Midwest Journal of Education

Volume 1 | Issue 1 Article 7

2024

The Impact of COVID-19 on Struggling Readers: Then and Now

Laurie Fine
Republic R-III Schools, laurie.fine@republicschools.org

Recommended Citation:
Fine, L. (2024). The impact of COVID-19 on struggling readers: Then and now. *Midwest Journal of Education, 1*(1). DOI: https://doi.org/10.69670/mje.1.1.7

Empirical Research

The Impact of COVID-19 On Struggling Readers: Then and Now

Midwest Journal of Education
67-84
Volume 1, Issue 1, 2024
DOI: https://doi.org/10.69670/mje.1.1.7
https://www.williamwoods.edu/academics/mje

Laurie Fine

Abstract

This longitudinal study followed a cohort of students over four years to determine the effects of the COVID-19 pandemic on young readers (Fine, 2023). The goal of the study was to identify specific areas of learning loss around reading during the pandemic and uncover teacher and administrator perceptions of necessary interventions to mitigate any learning losses. Through school district data, teacher surveys, and interviews with reading specialists and administrators, data was collected and examined. Existing school district data came from three different student assessments: the Fountas and Pinnell Benchmark Assessment, the STAR Reading Assessment, and the state achievement test. The results showed significantly lower scores for Title 1 students across all assessments in comparison to grade-level peers. Lessons learned included: educators needed to intentionally identify and address the learning losses of students most impacted by the suspension of face-to-face instruction in Spring 2020; maintaining high standards for learning while addressing learning losses are essential; structured interventions must be created to target key skills missed during the pandemic; and school districts need to continue to monitor student progress over the years to come and continue to fill the remaining learning gaps.

Keywords

COVID-19 learning loss; Title 1 students; structured interventions

Corresponding Author:
Laurie Fine, Reading Interventionist, Republic R-III Schools, 4618 West Nottingham, Battlefield, MO 65619, USA
Email: laurie.fine@republicschools.org

Introduction

Education was one of the systems hit hardest by closures and health protocols during the COVID-19 pandemic. Teachers had to quickly adapt to teaching online during school closures, and families learned to accommodate children doing lessons from home while parents continued to manage work responsibilities (Bharaj & Singh, 2021). Despite the best efforts of teachers and families, the COVID-19 pandemic was unlike anything the education system had experienced or was prepared to face. Many teachers greatly reduced the assignments given to students while working virtually compared to their in-person instruction (Hamilton et al., 2020). Since students experienced a decline in rigorous, continuous schoolwork, they experienced greater learning loss than the usual "summer slide." Kuhfeld and Tarasawa (2020) termed the learning loss as the "COVID-19 slide" (p. 2).

Gaps in learning created by the COVID-19 pandemic were addressed by educators upon return to seated instruction (Engzell et al., 2021). Unfortunately, younger students missed a significant portion of their foundational years of learning to read during the school shutdowns (Hammerstein et al., 2021). Students of all ages returned with learning gaps because of inconsistent instruction and still needed to learn the new curriculum for their grade level (Dorn et al., 2020). Fragile reading skills and the lack of additional support outside the classroom during school closures resulted in the concern of greater long-term effects for struggling readers than their grade-level peers (Ludewig et al., 2022). To help those students mitigate reading losses upon return to seated instruction, learning losses had to be identified and addressed.

The school district in this study was closed for Spring Break the week of March 16-20, 2020. Students and staff did not return to in-person learning for the remainder of the school year, resulting in 43 days of school closure. The school district reopened in Fall 2020 with full-time, in-person instruction. Quarantine protocols were implemented for the next two years resulting in a significant amount of student absences. The total number of student absences across the district per semester were as follows: Fall 2020–22,045; Spring 2021–4,374; Fall 2021–4,427; Spring 2022–8,487. During these quarantine-related absences, students could utilize online instruction to continue learning.

Theoretical Framework

While the learning loss resulting from the COVID-19 pandemic is a significant concern, more than the education of children was affected. Maslow's Hierarchy of Needs is a motivational theory in psychology that contends for learning to occur, basic human needs must be met (Maslow, 1943). Basic physiological and safety needs were unmet for many students during the pandemic. Food shortages were a problem for many families, and students' sense of safety was undermined by constant fear of sickness (Basic Needs and COVID-19, n.d.). Needs of belonging were unmet as students were isolated at home (Wanberg et al., 2020). As a result, students exhibited elevated levels of stress and anxiety during the pandemic and when they returned to in-person learning (Naff et al., 2022). Behavioral issues surfaced upon return to in-person learning for some students struggling to function with a large group of people after being home for an extended period (Shen-Berro, 2023). Educators realized immediately that getting students back into seated classrooms,

alone, would not eliminate the damage done during the pandemic school closures (Bailey et al., 2021). Research showed some groups were more significantly impacted than others,

> When looking at the overall effect of COVID-19 on the student population, even within a single school district, certain groups of students were affected more severely than others. Various factors, including race, socioeconomic status, and home life, informed just how much each student's learning declined. (Pender, 2022, para. 1)

Review of Literature

In-person learning was interrupted for students in March 2020. Most school systems were unprepared to handle the shift to online learning necessary to keep students and their families safe during the Covid-19 pandemic. Teachers had to adapt their lessons to a whole group, online format in a short amount of time. Challenges in access to the internet and technology devices for all students quickly manifested. During this time students experienced changes in sleep patterns and a lack of social interaction. Families worried about a new disease and the health of family members. The mental health of children and adults was tested. "Educators, parents, and students know firsthand the high cost of this prolonged period of remote learning, from rising rates of depression and anxiety to the loss of student learning" (Dorn et al., 2020, p. 2).

