVID-19, more students were absent from in-person classes because of the implementation of remote learning (Yaman & Muhlis, 2020). In addition, learning is associated with academic accomplishment and skills that children have adopted (Coates & Pimlott-Wilson, 2019). The second aspect of the loss of student progress can be explained by the narrow definition of achievement

(Goldberg et al., 2019). The third aspect is that schools' inconsistency negatively influences students' learning approach. Finally, the fourth aspect is that students were reluctant to follow the established standards that helped to recover them from threatening situations (Muñoz et al., 2019).

The theoretical framework also illustrates the effects of the COVID-19 pandemic on the Title I school system. According to Aguilera-Hermida (2020), students' behavior and cognitive engagement with education drastically impacted their school performance and continuance. In a study by Madigan and Kim (2021), these consequences negatively impacted the students' performance and career goals.

Impact of COVID-19 on Urban Elementary Schools

The initial COVID-19 outbreak occurred in late 2019 in China (El Zowalaty et al., 2020). Often, government bodies implemented strict policies, such as lockdowns of daycare and elementary schools, to prevent the disease's spread. The global outbreak of COVID-19 significantly impacted learning worldwide (Henderson, 2018). The role of teachers and parents has become essential in developing student learning practice (Zaccoletti et al., 2020). Since 2020, the beginning of the global COVID-19 pandemic, many schools have had various strategies that help students adopt inclusive learning approaches. According to Moser et al. (2021), teachers have become more conscious of the classroom setting and environment, regardless of formal face-to-face learning.

Additionally, students had to be self-regulated at home; at the same time, the role of parents became more supportive of children's learning than prior to the COVID-19 pandemic (AbdelSalam et al., 2021). Furthermore, Usman and Madudili (2019) argued

that the effects on learning environments discussed above have drastically impacted the students' achievements and interest in learning. In research done by Styers et al. (2018), reading literacy is a critical competence that stimulates the students of Title 1 school achievement in other courses and facilitates them to contribute to society voluntarily. Therefore, The COVID-19 pandemic has affected teachers' methods of teaching students differently. (Ramírez-Montoya et al., 2021).

Researchers and practitioners have supported and invested their time in considering and mitigating the effect of the COVID-19 pandemic on pupils' academic achievement (Blaskó et al., 2021). In elementary school, children rely on their resources to continue learning online, such as the Internet, which makes students dependent on internet availability (Shipman et al., 2021). In addition, Teachers also adapt to innovative approaches to pedagogical concepts and strategies for effective delivery of learning, for which teachers were not provided with substantial training. Ramírez-Montoya et al. (2021) have noted that other studies have also documented the positive impact of the COVID-19 pandemic on school closures, including pupils' increased acceptance of online learning resources. Certain topics, like mathematics and other social studies, have shown improvements among students (Yang et al., 2021).

At the onset of the COVID-19 pandemic, certain urban areas' Title 1 schools gradually closed (Sin et al., 2019). Policymakers adopted and implemented micro- and macro-level strategies to address the broader impact on elementary school learning (Munalim, 2020). In addition, on a micro level, policymakers regulate supportive methods that upsurge active learning (Hartikainen et al., 2019). However, on a macro

level, country policymakers regulate compensatory methods that assist the student learning approach and evade failed educational learning approaches (Xu et al., 2022). According to Sintema (2020), The change in the classroom environment for digital primary kids caused huge disruptions for students in low-income locations across the world, which is why the COVID-19 epidemic suddenly decreased the pupils' reading achievement.

Families without access to computers, smartphones, or the internet were also at a disadvantage. Students' main hurdles in an online learning environment include limited data, internet connectivity issues, and resource availability (Barrot et al., 2021). When the epidemic started, elementary school administrators were not sure how to use an inductive learning strategy and give students access to digital learning resources. Nonetheless, the data shows that educational authorities progressively created new study habits and digital infrastructure that benefited pupils (Maqsood et al., 2021).

Furthermore, The most significant loss of education was seen in primary pupils who could not advance to the next school level because they still needed to acquire the necessary knowledge foundations. Additionally, the need for elementary student achievement is essential for the development and sustainability of their learning. Allison et al. (2019) concluded that the COVID-19 pandemic had a detrimental effect on pupils worldwide. Faherty et al. (2019) found that 14% of U.S. parents report negative behavioral changes in their primary school-aged children. Additionally, educators in various sectors have formed multiple approaches to aid them in dealing with the adverse

outcomes of the COVID-19 outbreak (Stevanović et al., 2021). In contrast, students have dramatically adopted new learning approaches (Allison et al., 2019).

Impact of COVID-19 on Student Learning and Achievement

Kuhfeld et al. (2020) assessed students' test scores based on Measures of Academic Progress growth, an adaptive computer assessment that measures student academic growth. The authors compared COVID-19 school closures with learning loss during the summer and partial and long-term absenteeism. The result showed that COVID-19 greatly impacted Pupils' learning and was substantially less than in other situations, with average growth over the summer vacation and some absences. Nonetheless, compared to the growth chart for school closures due to COVID-19, long-term absenteeism was the cause of a far more significant achievement difference. Long-term absenteeism from school has a detrimental effect on students' academic performance, the study found. Educators and policymakers must equip themselves with the right tools to help academically behind students due to the pandemic due to school closures (Kuhfeld & Tarasawa, 2020). All grade levels and schools saw an impact on student success as a result of the COVID-19 school closures, although younger students and those from poorer socioeconomic backgrounds saw the most effects (Hammerstein et al., 2021). The learning deficiency was predominantly seen in pupils from lower-income families, which has exacerbated social injustices.

Due to the decreased socioeconomic position, the attainment gap between social classes during the pandemic has widened compared to pre-pandemic levels (Bailey et al., 2021). The unequal access to digital resources during school closure and remote learning

was one of the leading causes of the academic achievement gap. Because working-class families use different digital resources than upper-class families, their digital skills are different. According to Goudeau et al.'s study from 2021, the disparity in digital abilities between social classes contributes to the accomplishment gap between them. Digital resources are mainly used for pleasure by working-class families, whereas upper-class families use them primarily for work-related activities.

According to a Knopik et al. (2021) study, upper-class families were able to oversee their children during distance learning because of their superior academic understanding. Due to this reason, students from wealthier homes had greater access to supervision and information than students from poorer backgrounds. Dorn et al. (2020) reached a similar conclusion in that Black, Hispanic, and low-income families could not access remote learning platforms and were the most disadvantaged groups affected by the COVID-19 pandemic due to limited access to learning tools.

These students' long-term financial losses can be avoided if the learning resources keep them from dropping out (Petts et al., 2021). The economic effects of student dropouts must be addressed, and virtual involvement should be prioritized to make up for lost ground during the summer. Staffing models must exhibit flexibility to enable educators to deliver consistently high-quality training both in-person and via remote learning platforms. To ensure that students from lower socioeconomic backgrounds may achieve academic success on par with that of students from better socioeconomic backgrounds, it is necessary to address concerns like broadband service and computer

access (Barnett, 2021). Making sure tools for distance learning are available and determining the areas where education needs improvement

Challenges of Urban Schools During the Pandemic

The most prominent challenge urban schools faced was making the switch to remote learning. Several obstacles stood in the way of an easy academic learning process. Due to a lack of training for implementing remote learning, the quality of pedagogy decreased (Sharp et al., 2020). Teachers need to gain the necessary training to make the lessons interactive for the students (Wa-Mbaleka, 2019).

The pedagogical training required teachers to learn the necessary skills to involve students in a remote educational experience and the skills to guide those who did not have the digital resources or were from economically disadvantaged backgrounds and did not receive assistance at home from their parents (Goico, 2019). Teachers could not keep the students engaged, leading to student disengagement. A study by Hermanto and Srimulyani (2021) revealed that pupil engagement was reduced during remote learning. Students did not feel motivated to complete online tasks and did not turn their work in on time.

Students' disengagement from school was partly caused by inexperienced instructors' poor instruction and parents' incapacity to monitor their children's schoolwork because they had to work full-time jobs and had little money for childcare (Petts et al., 2021). Many parents from higher SES backgrounds possessed the scholastic credentials and internet literacy needed to help their kids receive remote education. Additionally, their job schedules were more flexible, enabling them to oversee their kids'

academic progress and work from home at the same time (Silva-Quiroz & Morales-Morgado, 2022).

The pandemic-related sense of pessimism was one of the additional difficulties the schools had to deal with (Barnett, 2021). Due to poverty, lack of access to digital tools for high-quality remote learning, and lack of health care, urban neighborhoods witnessed a higher number of children experiencing pessimism because of the epidemic. Educators and policymakers were responsible for filling the gaps that caused significant learning losses due to the pandemic and motivating the students. For kids from low-income homes, this issue was particularly acute since they struggled to imagine themselves reaching their objectives and faced the prospect of dropping out. As more disadvantaged students drop out, the long-term economic loss will be catastrophic (Dorn et al., 2020).

The pandemic also increased food insecurity in urban school districts, where many students did not have access to meals (McLoughlin et al., 2020). Once the schools opened, they had to take particular care to ensure safety from the risk of infection so that the pupils felt safe returning to school. The majority of school districts in the US required masks, and the schools had to enforce strict rules so that all students adhered to the mask policy (La Velle et al., 2020).

Reopening schools was challenging because of the danger of spreading the COVID-19 virus, adhering to strict sanitation rules, and wearing masks. In addition, a substantial portion of pupils from Black, Asian, and minority backgrounds refused to come back to school due to health concerns (Cotto & Woulfin, 2021). The pandemic

impacted students from Black, Asian, and minority backgrounds and low-income backgrounds most because their parents were unwilling to send them back to school. These pupils were already deprived because they had limited means to access learning remotely through high-speed internet and other electronic devices (Hammerstein et al., 2021), so the chance of experiencing learning rose drastically when they decided not to return to school. The school boards and districts had to find a solution to bring them back to school, but solutions such as fining those families were not an option as these families could not afford to pay the fine. Students from disadvantaged backgrounds had a wider academic achievement gap than those from higher- and middle-class families (Bailey et al., 2021). Teachers had to customize their instruction to fill the learning gaps for these students.

Recommended Strategies to Overcome COVID Influence on Students

Individualized Learning

Individualized learning and segregated instruction are closely linked concepts. Individualized instruction concentrates more on the requirements of specific children, whereas differentiated instruction concentrates on the flexible group learning concept of children (Vieira et al., 2020). The pandemic had widespread impacts on the education sector. Many nations canceled in-person classes and exams and imposed immigration restrictions that would impact local and immigrant students (Currie et al., 2020).

Traditional classrooms are being replaced whenever possible by educational and textbook resources. Learners and instructors can communicate using various e-learning resources, social media platforms, and broadcast television shows are occasionally utilized for

instructional objectives. (Dubey et al., 2020). Certain educational systems announced unusual holidays to get ready for the future of distance learning adequately.

At that critical time, educators presented various solutions to meet the remote learning problem that arose due to the emergence of COVID-19 (George & Thomas, 2021). With the help of these tools, it was easy to develop the changes in the content previously taught in person (Bashir et al., 2020). However, for some crucial learning tasks, without the direct supervision of teachers, assessment or autonomous learning may still be difficult. (Prem et al., 2020). The process of individual learning is shown in Figure 2, through which the educational institutions can improve the learning needs of the children.

Figure 2

The Process of Individual Learning Strategy



Note: From “Social Economic Impact of COVID-19 Outbreak in India,” by S. Kumar, V. Maheshwari, J. Prabhu, M. Prasanna, P. Jayalakshmi, P. Suganya, B. A. Malar, & R. Jothikumar, 2020, *International Journal of Pervasive Computing and Communications*.

Effective online learning strategies with personalized instruction are required to create a motivating and interesting learning environment. According to Daniel (2020), addressing the many needs of children can be challenging for educators. Addressing these needs requires more monitoring and preparation of students' progress, but the advantages exceed the drawbacks by a wide margin (Zhai & Du, 2020). Through Individualized instruction, students are given the tools they need to study effectively and actively throughout their lives in a constantly changing society (Simamora, 2020). Children have a range of aptitude levels, and personalized instruction uses these variances to improve morale, information retention, and learning engagement.

Setting up a successful personalized learning program involves five critical components (Maatuk et al., 2022, p. 14): (a) establishing clear, quantifiable, realistic, feasible, and time-bound objectives; (b) creating challenging objectives; (c) creating objectives that are flexible and frequently reviewed; (d) putting students in charge of their development; and (e) involving parents in their student's education. Educators should adopt individual learning strategies that have an activity-based approach and project-based learning activities (Greenberg et al., 2020). Teachers may create exciting courses that appeal to each student's innate curiosity (Gabster et al., 2020). For this purpose, the teacher or tutor may get help by applying modern technological tools. Lestiyawati (2020) posited that teachers should provide freedom to the learner at the time of study in various ways, increasing their chances of remembering material and enhancing their enthusiasm and motivation for the subject matter. According to Forni and Mantovani (2021), Individualized learning helps students to proceed at their own pace under teacher

guidance. Although they are given a variety of ways to demonstrate their learning, they are still working toward challenging learning outcomes.

Lesson Acceleration

The purpose of lesson acceleration is to support multimodal learning by helping develop, disseminate, and deliver existing and new scale worldwide public goods and regional education continuity methods (Sari & Nayır, 2020). Support focuses on improving initial learning and dropping learning poverty by focusing on requirements wherever it can be possible in a more equitable, inclusive, resilient, and effective way than was precited pre-COVID-19 for (a) teachers, (b) students, and (c) parents (Almaiah et al., 2020). The lesson acceleration program focuses on five key strategies.

The first strategy is to disseminate and create an education toolbox that offers policymakers and academics helpful guidance to create and plan multifaceted hybrid and remote learning tactics in low-resource settings (Pokhrel & Chhetri, 2021). The second strategy is ensuring students are studying at home and creating and launching remote formative assessment solutions. The formative assessment solutions should have more emphasis on text or short message service (SMS) based nudges, virtual learning helpdesks, quizzes, and interactive voice response materials (Harris & Jones, 2020).

In the third stage, the read-at-home program must be supported to ensure effective delivery of educational, reading, and activity-based materials into households, focusing on families that have children ages between 3 and 12, who are not likely to be reached by remote learning strategies (Ninković et al., 2021). The fourth stage of the lesson acceleration program is to strengthen early-year students' curriculum and instructional

linguistic and reading techniques. Experts should compile a collection of structured lesson plans (MacIntyre et al., 2020). In the final stage, the EdTech solutions should be created and developed for the teacher, which helps to improve professional development as well as to enhance instructor effectiveness and student outcomes.

Several countries adopted desktop dividers to improve physical separation among the class desks, which helps the unprivileged class that is facing difficulties in the remote learning process (Henderson, 2018). Hoang (2020) asserted that designing an effective learning recovery program at the national level can be aided by estimating the amount of lost learning and the precise material that was lost (Malecki et al., 2021). It is essential to express learning losses as a percentage of a year's worth of learning (Shamir-Inbal & Blau, 2021) to organize resources and action for recovery in learning. This approach can assist policy discussions on the urgent need to combat learning poverty.

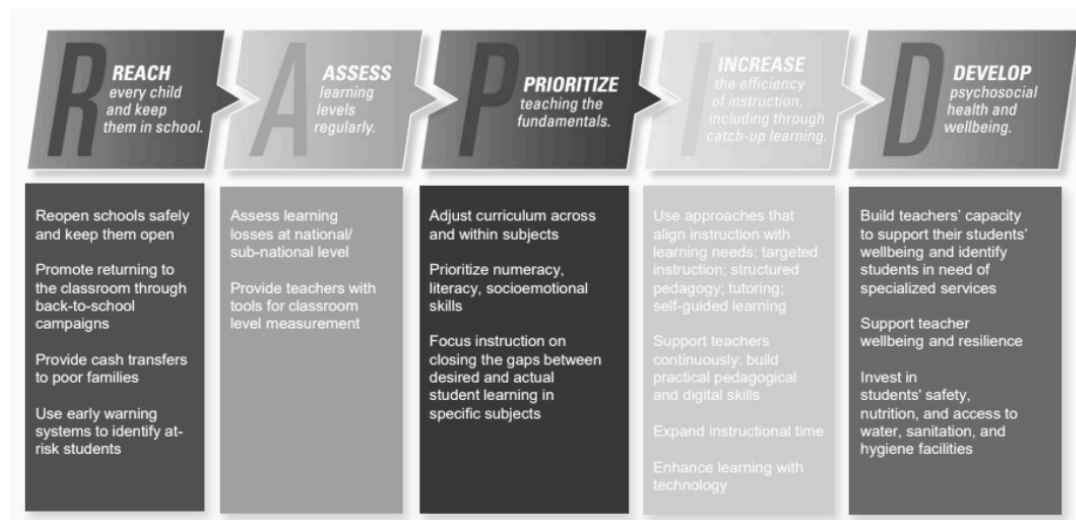
The pandemic offered a vital opportunity to make long-overdue adjustments to match curricula with urgent needs better (Vieira et al., 2020). Following the curriculum rigidly runs the risk of exposing pupils to content they are not ready to acquire, given that COVID-related educational disruptions have put students behind their grade-appropriate learning levels (Currie et al., 2020). Their capacity to advance to more complicated topics with sufficient understanding will be compromised if students proceed through the curriculum without first grasping the essential core concepts they require (Dubey et al., 2020). To best use their available time, educators should prioritize teaching the foundations in their lesson plans (George & Thomas, 2021). The key competencies that

serve as the daily entryway to further education in an expanding range of courses and disciplines are referred to as *foundational learning*.

The principles of foundational learning include basic mathematics and reading skills, socioemotional competencies, and critical online learning skills. Furthermore, Bashir et al. (2020) posited that the experiences and prerequisites in the content are necessary to learn before implementing the alternative content in an educational setting. Prem et al. (2020) suggested the complete framework (as shown in Figure 3) of learning acceleration that helps parents, teachers, and students incorporate their needs.

Figure 3

Rapid Learning Acceleration Strategy



Note: From “Social Economic Impact of COVID-19 Outbreak in India,” by S. Kumar, V. Maheshwari, J. Prabhu, M. Prasanna, P. Jayalakshmi, P. Suganya, B. A. Malar, & R. Jothikumar, 2020, *International Journal of Pervasive Computing and Communications*.

Challenges in the Implementation of Strategies

Due to hybrid learning, students missed 1.5 years of normal schooling. Although hybrid learning reduced learning loss, it was less successful than traditional education, resulting in pupils only learning the equivalent of 0.5 years of learning (Daniel, 2020). Therefore, when students returned to school, they were one year behind in their studies. Having accurate classroom-level data on students' performance is crucial in addition to system-level statistics (Zhai & Du, 2020). Teachers and school administrators can alter lesson plans and pedagogical strategies to best support students' learning with the use of diagnostic and formative assessments.