The Covid-19 pandemic left many families in difficult situations including job loss and health threats (Kuhfeld et al., 2020). Remote instruction varied among schools. Some teachers utilized online assignments while others used paper packets (The Online Learning Equity Gap, n.d.). Virtual instruction continued into the fall as some schools remained online, while others utilized a hybrid format or returned to in-person classes (Bailey et al., 2021; Pressley, 2021). Families did their best to support their learners while at home, but for some, that proved challenging (Cachón-Zagalaz et al., 2020). Some parents continued working on the job site, while others tried to work from home while supporting their children's online learning (López-Escribano et al., 2021).

Student engagement during online learning was hard to quantify (Bailey et al., 2021). Many students did not have access to devices or the internet (Goudeau et al., 2021). Some students were having trouble staying focused on their online learning, especially in families with minimal adult support (Read et al., 2022). Student achievement dropped in reading and math during school closures (Hammerstein et al., 2021). Younger students who missed foundational skills suffered more than older students (Tomasik et al., 2021). Students from low SES or minority families struggled more than high SES students (Bailey et al., 2021). For ELL students, learning was difficult. Many of their parents could not understand the directions of assignments and how to set up a hotspot, if needed (Soria et al., 2020). Special needs students did not receive the services they were accustomed to at school, as the same resources were not readily available in their homes (Dunn et al., 2022; Karasel et al., 2020). Struggling readers fell further behind than their peers, as they were not able to receive small group instruction from their classroom teacher or from a reading specialist for support (Betkowski, 2020). The experiences of students during the pandemic varied greatly, but all possibly suffered learning loss from the time out of school (Diliberti & Kaufman, 2020).

Methods

This mixed methods study examined longitudinal student reading data, teacher perceptual survey data, and reading specialists and administrators' perceptions of student learning loss through interviews conducted in the case study district. The study closely examined struggling readers in comparison to their grade-level peers by following a cohort of students over four years to determine the effects of the COVID-19 pandemic on young learners (Fine, 2023). The goal of the study was to identify specific areas of learning loss in reading during the pandemic and uncover teacher and administrator perceptions of necessary interventions to mitigate any learning losses.

Through school district data, teacher surveys, and interviews with reading specialists and administrators, data was collected and examined. Existing school district data came from three student assessments: the Fountas and Pinnell Benchmark Assessment, the STAR Reading Assessment, and the state achievement test. Four years of data from these assessments was analyzed starting with the 2018-2019 school year. Additional data was collected from teachers via a survey regarding their perceptions of the damage done to young learners during the COVID-19 pandemic. The survey included Likert scale statements and open-ended responses. The Likert scale included five response options, one being "neutral". The neutral response choice was included for statements that asked teachers for information they did not have an answer for regarding students in their classrooms. The students targeted for this study missed regular instruction from their teacher during school closures and quarantine situations.

Data was analyzed for common themes. Information was coded and categorized from surveys and interviews to compare with numerical data from assessments. Learning loss was determined by comparing scores from Title I and non-Title I groups of students and grade level expectations.

Findings

While teachers quickly adjusted to offering instruction electronically, parents adjusted to support student learning from home (Soria et al., 2020). However, teachers surveyed during this study indicated support from home and teacher perceptions of their ability to provide online instruction during school closures were low. Figure 1 demonstrates responses from the following statement on the teacher survey, "Students in my classroom had family support with learning at home during the pandemic" (Fine, 2023).

Figure 2 expresses results from the teacher survey regarding the statement, "I felt knowledgeable and equipped to provide online learning to my students during the pandemic" (Fine, 2023).