According to Simamora (2020), the rate of dropout from schools during and after COVID-19 is multicausal due to a variety of reasons, including the financial instability of parents, family circumstances, and an absence of communal provision (Maatuk et al., 2022). Particularly in the early years, parents and caregivers play an important part in the development of the learning process of children (Greenberg et al., 2020). The likelihood that a child will attend school is influenced by the community and the child's family (Gabster et al., 2020). Therefore, school involvement can be increased if parents are informed of education's advantages, disadvantages, and importance (Lestiyanawati, 2020). The traditional educational environment was severely impacted after the emergence of COVID-19 (Forni & Mantovani, 2021). By shifting the entire system to web-based technology and platforms, educators used distance education to transform the entire process of individual learning as well as the environments that are self-regulating by geography and time.

Academic institutions choose distance learning programs for varied reasons, including access to education and learning, increasing cost efficacy, apprising skill development, improving educational quality, and improving system capacity (Sari & Nayır, 2020). However, schools may face challenges and issues with technology integration. Almaiah et al. (2020) asserted that impediments to technological integration are of the first order, which may also be called external, and the second order, which is said to be internal (Pokhrel & Chhetri, 2021). Education, time, equipment, technical upkeep, and access are first-order barriers that can be faced by educational institutions in implementing their strategies (Harris & Jones, 2020). Beliefs, personal preferences, and pedagogy are second-order barriers that are exclusive to teachers.

According to Ninković et al. (2021), instructor barriers to learning online may be connected to the identification of expectations, interpersonal relationships, and delivery of feedback, whereas student barriers may be related to expectations misinterpretation, interpersonal communication, and time management. MacIntyre et al. (2020) claimed that obstacles to online learning could include time restraints, poor infrastructure, lack of technical knowledge, lack of institutional support and policies, and unfavorable attitudes on the part of all participants. Hoang (2020) listed three obstacles to the instructional use of online distance learning: a shortage of reliable technology and fast internet, unavailability of skills among students and instructors, and an absence of a support system.

Malecki et al. (2021) discovered in their research that parents of children in primary school and kindergarten face challenges during a pandemic. Parents encounter

difficulties with their inability to assist their children in learning as well as with their lack of concentration, yearning to go to school, unwillingness to gain new knowledge, inability to study from the computer, and inadequate understanding of the resources. Shamir-Inbal and Blau (2021) discovered in their research that the absence of opportunity, internet and network use, planning, evaluation, and execution of learning, as well as parent collaboration, are issues instructors confront in the COVID-19 epidemic. Ahmed et al. (2021) said that the four factors contributing to the difficulty instructors in the COVID-19 period faced were the teacher, the school, the curriculum, and the student. Khamees et al. (2020) asserted that teachers encounter issues with the COVID-19 pandemic's virtual education implementation, including technical challenges, student conditioning, engagement in education, and online education experience.

Virtual learning has many difficulties, including the inability to offer curricula and use online tools to respond to curricula, an acute issue (Coccia, 2021). Lack of technological proficiency among both students and staff may result in laborious tasks and the inability to make learning engaging and participatory (Gruber et al., 2020). This lack of proficiency could be a sign that students are failing to communicate with the instructor and ask questions without the necessary information technology (IT) abilities. Therefore, there is a steep learning curve involved in communicating effectively online (Baloch et al., 2021). The requirement that everyone has access to a dependable internet connection or the technology necessary to participate in this program presents another difficulty with virtual learning. According to Li, J., and Che, W. (2022), student dissatisfaction with

online learning presents another difficult symptom that may include students who feel alone and unengaged.

Role of School Leaders in Mitigating COVID-19 Impact

The school leader's role has evolved since the pandemic started. School leaders have had to converse from learning face-to-face to learning remotely. Their role has now evolved into e-leadership, in which they must provide digital instructional leadership (Fotheringham et al., 2022). The leaders must train themselves and provide appropriate pedagogical training to their staff, so they feel comfortable using digital resources and digital platforms (Sharp et al., 2020). The pandemic has caused the lockdown of schools for an extended time, and both teachers and students have had to learn to adjust to learning remotely. School leaders should be technologically literate and make cost-effective decisions in purchasing remote learning-based software so as not to burden the state government. During the lockdown, principals had to ensure that their staff was adequately trained to provide instructions and that students were provided with the guidelines and assistance for their hardware and software issues (Harris, 2020).

There must be a system in which guidelines for prevention to stop the spread of the infection are relaxed and tightened depending on the infection's severity and spread (Flack et al., 2020). School leaders have the responsibility to communicate the changing guidelines related to the pandemic to teachers, students, and parents of the students. They also must be engaged in intervention where necessary when students are not adhering to the COVID protocols of social distancing, not wearing masks, or following the school guidelines to prevent the outbreak of infection (Rehm et al., 2021). The role of the leaders

is not limited to providing support for digital instruction for teachers and students but also encompasses being prepared to switch between remote and in-person instruction.

Since the pandemic began, getting students back to school has posed challenges for schools, especially for students belonging to Black, Asian, and minority backgrounds (Hammerstein et al., 2021). The pandemic has created a sense of uncertainty. It requires school leaders to have the foresight and ability to take swift action based on the guidelines from the higher authorities. It also requires effectively communicating with the parents, teachers, and students without creating a sense of panic or impeding the learning process (Pollock, 2020). Training programs must be updated by following the pandemic's developing situation and the academic world's response; the wait-and-watch approach will cause further uncertainty and exacerbate the academic achievement gap for students.

The pandemic has also caused an increase in social inequities. The disparity became obvious when 35 percent of children belonging to low-income households did not have a high-speed internet connection (Harris & Jones, 2020). The pandemic has disrupted the mental health of school leaders for both educators and pupils. School leaders should first consider their mental well-being due to high-stress situations arising from dealing with and mitigating the effects of COVID-19 (Burke & Dempsey, 2021).

Leaders must take care of their mental well-being to address the growing concern for the mental well-being of students, especially those from lower socioeconomic backgrounds. They must introduce ways to engage them and give them hope for achieving their academic goals. Due to disengagement and hopelessness, students who drop out of school are more likely to do drugs and commit suicide (Barnett, 2021). These

students are primarily from low-income households without access to computers or high-speed internet, as well as those whose parents lack the digital literacy necessary to assist their children with their homework.

Finally, there must be a focus on helping students make up for the learning loss during the pandemic. Therefore, pedagogical training must be updated to address the different academic needs of the students while keeping their socioeconomic background in mind. It is necessary to raise awareness among educators, administrators, and students about the economic impact of students quitting school and not entering the labor. (Petts et al., 2021).

Role of Principals in the Implementation of Strategies

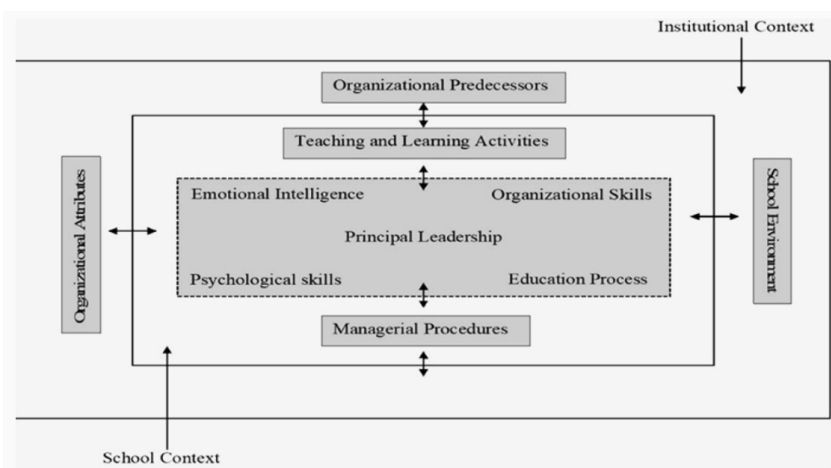
Since the principal is the director of management in the school environment, teachers act to enhance their teaching expertise. The principal's actions can change the school's environment in terms of infrastructure and facilities, staff, and teachers (Rostini et al., 2022). The role of a principal is complicated. It is difficult to disregard the core significance of school principals, their compelling leadership ideas, and their professional evolution during the pandemic-19 era (Nabavi-Pelesaraei et al., 2022). Many researchers have suggested that school principals use emotionally related leadership behavior and intelligence (Grissom & Bartanen, 2019). Principals should evaluate the emotional needs of tutors and learners (Karakose et al., 2021).

Principals' approaches to delivering mixed learning may be strengthened if emotional intelligence is employed from the perspective of studies. Principals should know that when implementing strategies, they must be aware that the rules and

regulations of their school may differ from other schools. Therefore, they should tailor strategies to meet their school's management style, culture, and work procedures to make learning easier during COVID-19 (Spyropoulou & Koutroukis, 2021). Figure 4 illustrates the principal's role in implementing strategies in schools during the pandemic.

Figure 4

Role of Principal



Note. From “Managing Open School Units Amid COVID-19 Pandemic Through the Experiences of Greek Principals: Implications for Current and Future Policies in Public Education,” by E. Spyropoulou & T. Koutroukis, 2021, *Administrative Sciences*, 11(3), p. 70.

Principals should encourage collaboration efforts among educator affiliations and stress the importance of encouragement by motivating instructors to make dynamic topics that upgrade virtual communications among learners (Grooms & Childs, 2021). These circumstances can improve the emotional intelligence and skills of school principals, tutors, other staff, and learners. School principals can coordinate conferences for

instructors, families, and students on computer-based education utilizing distance learning tools and teenage psychology (Nabavi-Pelesaraei et al., 2022). As the review's members recommended, enhancing the principal's emotional intelligence can be an impactful 'tool' for solving the crisis. For those students who do not have resources for virtual learning, principals should ask the government to provide a grant so that students can continue their learning without any barriers or setbacks (Rostini et al., 2022).

During such situations, principals must create a work atmosphere and school culture supporting a strategy. Along with these factors, principals should develop a budget for applying such strategies and guarantee continuous improvement (Spyropoulou & Koutroukis, 2021). During the pandemic, many students lost their confidence in learning. Therefore, to accelerate these students' learning, principals must develop action plans with the help of others and execute these plans (Grissom & Bartanen, 2019). After implementation, principals should elicit feedback from their teachers. The professional growth from the principal and other moral and emotional support during challenges from the principal can increase the effectiveness of implementing the strategies in the short term, as the principal is the primary person on whom the school is dependent (Yulianti et al., 2021).

Summary and Conclusion

Most countries worldwide closed their schools for a substantial amount of time as the COVID-19 virus spread. To guarantee that education continued during COVID-19, elementary schools had to take measures proactively with minimal time available to maintain the distance learning environment. Although, the COVID-19 outbreak has

negatively impacted the student's learning approach. However, the effects of the pandemic and its detrimental impact on children's education, and the value of online learning increased when schools closed. COVID-19 disturbs the educational system and drastically impacts business activities and other households' social well-being.

Private and public schools were not largely prepared for school closures. The outbreak significantly pushed educators as well as students to maintain social distance and necessary steps taken to stop the illness from spreading. In relation to the influence of COVID-19 and the success of student learning techniques, researchers and practitioners have provided significant support and dedicated a significant amount of effort.

Elementary school children and students rely on their resources to continue studying through online channels like the Internet, resulting in students heavily relying on having access to the internet.

In addition, to deliver instruction effectively, teachers must also adapt to new pedagogical concepts and practices for which they have yet to have extensive training. Elementary kids also saw the biggest loss in education when they transferred to the next grade level and learned they were not ready for promotion since they were missing the essential knowledge building blocks. Furthermore, elementary students' learning must progress and be sustained for them to succeed.

Researchers have investigated the impact of COVID-19 on various societal institutions, including the impact of COVID-19 on the teaching and learning process in schools, government strategies to overcome the influence of the pandemic in the educational system, digital resources and its implementation in educational settings, and

the financial burden on educational institutes during COVID-19. However, researchers have focused less on developing strategies that help overcome the influence of COVID-19 on students. Many students needed the required technology, such as computers, internet, or parental support, depending on their age, to access the lessons.

Therefore, I have focused research in this study on issues affecting these students. There are few studies in the literature on the challenges faced in learning environments, including online and electronic learning and remote education. Most of the participants in the relevant studies were teachers, parents, administrators, and managers. These programs include social sciences, health education, and teacher preparation, and they span kindergarten through higher education. However, there is a lack of studies on the difficulties that students, teachers, parents, and management encountered in remote learning during the pandemic.

Chapter 3: Research Method

Introduction

In the preceding chapters, I examined the global disruption caused by the COVID-19 pandemic, its profound effects on the educational system, and its heightened effects on disadvantaged students, particularly those in Title I urban elementary schools. The purpose of this qualitative case study was to explore principals' perceptions of the influence of district-implemented instructional strategies on reading achievement during SY 2021–2022, particularly in Title I urban elementary schools. In Chapter 2, I scrutinized the available literature concerning the pandemic's effects on student achievement, focusing specifically on reading. I also explored response strategies implemented by school districts, such as lesson acceleration and personalized learning, setting the stage for a detailed understanding of principals' perceptions regarding these strategies. Building on these discussions, in Chapter 3, I present the research methodology adopted for this study, delineating the research design, which offers a systematic plan for investigating the research problem. I also offer further details on the methodology and elaborate on the methods and tools employed to collect and analyze data, which are fundamental to understanding principals' perceptions and experiences.

The data analysis plan was meticulously crafted, providing a clear and comprehensive roadmap for interpreting the collected data and deriving valuable insights. Ensuring the utmost trustworthiness of the research, in this chapter, I delve into essential ideas like trustworthiness, transferability, reliability, and verifiability. These constructs serve as the cornerstone of the study's general integrity, reinforcing its reliability and

validity. By thoroughly explicating the research methodology, this chapter elucidates the study's design, implementation, and steps taken to ensure rigor. Transparency and reproducibility are pivotal components for establishing trust in the study's findings, and this detailed explanation of the methodology enhances both aspects. Through a diligent investigation of the data analysis strategy and incorporating the verifiability, reliability, transferability, and credibility concepts, the research not only gains credibility but also stands as a testament to its adherence to rigorous standards. The comprehensive understanding of the methodology empowers other researchers to replicate the study and validates the authenticity of its findings, fostering confidence and trust in the research outcomes.

Research Design Rationale

A qualitative case study design is employed in the research framework to perform an in-depth examination of the research issue. A research methodology includes the techniques, steps, and approaches used to gather and examine data concerning the study topic to generate new insights and findings (Creswell & Poth, 2016). As a result, a qualitative case study uses a variety of data sources to investigate a phenomenon in relation to its surroundings (Baxter & Jack, 2008). I chose to employ a case study methodology. A case study approach is a type of research methodology that entails a comprehensive and in-depth analysis of a particular instance or case in relation to its actual environment. This approach seeks to offer a thorough comprehension of the intricacies, dynamics, and interactions of the case under investigation, often to generate insights or theories that can be applied to broader contexts (Yin, 2018). This approach is

appropriate for an intensive investigation into principals' perceptions of district-implemented reading achievement strategies in Title I urban elementary schools during the COVID-19 pandemic. To investigate this phenomenon, I decided to use the following research questions.

RQ1: How do principals perceive the influence of lesson acceleration strategies, implemented in response to COVID-19, on reading achievement in Title I urban elementary schools?

RQ2: How do principals perceive the influence of personalized learning strategies, implemented in response to COVID-19, on reading achievement in Title I urban elementary schools?

RQ3: What challenges do principals encounter in implementing new district strategies as a response to the COVID-19 pandemic in Title I urban elementary schools?

Aside from the chosen design, other potential qualitative research designs included phenomenology, ethnography, and the basic qualitative approach.

Understanding people's lived experiences and the meanings they ascribe to them is the goal of phenomenological study (Creswell & Poth, 2016). A phenomenological study may provide a deep understanding of the principals' experiences implementing district strategies. However, phenomenology primarily focuses on understanding subjective experiences rather than analyzing the influences of those experiences on a specific outcome, like reading achievement.

Ethnographic research, another possible approach, is primarily used to study cultures and groups in natural settings (Creswell & Poth, 2016). This design could offer

rich cultural insights into the schools under study. However, ethnography's extensive fieldwork requirement and emphasis on observing social interactions reduce its suitability for this investigation because it concentrates on something other than cultural phenomena—perceptions and influences of specific strategies.

Comparatively, researchers use a basic qualitative approach when they seek to understand how people create meanings from their experiences, interpret them, and construct their worlds (Merriam & Tisdell, 2015). This approach often involves open-ended interviews, observations, or document analysis, and the findings are often descriptive, involving themes and categories (Merriam & Tisdell, 2015). Despite its potential relevance, this approach does not provide a focused exploration within a bound system like a case study.

In conclusion, while each research design holds merits, I chose the qualitative case study design based on its capacity to offer a thorough examination of the phenomenon in relation to its surroundings. I was able to examine a single example thoroughly—Title I urban elementary schools during the COVID-19 pandemic—by using the case study approach. This allowed me to gain a deeper understanding of principals' perspectives and the impact of district-implemented policies on reading achievement. This focused approach was better suited to address the research questions, thus justifying its selection over other qualitative designs.

Role of the Researcher

In this research study, I played the role of an observer. Being an observer in a research study means that a researcher primarily takes on a passive role. An observer's

main responsibility is to watch, record, and document events, behaviors, or phenomena without actively intervening or participating in the situation being studied (Creswell & Creswell, 2018). Observers are often only known to watch, evaluate, and draw conclusions. Still, observers need to be intentional about their process and take a systematic approach by purposefully planning their approach and basing it on scientific grounds (Kumar, 2024). Kumar (2024) stated that an observer can take a covert or overt approach to their observation method. Therefore, to reduce bias, I actively participated in data gathering and analysis while retaining a certain amount of detachment (see Lofland et al., 2022). Any professional or personal relationships with participants must be disclosed, especially if they involve a supervisor or an instructor who has authority over the participants (Denzin et al., 2023). In this instance, I worked as a supervisor in one of the district's schools. Therefore, I interviewed participants from other Title I elementary schools within the district. I took several steps to manage potential biases. First, I remained vigilant about my own biases and transparent about them, making efforts to minimize their impact on the study's objectivity (see Hesse-Biber & Leavy, 2019). Second, I practiced bracketing, which allowed me to separate my own experiences, perceptions, and beliefs from my study (see Creswell, 2003).

I addressed ethical issues, such as interviewing participants who are colleagues by obtaining informed consent from all participants (see Resnik et al., 2015). I explained the purpose of the study, potential risks, and benefits and emphasized the voluntary nature of participation (see Klykken, 2022). Additionally, I strictly adhered to COVID-19

protocols during data collection to prioritize the safety and well-being of the participants (see Klykken, 2022).