Figure 1

Teacher Perceptions of Family Support with Learning at Home

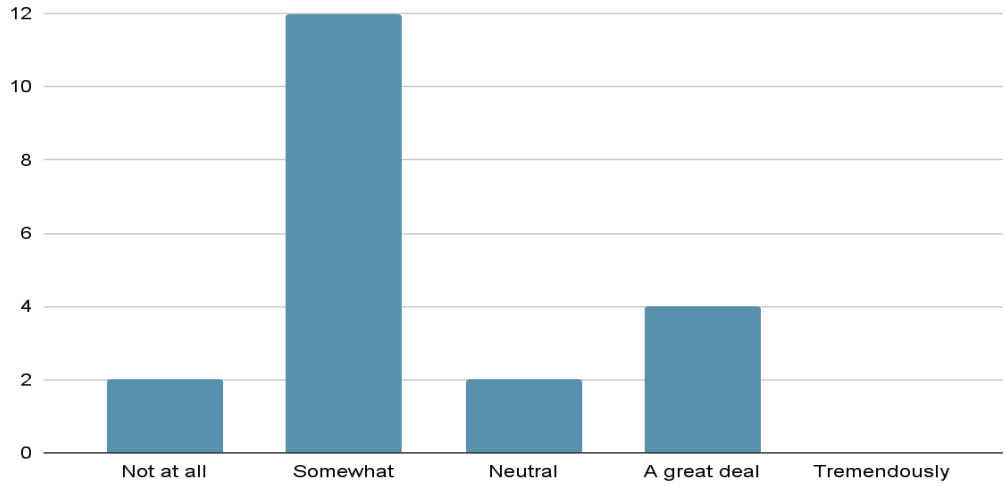
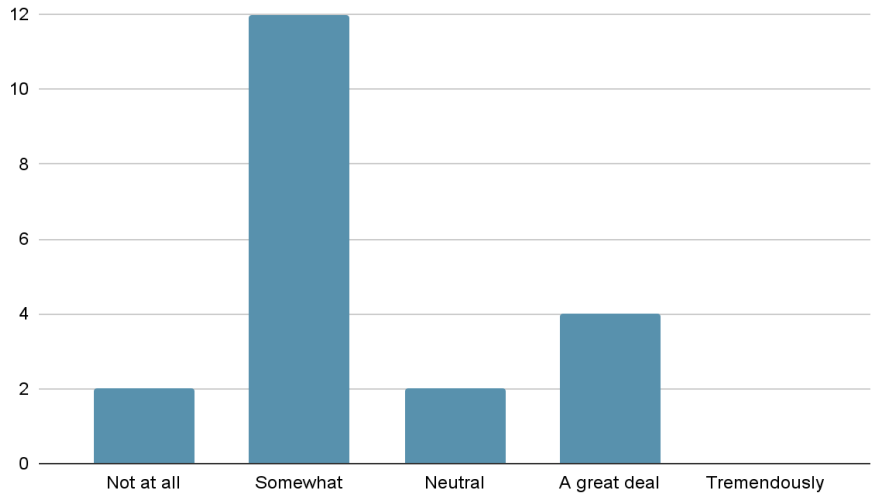


Figure 2

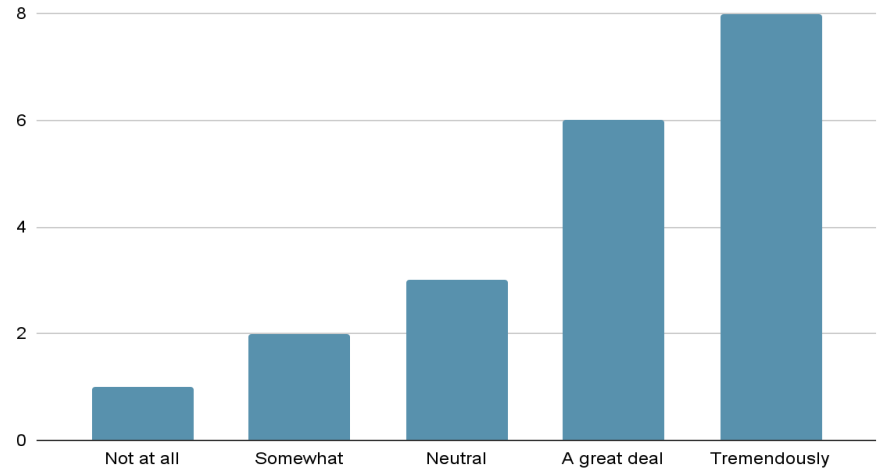
Teacher Perceptions of Level of Confidence for Online Instruction



Low parent support and teacher competence for online instruction during school closures indicates that students did not receive the quality of instruction they were accustomed to pre-pandemic. It is no surprise that student learning suffered. Students missed instructional support from reading specialists during closures, had inconsistent levels of parent support at home during school closures and quarantines, and were reading below grade level upon return to consistent, seated instruction. A measure of how much pull-out instruction students missed due to the measures adopted to stop the spread of COVID-19 including school closure and quarantine was requested. Figure 3 illustrates the teachers' perceptions regarding the statement, "My struggling readers missed pull-out instructional support from a reading specialist during the pandemic" (Fine, 2023).

Figure 3

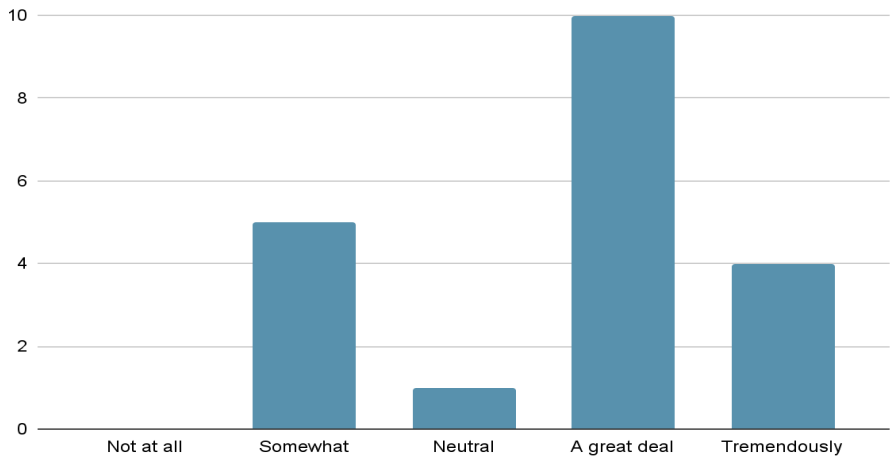
Teacher Perceptions of the Degree of Pull-Out Support Instruction Missed



Many students struggled to meet grade-level expectations upon return to regular, seated instruction and have required intervention for multiple years since the pandemic to be on grade level. Figure 4 illustrates teacher perceptions regarding the statement, "My struggling readers were significantly below grade level at the end of the year" (Fine, 2023).