Regarding the use of incentives, I offered participants a \$25 gift card. I justify their utilization as a means to encourage participation and cooperation among the participants (see Bryman, 2016). The incentives offered are considered appropriate and fair and did not unduly influence participants' involvement in the study (Bryman, 2016).

In conclusion, my role as an observer was central to the success of the study. I ensured transparency, objectivity, and adherence to ethical guidelines throughout the research process (see Creswell & Creswell, 2018). By managing potential biases and power relationships responsibly (Lofland et al., 2022), I contributed valuable insights into the effects of the COVID-19 pandemic on reading achievement in urban elementary schools while upholding the integrity and trustworthiness of the study's findings.

Methodology

The methodology adopted for this study adheres to a qualitative research approach, specifically employing a case study design to explore the research problem in depth. This approach is grounded in the philosophical foundations that recognize the importance of personal and contextual understanding (Kamal, 2019). Such an approach aims to exploit qualitative data's rich, complex, and context-dependent nature to provide in-depth, nuanced insights into the research subject (Zarestky, 2023).

The qualitative research method's strength lies in its focus on behaviors, experiences, emotions, and the personal relevance of a topic to an individual, offering an in-depth and contextualized understanding (Ishtiaq, 2019). This method involved

interviewing principals to understand their perceptions and experiences. This allowed a deep exploration of individual experiences and perceptions, including the challenges participants encountered implementing district strategies in response to the COVID-19 pandemic (see Schoepf & Klimow, 2022). This design aimed to provide valuable insights and contribute to understanding the impacts and implications of the district-implemented strategies in response to the COVID-19 pandemic on reading achievement in Title I urban elementary schools.

Participant Selection Logic

In this qualitative case study, I adopted a purposeful sampling strategy to select participants who could offer in-depth, insightful information relevant to the research problem. The use of purposeful sampling in this qualitative case study enabled the intentional selection of participants with direct relevance to the research problem, ensuring in-depth insights. This approach prioritizes efficiency and depth of information, enhancing a study's ability to address the research questions effectively (Creswell & Poth, 2016). The purposeful sampling strategy was selected because my study focused on a particular population of participants who had to work in a specific location to participate in this study. In essence, the population for this study consisted of principals from Title I urban elementary schools in central Maryland with direct experience implementing district strategies in response to the COVID-19 pandemic. While these principals did not need to be the principal in the identified Title I elementary school during the COVID-19 pandemic, SY 2019–2021, they needed to have access to students' assessment data for the reopening of school and during the implementation period

beginning SY 2021–2022. Principals also needed to meet the inclusion criteria of having a minimum of 3 years of experience as a principal at the time of the interview, knowledge of the strategy’s implementation, and be working within urban elementary schools in central Maryland (see Byrne, 2022). This approach ensured that participants possessed the necessary knowledge and experience to provide valuable insights into the phenomenon under investigation.

The sample size for this study was eight to 10 participants because this small number strikes a balance between obtaining in-depth insights into principals’ perceptions of district-implemented reading achievement strategies and ensuring manageable data collection and analysis within the scope of the study based on the principle of data saturation (see Guest et al., 2006). The goal was to achieve thematic saturation and data richness rather than seeking generalizability. As data collection progressed, I continuously assessed whether new information was emerging or if existing insights were being reiterated. Once saturation was reached, further participant recruitment was not necessary, as additional participants would have been unlikely to contribute substantially to the study’s objectives (Morse, 2015; Yin, 2018).

I identified participants through school district records and recommendations from educational administrators and staff familiar with the selected schools. I sought approval from the school district as this is required for all studies being conducted in their schools. In addition, due to the nature of schools and professional relationships, I targeted 25 principals for interviews. I contacted potential participants through emails (Appendix A) or phone, giving a thorough justification of the study’s objectives, the voluntary

nature of participation, and the confidentiality of the data given. Additionally, I obtained informed consent from each participant before proceeding with data collection (Klykken, 2022).

In conclusion, in this qualitative case study, I employed a purposeful sampling strategy to select principals from Title I urban elementary schools in central Maryland with direct experience implementing district strategies during the COVID-19 pandemic. The participant selection criteria and procedures for identification, contact, and recruitment aimed to ensure credibility and depth of insights for informing policy and practice in Title I urban elementary schools during pandemic times.

Instrumentation

For this qualitative case study, I employed in-depth, open-ended interviews as the primary data collection instrument. Through these interviews, I intended to deeply explore principals' perceptions, experiences, and views concerning the strategic implementation of COVID-19 educational adaptations in their respective urban elementary schools. This choice of instrument aligns with the goals of qualitative research, as it facilitates the collection of nuanced, context-rich data that delves into the experiences and emotions of the participants (Creswell & Poth, 2016).

Conducting interviews offers invaluable insights into participants' subjective experiences, allowing for a profound understanding of the context-specific dynamics in these schools. I developed the interview guide (Appendix B) based on the research questions, aiming to explore the complexity of the principals' experiences and their perceptions of the strategies implemented (see Braun et al., 2023). Additionally, I

designed the guide to encourage participants to share detailed accounts and provide in-depth responses, ensuring that multifaceted aspects of their experiences are captured. The interview guide was reviewed by a small sample of principals from similar schools to assess its clarity, comprehensiveness, and effectiveness in eliciting relevant responses. I used their feedback to refine and improve the interview guide before proceeding with the main data collection.

Moreover, I conducted member checking to enhance the internal credibility of the study. After the interviews were transcribed and analyzed, I provided a transcript to the principals upon request. By employing member checking, I strengthened the validity of the interview instrument and the overall research findings. These methods increased the credibility of the study and provided a robust basis for drawing meaningful insights from the data collected.

In addition to interviews, I collected a second source of data through document collection. I examined the Maryland Comprehensive Assessment Program (MCAP) assessment results during the implementation period, district documents, policies, and reports related to the strategic implementation of COVID-19 educational adaptations. This analysis provided additional context and corroborate the information obtained from interviews, enhancing the depth and validity of the findings. To ensure the instrument's reliability, I maintained consistent application of the interview guide across all participants. Interview sessions were audio-recorded and transcribed verbatim, and I took field notes to capture nonverbal cues and contextual details during the interviews. The use of a consistent and semistructured interview approach minimized potential

interviewer biases and variations in data collection, thus enhancing the reliability of the study (see Interviews, 2023).

Procedures for Recruitment, Participation, and Data Collection

In alignment with the participant selection logic, I employed carefully planned strategies to recruit and engage principals from Title I urban elementary schools who have direct experience implementing district strategies in response to the COVID-19 pandemic (Yin, 2018). The purposeful sampling strategy guided the recruitment process. I identified potential participants from a list of principals working in urban elementary schools in central Maryland who met the criteria set in the participant selection logic, including a minimum of 3 years of experience as a principal, knowledge of the strategy's implementation, and employment within the context of Title I urban elementary schools.

I established contact with potential participants via professional emails. Initial communications included comprehensive information about the research study and attached consent forms (see Klykken, 2022). Participants were given sufficient time to review this information and ask any questions they had about the research. Only after obtaining informed consent did I consider them part of the study.

Data Collection

I planned to select a total of eight to 10 principals to participate in the study, ensuring an in-depth understanding of the phenomenon within specific contexts (see Yin, 2018). Each participant engaged in an in-depth interview, lasting approximately 1 hour, to provide ample opportunity to share their experiences and insights (see Lofland et al., 2022). Depending on the participants' preferences and safety considerations, these

interviews could be online or in person. I facilitated data collection using an interview guide based on the research questions and objectives. With participants' permission, I used audio recording during the interviews, and subsequently, I transcribed the interviews for analysis (Denzin et al., 2023). (Lofland et al., 2022).

If recruitment had resulted in too few participants, efforts would be made to expand the recruitment process and identify additional eligible participants. If a participant decided to withdraw from the study at any point, they had the option to do so without any consequences. They were advised of their right to retract from the study, and their data would be excluded from the study, ensuring respect for their autonomy. Follow-up procedures included asking for clarifications if required. This follow-up procedure helped to ensure comprehensive data collection and validation of findings.

In conclusion, in this section, I outlined the comprehensive steps taken to identify, engage, and learn from the target participants—principals of Title I urban elementary schools in central Maryland—for this qualitative case study. The recruitment process, guided by a purposeful sampling strategy, ensured that I selected participants with direct experience in implementing COVID-19 educational adaptations. I followed transparent and ethical practices, such as informed consent and confidentiality, throughout the data collection process. I used the outlined procedures to maximize the depth and quality of the insights gained from the participants, providing a well-rounded understanding of the principals' experiences and perceptions of the district-implemented strategies during the COVID-19 pandemic.

Data Analysis Plan

For this qualitative case study, I employed a rigorous data analysis plan, using thematic analysis to delve deeply into the narratives and perspectives shared by the participating principals. The analysis followed Braun and Clarke's (2006) six-phase guide to thematic analysis, ensuring a systematic and comprehensive approach to identifying and interpreting themes within the data (Braun et al., 2023).

The data analysis process began with familiarizing myself with the data. I carefully read and reread all interview transcripts and documents from the document analysis to gain a thorough understanding of the content. Next, I generated initial codes by identifying meaningful units within the data related to the research questions. I systematically applied these codes to the entire data set, organizing and categorizing the data into relevant themes. Thematic analysis involved searching for patterns and connections among the initial codes and identifying recurring themes that reflect the principals' experiences and perceptions of the strategies implemented in response to the COVID-19 pandemic. I reviewed, refined, and validated the themes through iterative discussions among the research team to ensure accuracy and consistency.

The findings from the thematic analysis were used to answer the research questions, providing rich and detailed insights into the principals' perspectives on the effectiveness, challenges, and impacts of the district-implemented strategies during the pandemic. These insights may inform policy and practice in Title I urban elementary schools, supporting decision-making and resource allocation (Yin, 2018). In addition to the thematic analysis of interviews, I integrated data collected from document analysis

into the overall analysis process. Documents such as school district policies, reports, and strategic plans related to the COVID-19 educational adaptations were examined to provide additional context and corroborate the information obtained from interviews. The data from documents were analyzed using content analysis techniques, identifying key themes and patterns within the written records (see Krippendorff, 2018). Integrating multiple sources of data through a triangulation approach enhances the credibility and validity of a study's findings (Yin, 2018).

By adopting a robust data analysis plan using thematic analysis and integrating data from interviews and document analysis, I intended to provide a detailed and nuanced understanding of the principals' experiences and perceptions regarding the district-implemented strategies. The study's findings may offer valuable insights to inform policy and practice in Title I urban elementary schools, contributing to the development of effective educational responses during challenging times.

Issues of Trustworthiness

I considered four crucial principles of trustworthiness in qualitative research—credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985; Rose & Johnson, 2020). These principles, fundamental to qualitative case study research, have been meticulously addressed throughout the research process (Yin, 2018). These strategies increase a study's rigor and were incorporated into the research design.

Credibility

Credibility is a criterion of authenticity that justifies theoretical investigation or whether the review's findings are genuine and accurate (Fleming, 2021). It refers to the

authenticity of the research and the degree to which the research findings accurately represent participants' experiences (Lincoln & Guba, 1985). In this qualitative case study, I ensured credibility by directly collecting primary data from principals. Extensive, open-ended interviews can gather rich, context-specific data reflecting the principals' lived experiences and perceptions (Smith et al., 2022). Additionally, I used prolonged engagement and persistent observation in the field to increase understanding and depiction of the studied phenomenon, further enhancing the credibility of this study (Lincoln & Guba, 1985).

Transferability

Transferability refers to the extent to which the study's findings are applicable in other contexts or situations (Lincoln & Guba, 1985). While transferability is not always directly achievable in qualitative research due to the inherent uniqueness of each context, providing detailed and rich descriptions of the research context, participants, and processes can aid readers in making informed judgments about transferability (Enworo, 2023). Therefore, I thoroughly described the details of the participants, the study context, and the strategies implemented in this research to aid in potential transferability.

Dependability

Dependability pertains to the consistency and replicability of the research findings (Lincoln & Guba, 1985). The research process is detailed to ensure dependability, including descriptions of data collection, data analysis, and decision-making processes. I created an audit trail to enable external checks and critiques of the research process and

make the research process transparent, repeatable, and open to scrutiny (see Enworo, 2023).

Confirmability

Confirmability refers to the degree to which the research findings result from the participants' experiences and ideas rather than the researcher's biases and perspectives (Lincoln & Guba, 1985). To achieve confirmability, I maintained reflexivity throughout the research process, continually reflecting on and articulating their perspectives and potential biases. Moreover, I considered a confirmability audit in which an external auditor would review the research process and product. This step can ensure that the findings, interpretations, and conclusions are derived from the data (Smith et al., 2022).

In conclusion, in this research, I meticulously addressed all four aspects of trustworthiness—credibility, transferability, dependability, and confirmability. This comprehensive approach ensured that the study offers robust, reliable, and valid insights into the principals' perceptions of the COVID-19 strategies' influence on reading achievement in Title 1 Urban Elementary Schools. By maintaining rigor and transparency throughout the research process, I ensured that the findings derived from this study can be considered credible and dependable. Providing rich contextual data allows for the potential transferability of findings. Moreover, by maintaining a clear audit trail and allowing for external verification, I ensured the confirmability of this study.

Ethical Procedures

The ethical integrity of a study is critical, especially when human participants are involved. I adhered to strict ethical guidelines in this qualitative case study research. I

obtained approval from the Walden University Institutional Review Board (IRB) and the school district's IRB before beginning the data collection process. The study was conducted in line with recognized ethical principles, considering aspects such as informed consent, anonymity, confidentiality, and harm avoidance (see Husband, 2020; Nicholls et al., 2019).

I sought informed consent, a cornerstone of ethical research, from each participant before their involvement in the study. They were fully aware of the research purpose, the type of data being collected, their role and the level of commitment required, and any potential risks associated with their participation. Moreover, I reassured them that it was entirely up to them and that they could stop at any time without facing any consequences (Gauttier, 2019).

I guaranteed confidentiality to all participants by removing or masking any personal identifiers in the collected data and employing strict data management practices to secure the data. Further, in alignment with the ethical norms of qualitative case study research, I identified and managed any potential conflicts of interest to ensure the unbiased interpretation of data.

In this study, ethical procedures were rigorously implemented, aligning with the highest standards set by relevant research guidelines and institutional review boards. I used the utmost caution to protect the rights and welfare of the study's participants. By meticulously adhering to ethical principles, I ensured the protection of the participants and enhanced the credibility and reliability of the research outcomes.

Summary

This chapter offered a thorough synopsis of the research design deployed in this qualitative case study, beginning with a brief introduction and emphasis on its importance. The qualitative case study method used in this research focused on principals in Title 1 urban elementary schools to gain insights into their perceptions of COVID-19 strategies' influence on reading achievement.

I discussed the rigorous and transparent procedures applied to ensure trustworthiness, including credibility, transferability, dependability, and confirmability. I also discussed enhancing credibility by triangulating data sources and using member checking. Transferability was accounted for by providing a detailed and thorough description of the context of the study, enabling future researchers to assess the applicability of findings in other settings. I ensured dependability by providing a detailed account of the data collection, analysis, and interpretation processes, which an external auditor oversaw. I also maintained confirmability through an audit trail, demonstrating that the study's results are grounded in the data.

Furthermore, this chapter outlined the ethical considerations and procedures I planned to follow in the research. I ensured that all participants were provided informed consent, their anonymity and confidentiality was preserved, and any potential conflicts of interest were managed appropriately. In summary, this chapter considered the various components of the qualitative case study methodology, emphasizing the steps I took to ensure trustworthiness and ethical integrity, thereby providing a solid foundation for forthcoming data collection and analysis.

Chapter 4: Results

Introduction

The purpose of this study was to explore principals' perceptions of the influence of district strategies implemented due to the COVID-19 pandemic on reading achievement during SY 2021–2022 in Title I urban elementary schools. Specifically, I sought to understand how these strategies influenced reading achievement during SY 2021–2022. Additionally, I investigated the challenges faced by principals when implementing these strategies, providing insights that may inform educational policy and practice. This chapter provides a thorough analysis of the data gathered through in-depth interviews with eight principals, guided by the following research questions:

RQ1: How do principals perceive the influence of lesson acceleration strategies, implemented in response to COVID-19, on reading achievement in Title I urban elementary schools?

RQ2: How do principals perceive the influence of personalized learning strategies, implemented in response to COVID-19, on reading achievement in Title I urban elementary schools?

RQ3: What challenges do principals encounter in implementing new district strategies as a response to the COVID-19 pandemic in Title I urban elementary schools?

The chapter is organized into five key sections: setting, data collection, data analysis, results, and evidence of trustworthiness.

Setting

I conducted the study in the context of Title I urban elementary schools in a central Maryland district based on the SY 2021-2022, a period marked by significant upheaval due to the COVID-19 pandemic. Principals and the schools they led were still grappling with the aftermath of prolonged closures, shifting learning modalities, and the implementation of new district strategies such as lesson acceleration and personalized learning. These schools primarily serve students from low socioeconomic backgrounds, a factor that compounded challenges related to access, engagement, and academic recovery. Additionally, organizational constraints such as limited budgets and personnel shortages created further obstacles. Many schools faced disruptions due to changes in staffing, with frequent teacher turnover and increased workloads. Principals also reported emotional stress among both staff and students, further straining the implementation of district strategies. These conditions shaped the experiences of the participants, influencing their perceptions and the outcomes of their efforts to improve reading achievement amid the crisis.

The eight participants in this study were principals from Title I urban elementary schools in central Maryland, each with a minimum of 3 years of experience. Their years in the role ranged from 3 to over 17 years, providing diverse perspectives on the district strategies implemented in response to COVID-19. All participants had direct experience with lesson acceleration and personalized learning, both of which were introduced to mitigate learning loss during the pandemic. Participants' schools predominantly served students from low socioeconomic backgrounds, a context that influenced their leadership

decisions. Many of these students faced challenges exacerbated by the digital divide, limited resources, and the emotional toll of the pandemic. The principals were responsible for overseeing the implementation of these strategies, adjusting teaching methods, and managing staff training. Participants' insights were invaluable, as they directly observed the impact of these strategies on student reading achievement and teacher efficacy. Table 1 provides a reference to the range of leadership experience among the participants in the study.

Table 1

Years of Experience of Participating Principals

Participant	Principal experience
Principal 1	3 years
Principal 2	5 years
Principal 3	7 years
Principal 4	9 years
Principal 5	12 years
Principal 6	15 years
Principal 7	17 years
Principal 8	10 years

MCAP was included as a secondary data source to provide additional context to the thematic findings. MCAP, a standardized statewide assessment, offered valuable quantitative insights into student reading achievement during the 2021–2022 academic year. These data allowed for a triangulation of findings, enriching the analysis by situating principals' qualitative perceptions within measurable outcomes. By integrating MCAP data, the study added an objective dimension to the evaluation of district

strategies, particularly lesson acceleration and personalized learning, during the pandemic.

Data Collection

Data collection for this study involved interviews with eight principals from Title I urban elementary schools. Each interview lasted approximately one hour, with sessions conducted via virtual platforms or telephone calls based on each participant's preference and safety considerations. I scheduled the interviews at times convenient for the participants, ensuring minimal disruption to their professional responsibilities. The primary data collection instrument was the interview protocol I used to explore principals' perceptions of lesson acceleration and personalized learning strategies. With permission from all participants, I audio recorded the interviews and subsequently transcribed them verbatim to ensure accuracy and to preserve the integrity of the responses. In addition to recordings, I took detailed field notes to capture nonverbal cues and contextual observations that could enrich the analysis and help address any bias.

No significant deviations occurred from the original data collection plan as outlined in Chapter 3, and all interviews proceeded as scheduled without any major interruptions or challenges. However, a minor adjustment involved the flexibility to conduct interviews virtually due to privacy concerns, a shift from the initial plan of conducting all interviews in person. I encountered no unusual circumstances during data collection. Overall, the process unfolded smoothly, with participants providing rich, detailed responses that offered valuable insights into the implementation of the strategies

which ensured the completeness and depth of the data necessary for subsequent thematic analysis.

Data Analysis

The data analysis process in this study followed an inductive approach, beginning with the transcription of interviews and familiarization with the data. This process involved identifying recurring patterns and meaningful units, which I systematically coded. A total of 58 codes emerged from the eight interviews, representing key aspects of principals' experiences with lesson acceleration, personalized learning, and the challenges of implementing district strategies during the pandemic. The analysis adhered to Braun and Clarke's six-phase thematic analysis framework, in which the data were progressively broken down into codes, grouped into categories, and then synthesized into broader themes.

The initial phase involved breaking down the interview data into smaller units or codes that reflected individual concepts pertinent to the study's research questions. These codes included concepts such as lesson acceleration, personalized learning, student engagement, and teacher training. Each code represented a key element of the principals' experiences and perceptions, which were instrumental in identifying the core focus areas. For instance, *lesson acceleration* captured how principals perceived the district strategy aimed at mitigating learning loss, while codes such as *student engagement* and *teacher development* reflected the contextual factors that influenced the success or challenges in implementing these strategies. The next phase of analysis involved grouping related codes into categories. For example, codes like *data-driven instruction* and *monitoring*

and assessment were grouped into the broader category of *data-driven decision making*. Similarly, *teacher training* and *principal and teacher roles* formed the category of *teacher capacity and professional development*.

The MCAP data revealed notable trends that aligned with the themes emerging from the qualitative analysis. For instance, schools that implemented intervention strategies similar to that of lesson acceleration consistently demonstrated gains in grade-level reading proficiency (see Aryanjam et al., 2023). These quantitative results reinforced themes such as *data-driven decision making* and *teacher capacity and professional development*, which principals identified as critical for strategy success. The integration of MCAP results with interview findings provided a more comprehensive understanding of the strategies' effectiveness, validating both the qualitative themes and the systemic impacts of the interventions on student achievement.

The analysis of data resulted in the following five themes: (a) data-driven decision making, (b) teacher capacity and professional development, (c) student engagement and motivation, (d) equity and access to learning, and (e) implementation challenges and successes. Table 2 provides a detailed breakdown of these codes and the categories that laid the foundation for the emergence of the study's five key themes.

Table 2*Codes, Categories, and Themes*

Codes	Categories	Themes
Data analysis, monitoring, assessment	Data-driven instruction	Data-driven decision making
Weekly reviews, regrouping students	Monitoring and evaluation	
Teacher training, upskilling	Teacher capacity	Teacher capacity and professional development
Principal support, coaching	Professional development	
Student motivation, goal setting	Student engagement	Student engagement and motivation
Hybrid challenges, virtual engagement	Virtual and in-person engagement	
Device access, internet connectivity	Access to technology	Equity and access to learning
Small group instruction, tailored support	Equity in instruction	
Pacing challenges, curriculum adjustments	Lesson implementation challenges	Implementation challenges and successes
Strategy adherence, teacher buy-in	Strategy acceptance	

Results

The purpose of this qualitative study was to explore the perspectives of principals in Title I urban elementary schools regarding the implementation and impact of district strategies, particularly lesson acceleration and personalized learning, during the COVID-19 pandemic. The study also aimed to uncover the challenges faced in these implementations. In this section, I address the study's research questions by presenting the themes that emerged through data analysis, supported by participant quotes, literature from Chapter 2, and the conceptual framework.

RQ1: How Do Principals Perceive the Influence of Lesson Acceleration Strategies on Reading Achievement?

The following themes emerged from the first research question: importance of data-driven decision making and importance of teacher capacity and professional development.

Importance of Data-Driven Decision Making

All participating principals identified data as a cornerstone for implementing lesson acceleration. Participants frequently referenced tools such as diagnostic assessments and formative evaluations to track student progress and tailor instruction. Principal 1 stated, “The data we collected allowed us to pinpoint where students were struggling and adjust our approach immediately.” Similarly, Principal 4 emphasized the need for “regular data reviews to ensure that no student’s needs fell through the cracks.” Principal 7 echoed this sentiment, adding, “Data-driven decision making is our guiding light. It allows us to prioritize effectively and allocate resources where they are needed most.” These remarks highlight the reliance on data not only for identifying gaps but also for implementing targeted interventions.

The remarks addressing the reliance on data align with research indicating that data-driven instruction is critical in addressing learning gaps, especially during crises. Silverman et al. (2020) noted that when educators use comprehensive data analysis, they are better equipped to respond to the diverse needs of students. Diagnostic tools such as iReady and Amplify, which several principals mentioned, provide insights into students’ specific skill deficiencies. By leveraging these tools, schools can implement interventions

aligned with students' academic needs, a practice validated in the literature as the best practice for mitigating learning loss.

Furthermore, the reliance on data underscores the adaptability of principals as change leaders. Fullan's (1982) educational change theory highlights the importance of leveraging evidence to drive systemic improvements. Principals operationalized this theory by integrating real-time data into their instructional strategies. As Principal 6 observed, "Without data, our efforts would have been like shooting arrows in the dark. It gave us the clarity we needed to navigate such uncertain times."

However, principals also acknowledged challenges related to data interpretation and application. Principal 2 noted, "Not all teachers were confident in using data effectively. We had to provide additional training to ensure consistency in how data was used to guide instruction." This observation speaks to the dual need for reliable data systems and the professional capacity to interpret and act on the data's findings. Research confirms that while data are a powerful tool, their efficacy depends on the educators' ability to analyze and apply it meaningfully (Datnow & Park, 2018).

Moreover, the use of data also fostered collaboration among staff. Regular data meetings allowed teachers and administrators to discuss trends and share strategies. Principal 8 explained, "Our weekly data meetings became a space for collective problem-solving. Teachers shared what worked in their classrooms, and we built on those successes collaboratively." Such practices align with collaborative inquiry models emphasized in educational research to enhance teaching practices and student outcomes (Lai et al., 2014).

In sum, data-driven decision making is a pivotal element in lesson acceleration strategies. Principals effectively used data to identify learning gaps, guide instructional adjustments, and foster a culture of collaboration and shared accountability. This focus on data not only addressed immediate challenges but also laid the groundwork for long-term improvements in instructional practices and student achievement.

Importance of Teacher Capacity and Professional Development

Of the eight principals I interviewed, seven underscored the importance of equipping teachers with the skills necessary for lesson acceleration. Principal 3 noted, “Our teachers were overwhelmed with the new strategies, so we had to focus heavily on professional development to bring them up to speed.” This sentiment was echoed by Principal 5, who emphasized, “It wasn’t just about teaching content but ensuring our teachers understood how to accelerate learning for students who were already behind.” These remarks underscore the centrality of teacher development in the success of lesson acceleration initiatives.

Professional learning sessions focused on differentiated instruction, technology integration, and student engagement strategies. For instance, Principal 4 described hosting workshops that “equipped teachers with specific techniques for scaffolding lessons to meet diverse student needs.” Principal 8 highlighted the importance of technology training, noting that “many teachers were initially unfamiliar with the digital tools required for implementing blended learning approaches.”

The literature also supports this finding, indicating that effective professional development improves teacher efficacy and student outcomes (see Salas-Rodriguez &

Lara, 2023). Gordon and Hart (2022) argue that sustained, targeted professional learning is critical in building teacher capacity for addressing complex instructional challenges. This view aligns with the experiences of principals in this study, who emphasized the need for ongoing support rather than one-time training sessions.

Additionally, principals highlighted the role of coaching and mentoring in professional development. Principal 7 stated, “We paired novice teachers with more experienced mentors who could guide them through the nuances of lesson acceleration.” This approach is consistent with research suggesting that coaching enhances the transfer of professional development into classroom practice (Knight, 2007). By embedding coaching into their professional development models, principals could provide personalized support that addressed individual teacher needs.

Capacity-building efforts also extended to fostering a culture of professional growth. Principal 2 explained, “We encouraged teachers to take ownership of their learning by participating in peer observations and feedback sessions.” Such practices not only improved instructional quality but also built a sense of collective responsibility for student success. Research supports this approach, highlighting the importance of professional learning communities in promoting collaboration and continuous improvement (DuFour & DuFour, 2010).

Despite these efforts, principals acknowledged persistent challenges. Principal 6 noted, “Time was always a constraint. Finding opportunities for meaningful professional development during the school day was a constant struggle.” Similarly, Principal 1 highlighted the emotional toll on teachers, stating, “The pandemic added so much stress,

and some teachers felt overwhelmed by the additional expectations.” These challenges underscore the importance of balancing professional development demands with the realities of teachers’ workloads and well-being.

The emphasis on teacher capacity also supports Fullan’s educational change theory, which identifies capacity building as a cornerstone of successful reform. By investing in professional development, principals not only enhanced their teachers’ skills, but also created a foundation for sustainable improvements in instructional practices. Principal 5 captured this sentiment, stating, “When we invest in our teachers, we’re ultimately investing in our students.”

The findings highlight the critical role of professional development in supporting lesson acceleration strategies. Principals recognized that equipping teachers with the necessary skills and knowledge was essential for addressing learning gaps and fostering student success. By prioritizing professional growth, principals and teachers were able to navigate the challenges of the pandemic while laying the groundwork for long-term instructional improvements.

RQ2: How Do Principals Perceive the Influence of Personalized Learning Strategies on Reading Achievement?

The following themes emerged from the second research question: importance of student engagement and motivation and equity and access to learning opportunities.

Importance of Student Engagement and Motivation

Principals observed that personalized learning fostered greater engagement among students, with many highlighting its potential to address individual needs. Principal 6

shared, “When students felt that the lessons were tailored to their pace and interests, their participation improved dramatically.” The adaptability of personalized learning created opportunities for students to interact with content in ways that resonated with their unique learning styles. Principal 3 added, “The ability to adjust the pace for each student meant that those who were struggling could take more time while advanced learners could move ahead. This flexibility made learning more accessible and enjoyable.”

However, challenges persisted for students requiring higher levels of teacher guidance. Principal 8 remarked, “Personalized learning was effective for self-directed students, but some struggled to stay on track.” This observation underscores a key limitation of personalized learning: while it empowers motivated learners, it can overwhelm others without adequate support. Principal 1 described this dichotomy, stating, “For students who thrive in structured environments, the freedom of personalized learning was difficult to navigate, and they often fell behind.”

The research reviewed in Chapter 2 echoes these observations, highlighting the importance of student-centered approaches in enhancing motivation and achievement. Zaccoletti et al. (2020) note that personalized learning strategies increase intrinsic motivation by aligning instruction with students’ interests and goals. Principals’ experiences align with this finding, demonstrating how tailored instruction can engage students more deeply.

Personalized learning also had a positive impact on student-teacher relationships. By focusing on individual progress, teachers were able to build stronger connections with students. Principal 4 explained, “When teachers work closely with students to understand

their needs, it builds trust and encourages students to take ownership of their learning.” Such relationships are crucial for fostering a supportive learning environment, as noted in educational literature. Fullan’s (1982) theory of educational change emphasizes the importance of engagement in driving successful reforms, and personalized learning exemplifies this principle by centering the educational experience on the student.

Despite its benefits, personalized learning requires significant resources and planning. Principal 7 noted, “Designing individualized lessons is time-intensive, and ensuring that every student’s needs are met can be overwhelming for teachers.” The demands on teacher time and energy highlight the need for robust support systems to sustain personalized learning initiatives. Research supports this conclusion, suggesting that effective implementation requires access to high-quality digital tools, professional development, and administrative support (Pane et al., 2017).

Additionally, principals highlighted the role of technology in facilitating personalized learning. Digital platforms allowed teachers to provide differentiated instruction and track student progress in real time. Principal 2 remarked, “Without the technology, personalized learning would have been impossible to implement at scale. It was the backbone of our strategy.” This reliance on technology underscored the intersection between personalized learning and access to resources, a theme explored further in the discussion on equity.

In summary, personalized learning strategies played a pivotal role in enhancing student engagement and motivation. By tailoring instruction to individual needs, teachers created more meaningful and effective learning experiences. However, the success of

these strategies depended on adequate teacher support, access to technology, and careful planning. These findings align with the broader literature on personalized learning, highlighting its potential to transform educational outcomes when implemented thoughtfully.

Equity and Access to Learning Opportunities

Equity emerged as a critical theme, with principals emphasizing the digital divide as a significant barrier to personalized learning. Principal 2 explained, “We had students who didn’t have access to devices or the internet, making personalized learning almost impossible for them.” This issue was particularly pronounced in low-income communities, where many families lacked the resources for online learning. Principal 5 noted, “It was heartbreaking to see how disparities in access limited some students’ ability to benefit from personalized learning. Even with district-provided devices, connectivity issues persisted.”

Efforts to close this gap included distributing devices funded through Title I grants and providing mobile hotspots. These measures, while impactful, were not sufficient to eliminate disparities. Principal 7 observed, “There’s still a long way to go in ensuring equitable access. Some students live in areas with poor internet infrastructure, and others share devices with siblings, which limits their ability to participate fully.” These challenges underscored the systemic nature of inequities in education and the need for comprehensive solutions.

The literature reviewed in Chapter 2 emphasized the importance of addressing systemic inequities to achieve educational equity. Whitley et al. (2021) concluded that

without equitable access to resources, even the most innovative instructional strategies will fail to reach their full potential. The experiences of principals in this study affirm this perspective, highlighting the critical role of infrastructure in supporting personalized learning.

Principals also discussed the impact of equity-related challenges on student outcomes. Principal 8 stated, “When students don’t have consistent access to the tools they need, it’s not just their academic progress that suffers—their confidence and motivation take a hit as well.” This observation aligns with research linking access to educational resources with student engagement and achievement (Santiago et al., 2020).

Additionally, principals highlighted the importance of targeted interventions to address equity gaps. Principal 3 described efforts to provide additional support for students who faced barriers to participation. “We set up tutoring programs and offered in-person sessions for students who struggled with online learning,” she explained. These efforts, while resource-intensive, were essential for ensuring that all students had an opportunity to succeed.

Fullan’s framework further highlighted the importance of removing barriers to ensure all students benefit from reform initiatives. By addressing inequities, school personnel can create conditions that enable every student to thrive. Principal 1 summarized this sentiment, stating, “Equity isn’t just about access—it’s about ensuring that every student has the support they need to succeed, no matter their circumstances.”

Despite the challenges, principals expressed optimism about the potential for personalized learning to promote equity in the long term. Principal 6 remarked, “If we

can address the systemic barriers, personalized learning has the potential to level the playing field for all students.” This vision aligns with the broader goals of educational reform, which seek to create a more inclusive and equitable system.

Equity and access to learning opportunities were central to the implementation of personalized learning strategies. While significant progress was made in addressing disparities, challenges remain. The findings underscore the need for ongoing efforts to ensure that all students have the resources and support they need to benefit from personalized learning. By addressing these issues, school personnel can create a more equitable and effective educational system, fulfilling the promise of personalized learning as a transformative educational approach.

RQ3: What Challenges Do Principals Encounter in Implementing New District Strategies?

The following themes emerged from the third research question: implementation challenges and importance of adaptive leadership.

Implementation Challenges

Resource limitations were a recurring theme in principals’ responses, highlighting a widespread challenge in implementing new district strategies effectively. Many principals noted that their schools often lacked the necessary materials, technology, and funding to execute strategies such as lesson acceleration and personalized learning. Principal 7 explained, “We didn’t always have the materials or technology required to fully implement the strategies, which created frustration among staff.” These challenges were particularly acute in Title I schools, where preexisting resource disparities were

exacerbated by the pandemic. Studies confirm that resource constraints are among the most significant barriers to educational reform, disproportionately affecting underfunded schools (Bailey et al., 2021).

The lack of resources had a cascading effect on teacher morale and acceptance, as staff felt unsupported in their efforts to adopt new approaches. Principal 8 stated, “Teachers felt unsupported, and that made buy-in difficult.” This view aligns with research indicating that when teachers perceive inadequate support, they are less likely to engage in reform efforts (Dorn et al., 2020). Addressing these limitations requires district leaders and policymakers to prioritize equitable funding and ensure that schools implementing new strategies receive adequate resources. By bridging these gaps, districts can create an environment in which teachers and administrators feel empowered to focus on student achievement.

Another critical dimension of resource constraints involved technology access and training. Principals highlighted the difficulties of securing sufficient devices for students and ensuring that teachers were adequately trained to use them effectively. For example, the pivot to hybrid learning models often revealed gaps in digital literacy among staff, further complicating implementation efforts. These findings underscore the importance of integrating comprehensive technology training and support into district strategies, particularly in underserved areas. Without these investments, even well-designed initiatives may falter due to logistical and operational challenges.

Furthermore, teacher resistance emerged as another significant challenge in the implementation process, as noted by several principals. Principal 4 observed, “Some

teachers were hesitant to adopt new methods, which slowed the implementation process.” Resistance stemmed from multiple sources, including unfamiliarity with the strategies, apprehension about increased workloads, and skepticism about the efficacy of new approaches. This resistance aligns with existing research that identifies teacher buy-in as a critical factor for the success of educational reforms (Fullan, 2015). Principals had to invest considerable time and effort in addressing these concerns, often through targeted professional development and collaborative problem-solving.

One effective strategy for mitigating resistance involved fostering professional learning communities in which teachers share experiences, learn from one another, and build confidence in their abilities. Principal 5 emphasized, “We had to create a culture where teachers felt supported and their voices were valued.” This approach reflects Fullan’s emphasis on relational trust and shared leadership as essential components of successful change initiatives. By engaging teachers as partners in the process, principals were able to address resistance constructively and build collective ownership of the strategies.