Figure 4

Teacher Perceptions of Degree to Which Students Struggled to Meet Grade-Level Expectations in Reading



Students in kindergarten through second grade in the spring of 2020, English language learners, and students from low socioeconomic families were impacted the most by school closures and virtual learning. Kindergarten and first-grade students missed crucial foundational reading

instruction during closures and quarantines. Second-grade students' reading fluency was greatly affected. Many low-income students had unreliable access to a computer or the Internet and suffered from food shortages (Bailey et al., 2021; Bao et al., 2020; Kuhfeld et al., 2020). Across grade levels, low-income students showed greater learning loss than higher-income students (Hough, 2021). Students who are learning English and/or speak a language other than English at home showed higher levels of learning loss than grade-level peers. The parents of ELL students had difficulty understanding what was expected during school closures and often did not participate. Some students had not spoken English for several months upon return to in-person classes and needed time to reacquaint themselves with the language. Table 1 demonstrates the areas of reading where students experienced learning loss as indicated by teacher surveys.

Table 1

Reading Skills Students Were Lacking Upon Return to In-Person Classes

Skills Students Were Lacking			
Learning to Read	Teacher Responses	Reading to Learn	Teacher Responses
Decoding	11	Stamina	9
Fluency	10	Comprehension	6
Phonics	5	Inferencing	4
Phonemic awareness	2	Confidence	2
Strategies	2	Vocabulary	2
Foundation of reading process	1	Expression	1
Growth in reading level	1	Close reading	1
How to hold a book	1	Summarizing	1
Phonological awareness	1	Using evidence to support reading	1
Sight word knowledge	1		
Word attack skills	1		

Behavior concerns were also evident. One administrator interviewed shared, "I think what's been hurt is kids' willingness and motivation to learn. It's getting tougher and tougher for teachers to keep kids engaged." Study participants also expressed that students want to be entertained and that work ethic and effort are lacking. Teachers surveyed expressed that students lacked the stamina to do work and developed skills at a slower pace than pre-COVID. Some students, post-COVID, are

acting out more often and showing stress with handling the school setting and schoolwork. Shen-Berro (2023) explained the issue is not solely that students who had behavior problems pre-COVID and have accelerated issues now, but it is that teachers are administrators are struggling to help a greater number of students experiencing challenges overall.

Vygotsky (1978) describes the mental development of children in the Zone of Proximal Development (ZPD) as being "in a state of formation, …just beginning to mature and develop" (p.87). The ZPD describes a window of time and not just a moment. Children have a span of time to develop skills under the leadership of a more knowledgeable other. School closures paused the in-person work of a more knowledgeable other, but that two-month window of time was not so long that students were beyond the ZPD. Vygotsky suggested that learning happens in stages over time, but that cognitive development is a social process where children learn from adults (McLeod, 2022).With structured and purposeful support put in place immediately upon return to in-person instruction, students developed skills missed during the spring of 2020. Educators surveyed and interviewed during my study all spoke of systems in place to help students upon return to seated instruction. The top survey responses included focused small-group instruction in the classroom, support from Title I teachers, phonics instruction, and tutoring before and after school. Table 2 demonstrates the frequency of top survey responses from study participants regarding the strategies put into place to remediate learning loss.

Table 2

Response Frequence Regarding Most-Used Strategies to Remediate Learning Loss

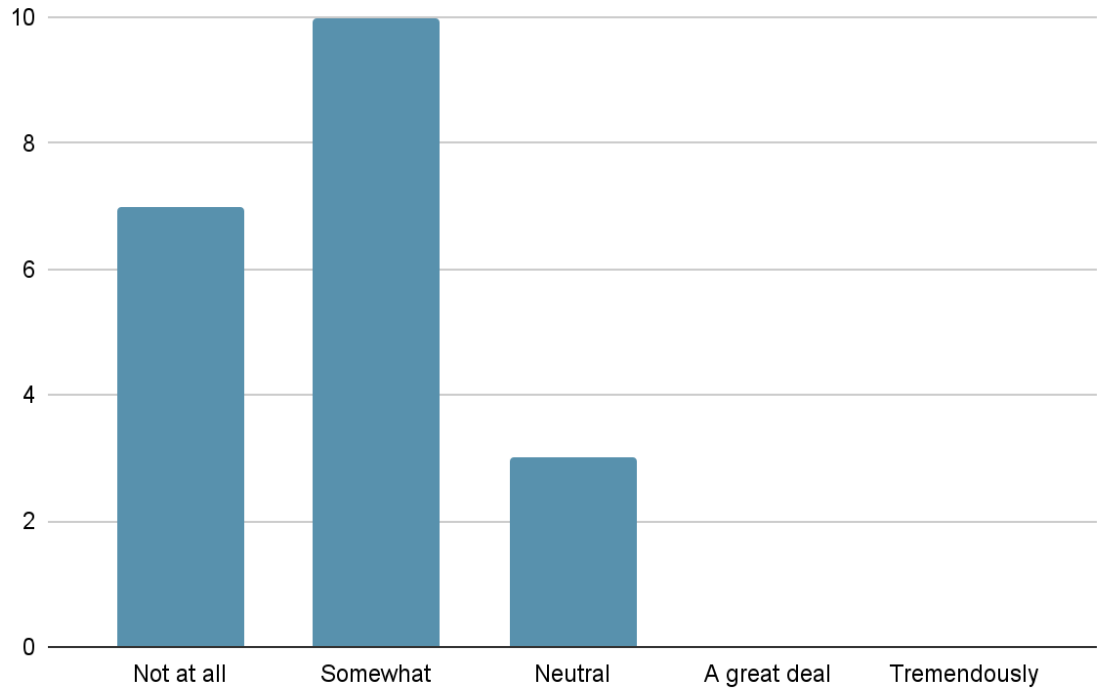
Category	Frequency of Response
Small Group Instruction	16
Phonics Instruction	6
Title Groups	6
Tutoring	5
One-on-One Instruction	3