However, not all resistance can be easily overcome, particularly in cases in which teachers felt overwhelmed by the dual pressures of adapting to new strategies and navigating pandemic-related disruptions. This circumstance underscores the importance of districts’ providing clear, consistent communication about the purpose and expected outcomes of reforms. Principal 3 noted, “Transparency was critical in helping teachers understand why these strategies were necessary and how they aligned with our goals.”

Kotter (1996) supports this finding, emphasizing that clear communication and a shared vision are vital for overcoming resistance and fostering alignment.

Moreover, logistical complexities associated with implementing new district strategies presented another major obstacle for principals. Managing transitions between in-person, hybrid, and fully virtual learning models required extraordinary coordination and adaptability. Principal 2 explained, “Coordinating schedules, ensuring alignment across grade levels, and managing transitions was incredibly challenging.” The need to maintain equity and consistency in instruction compounded these challenges, particularly for students in underserved communities who faced additional barriers to learning.

Principals often had to develop creative solutions to address these logistical hurdles. For instance, some schools adopted staggered schedules to accommodate hybrid learning while ensuring all students had equal access to resources and instruction. Others relied on technology platforms to streamline communication and data-sharing among staff. These efforts illustrate the critical role of leadership in navigating complex operational challenges and maintaining a focus on student outcomes. However, they also highlight the need for districts to provide clearer guidance and support during transitions to new instructional models.

Another layer of complexity involved aligning the strategies across grade levels and ensuring that all staff were adequately prepared to implement them. Principal 6 noted, “We had to work hard to ensure that everyone was on the same page, which required a lot of planning and coordination.” This finding highlights the importance of collaborative planning and ongoing professional development as tools for addressing

logistical challenges. By fostering alignment and coherence across the school, principals mitigated some disruptions caused by frequent shifts in instructional models.

Importance of Adaptive Leadership

Amid these challenges, principals demonstrated resilience and adaptability, embodying the principles of adaptive leadership. This leadership style, which emphasizes flexibility and collaboration, was essential for navigating the complexities of implementing district strategies during a crisis. Principal 5 remarked, “We had to build a culture of trust and ensure that everyone was aligned with our vision. Collaboration was key.” This aligns with Fullan’s emphasis on distributed leadership as a means of fostering collective capacity and overcoming resistance.

Collaboration emerged as a cornerstone of adaptive leadership, enabling principals to leverage their teams and build collective ownership of the strategies. Principal 6 highlighted the role of shared leadership, stating, “We relied heavily on our leadership teams to support teachers and provide consistent guidance.” This distributed approach not only empowered staff but also ensured that decisions were informed by diverse perspectives, leading to more effective implementation. The importance of collaboration is further underscored by research indicating that shared leadership enhances organizational resilience and promotes successful change (Spillane, 2006).

Clear communication was another key aspect of adaptive leadership. Principals emphasized the need for transparency in articulating the purpose and goals of new strategies. Principal 3 noted, “Transparency was critical. We made sure to communicate the purpose behind each strategy and how it aligned with our goals.” This approach

helped build trust and foster alignment, enabling schools to navigate challenges more effectively. Research supports this finding, suggesting that open and transparent communication is essential for building trust and securing buy-in during periods of change (Kotter, 1996).

The findings underscore the multifaceted nature of principals' challenges and the strategies they employ to address them. Resource limitations, teacher resistance, and logistical complexities represent systemic barriers that require targeted interventions at the district and policy levels. Addressing these issues involves equitable resource allocation, comprehensive professional development, and structured frameworks for managing transitions. Additionally, the findings highlight the importance of leadership training that emphasizes adaptive and collaborative approaches, equipping principals to navigate future crises with resilience and innovation.

Policymakers and district leaders must prioritize investments in technology, professional development, and support systems to ensure that schools are equipped to implement new strategies effectively. Furthermore, fostering a culture of collaboration and shared leadership helps mitigate resistance and build collective capacity for change. These measures are essential for creating an educational system that is both equitable and resilient, capable of meeting the challenges of an increasingly complex and uncertain landscape.

MCAP Data Analysis and Comparison

The 2021–2022 MCAP results reveal significant disparities in English language arts proficiency among elementary schools. Notably, certain schools achieved over 90%

proficiency among fourth graders, in neighboring counties in Maryland. Conversely, schools within central Maryland achieved proficiency levels as lower than 10% for third graders. These disparities highlight the uneven effectiveness of instructional strategies across different schools. In contrast, educational systems that have adopted explicit teaching methods, such as direct instruction, have reported notable improvements in literacy. For instance, after reverting to traditional teaching methods, a cluster of Catholic schools in the Australian Capital Territory and Goulburn achieved significant success in their National Assessment Program Literacy and Numeracy results. This approach focuses on structured, teacher-directed learning, reducing cognitive load and allowing students to practice and embed concepts until mastery. These findings suggest that adopting similar evidence-based instructional strategies could potentially address the proficiency disparities observed in Maryland's English language arts performance.

Evidence of Trustworthiness

To ensure credibility, I implemented several strategies as outlined in Chapter 3. First, prolonged engagement and persistent observation were crucial in building trust with participants and gaining a deeper understanding of their experiences with lesson acceleration and personalized learning. I conducted detailed, open-ended interviews, allowing participants to express their views freely. Additionally, I utilized member checking providing participants with interview transcripts to confirm the accuracy of their statements. This process helped validate the findings' authenticity, as participants had the opportunity to correct or clarify their responses. Furthermore, I achieved

triangulation by comparing the interview data with district documents, ensuring the findings accurately reflected the principals' experiences.

To address transferability, I provided a rich, detailed description of the research context. The study focused on principals from Title I urban elementary schools in central Maryland during the 2021-2022 academic year, allowing future researchers to determine whether the findings could apply in similar contexts. Detailed descriptions of the participants' backgrounds, school demographics, and the challenges encountered during the implementation of district strategies further enhanced the potential for transferability. While the unique pandemic-related conditions may have limited broader generalizability, the comprehensive context provided allowed for future comparisons across other settings facing similar challenges.

I maintained dependability through meticulous documentation of the research process. I also created an audit trail, outlining all steps of data collection, coding, and analysis, allowing for replication of the study. Peer debriefing also played a role in ensuring consistency throughout the research process. During the analysis phase, external colleagues regularly reviewed coded data to confirm the reliability of the interpretations. This process ensured minimal potential biases and findings grounded in the data. The detailed record of decisions made during the study enhanced its dependability.

To achieve confirmability, I remained reflexive throughout the research process, continually reflecting on my biases and their potential impact on the data. I maintained an audit trail documenting the research decisions, which included field notes, coding decisions, and memos written during the analysis phase. This step ensured that the

findings were based on the participants' perspectives rather than researcher bias. External audits of the study were also conducted, reinforcing the objective nature of the analysis. These steps helped guarantee that the conclusions I drew derived from the data, rather than from personal assumptions.

Summary

In Chapter 4, I reviewed the purpose of the study, including the research questions, and provided a detailed analysis of the findings from interviews with eight principals of Title I urban elementary schools. I outlined the specific data collection methods used, which aligned with those described in Chapter 3, and explained the process of thematic analysis that led from coded units to larger categories and themes. I then detailed the results related to each research question, highlighting the key themes that emerged.

For RQ1, the themes included the mixed effectiveness of lesson acceleration strategies, with some principals noting improvements in student engagement and performance, while others pointed out challenges related to pacing and readiness levels. For RQ2, the themes centered around the value of data-driven decision-making in personalized learning, as well as the concerns regarding student self-direction in virtual learning environments. For RQ3, the challenges related to equity and access were emphasized, particularly the digital divide and the need for additional resources to support students from low socioeconomic backgrounds.

In Chapter 5, I interpret these findings in relation to existing literature and conceptual framework, discuss the limitations of the research, and explore the

implications for educational practices. I also offer recommendations for future research and reflect on the potential for positive social change in addressing the challenges faced by educators and students.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to examine principals' perspectives on district-implemented strategies—lesson acceleration and personalized learning—aimed at addressing the significant learning challenges faced by Title I urban elementary schools during the COVID-19 pandemic. I conducted the study in central Maryland based on SY 2021–2022, focusing on the strategies' effectiveness in improving students' reading achievement. Utilizing a qualitative case study approach, I sought to provide insights into how these strategies influence reading outcomes and the unique challenges that principals encounter during implementation. The theoretical framework of Fullan's educational change theory underscored the study, emphasizing the critical role of principals as change agents within their schools during this period of educational upheaval.

Key findings of the study revealed that principals viewed lesson acceleration as beneficial in addressing learning gaps, particularly when coupled with a structured curriculum and consistent support. However, principals highlighted challenges related to resource limitations and the necessity of individualized student support. Personalized learning was seen as instrumental in fostering student engagement and catering to diverse learning needs, yet its implementation was often hindered by staffing shortages and logistical constraints. These insights suggest that while district strategies provided a valuable framework, their success depends heavily on tailored support, adequate resources, and robust training for educators.

Interpretation of the Findings

In interpreting the findings of this study, it is crucial to analyze how these results confirm, extend, or diverge from prior knowledge in the field, particularly as outlined in the literature reviewed in Chapter 2. This section examines the outcomes in the context of existing scholarship on lesson acceleration, personalized learning, and the role of school leadership amid the COVID-19 pandemic. Additionally, this interpretation aligns with Fullan's educational change theory, which underpins the theoretical framework for the study, emphasizing the role of principals as change agents within their schools during challenging periods.

Confirmation of Existing Knowledge

The findings of this study largely confirm the effectiveness of lesson acceleration and personalized learning as viable approaches to mitigating COVID-19-related learning disruptions, aligning with existing literature. Yulianti et al. (2021) argued that structured academic supervision and well-targeted strategies were essential in enhancing teacher performance and student engagement during the pandemic. This view is supported by this study's findings, in which principals expressed that targeted support and development opportunities for teachers were crucial in effectively implementing lesson acceleration and personalized learning. Such approaches not only addressed immediate instructional challenges but also empowered teachers to sustain student engagement, particularly in low-resource settings.

Further, Zaccoletti et al. (2020) identified motivation and family involvement as pivotal in supporting students' academic achievement, particularly during periods of

heightened online learning. Similarly, the principals in this study recognized family support and socioeconomic factors as critical determinants of student engagement. Many principals underscored the challenges of engaging students from lower socioeconomic backgrounds, noting that lack of resources, limited parental involvement, and other socioeconomic barriers made implementing personalized learning difficult. These findings confirm that personalized learning requires a solid support structure beyond school boundaries, including family and community engagement, to be effective.

In addition, Whitley et al. (2021) concluded that pandemic-related disruptions disproportionately affected vulnerable students, leading to challenges in maintaining academic standards and exacerbating achievement gaps. The results of this study support this finding, as principals noted that although lesson acceleration helped many students recover lost ground, it was less effective for students from disadvantaged backgrounds who lacked access to essential resources. These students continued to struggle with significant learning gaps, which confirms the literature's assertion that pandemic-related academic setbacks were not evenly distributed and were especially pronounced in vulnerable populations.

Extension of Knowledge

While existing research, such as that by Zierer (2021), has shown that rapid curriculum adaptations and school closures generally resulted in learning declines, the current study provides a more nuanced understanding by indicating that the impact of these disruptions was not uniform. Specifically, the study's findings suggest that schools with greater resource allocation or more robust support systems were better equipped to

implement lesson acceleration strategies effectively, leading to more favorable outcomes. This nuanced view extends Zierer's (2021) findings, as it highlights that while the pandemic posed universal challenges, disparities in resource availability created varied outcomes across schools, districts, and student populations.

Moreover, this study emphasizes the critical role of school leadership in navigating these challenges, an area that has been less frequently explored in prior literature. Although Walsh et al. (2022) addressed the importance of teacher educators in implementing curriculum changes, this study extends knowledge by focusing on principals' leadership roles as fundamental to the successful application of lesson acceleration and personalized learning. The principals' proactive adjustments to teaching strategies and the creation of flexible support systems indicate that school leaders were instrumental in mitigating the adverse effects of the pandemic on reading achievement. Thus, this study contributes to the literature by underscoring the role of principal leadership in effectively managing rapid instructional changes in response to crises.

Divergence From Prior Assumptions

The findings of this study challenge several assumptions in previous research regarding the uniform impact of COVID-19 on student learning. For example, while Sintema (2020) suggests that pandemic-related disruptions led to widespread declines in academic performance, this study reveals that the effectiveness of interventions like lesson acceleration varied significantly depending on school resources, principal leadership, and contextual factors. Principals from well-resourced schools were able to implement lesson acceleration more seamlessly, resulting in better student outcomes. In

contrast, principals from underresourced schools faced significant limitations, which constrained the potential impact of these strategies. This divergence from a more generalized view in the literature suggests that pandemic-related academic setbacks cannot be fully understood without considering local variations in resources and leadership efficacy.

Additionally, whereas Usman and Madudili (2019) posited that the learning environment and instructional quality are primary determinants of student success, this study suggests that in the context of COVID-19, access to technological resources and digital literacy were also essential factors. Principals reported that personalized learning initiatives were frequently hindered by students' limited access to technology, a finding that diverges from the assumption that the school environment alone can shape academic outcomes. This insight suggests that personalized learning in a pandemic context demands a higher level of digital preparedness and support than previously acknowledged.

Theoretical Implications

This study's findings resonate strongly with Fullan's educational change theory, particularly in highlighting the role of school leaders as change agents. According to Fullan's theory, successful educational change relies on leaders who can guide, support, and adapt strategies to meet the needs of their specific contexts (Fullan, 1982). This study's findings confirm this aspect of the theory, as principals were not only responsible for implementing district strategies but also for modifying these strategies to address their schools' unique challenges, such as resource constraints and the digital divide. This

adaptive approach taken by principals reflects Fullan's view of effective leadership as a dynamic and context-responsive process, underscoring the importance of flexibility and resourcefulness in managing educational change during times of crisis.

Moreover, the findings align with Fullan's assertion that change initiation, implementation, and institutionalization are complex processes requiring ongoing adaptation. For instance, principals who reported success in lesson acceleration described an iterative process of assessing student needs, adjusting instructional approaches, and seeking additional resources to support continued learning. These findings highlight the phased approach to change outlined in Fullan's model and reinforce the theory's emphasis on continuous, responsive leadership as essential to effective educational change.

In interpreting the results, this study also expands Fullan's framework by suggesting that educational change during a crisis involves additional complexities, such as managing mental health and socioemotional support for students and staff. Zhai and Du (2020) discussed the mental health challenges that students and educators faced during the pandemic, and principals in this study echoed this concern, noting that supporting the well-being of both students and staff was critical to maintaining instructional continuity. Emphasis on mental health and emotional support adds a new dimension to Fullan's model, extending its relevance to include considerations for crisis-induced educational changes.

While the findings highlight significant insights into the role of school leadership, resource allocation, and the unique challenges of implementing lesson acceleration and

personalized learning during a crisis, they are based on the experiences of a particular group of principals in central Maryland. Therefore, the generalizability of these findings may be limited, especially in different geographic or socioeconomic contexts. The interpretations provided are grounded in the study's scope and should be understood as reflective of the challenges and adaptations specific to Title I urban elementary schools.

Moreover, while Fullan's educational change theory provided a valuable framework for interpreting these findings, it is possible that other theoretical perspectives, such as resilience theory or crisis management theory, may offer additional insights into the principals' adaptive responses. Future studies may consider applying these alternative frameworks to further explore the complexities of educational change during crises and to validate or expand upon the findings presented here.

Generally, the findings of this study confirm, extend, and in some cases, diverge from existing knowledge in the discipline regarding educational strategies and leadership during the COVID-19 pandemic. By confirming the benefits of structured lesson acceleration and personalized learning, the study supports previous research on these approaches as essential to managing pandemic-related learning disruptions. At the same time, it extends knowledge by highlighting the crucial role of principal leadership in implementing these strategies effectively. Study findings emphasize the need for a more nuanced understanding of resource disparities across schools. Finally, by challenging assumptions about the uniformity of pandemic-induced learning declines, the study's findings suggest that local contextual factors, including leadership efficacy and resource availability, play a significant role in shaping educational outcomes.

Through the lens of Fullan's educational change theory, the study illustrates how effective school leadership can drive meaningful change, even in crisis situations. Principals who demonstrated adaptability, resourcefulness, and a commitment to supporting their staff and students were able to mitigate some adverse effects of the pandemic on reading achievement. These findings may contribute to a deeper understanding of the complexities of educational change in times of crisis and highlight the importance of sustained leadership support and targeted resource allocation to facilitate successful educational outcomes.

Limitations of the Study

The limitations of this study primarily relate to trustworthiness concerns inherent in qualitative case study research, such as issues of credibility, transferability, dependability, and confirmability, as I discussed in Chapter 1. These limitations impact the generalizability and interpretability of the findings and suggest areas where caution is warranted when considering the implications of the results.

Credibility

One of the primary challenges to credibility in this study stemmed from the reliance on self-reported data from principals regarding their perceptions of district-implemented strategies. This approach assumes that participants are providing honest, accurate accounts of their experiences. However, several factors, including social desirability bias, may have influenced the responses, especially given the participants' roles as school leaders during a period of crisis. While I made efforts to enhance credibility through prolonged engagement, open-ended interviews, and member

checking, the self-reported nature of the data supports the conclusion that findings are limited by the subjectivity and potential biases of the participants.

Additionally, discrepant cases revealed variability in the principals' views on the effectiveness of the strategies, adding complexity to the data analysis. Some participants, for example, questioned the overall effectiveness of personalized learning, noting that the individualization of instruction was challenging for students who were significantly behind academically. While these variations add depth to the findings, they also underscore the limitation that the results reflect individual perspectives that may not be universally applicable.

Transferability

The study's scope was intentionally limited to eight principals from Title I urban elementary schools in a single school district in central Maryland. This focused context, while beneficial for in-depth qualitative analysis, restricts the transferability of the findings to other settings, such as schools with different demographics or districts with unique resources. As Lincoln and Guba (1985) emphasized, transferability in qualitative research is achieved by providing thick descriptions to allow readers to assess applicability to other contexts. While I gathered and presented rich contextual data, readers should be cautious when generalizing these findings to other schools or districts, particularly those with differing socioeconomic demographics and resource levels.

Dependability

Dependability, which refers to the stability and consistency of the research findings, presented another limitation. The study was conducted based on SY 2021–2022,

a period marked by significant instability due to ongoing pandemic-related disruptions. This unique context may have influenced the principals' responses, as their experiences were heavily shaped by the exigencies of the pandemic. While an audit trail was maintained and peer debriefing conducted to bolster dependability, it remains challenging to ensure that the findings are replicable in different educational contexts or timeframes, particularly as school environments stabilize post-pandemic.

Confirmability

I maintained confirmability, or the degree to which the findings were shaped by the participants' responses rather than my bias, through several methods, including an audit trail and reflexivity. Nevertheless, my role as an assistant principal within the same district may have introduced unintentional biases. To mitigate this risk, I conducted regular self-reflection, bracketing and discussions with academic mentors to maintain objectivity. I also practice data emersion which allowed me to focus on the facts revealed in the data eliminating any personal biases. However, the possibility of my influence, particularly in the interpretation of findings, remains a limitation of the study. This influence is an inherent risk in qualitative research, in which the researcher is closely involved with the subject matter and context.

Practical and Logistical Limitations

Several practical and logistical limitations impacted the research process. I anticipated recruitment challenges and partially addressed this issue through flexible scheduling options. Yet, the demanding workload of the principals during the pandemic may have affected the depth and completeness of the data I obtained. Additionally, while

I conducted all interviews as planned, the online or phone format of some interviews, necessitated by privacy concerns, may have limited the richness of interactions and hindered rapport-building with participants. While I made efforts to address these limitations through rigorous methodological approaches, they inevitably impacted the study's trustworthiness. These limitations should be considered when interpreting the findings, as they provide insight into the complex realities principals face but are bound by contextual, methodological, and practical constraints.

Recommendations

Based on the study's findings and its limitations, several recommendations for future research are proposed. These recommendations are grounded in the study's strengths and areas where further exploration can deepen understanding of district strategies and the role of school leadership in times of crisis, as well as insights from the literature reviewed in Chapter 2.

Expand the Scope to Include Broader Geographic and Demographic Variability

This study focused on Title I urban elementary schools within a single school district in central Maryland. To build on this work, future research could explore similar district-implemented strategies in a more diverse range of schools, including rural, suburban, and non-Title I schools. Such studies could identify differences in how strategies like lesson acceleration and personalized learning are perceived and implemented in diverse contexts. Additionally, expanding research to multiple regions could help determine if findings in central Maryland align with those in other locations with different resource levels, student demographics, and district policies. This expanded

scope would address the limitation of transferability noted in this study by offering a more comprehensive understanding of the adaptability of these strategies across varied educational settings.

Investigate Longitudinal Effects of Lesson Acceleration and Personalized Learning

I limited this study to examining the short-term impact of lesson acceleration and personalized learning on reading achievement during one academic year. Longitudinal research tracking the long-term effects of these interventions on academic performance could offer valuable insights into their sustained impact. Future studies could examine the academic growth of students over several years, especially those affected by learning loss during the pandemic. Such research would allow for a more robust evaluation of whether strategies such as lesson acceleration produce lasting improvements in student outcomes or require ongoing adjustments and support.

Explore the Role of Teacher Capacity and Training

Many principals in this study emphasized that teacher readiness and capacity significantly influenced the success of district strategies. Future studies could delve deeper into this area by assessing the specific training and support mechanisms that best prepare teachers for implementing lesson acceleration and personalized learning effectively. For example, research could compare different training models to identify which are most effective in enhancing teachers' skills in delivering accelerated content and managing personalized learning. Additionally, studies could explore how teacher perceptions of these strategies align with those of principals, offering a multi-level perspective on the strategies' effectiveness

Examine the Digital Divide and Access to Resources

Principals in this study reported significant disparities in student access to technology and internet connectivity, a limitation that hindered the equitable implementation of personalized learning. Building on this observation, further research could focus on the digital divide in low-income, urban areas, examining how lack of access to technology impacts students' engagement with personalized learning tools. Studies might also explore how districts can mitigate these disparities through partnerships with technology providers or community organizations. This line of research could be particularly valuable for understanding the role of infrastructure in implementing personalized learning strategies and ensuring equitable access to educational resources.

Study the Mental Health Implications for Students and Staff

The pandemic posed substantial mental health challenges for students and staff, as highlighted by principals who encountered difficulties supporting the emotional well-being of their school communities. Future research could investigate the mental health effects of crisis-induced instructional strategies, especially on students in low-income settings who face additional stressors. Additionally, exploring support systems for principals and teachers dealing with the pressures of implementing these strategies could provide insights into creating a more supportive environment during periods of crisis. Findings from such studies could guide districts in designing strategies that integrate mental health support alongside academic interventions.

Investigate the Role of Principal Leadership Styles in Implementing District Strategies

This study highlights the importance of principal leadership in adapting district strategies to meet local school needs. However, different leadership styles may influence the effectiveness of these strategies in unique ways. Future research could explore how various leadership approaches, such as transformational or instructional leadership, impact the implementation of district strategies. This research could offer insights into which leadership traits and behaviors are most effective in navigating challenges during crises and could inform professional development for principals.

Explore Stakeholder Perspectives Beyond Principals

While this study centered on principals' perceptions, gathering insights from other stakeholders, such as teachers, parents, and students could offer a more comprehensive understanding of the strategies' impacts. Teachers' experiences in applying personalized learning and lesson acceleration, parents' views on academic progress, and students' perceptions of engagement and support could provide additional perspectives. Such research would enable districts to consider the views of multiple stakeholders when designing and implementing strategies, thereby enhancing inclusivity and support for diverse needs.

Evaluate the Financial Sustainability of District Strategies

Given that resource availability played a significant role in the effectiveness of district strategies, future studies could focus on the financial implications of implementing strategies such as lesson acceleration and personalized learning in low-

income settings. Research could examine the cost-effectiveness of these interventions over time, especially in resource-limited schools. This approach would provide insights into the financial feasibility of such strategies and help districts prioritize budget allocations to support equitable access to effective instructional methods.

These recommendations reflect both the strengths of the current study and areas where further exploration could yield valuable insights. Expanding research to include diverse contexts, examining long-term outcomes, and exploring additional perspectives could deepen understanding of the impact of district strategies on student achievement. Each recommendation seeks to enhance the effectiveness, equity, and sustainability of educational interventions, particularly in Title I urban elementary schools, and contributes to the growing body of knowledge on educational resilience and adaptation in times of crisis.

Implications

This section explores the potential positive social change implications of this study at multiple levels, including individual, family, organizational, and societal. By examining the findings and their broader impact, this study highlights how targeted educational strategies, like lesson acceleration and personalized learning, can foster more equitable learning outcomes for students in Title I urban elementary schools. These strategies can support academic recovery, encourage family engagement, strengthen school organizational practices, and inform policy aimed at reducing educational disparities. Additionally, the study offers methodological, theoretical, and practical insights that contribute to both educational research and practice, providing

recommendations that can guide educators and policymakers in adapting these strategies effectively within their specific contexts.

Positive Social Change

This study's implications for positive social change span multiple levels, from individual and family benefits to organizational and societal impacts. At the individual level, the study suggests that students in Title I urban elementary schools can significantly benefit from instructional strategies that prioritize both accelerated learning and personalized support. By addressing the learning loss caused by the COVID-19 pandemic, these interventions can improve academic outcomes for students who are at greater risk of falling behind, providing them with better foundations for continued academic achievement and future opportunities.

At the family level, these findings underscore the importance of parental involvement in a child's education, as highlighted by previous literature, such as Knopik et al. (2021), which emphasizes the critical role of family engagement in supporting remote learning during the pandemic. By integrating families into the educational process through accessible communication and community resources, schools can foster a supportive network that encourages students to learn beyond the classroom. Enhanced family involvement could also inspire greater investment in students' academic pursuits, increasing their potential for long-term success.

Organizationally, this study provides insights school districts may find helpful in effectively implementing lesson acceleration and personalized learning strategies to foster equitable educational environments. Principals' reflections on these strategies offer

district leaders guidance on necessary resources, professional development, and technological access needed to bridge gaps in educational equity. Such approaches may inspire other districts to adopt similar strategies, fostering more resilient education systems capable of adapting to future disruptions.

At the societal level, the findings have implications for educational policy, especially in developing frameworks that prioritize educational equity and digital access for low-income communities. The COVID-19 pandemic highlighted existing disparities in access to technology, internet connectivity, and educational resources, which further marginalized low-income and minority students. Policies that fund and support technology in underserved schools provide teacher training and offer continuous professional development can help close these gaps, fostering a more inclusive and adaptable education system that effectively serves all students.

Methodological

The methodological approach of this study—qualitative case study design with in-depth interviews—provides a replicable framework for examining the perspectives of school leaders in future research. This methodology was effective in capturing the nuanced challenges and successes principals faced in implementing district-level strategies. Future studies can employ similar qualitative approaches to gain insights into the impact of district strategies across various educational contexts, particularly in assessing responses to crisis-driven educational disruptions.

Theoretical

This study contributes to Fullan's educational change theory by illustrating the pivotal role of principals as change agents, especially in adapting to unforeseen challenges such as the COVID-19 pandemic. The study reinforces the soundness of Fullan's model by highlighting how principals navigated the complexity of balancing instructional objectives with logistical and resource-based challenges. Additionally, the findings extend the theory by emphasizing the need for emotional and socioeconomic support as part of effective educational change, especially for students in low-income communities. The study's findings also suggest that future applications of Fullan's theory in crisis contexts should incorporate socioemotional and resource-based considerations to effectively support student success.

Recommendations for Practice

Enhancing Professional Development

This study reveals the need for ongoing professional development that aligns with the specific instructional strategies employed, such as lesson acceleration and personalized learning. By providing targeted training that emphasizes practical applications, schools can equip teachers to effectively implement these strategies, thereby improving student outcomes and reducing educator burnout. Regular training that includes coaching, mentorship, and collaborative learning opportunities could significantly improve teachers' confidence and skill in using these approaches.

Promoting Family Engagement

Principals noted that family involvement was crucial for the success of personalized learning, particularly in low-income communities in which students rely on family support for digital access and study environments. Schools should actively engage families by providing resources, workshops, and accessible communication channels to foster a collaborative educational experience that extends beyond the classroom.

Supporting Socioemotional Learning

As the study suggests, socioemotional support for students, especially those impacted by socioeconomic and pandemic-related stressors, is essential. Schools can adopt frameworks for socioemotional learning to help students develop resilience, motivation, and coping skills. Providing mental health resources, counseling, and socioemotional learning curricula may foster a positive learning environment where students feel supported.

Improving Digital Access and Equity

Addressing the digital divide is paramount for the success of personalized learning and lesson acceleration strategies. Schools in underserved areas require consistent access to technology and internet connectivity for all students to ensure equitable learning opportunities. Schools and districts could seek partnerships with technology providers or apply for funding to enhance digital infrastructure, thus supporting personalized learning regardless of students' economic backgrounds.

Collectively, these implications for positive social change highlight the transformative potential of lesson acceleration and personalized learning strategies when

paired with equitable resource allocation, community involvement, and professional support. These findings underscore the role of schools and policymakers in fostering inclusive education that equips all students, especially those from marginalized communities, for academic success and resilience.

Conclusion

The findings of this study underscore the critical role strategic educational interventions, specifically lesson acceleration and personalized learning, play in addressing pandemic-related learning gaps in Title I urban elementary schools. By accurately capturing principals' perceptions, this study highlights both the potential and challenges of these strategies when applied in resource-constrained settings, where equitable access to technology and family engagement are essential to student success. The study confirms the importance of school leaders as adaptive change agents who, through targeted support and innovative leadership, can drive meaningful improvements in academic outcomes despite significant obstacles.

The implications of this research extend to individual, family, organizational, and societal levels—suggesting that tailored instructional strategies coupled with robust support systems can contribute to positive social change by fostering resilience and academic recovery. For school districts and policymakers, the study advocates investments in professional development, family engagement, and digital equity to make these strategies effective and accessible. Ultimately, this research may offer a pathway forward for educational institutions seeking to bridge learning disparities, emphasizing that with the right support, students in low-income, urban schools can recover and thrive

academically. Finally, this study contributes to the growing body of knowledge on educational resilience and highlights the vital role of school leadership in building an inclusive and adaptive education system.

References

- AbdelSalam, H. M., Pilotti, M. A., & El-Moussa, O. J. (2021). Sustainable math education of female students during a pandemic: Online versus face-to-face instruction. *Sustainability*, *13*(21), 12248. <https://doi.org/10.3390/su132112248>
- Aguilera-Hermida, A. P. (2020). College students' use and acceptance of emergency online learning due to COVID-19. *International Journal of Educational Research Open*, *1*, 100011. <https://doi.org/10.1016/j.ijedro.2020.100011>
- Ahmed, S., Taqi, H. M., Farabi, Y. I., Sarker, M., Ali, S. M., & Sankaranarayanan, B. (2021). Evaluation of flexible strategies to manage the COVID-19 pandemic in the education sector. *Global Journal of Flexible Systems Management*, *22*(2), 81–105. <https://doi.org/10.1007/s40171-021-00267-9>
- Allison, M. A., Attisha, E., Council on School Health, Lerner, M., De Pinto, C. D., Beers, N. S., Gibson, E. J., Gorski, P., Kjolhede, C., O'Leary, S.C., Schumacher, H., & Weiss-Harrison, A. (2019). The link between school attendance and good health. *Pediatrics*, *143*(2). <https://doi.org/10.1542/peds.2018-3648>
- Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2020). Exploring the critical challenges and factors influencing the E-learning system usage during the COVID-19 pandemic. *Education and Information Technologies*, *25*(6), 5261–5280. <https://doi.org/10.1007/s10639-020-10219-y>
- Amzat, J., Aminu, K., Kolo, V. I., Akinyele, A. A., Ogundairo, J. A., & Danjibo, M. C. (2020). Coronavirus outbreak in Nigeria: Burden and socio-medical response during the first 100 days. *International Journal of Infectious Diseases*, *98*, 218–

224. <https://doi.org/10.1016/j.ijid.2020.06.067>

Aryanjam, L., Rashtchi, M., & Maftoon, P. (2023). The contribution of strategy-based instruction in reading achievement: An autonomy perspective. *Teaching English Language, 17*(1), 171-199. <https://doi.org/10.22132/TEL.2022.164496>

Bailey, D. H., Duncan, G. J., Murnane, R. J., & Au Yeung, N. (2021). Achievement gaps in the wake of COVID-19. *Educational Researcher, 50*(5), 266–275. <https://doi.org/10.3102/0013189X211011237>

Baloch, G. M., Kamaludin, K., Chinna, K., Sundarasan, S., Nurunnabi, M., Khoshaim, H. B., Abid Hossain, S. F., Sukayt, A. A., & Baloch, L. G. (2021). Coping with COVID-19: The strategies adapted by Pakistani students to overcome implications. *International Journal of Environmental Research and Public Health, 18*(4), 1799. <https://doi.org/10.3390/ijerph18041799>

Barnett, B. G. (2021). How can schools increase students' hopefulness following the pandemic? *Education and Urban Society, 55*(7), 792–808. <https://doi.org/10.1177/00131245211062525>

Barrot, J. S., Llenares, I. I., & Del Rosario, L. S. (2021). Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Education and Information Technologies, 26*(6), 7321–7338. <https://doi.org/10.1007/s10639-021-10589-x>

Bashir, M. F., Ma, B., & Shahzad, L. (2020). A brief review of the socio-economic and environmental impact of COVID-19. *Air Quality, Atmosphere & Health, 13*(12), 1403–1409. <https://doi.org/10.1007/s11869-020-00894-8>

- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), 544–559. <https://dx.doi.org/10.46743/2160-3715/2008.1573>
- Bear, G. G., Yang, C., Chen, D., He, X., Xie, J. S., & Huang, X. (2018). Differences in school climate and student engagement in China and the United States. *School Psychology Quarterly*, 33(2), 323. <https://doi.org/10.1037/spq0000247>
- Béché, E. (2020). Cameroonian responses to COVID-19 in the education sector: Exposing an inadequate education system. *International Review of Education*, 66(5), 755–775. <https://doi.org/10.1007/s11159-020-09870-x>
- Blaskó, Z., Costa, P. D., & Schnepf, S. V. (2021). Learning losses and educational inequalities in Europe: Mapping the potential consequences of the COVID-19 crisis. *Journal of European Social Policy*, 32(4), 361–37. <https://doi.org/10.1177/09589287221091687>
- Braun, V., Clarke, V., & Hayfield, N. (2023). *Thematic analysis: A reflexive approach*. Sage Publications.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Burgess, S., & Sievertsen, H. H. (2020). Schools, skills, and learning: The impact of COVID-19 on education. *VoxEu.org*, 1(2), 73-89. <https://cepr.org/voxeu/columns/schools-skills-and-learning-impact-covid-19-education>

- Burkart, S., Parker, H., Weaver, R. G., Beets, M. W., Jones, A., Adams, E. L., Chaput, J., & Armstrong, B. (2022). Impact of the COVID-19 pandemic on elementary schoolers' physical activity, sleep, screen time and diet: A quasi-experimental interrupted time series study. *Pediatric Obesity, 17*(1), e12846.
<https://doi.org/10.1111/ijpo.12846>
- Burke, J., & Dempsey, M. (2021). *Wellbeing in post-Covid schools: Primary school leaders' reimagining of the future* [project report]. Maynooth University
<https://mural.maynoothuniversity.ie/14412/>
- Bryman, A. (2016). *Social research methods*. Oxford University Press.
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods, 18*(1), 59-82.
<https://doi.org/10.1177/1525822X05279903>
- Byrne, Z. S. (2022). *Understanding employee engagement: Theory, research, and practice*. Routledge.
- Camic, P. M. (Ed.). (2021). Going around the bend and back: Qualitative inquiry in psychological research. In P. M. Camic (Ed.), *Qualitative research in psychology: Expanding perspectives in methodology and design* (2nd ed., pp. 3–26). American Psychological Association. <https://doi.org/10.1037/0000252-001>
- Cen, X., Sun, D., Rong, M., Fekete, G., Baker, J. S., Song, Y., & Gu, Y. (2020). The online education mode and reopening plans for Chinese schools during the COVID-19 pandemic: A mini-review. *Frontiers in Public Health, 8*, 566316.
<https://doi.org/10.3389/fpubh.2020.566316>

- Choudhury, M. (2022). *Maryland nationally board certified and low performing schools*. Maryland State Department of Education.
<https://marylandpublicschools.org/stateboard/Documents/2022/0125/NationallyBoardCertifiedTeachersAndLowPerformingSchoolsRev1282022.pdf>
- Coates, J. K., & Pimlott-Wilson, H. (2019). Learning while playing: Children's forest school experiences in the UK. *British Educational Research Journal*, 45(1), 21-40. <https://doi.org/10.1002/berj.3491>
- Coccia, M. (2021). High health expenditures and low exposure of population to air pollution as critical factors that can reduce fatality rate in COVID-19 pandemic crisis: A global analysis. *Environmental Research*, 199, 111339.
<https://doi.org/10.1016/j.envres.2021.111339>
- Conto, C. A., Akseer, S., Dreesen, T., Kamei, A., Mizunoya, S., & Rigole, A. (2021). Potential effects of COVID-19 school closures on foundational skills and Country responses for mitigating learning loss. *International Journal of Educational Development*, 87, 102434. <https://doi.org/10.1016/j.ijedudev.2021.102434>
- Cotto, R., Jr., & Woulfin, S. (2021). Choice with (out) equity? Family decisions of child return to urban schools in pandemic. *Journal of Family Diversity in Education*, 4(1), 42-63. <https://doi.org/10.53956/jfde.2021.159>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative and mixed approach* (5th ed). SAGE publication, Inc.
- Creswell, John. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*, (2nd ed). SAGE.

- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.
- Currie, C. S., Fowler, J. W., Kotiadis, K., Monks, T., Onggo, B. S., Robertson, D. A., & Tako, A. A. (2020). How simulation modelling can help reduce the impact of COVID-19. *Journal of Simulation*, *14*(2), 83-97.
<https://doi.org/10.1080/17477778.2020.1751570>
- Daniel, S. J. (2020). Education and the COVID-19 pandemic. *Prospects*, *49*(1), 91-96.
<https://doi.org/10.1007/s11125-020-09464-3>
- Darling-Hammond, L., Flook, L., Schachner, A., & Wojcikiewicz, S. (2022). Educator Learning to Enact the Science of Learning and Development. *Learning Policy Institute*. <https://doi.org/10.54300/859.776>
- Dempsey, A., Lanzieri, N., Luce, V., de Leon, C., Malhotra, J., & Heckman, A. (2022). Faculty respond to COVID-19: Reflections-on-action in field education. *Clinical Social Work Journal*, *50*(1), 11-21. <https://doi.org/10.1007/s10615-021-00787-y>
- Datnow, A., & Park, V. (2018). Opening or closing doors for students? Equity and data use in schools. *Journal of Educational Change*, *19*(2), 131–152.
<https://doi.org/10.1007/s10833-018-9323-6>
- Dempsey, A. M. K., Lone, M., Nolan, Y. M., & Hunt, E. (2022). Universal design for learning in anatomy education of healthcare students: A scoping review. *Anatomical Sciences Education*, *0*, 1–17. <https://doi.org/10.1002/ase.2160>
- Domina, T., Renzulli, L., Murray, B., Garza, A. N., & Perez, L. (2021). Remote or removed: Predicting successful engagement with online learning during COVID-

19. *Socius*, 7, 2378023120988200. <https://doi.org/10.17615/3sxp-8586>

Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2020). *COVID-19 and student learning in the United States: The hurt could last a lifetime*. McKinsey & Company, 1, 1-9.

https://www.childrensinstitute.net/sites/default/files/documents/COVID-19-and-student-learning-in-the-United-States_FINAL.pdf

Dubey, S., Biswas, P., Ghosh, R., Chatterjee, S., Dubey, M. J., Chatterjee, S., Dubey, M. J., Chatterjee, S., Lahiri, D., & Lavie, C. J. (2020). Psychosocial impact of COVID-19. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 14(5), 779-788. <https://doi.org/10.1016/j.dsx.2020.05.035>

El Zowalaty, M. E., Young, S. G., & Järhult, J. D. (2020). Environmental impact of the COVID-19 pandemic—a lesson for the future. *Infection Ecology & Epidemiology*, 10(1), 1768023. <https://doi.org/10.1080/20008686.2020.1768023>

Faherty, L. J., Schwartz, H. L., Ahmed, F., Zheteyeva, Y., Uzicanin, A., & Uscher-Pines, L. (2019). School and preparedness officials' perspectives on social distancing practices to reduce influenza transmission during a pandemic: Considerations to guide future work. *Preventive Medicine Reports*, 14, 100871. <https://doi.org/10.1016/j.pmedr.2019.100871>

Flack, C. B., Walker, L., Bickerstaff, A., Earle, H., & Margetts, C. (2020). *Educator perspectives on the impact of COVID-19 on teaching and learning in Australia and New Zealand*. Pivot Professional Learning. <https://docs.pivotpl.com/research/COVID-19/Pivot+Professional+Learning->

+Impact+of+COVID-

19+on+Teaching+and+Learning+Whitepaper+April+2020.pdf

- Ford, D. C. (2022). *The role of middle and high school principals during the COVID-19 pandemic: A phenomenological study* (Doctoral dissertation, East Tennessee State University). <https://dc.etsu.edu/etd/4117>
- Forni, G., & Mantovani, A. (2021). COVID-19 vaccines: Where we stand and challenges ahead. *Cell Death & Differentiation*, 28(2), 626-639.
<https://doi.org/10.1038/s41418-020-00720-9>
- Fotheringham, P., Harriott, T., Healy, G., Arengé, G., & Wilson, E. (2022). Pressures and influences on school leaders navigating policy development during the COVID-19 pandemic. *British Educational Research Journal*, 48(2), 201-227.
<https://doi.org/10.1002/berj.3760>
- Fox, A. M., & Veele, S. (2020). *Juvenile rehabilitation integrated treatment model. Legislative report*. Washington State Department of Children, Youth, and Families. <https://www.dcyf.wa.gov/sites/default/files/pdf/Juvenile-Rehabilitation-Integrated-Treatment-Model-2020-Legislative-Report.pdf>
- Fullan, M. (2022). *Can you feel it? It's time for a change—Curriculum windows redux: What curriculum theorists can teach us about schools and society today*, p. 195. Information Age Publishing
- Fullan, M. (2015). *The new meaning of educational change*. Teachers College Press.
- Fullan, M. (1982). *The meaning of educational change*. Teachers College Press.
- Gabster, B. P., van Daalen, K., Dhatt, R., & Barry, M. (2020). Challenges for the female

academic during the COVID-19 pandemic. *The Lancet*, 395(10242), 1968-1970.

[https://doi.org/10.1016/S0140-6736\(20\)31412-4](https://doi.org/10.1016/S0140-6736(20)31412-4)

Gauttier, S. (2019). 'I've got you under my skin'—The role of ethical consideration in the (non-) acceptance of insideables in the workplace. *Technology in Society*, 56, (93-108). <https://doi.org/10.1016/j.techsoc.2018.09.008>

George, G., & Thomas, M. R. (2021). Quarantined effects and strategies of college students—COVID-19. *Asian Education and Development Studies*. 10.1108/AEDS-04-2020-0054. <http://www.emeraldinsight.com/doi/10.1108/AEDS-04-2020-0054>

Goldberg, J. M., Sklad, M., Elfrink, T. R., Schreurs, K. M., Bohlmeijer, E. T., & Clarke, A. M. (2019). Effectiveness of interventions adopting a whole school approach to enhancing social and emotional development: A meta-analysis. *European Journal of Psychology of Education*, 34(4), 755-782. <https://doi.org/10.1007/s10212-018-0406-9>

Gordon, M. F., & Hart, H. (2022). How strong principals succeed: Improving student achievement in high-poverty urban schools. *Journal of Educational Administration*, 60(3), 288–302. <https://doi.org/10.1108/JEA-03-2021-0063>

Goudeau, S., Sanrey, C., Stanczak, A., Manstead, A., & Darnon, C. (2021). Why lockdown and distance learning during the COVID-19 pandemic are likely to increase the social class achievement gap. *Nature Human Behaviour*, 5(10), 1273-1281. <https://www.nature.com/articles/s41562-021-01212-7>

Green, Z. A., Faizi, F., Jalal, R., & Zadrán, Z. (2021). Emotional support received

moderates academic stress and mental well-being in a sample of Afghan university students amid COVID-19. *International Journal of Social Psychiatry*, 00207640211057729. <https://doi.org/10.1177/00207640211057729>

Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during covid-19 pandemic. *BMJ*, 368. <https://doi.org/10.1136/bmj.m1211>

Grissom, J. A., & Bartanen, B. (2019). Strategic retention: Principal effectiveness and teacher turnover in multiple-measure teacher evaluation systems. *American Educational Research Journal*, 56(2), 514-555. <https://doi.org/10.3102/0002831218797931>

Grooms, A. A., & Childs, J. (2021). “We need to do better by kids”: Changing routines in US schools in response to COVID-19 school closures. *Journal of Education for Students Placed at Risk (JESPAR)*, 26(2), 135-156. <https://doi.org/10.1080/10824669.2021.1906251>

Gruber, R., Saha, S., Somerville, G., Boursier, J., & Wise, M. S. (2020). The impact of COVID-19 related school shutdown on sleep in adolescents: A natural experiment. *Sleep Medicine*, 76, (33-35). <https://doi.org/10.1016/j.sleep.2020.09.015>

Guo, M., Joanpere, M., Pulido, C., & Padrós Cuxart, M. (2020). Coping of Chinese citizens living in Spain during the COVID-19 pandemic: Lessons for personal well-being and social cohesion. *Sustainability*, 12(19), 7949. <https://doi.org/10.3390/su12197949>

- Harmey, S., & Moss, G. (2021). Learning disruption or learning loss: Using evidence from unplanned closures to inform returning to school after COVID-19. *Educational Review*, pp. 1–20. <https://doi.org/10.1080/00131911.2021.1966389>
- Hammerstein, S., König, C., Dreisörner, T., & Frey, A. (2021). Effects of COVID-19-related school closures on student achievement-a systematic review. *Frontiers in Psychology*, 4020. <https://doi.org/10.3389/fpsyg.2021.746289>
- Hargis, H. (2020). Recorded participant ethnography in family homes: Children, social class, and the role of the researcher. *Bulletin of Sociological Methodology/Bulletin de Méthodologie Sociologique*, 146(1), 37-55. <https://doi.org/10.1177/0759106320908221>
- Harris, A. (2020). COVID-19–school leadership in crisis? *Journal of Professional Capital and Community*. <https://doi.org/10.1108/JPCC-06-2020-0045>
- Harris, A., & Jones, M. (2020). COVID-19–school leadership in disruptive times. *School Leadership & Management*, 40(4), 243-247. <https://doi.org/10.1080/13632434.2020.1811479>
- Hartikainen, S., Rintala, H., Pylväs, L., & Nokelainen, P. (2019). The concept of active learning and the measurement of learning outcomes: A review of research in engineering higher education. *Education Sciences*, 9(4), 276. <https://doi.org/10.3390/educsci9040276>
- Henderson, H. (2018). Difficult questions of difficult questions: The role of the researcher and transcription styles. *International Journal of Qualitative Studies in Education*, 31(2), 143-157. <https://doi.org/10.1080/09518398.2017.1379615>

- Hermanto, Y. B., & Srimulyani, V. A. (2021). The challenges of online learning during the COVID-19 pandemic. *Jurnal Pendidikan Dan Pengajaran*, 54(1), 46-57. <https://doi.org/10.23887/jpp.v54i1.29703>
- Hoang, A. D. (2020). Pandemic and teacher retention: Empirical evidence from expat teachers in Southeast Asia during COVID-19. *International Journal of Sociology and Social Policy*. <https://doi.org/10.1108/IJSSP-07-2020-0269>
- Husband, G. (2020). Ethical data collection and recognizing the impact of semi-structured interviews on research respondents. *Education Sciences*, 10(8), 206. <https://doi.org/10.3390/educsci10080206>
- Ishtiaq, M. (2019). [Review of the book Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.), by J. W. Creswell]. *English Language Teaching*, 12(5), 40. <https://doi.org/10.5539/elt.v12n5p40>
- Josselson, R. (2022). Editor's introduction: Qualitative methodology and methods: Innovations, expansions, and caveats. [Editorial]. *Qualitative Psychology*, 9(2), 111. <https://doi.org/10.1037/qup0000235>
- Juarez Santiago, B., Olivares Ramirez, J. M., Rodríguez-Reséndiz, J., Dector, A., Garcia Garcia, R., González-Durán, J. E. E., & Ferriol Sanchez, F. (2020). Learning management system-based evaluation to determine academic efficiency performance. *Sustainability*, 12(10), 4256. <https://doi.org/10.3390/su12104256>
- Kamal, S. S. L. B. A. (2019). Research paradigm and the philosophical foundations of a qualitative study. *PEOPLE: International Journal of Social Sciences*, 4(3), 1386-1394. <https://doi.org/10.20319/pijss.2019.43.13861394>

- Karakose, T., Polat, H., & Papadakis, S. (2021). Examining teachers' perspectives on school principals' digital leadership roles and technology capabilities during the COVID-19 pandemic. *Sustainability*, *13*(23), 13448.
<https://doi.org/10.3390/su132313448>
- Kathula, D. N. (2020). Effect of COVID-19 pandemic on the education system in Kenya. *Journal of Education*, *3*(6).
<https://stratfordjournals.org/journals/index.php/journal-of-education/article/view/640>
- Khamees, D., Brown, C. A., Arribas, M., Murphey, A. C., Haas, M. R., & House, J. B. (2020). In crisis: Medical students in the COVID-19 pandemic. *AEM Education and Training*, *4*(3), 284. <https://doi.org/10.1002/aet2.10450>
- Klykken, F. H. (2022). Implementing continuous consent in qualitative research. *Qualitative Research*, *22*(5), 795-810.
<https://doi.org/10.1177/14687941211014366>
- Knopik, T., Błaszczak, A., Maksymiuk, R., & Oszwa, U. (2021). Parental involvement in remote learning during the COVID19 pandemic—Dominant approaches and their diverse implications. *European Journal of Education*, *56*(4), 623–640.
<https://doi.org/10.1111/ejed.12474>
- König, C., & Frey, A. (2022). The impact of COVID-19-related school closures on student achievement—A meta-analysis. *Educational Measurement: Issues and Practice*, *41*(1), 16-22. <https://doi.org/10.1111/emip.12495>
- Kotter, J. P. (1996), *Leading change*, Harvard Business School Press.

Krippendorff, K. (2018). *Content analysis: An introduction to its methodology*. Sage Publications.

Kuhfeld, M., Soland, J., Tarasawa, B., Johnson, A., Ruzek, E., & Liu, J. (2020). Projecting the potential impact of COVID-19 school closures on academic achievement. *Educational Researcher*, 49(8), 549-565.

<https://doi.org/10.3102/0013189X20965918>

Kuhfeld, M., & Tarasawa, B. (2020). *The COVID-19 slide: What summer learning loss can tell us about the potential impact of school closures on student academic achievement*. Brief. NWEA. <https://eric.ed.gov/?id=ED609141>

Kumar, V., Wardrip, P., & Millerjohn, R. (2024). Design tensions in developing and using observation and assessment tools in makerspaces. *Educational Technology Research and Development*, 72(1), 261-280. <https://dx.doi.org/10.1007/s11423-023-10330-0>

Kumar, S., Maheshwari, V., Prabhu, J., Prasanna, M., Jayalakshmi, P., Suganya, P., Malar, B. A., & Jothikumar, R. (2020). Social economic impact of COVID-19 outbreak in India. *International Journal of Pervasive Computing and Communications*. <https://doi.org/10.1108/IJPCC-06-2020-0053>

Lai, C. K., Marini, M., Lehr, S. A., Cerruti, C., Shin, J.-E. L., Joy-Gaba, J. A., Ho, A. K., Teachman, B. A., Wojcik, S. P., Koleva, S. P., Frazier, R. S., Heiphetz, L., Chen, E. E., Turner, R. N., Haidt, J., Kesebir, S., Hawkins, C. B., Schaefer, H. S., Rubichi, S., Sartori, G., . . . Nosek, B. A. (2014). Reducing implicit racial preferences: I. A comparative investigation of 17 interventions. *Journal of*

Experimental Psychology: General, 143(4),

1765. <https://doi.org/10.1037/a0036260>

La Velle, L., Newman, S., Montgomery, C., & Hyatt, D. (2020). Initial teacher education in England and the Covid-19 pandemic: Challenges and opportunities. *Journal of Education for Teaching*, 46(4), 596-608.

<https://doi.org/10.1080/02607476.2020.1803051>

Lambert, M., & Sassone, J. (2020). Accelerate, don't remediate: An instructional framework for meeting the needs of the most vulnerable students after COVID school closures. *Journal for Leadership and Instruction*, 19(2), 8-13.

<https://files.eric.ed.gov/fulltext/EJ1282925.pdf>

Lestiyanawati, R. (2020). The strategies and problems faced by Indonesian teachers in conducting e-learning during COVID-19 outbreak. *CLLiENT (Culture, Literature, Linguistics, and English Teaching)*, 2(1), 71-82.

<https://doi.org/10.32699/cllient.v2i1.1271>

le Roux, S. G. (2021). Changing literacy outcomes in South Africa: Are home-school partnerships the missing link? *South African Journal of Education*, 41(4).

<https://dx.doi.org/10.15700/saje.v41n4a1954>

Levin, B. (2008). *How to change 5000 schools: A practical and positive approach for leading change at every level*. Harvard Education Press.

<https://eric.ed.gov/?id=ED515264>

Li, C., & Lalani, F. (2020). *The COVID-19 pandemic has changed education forever*.

[online] World Economic Forum.

<https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/>.

Li, J., & Che, W. (2022). Challenges and coping strategies of online learning for college students in the context of COVID-19: A survey of Chinese universities.

Sustainable Cities and Society, 83, 103958.

<https://doi.org/10.1016/j.scs.2022.103958>

Lincoln, Y. S. and Guba, E. G., 1985. *Naturalistic inquiry*. Sage.

[http://dx.doi.org/10.1016/0147-1767\(85\)90062-8](http://dx.doi.org/10.1016/0147-1767(85)90062-8)

Lofland, J., Snow, D., Anderson, L., & Lofland, L. H. (2022). *Analyzing social settings:*

A guide to qualitative observation and analysis. Waveland Press.

Lokey-Vega, A., & Stephens, S. (2019). A batch of one: A conceptual framework for the personalized learning movement. *Journal of Online Learning Research*, 5(3),

311–330. <https://files.eric.ed.gov/fulltext/EJ1241736.pdf>

Maatuk, A. M., Elberkawi, E. K., Aljawarneh, S., Rashaideh, H., & Alharbi, H. (2022).

The COVID-19 pandemic and E-learning: Challenges and opportunities from the perspective of students and instructors. *Journal of Computing in Higher*

Education, 34(1), 21-38. <https://doi.org/10.1007/s12528-021-09274-2>

MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping

strategies during the Covid-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. *System*, 94, 102352.

<https://doi.org/10.1016/j.system.2020.102352>

Madigan, D. J., & Kim, L. E. (2021). Does teacher burnout affect students? A systematic

review of its association with academic achievement and student-reported outcomes. *International Journal of Educational Research*, 105, 101714.

<https://doi.org/10.1016/j.ijer.2020.101714>

Makel, M. C., Meyer, M. S., Simonsen, M. A., Roberts, A. M., & Plucker, J. A. (2022).

Replication is relevant to qualitative research. *Educational Research and*

Evaluation, 27(1-2), 215-219. <https://doi.org/10.1080/13803611.2021.2022310>

Malecki, K. M., Keating, J. A., & Safdar, N. (2021). Crisis communication and public

perception of COVID-19 risk in the era of social media. *Clinical Infectious*

Diseases, 72(4), 697-702. <https://doi.org/10.1093/cid/ciaa758>

Maqsood, A., Abbas, J., Rehman, G., & Mubeen, R. (2021). The paradigm shift for

educational system continuance in the advent of COVID-19 pandemic: Mental

health challenges and reflections. *Current Research in Behavioral Sciences*, 2,

100011. <https://doi.org/10.1016/j.crbeha.2020.100011>

MD Code, Education, § 7-202.1, (2021). *West's Annotated Code of Maryland (Refs & Annos)*.