Administrator interview participants discussed Response to Intervention (RTI) cycles created to address learning losses caused by school closures in Spring 2020. RTI cycles were created to cover standards not taught, with a focus on priority standards. These cycles, along with ongoing informal assessments from teachers, helped to identify gaps as the school year progressed. For students who struggled with learning before the pandemic, it was crucial to identify losses and support learning quickly. Dunn et al. (2022) noted, "Among the teacher-related factors, only differentiation of instruction played an important role in at-risk children's reading skills" (p.15). The focused support provided during small groups, RTI cycles, and tutoring was crucial to student success. The amount of work completed by struggling readers compared to their non-struggling peers during the COVID-19 school shutdown and periods of quarantine was worth noting.

Figure 5 illustrates teacher perceptions regarding the statement, "My struggling readers completed work at an equal rate to their classroom peers during the pandemic" (Fine, 2023).

Figure 5

Perceived Level of Work Completion by Struggling Readers Compared to Peers During School Shutdowns and Quarantine



The responsibility of educators is to ensure they have done all they can for students to be successful. After the pandemic, the feeling of being overwhelmed and exhausted was evident from educator colleagues (Pressley, 2021). New content needed to be taught and gaps needed to be filled within a shorter-than-intended period. Bharaj and Singh (2021) explained the overwhelming task faced by school personnel upon the return to in-person learning: "Educational stakeholders could not have anticipated a crisis of this magnitude and had very little time to develop strategies for dealing with it" (p. 2).

The challenges faced by the teacher participants of the school district targeted in the study are illustrated in Tables 3, 4, 5, and 6. Table 3 illustrates the low level of proficiency of students in achieving the state learning standards upon their return to in-person learning.

Table 3

Descriptors for Learning Standards with Low Levels of Proficiency on State Achievement Test

Standard	Descriptor	% of students scoring less than 60%
4.R.1.A.a*	Drawing conclusions and inferring by referencing textual evidence of what the text says explicitly as well as inferences drawn from the text.	56
4.R.1.C.b	Text to world (text ideas and the world by demonstrating an awareness that literature reflects a culture and historic time frame)	59
4.R.3.A.a*	Use multiple text features to locate information and gain an overview of the contents of text	63
4.R.3.B.b*	Analyze, make inferences, and draw conclusions about persuasive text and use evidence from the text to explain the author's purpose and support the analysis	78
4.R.3.C.a	Distinguish fact from opinion in a text and explain how to verify what is a fact	57
4.R.3.C.b*	Explain explicit and implicit relationships among ideas in texts	68
4.W.1.C.a*	Develop and strengthen writing by revising: • main idea • sequence (ideas) • focus • beginning/middle/end • details/facts (from multiple sources, when appropriate) • word choice (related to the topic) • sentence structure • transitions • audience/purpose • voice	51
4.W.2.A*	Write opinion texts	81

Note. * denotes a priority standard.

For this study, the classroom teacher administered Fountas and Pinnell Benchmark text level scores were examined for the cohort of struggling students over five years. The findings,

illustrated by Table 4, suggest the overall text level of Title I students is significantly lower than the overall text level of their grade-level peers. When comparing the text levels of Title I students to their grade-level peers, all five years showed statistically significant differences.

Table 4

Cohort Group Statistics for Fountas and Pinnell Benchmark Assessment

	Group	Number	Mean	Mean Average	Mean Difference	Standard Deviation	*t*	*df*	*p*
F & P 2018-2019 1st grade	Title I	82	15.536	17.221	-3.370	4.243	-6.302	327	.000
	Non-Title I	247	18.906			4.180			
F & P 2019-2020 2nd grade	Title I	77	18.675	20.188	-3.027	3.722	-6.897	317	.000
	Non-Title I	242	21.702			3.230			
F & P 2020-2021 3rd grade	Title I	65	23.476	24.718	-2.482	4.172	-4.908	285	.000
	Non-Title I	222	25.959			3.398			
F & P 2021-2022 4th grade	Title I	69	25.768	26.715	-1.895	4.037	-4.166	290	.000
	Non-Title I	223	27.663			3.043			
F & P 2022-2023 5th grade	Title I	61	28.623	29.796	-2.347	3.587	-4.815	263	.000
	Non-Title I	204	30.970			3.264			

STAR Reading assessment data for the cohort of students were examined over four years. This assessment is taken on the computer in class or the computer lab. This data suggests a similarity in findings to the Fountas and Pinnell Benchmark assessment. Data illustrated in Table 5 illustrates a significant difference in the reading level of Title I and non-Title I students.

Table 5

Group Statistics for STAR Reading Assessment

	Group	Number	Mean	Mean Average	Mean Difference	Standard Deviation	*t*	*df*	*p*
STAR 2019-2020 2nd grade	Title I	81	166.246	254.392	-176.290	102.515	-9.778	330	.000
	Non-Title I	251	342.537			151.261			
STAR 2020-2021 3rd grade	Title I	65	295.230	387.450	-184.438	153.339	-7.880	281	.000
	Non-Title I	218	479.669			169.065			
STAR 2021-2022 4th grade	Title I	69	370.376	469.147	-197.542	166.168	-7.208	289	.000
	Non-Title I	222	567.918			207.856			
STAR 2022-2023 5th grade	Title I	61	425.262	533.875	-217.225	178.651	-6.553	262	.000
	Non-Title I	203	642.487			239.503			

State achievement test results were available from the target district for the 2021-2022 school year, when the students followed in this study were in fourth grade. The data in Table 6 shows a difference of importance in the achievement of Title I and Non-Title I students. Table 7 presents differences on the state achievement test by individual standards.

Table 6

Group Statistics for State Achievement Test

	Group	Number	Mean	Mean Average	Mean Difference	Standard Deviation	*t*	*df*	*p*
State Test 2021-2022 4th grade	Title I	69	52.639	60.581	-15.883	15.647	-7.062	287	.000
	Non-Title I	220	68.523			16.499			

Table 7

Group Statistics Showing Significance by Standard on the State Achievement Test, 2021-2022, fourth grade

Standard	Mean Average Of Title I and non-Title I students	Mean Difference Of Title I and non-Title I students	*p*
4.R.2.A.a*	62.733	-32.714	0.000
4.R.3.B.c*	51.198	-21.238	0.002
4.R.1.C.b	41.872	-18.527	0.004
4.R.2.A.c*	72.793	-18.050	0.002
4.R.3.A.a*	46.681	-18.000	0.002
4.SL.1.A.b*	65.458	-17.872	0.000
4.R.3.C.a	37.901	-17.832	0.009
4.L.1*	84.272	-17.819	0.000
4.L.1.A.d	84.272	-17.819	0.000
4.R.1.A.b*	84.272	-17.819	0.000
4.W.3.A.b	84.272	-17.819	0.000
4.SL.1.A*	72.193	-17.430	0.000
4.R.1.A.a*	56.526	-17.401	0.001
4.R.2.A.e*	56.413	-17.173	0.011
4.R.1.B.d*	73.063	-15.691	0.007
4.R.1.B.b*	70.839	-15.592	0.001
4.R.3.C.b*	55.049	-14.446	0.001
4.W.2.A*	43.433	-14.041	0.000
4.W.3.A.c*	69.486	-13.754	0.000
4.W.1.C.a*	64.667	-13.392	0.006

Note. * denotes a priority standard.

Text level averages were compared from students in the listed grade levels from the 2018-2019 school year to the group of students in the study as they reached the same grade level. The post-COVID data follows the study's cohort of students as they progressed throughout the grade levels

and sheds light on the achievement of one cohort of students over time after experiencing the COVID-19 pandemic. Table 8 provides scores for the cohort of students in the study compared to students in those same grades pre-Covid.

Table 8

Pre-Covid and Post-Covid Text Level Comparisons

	Group	Number	Mean	Mean Average	Mean Difference	Standard Deviation	*t*	*df*	*p*
Second Grade	Pre-Covid 2018-19	313	22.440	21.706	1.469	4.499	4.540	630	.000
	Post-Covid 2019-20	319	20.971			3.591			
Third Grade	Pre-Covid 2018-19	328	25.317	25.351	-0.068	3.843	-0.224	611	.823
	Post-Covid 2020-21	285	25.386			3.738			
Fourth Grade	Pre-Covid 2018-19	340	27.429	27.322	0.213	2.378	0.926	630	.355
	Post-Covid 2021-22	292	27.215			3.394			
Fifth Grade	Pre-Covid 2019-19	270	29.933	30.181	-0.496	4.049	-1.521	533	.129
	Post-Covid 2022-23	265	30.430			3.478			

Discussion and Implications

Four implications for future student success became evident throughout the study. Educators needed to intentionally identify and address the learning losses of students most impacted by COVID-19 school closures. Maintaining high standards for learning while addressing learning losses due to the pandemic is essential. Structured interventions must be created to target key skills missed during the pandemic. School districts need to continue to monitor student progress over the years to come and continue to fill the remaining learning gaps.

To be prepared for virtual learning, it is recommended that school districts ensure resource availability for hotspots and Wi-Fi access to low-income families so that students can complete learning at home if needed. At home communication in the native languages of students in the district is important. It cannot be assumed that all families speak English at home and can read and

understand school communications. With the resources available online, school districts should try to translate important school information into the languages families speak at home to support student success. Districts should focus on support for parents in how to help their students at home. Parents may not have the same expectations as educators regarding their role in their child's education. Clear and specific communication regarding the role of administrators, teachers, and parents in a child's education before a situation like the COVID-19 pandemic would only help support students at home should such a situation arise again.