<https://govt.westlaw.com/mdc/Document/NACEC95C082F011EBB6CFE42751C>

[77CA8?viewType=FullText&originationContext=documenttoc&transitionType=](https://govt.westlaw.com/mdc/Document/NACEC95C082F011EBB6CFE42751C77CA8?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default))

[CategoryPageItem&contextData=\(sc.Default\)](https://govt.westlaw.com/mdc/Document/NACEC95C082F011EBB6CFE42751C77CA8?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default))

McCluskey, N. (2021). *If all private schools permanently closed by COVID were a*

school district, it would be among the nation's biggest. Should we worry?

[https://policycommons.net/artifacts/1501657/if-all-private-schools-permanently-](https://policycommons.net/artifacts/1501657/if-all-private-schools-permanently-closed-by-covid-were-a-school-district-it-would-be-among-the-nations-closed-by-covid-were-a-school-district-it-would-be-among-the-nations-)

[closed-by-covid-were-a-school-district-it-would-be-among-the-nations-](https://policycommons.net/artifacts/1501657/if-all-private-schools-permanently-closed-by-covid-were-a-school-district-it-would-be-among-the-nations-closed-by-covid-were-a-school-district-it-would-be-among-the-nations-)

[biggest/2160619/](#)

McLoughlin, G. M., McCarthy, J. A., McGuirt, J. T., Singleton, C. R., Dunn, C. G., & Gadhoke, P. (2020). Addressing food insecurity through a health equity lens: A case study of large urban school districts during the COVID-19 pandemic. *Journal of Urban Health, 97*(6), 759-775.

<https://link.springer.com/article/10.1007/s11524-020-00476-0>

Merriam, S. B., & Tisdell, E. J. (2015). *Qualitative research: A guide to design and implementation (4th ed.)*. John Wiley & Sons.

Metcalf, L. S., & Perez, I. (2020). Blinded by the unknown: A school's leader's actions to support teachers and students during COVID-19 school closures. *Journal of School Administration Research and Development*, pp. 5, 49–54.

<https://eric.ed.gov/?id=EJ1301249>

Moorhouse, B. L., & Wong, K. M. (2022). The COVID-19 pandemic as a catalyst for teacher pedagogical and technological innovation and development: Teachers' perspectives. *Asia Pacific Journal of Education, 42*(sup1), 105-120.

<https://doi.org/10.1080/02188791.2021.1988511>

Morse, J. (2015). "Data Were Saturated . . .". *Qualitative Health Research, (25)*,

<https://doi.org/10.1177/1049732315576699>

Moser, K. M., Wei, T., & Brenner, D. (2021). Remote teaching during COVID-19: Implications from a national survey of language educators. *System, 97*, 102431.

<https://doi.org/10.1016/j.system.2020.102431>

Munalim, L. O. (2020). Micro and macro practices of multicultural education in a

philippine university: Is it global integration ready? *The Asia-Pacific Education Researcher*, 29(5), 441-454. <https://doi.org/10.1007/s40299-019-00497-7>

Muñoz, P., Kimmitt, J., Kibler, E., & Farny, S. (2019). Living on the slopes:

entrepreneurial preparedness in a context under continuous threat.

Entrepreneurship & Regional Development, 31(5-6), 413-434.

<https://doi.org/10.1080/08985626.2018.1541591>

Nabavi-Pelesaraei, A., Mohammadkashi, N., Naderloo, L., Abbasi, M., & Chau, K. W.

(2022). Principal of environmental life cycle assessment for medical waste during COVID-19 outbreak to support sustainable development goals. *Science of the*

Total Environment, 827, 154416. <https://doi.org/10.1016/j.scitotenv.2022.154416>

National board certified teachers and low performing schools. Maryland State

Department of Education.

<https://www.marylandpublicschools.org/stateboard/Documents/2022/0125/NationallyBoardCertifiedTeachersAndLowPerformingSchoolsRev1282022.pdf>

National Forum on Education Statistics. (2019). *Forum guide to personalized learning data* (NFES2019160). U.S. Department of Education.

https://nces.ed.gov/forum/pdf/Personalized_Learning_Data.pdf

Nicholls, S. G., Carroll, K., Zwarenstein, M., Brehaut, J. C., Weijer, C., Hey, S. P.,

Goldstein, C. E., Graham, I. D., Grimshaw, J. M., McKenzie, J. E., Fergusson, D.

A., & Taljaard, M. (2019). The ethical challenges raised in the design and conduct of pragmatic trials: An interview study with key stakeholders. *Trials*, 20(1), 1-16.

<https://doi.org/10.1186/s13063-019-3899-x>

- Ninković, S., Olić Ninković, S., Lazarević, T., & Adamov, J. (2021). Serbian teachers' perceptions of online assessment during COVID-19 school closure: The role of teachers' self-efficacy. *Educational Studies*, 1-13.
<https://doi.org/10.1080/03055698.2021.1960151>
- Pane, J. F., Steiner, E. D., Baird, M. D., Hamilton, L. S., & Pane, J. D. (2017). *Informing progress: Insight on personalized learning implementation and effects. Research Report. RR-2042-BMGF*. Rand Corporation. <https://doi.org/10.7249/RR2042>
- Pane, J. F., Steiner, E. D., Baird, M. D., Hamilton, L. S., & Pane, J. D. (2017). *Informing progress: Insight on personalized learning implementation and effects. Research Report. RR-2042-BMGF*. Rand Corporation. <https://doi.org/10.7249/RR2042>
- Petts, R. J., Carlson, D. L., & Pepin, J. R. (2021). A gendered pandemic: Childcare, homeschooling, and parents' employment during COVID-19. *Gender, Work & Organization*, 28, 515-534. <https://doi.org/10.1111/gwao.12614>
- Pillai, S., Siddika, N., Apu, E. H., & Kabir, R. (2020). COVID-19: Situation of European countries so far. *Archives of Medical Research*, 51(7), 723.
<https://doi.org/10.1016/j.arcmed.2020.05.015>
- Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future*, 8(1), 133-141.
<https://doi.org/10.1177/2347631120983481>
- Pollock, K. (2020). School leaders' work during the COVID-19 pandemic: A two-pronged approach. *International Studies in Educational Administration*, 48(3), 38.
<https://ir.lib.uwo.ca/edupub/268/>

- Prem, K., Y. Liu, T. W. Russell, A. J. Kucharski, R. M. Eggo, N. Davies, S. Flasche, S. Clifford, C. A.B. Pearson, J. D. Munday, S. Abbott, H. Gibbs, A. Rosello, B. J. Quilty, T. Jombart, F. Sun, C. Diamond, A. Gimma, K. van Zandvoort, S. Funk, C. I. Jarvis, W. J. Edmunds, N. I. Bosse, J. Hellewell, M. Jit and P. Klepac. (2020). The effect of control strategies to reduce social mixing on outcomes of the COVID-19 epidemic in Wuhan, China: A modelling study. *The Lancet Public Health* 5(5): e261–e270. [https://doi.org/10.1016/s2468-2667\(20\)30073-6](https://doi.org/10.1016/s2468-2667(20)30073-6)
- Ramírez-Montoya, M. S., Andrade-Vargas, L., Rivera-Rogel, D., & Portuguez-Castro, M. (2021). Trends for the future of education programs for professional development. *Sustainability*, 13(13), 7244. <https://doi.org/10.3390/su13137244>
- Ramlal, A., Jones, D., & Kingston, K. (2020). Principals' experiences leading strategic planning in high-performing primary schools in Trinidad and Tobago. *Journal of Instructional Pedagogies*, 24. <https://files.eric.ed.gov/fulltext/EJ1263880.pdf>
- Ranjbari, M., Esfandabadi, Z. S., Zanetti, M. C., Scagnelli, S. D., Siebers, P. O., Aghbashlo, M., Peng, W., Quatraro, F., & Tabatabaei, M. (2021). Three pillars of sustainability in the wake of COVID-19: A systematic review and future research agenda for sustainable development. *Journal of Cleaner Production*, 297, 126660. <https://doi.org/10.1016/j.jclepro.2021.126660>
- Rehm, M., Moukarzel, S., Daly, A. J., & Del Fresno, M. (2021). Exploring online social networks of school leaders in times of COVID-19. *British Journal of Educational Technology*, 52(4), 1414-1433. <https://doi.org/10.1111/bjet.13099>
- Resnik, D. B., Elliott, K. C., & Miller, A. K. (2015). A framework for addressing ethical

issues in citizen science. *Environmental Science & Policy*, 54, 475-481.

<https://doi.org/10.1016/j.envsci.2015.05.008>

Rose, J., & Johnson, C. W. (2020). Contextualizing reliability and validity in qualitative research: Toward more rigorous and trustworthy qualitative social science in leisure research. *Journal of Leisure Research*, 51(4), 432-451.

<https://doi.org/10.1080/00222216.2020.1722042>

Rostini, D., Syam, R. Z. A., & Achmad, W. (2022). The significance of principal management on teacher performance and quality of learning. *AL-ISHLAH: Jurnal Pendidikan*, 14(2), 2513-2520. <https://doi.org/10.35445/alishlah.v14i2.1721>

Salas-Rodríguez, F., & Lara, S. (2023). Unpacking collective teacher efficacy in primary schools: Student achievement and professional development. *Educational Research for Policy and Practice*, 22(2), 193-214. <https://doi.org/10.1007/s10671-022-09326-z>

Sari, T., & Nayır, F. (2020). Challenges in distance education during the (Covid-19) pandemic period. *Qualitative Research in Education*, 9(3), 328-360.

<https://doi.org/10.17583/qre.2020.5872>

Schoepf, S., & Klimow, N. (2022). Collective case study: Making qualitative data more impactful. In *Conceptual Analyses of Curriculum Inquiry Methodologies* (pp. 252-266). IGI Global.

<https://doi.org/10.4018/978-1-7998-8848-2.ch012>

Sciannameo, V., Goffi, A., Maffei, G., Gianfreda, R., Pagliari, D. J., Filippini, T.,

Mancuso, P., Giorgi-Rossi, P., Dal Zovo, L. A., Corbari, A., Vinceti, M., &

Berchialla, P. (2022). A deep learning approach for spatio-temporal forecasting of

new cases and new hospital admissions of COVID-19 spread in Reggio Emilia, Northern Italy. *Journal of Biomedical Informatics*, 132, 104132.

<https://doi.org/10.1016/j.jbi.2022.104132>

Shamir-Inbal, T., & Blau, I. (2021). Facilitating emergency remote K-12 teaching in computing-enhanced virtual learning environments during COVID-19 pandemic—blessing or curse? *Journal of Educational Computing Research*, 59(7), 1243-1271. <https://doi.org/10.1177/0735633121992781>

Sharifi, A., Ahmadi, M., & Ala, A. (2021). The impact of artificial intelligence and digital style on industry and energy post-COVID-19 pandemic. *Environmental Science and Pollution Research*, 28(34), 46964-46984.

<https://doi.org/10.1007/s11356-021-15292-5>

Sharp, C., Nelson, J., Lucas, M., Julius, J., McCrone, T., & Sims, D. (2020). *Schools' Responses to COVID-19: The challenges facing schools and pupils in September 2020*. National Foundation for Educational Research.

<https://eric.ed.gov/?id=ED608738>

Shipman, K., Burrell, D. N., & Huff Mac Pherson, A. (2023). An organizational analysis of how managers must understand the mental health impact of teleworking during COVID-19 on employees. *International Journal of Organizational Analysis*,

31(4), 1081–1104. <https://doi.org/10.1108/IJOA-03-2021-2685>

Silva-Quiroz, J., & Morales-Morgado, E. M. (2022). Assessing digital competence and its relationship with the socioeconomic level of Chilean university students.

International Journal of Educational Technology in Higher Education, 19(1), 46.

<https://doi.org/10.1186/s41239-022-00346-6>

- Simamora, R. M. (2020). The challenges of online learning during the COVID-19 pandemic: An essay analysis of performing arts education students. *Studies in Learning and Teaching*, 1(2), 86-103. <https://doi.org/10.46627/silet.v1i2.38>
- Sin, D. Y. E., Chew, T. C. T., Chia, T. K., Ser, J. S., Sayampanathan, A., & Koh, G. C. H. (2019). Evaluation of constructing care collaboration-nurturing empathy and peer-to-peer learning in medical students who participate in voluntary structured service learning programmes for migrant workers. *BMC Medical Education*, 19(1), 1-13. <https://doi.org/10.1186/s12909-019-1740-6>
- Sintema, E. J. (2020). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(7), em1851. <https://doi.org/10.29333/ejmste/7893>
- Smith, J., Braithwaite, J., O'Brien, T. A., Smith, S., Tyrrell, V. J., Mould, E. V., Long, J. C., & Rapport, F. (2022). Re-imagining the data collection and analysis research process by proposing a rapid qualitative data collection and analytic roadmap applied to the dynamic context of precision medicine. *International Journal of Qualitative Methods*, 21, 16094069221103097. <https://doi.org/10.1177/16094069221103097>
- Spillane, J. (2006). *Distributed Leadership*. Josey-Bass. <https://dx.doi.org/10.1080/00131720508984678>
- Spyropoulou, E., & Koutroukis, T. (2021). Managing open school units amid COVID-19 pandemic through the experiences of Greek principals. Implications for current

and future policies in public education. *Administrative Sciences*, 11(3), 70.

<https://doi.org/10.3390/admsci11030070>

Stevanović, A., Božić, R., & Radović, S. (2021). Higher education students' experiences and opinion about distance learning during the Covid-19 pandemic. *Journal of Computer Assisted Learning*, 37(6), 1682-1693.

<https://doi.org/10.1111/jcal.12613>

Styers, M. L., Van Zandt, P. A., & Hayden, K. L. (2018). Active learning in flipped life science courses promotes development of critical thinking skills. *CBE—Life Sciences Education*, 17(3), ar39. <https://doi.org/10.1187/cbe.16-11-0332>

Susanto, H., Fang Yie, L., Mohiddin, F., Rahman Setiawan, A. A., Haghi, P. K., & Setiana, D. (2021). Revealing social media phenomenon in time of COVID-19 pandemic for boosting start-up businesses through digital ecosystem. *Applied System Innovation*, 4(1), 6. <https://doi.org/10.3390/asi4010006>

Tan, W. (2021). School closures were over-weighted against mitigating COVID-19 transmission: A literature review on the impact of school closures in the United States. *Medicine*, 100(30). <https://doi.org/10.1097/MD.00000000000026709>

Title I, Part A. (n.d.). Maryland State Department of Education.

<https://marylandpublicschools.org/about/Pages/DSFSS/TitleI/index.aspx>

Usman, Y. D., & Madudili, C. G. (2019). *Evaluation of the effect of learning environment on students' academic performance in Nigeria*. Online Submission.

<https://files.eric.ed.gov/fulltext/ED602097.pdf>

Vieira, C. M., Franco, O. H., Restrepo, C. G., & Abel, T. (2020). COVID-19: The

forgotten priorities of the pandemic. *Maturitas*, 136, 38-41.

<https://doi.org/10.1016/j.maturitas.2020.04.004>

Walsh, C., Tannehill, D., & MacPhail, A. (2022). The perceived needs of teacher educators as they strive to implement curriculum change. *Curriculum Studies in Health and Physical Education*, 13(2), 156–169.

<https://doi.org/10.1080/25742981.2022.2032778>

Wa-Mbaleka, S. (2019, October). The researcher as an instrument. *In World Conference on Qualitative Research* (pp. 33-41). Springer, Cham.

https://doi.org/10.1007/978-3-030-31787-4_3

Whitley, J., Beauchamp, M. H., & Brown, C. (2021). The impact of COVID-19 on the learning and achievement of vulnerable Canadian children and youth. *Facets*,

6(1), 1693-1713. <https://doi.org/10.1139/facets-2021-0096>

Worthy, L. D., Lavigne, T., & Romero, F. (2020). *Socioeconomic status (SES)*.

Open.maricopa.edu.

<https://open.maricopa.edu/culturepsychology/chapter/socioeconomic-status-ses/>

Xu, X., Tan, Y., & Feng, C. (2022). Knowledge structure of emergy theory in the field of eco-compensation research: A grounded theory approach. In *Natural Resources*

Forum. Blackwell Publishing Ltd. <https://doi.org/10.1111/1477-8947.12261>

Yaman, N., & Muhlis, M. (2020). Students' social presence and perceived learning toward CCU course in online classroom (An evaluating of learning process during pandemic coronavirus). *English and Literature Journal*, 7(1), 61-73.

<https://doi.org/10.24252/elite.v7i1a6>

- Yang, Q. F., Lin, C. J., & Hwang, G. J. (2021). Research focuses and findings of flipping mathematics classes: A review of journal publications based on the technology-enhanced learning model. *Interactive Learning Environments*, 29(6), 905-938. <https://doi.org/10.1080/10494820.2019.1637351>
- Yin, R. K. (2018). *Case study research and applications: Design and methods*. Sage Books.
- Yulianti, H., Prestiadi, D., & Imron, A. (2021, November). Implementation of academic supervision in improving teachers teaching performance in the Covid-19 pandemic era at elementary school. In *7th International Conference on Education and Technology (ICET 2021)* (pp. 85-90). Atlantis Press.
- Zaccoletti, S., Camacho, A., Correia, N., Aguiar, C., Mason, L., Alves, R. A., & Daniel, J. R. (2020). Parents' perceptions of student academic motivation during the COVID-19 lockdown: A cross-country comparison. *Frontiers in Psychology*, 11, 592670. <https://doi.org/10.3389/fpsyg.2020.592670>
- Zarestky, J. (2023). Navigating multiple approaches to qualitative research in HRD. *Human Resource Development Review*, 22(1), 126–138. <https://doi.org/10.1177/15344843221142106>
- Zeng, M., Wang, D. Y., Mullol, J., & Liu, Z. (2021). Chemosensory dysfunction in patients with COVID-19: What do we learn from the global outbreak? *Current Allergy and Asthma Reports*, 21(2), 1-8. <https://link.springer.com/article/10.1007/s11882-020-00987-5>
- Zhai, Y., & Du, X. (2020). Addressing collegiate mental health amid COVID-19

pandemic. *Psychiatry Research*, 288, 113003.

<https://doi.org/10.1016/j.psychres.2020.113003>

Zierer, K. (2021). Effects of pandemic-related school closures on pupils' performance and learning in selected countries: A rapid review. *Education Sciences*, 11(6), 252. MDPI AG. <http://dx.doi.org/10.3390/educsci11060252>