School districts should maintain high-level expectations for students despite learning losses sustained during the pandemic. Furthermore, support for teachers and administrators on behavioral concerns regarding lack of work ethic is warranted. Professional development that could support teachers with ways to maintain student engagement in the post-COVID classroom is suggested. The use of positive behavior interventions and supports (PBIS) would be a good resource for teachers. Continuing to offer supports such as RTI cycles on learning standards showing low levels of proficiency, before and after school tutoring for individual students and small groups requiring ongoing interventions, and intentional small groups and Title I reading groups during the school day focusing on areas showing weakness, such as phonics, decoding, fluency, and stamina would be advised.

Setting attendance goals at pre-COVID levels is recommended. It needs to be clear to parents that students are expected to be at school just as before the pandemic. Tracking attendance and celebrating student attendance success is suggested.

Addressing areas of deficiency during intentional RTI cycles, small group instruction, tutoring, and support from Title I reading teachers showed success in this study, and the continuation of those interventions is recommended for all school districts that began similar supports. It is suggested that leaders from school districts look for ways to mitigate the impact of learning losses incurred during the pandemic and the years that have followed by analyzing their data and finding target skills to focus on during RTI cycles moving forward. Specific, intentional instruction based on the needs of individual students for several types of data is what is required. General review of skills or reteaching is not the same. Taking the time to be intentional and specific regarding intervention for student learning loss could be the difference in attaining a level of proficiency or remaining below grade level.

Once gaps have been addressed, educators must continue to monitor student learning for years to come, specifically, the gaps that were created by the pandemic. Looking at how standards addressed through RTI cycles progress in higher grades will be key. It is suggested that educators do this regularly, as the holes in learning for one cohort of students at a grade level may be quite different from the next cohort of students at that grade level. Examining trends in state achievement test data for students who were in grades K-2 during the pandemic as they progress into middle and high school will be necessary. This data could be used to drive their instruction in the reading support class for any of those students who qualify.

The COVID-19 pandemic disrupted the routines of school districts and added responsibilities to families at home for student learning that went beyond previous expectations (Araby et al., 2021). The sudden shift to virtual learning was new for teachers and students alike (Bharaj & Singh,

2021). Efforts were made to continue instruction but online learning during school closures was not comparable to in-person instruction. Gaps in student learning would be addressed upon return to seated instruction.

Data revealed four major themes. Certain student groups were impacted more than others during the pandemic. Young students amid foundational learning, ELL students, and low socioeconomic families were impacted the most. The impact of COVID-19 is still being seen in schools today. Purposeful, structured interventions supported students in mitigating learning losses. Students' ability to use higher-level thinking skills in reading may be impacted by deficiencies in skill/concept level learning that is still below a level of proficiency.

This study examined a small student population from one school district. Continued research with larger student populations would give educators a greater perspective on the impact of the pandemic and trends in data after the return to in-person learning. School districts should analyze the most recently released state achievement test results in addition to district assessments for continued trends in the assessment data for their student population. Areas of low proficiency should be addressed.

With ongoing, data-driven, student-centered interventions, the learning gaps created by COVID-19 can be addressed. The work to address the needs of students created by the COVID-19 pandemic is not what educators before 2020 would have ever anticipated, but by working together in purposeful ways we can help students achieve success!

References

Araby, E. M., Emadeldin, E. M., & Zakaria, H. M. (2021). COVID-19 quarantine measures and its impact on pattern of life of school children. *Egyptian Journal of Hospital Medicine*, *82*(2), 217–224.

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

Bao, X., Qu, H., Zhang, R., & Hogan, T. P. (2020). Modeling reading ability gain in kindergarten children during COVID-19 school closures. *International Journal of Environmental Research and Public Health*, *17*(17), 17. https://doi.org/10.3390/ijerph17176371

Basic Needs and COVID-19. (n.d.). Retrieved February 26, 2023, from https://www.communitycommons.org/collections/Basic-Needs-COVID-19

Betkowski, B. (2020, November 19). *Pandemic putting young readers behind the learning curve, says education expert*. https://www.ualberta.ca/folio/2020/11/pandemic-putting-young-readers-behind-the-learning-curve-says-education-expert.html

Bharaj, P. K., & Singh, A. (2021). "Fold the eggs … fold the eggs … ": Experiences of educational stakeholders during COVID-19. *Frontiers in Education*, *6*, 727494. https://doi.org/10.3389/feduc.2021.727494

Cachón-Zagalaz, J., Sánchez-Zafra, M., Sanabrias-Moreno, D., González-Valero, G., Lara-Sánchez, A. J., & Zagalaz-Sánchez, M. L. (2020). Systematic review of the literature

about the effects of the COVID-19 pandemic on the lives of school children. *Frontiers in Psychology*, *11*. https://www.frontiersin.org/articles/10.3389/fpsyg.2020.569348

Diliberti, M. K., & Kaufman, J. H. (2020). *Will this school year be another casualty of the pandemic?: Key findings from the American educator panels Fall 2020 COVID-19 surveys*. RAND Corporation. https://www.rand.org/pubs/research_reports/RRA168-4.html

Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2020). *COVID-19 and learning loss—Disparities grow and students need help*. McKinsey & Company. https://www.mckinsey.com/industries/public-sector/our-insights/covid-19-and-learning-loss-disparities-grow-and-students-need-help#/

Dunn, K., Georgiou, G. K., Inoue, T., Savage, R., & Parrila, R. (2022). Home and school interventions aided at-risk students' literacy during COVID-19: A longitudinal analysis. *Reading and Writing*. https://doi.org/10.1007/s11145-022-10354-7

Engzell, P., Frey, A., & Verhagen, M. D. (2021). Learning loss due to school closures during the COVID-19 pandemic. *Proceedings of the National Academy of Sciences*, *118*(17), e2022376118. https://doi.org/10.1073/pnas.2022376118

Fine, L.A. (2023). *A mixed methods study investigating the relationship of COVID-19 to reading loss in struggling readers and teacher perceptions of intervention effectiveness*. (Publication No. 30639505) [Doctoral dissertation, Evangel University]. ProQuest Dissertations and Theses Global.

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://doi.org/10.1038/s41562-021-01212-7

Hamilton, L. S., Grant, D., Kaufman, J. H., Diliberti, M. K., Schwartz, H. L., Hunter, G. P., Setodji, C. M., & Young, C. J. (2020). *COVID-19 and the state of k–12 schools: Results and technical documentation from the spring 2020 American educator panels COVID-19 Surveys*. RAND Corporation. https://www.rand.org/pubs/research_reports/RRA168-1.html

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*, *12*. https://www.frontiersin.org/articles/10.3389/fpsyg.2021.746289

Hough, H. J. (2021, April 29). *COVID-19, the educational equity crisis, and the opportunity ahead*. https://www.brookings.edu/blog/brown-center-chalkboard/2021/04/29/covid-19-the-educational-equity-crisis-and-the-opportunity-ahead/

Karasel, N. K., Bastas, M., Altinay, F., Altinay, Z., & Dagli, G. (2020). Distance education for students with special needs in primary schools in the period of COVID-19 epidemic. *Propósitos y Representaciones*, *3*(587). http://dx.doi.org/10.20511/pyr2020.v8n3.587

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. In *NWEA*. NWEA. https://eric.ed.gov/?id=ED609141

López-Escribano, C., Escudero, A., & Pérez-López, R. (2021). An exploratory study about patterns of parental home literacy activities during the COVID-19 confinement among

Spanish families. *Early Education and Development*, *32*(6), 812–829. https://doi.org/10.1080/10409289.2021.1916184

Ludewig, U., Kleinkorres, R., Schaufelberger, R., Schlitter, T., Lorenz, R., König, C., Frey, A., & McElvany, N. (2022). COVID-19 pandemic and student reading achievement: Findings from a school panel study. *Frontiers in Psychology*, *13*, 876485. https://doi.org/10.3389/fpsyg.2022.876485

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, *50*(4), 370–396. https://doi.org/10.1037/h0054346

McLeod, S. (2022). *[Lev Vygotsky's Sociocultural Theory]*. https://www.simplypsychology.org/vygotsky.html

Naff, D., Williams, S., Furman-Darby, J., Yeung, M. (2022). The mental health impacts of COVID-19 on pk-12 students: A systematic review of emerging literature. *AERA Open*, 8(1), 1-40. DOI:https://doi.org/10.1177/23328584221084722

Pender, E. (2022, September 29). Learning loss due to COVID-19: An in-depth look at the challenges facing education and special education. *Frenalytics*. https://www.frenalytics.com/blog/learning-loss-due-to-covid-19-an-in-depth-look-at-the-challenges-facing-education-and-special-education/

Pressley, T. (2021). Returning to teaching during COVID-19: An empirical study on elementary teachers' self-efficacy. *Psychology in the Schools*, *58*(8), 1611–1623. https://doi.org/10.1002/pits.22528

Read, K., Gaffney, G., Chen, A., & Imran, A. (2022). The impact of COVID-19 on families' home literacy practices with young children. *Early Childhood Education Journal*, *50*(8), 1429–1438. https://doi.org/10.1007/s10643-021-01270-6

Shen-Berro, J. (2023, March 7). *Student behavior remains concerning amid COVID's impact, educators say*. Chalkbeat. https://www.chalkbeat.org/2023/3/7/23628032/student-behavior-covid-school-classroom-survey

Soria, K. M., Chirikov, I., & Jones-White, D. (2020). *The obstacles to remote learning for undergraduate, graduate, and professional students*. https://escholarship.org/uc/item/5624p4d7

The Online Learning Equity Gap. (n.d.). New America. Retrieved March 25, 2023, from http://newamerica.org/oti/reports/online-learning-equity-gap/

Tomasik, M. J., Helbling, L. A., & Moser, U. (2021). Educational gains of in-person vs. distance learning in primary and secondary schools: A natural experiment during the COVID-19 pandemic school closures in Switzerland. *International Journal of Psychology*, *56*(4), 566–576.

Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Wanberg, C. R., Csillag, B., Douglass, R. P., Zhou, L., & Pollard, M. S. (2020). Socioeconomic status and well-being during COVID-19: A resource-based examination. *Journal of Applied Psychology*, *105*(12), 1382–1396. https://doi.org/10.1037/apl0000831