



Literacy Instruction in K-3 Classrooms During COVID-19

May 2023

Education Policy Innovation Collaborative

COLLEGE OF EDUCATION | MICHIGAN STATE UNIVERSITY

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ACKNOWLEDGEMENTS

The authors wish to acknowledge the many people who graciously gave of their time in support of this effort. We are especially grateful to our partners for their collaboration and thoughtful feedback.

In particular, we would like to thank Kellie Flamino, Shelley Proebstle, Dr. Delsa Chapman, Dr. Sue Carnell, and Dr. Michael Rice from the Michigan Department of Education. We would also like to thank the Michigan Association of Intermediate School Administrators General Educational Leadership Network Early Literacy Task Force, in particular Susan Townsend and Sean LaRosa, for their collaboration on this project.

At Michigan State University, we thank Emily Mohr and Meg Turner for coordinating and facilitating the project. We also thank Michelle Huhn for her support developing graphics for and formatting the report, and Tara Kilbride and John Westall for their feedback in the initial drafting stages. Finally, we thank Bridgette Redman for her excellent copy-editing.

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MAY 2023

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ABSTRACT

We conducted an instrumental case study to examine literacy instruction in K-3 classrooms in Michigan during the pandemic-impacted 2020-2021 school year. We sought to understand (a) how teachers described their literacy instruction before and during the COVID-19 pandemic; (b) the literacy instructional practices teachers implemented across in-person, virtual, and hybrid modalities; and (c) how teachers' implementation of these practices aligns with research on early grades literacy instruction. Data included 2,330 minutes of classroom video of 25 teachers' literacy instruction, 162 classroom artifacts (e.g., student work samples), and statewide survey responses from 7,811 teachers in spring 2020 and 5,811 teachers in spring 2021. Teachers reported spending an average of one hour less per week on literacy instruction in 2020-2021 as compared to a typical pre-pandemic school year. Despite these reported declines in instructional time, we observed teachers in all modalities implementing literacy instructional practices at comparable rates as they reported prior to the pandemic. However, teachers' implementations of these practices varied widely, with some teachers providing research-aligned literacy instruction while others did not. This range in quality was evident across modalities, including within the group of teachers providing in-person instruction. Results from our study challenge existing theories about instructional time and modality that have been posed to explain the pandemic's negative impacts on elementary students' literacy outcomes.

Literacy Instruction in K-3 Classrooms During COVID-19

UNDERSTANDING K-3 TEACHERS' LITERACY INSTRUCTIONAL PRACTICES DURING THE PANDEMIC-IMPACTED 2020-2021 SCHOOL YEAR

The COVID-19 pandemic deeply affected both the structure and content of K-12 schooling during the 2020-2021 academic year as educators worked to support children's learning while prioritizing health and safety. In particular, much attention has been paid to the pandemic's negative impacts on elementary students' literacy outcomes, and for good reason: average scores for age nine students in reading on the National Assessment of Educational Progress (NAEP) in 2022 declined five points compared to 2020, the largest average score decline in 32 years (NAEP, 2022). Other assessments of literacy achievement also show that students are now scoring below pre-pandemic grade-level norms. For example, students in first and second grade, who have only experienced schooling since the onset of the pandemic, scored between six and seven percentage points lower in reading on the NWEA MAP Growth assessments in 2021-2022 compared to pre-pandemic levels (Kuhfeld & Lewis, 2022). In Michigan, third graders' English Language Arts (ELA) scores on the Michigan Student Test of Educational Progress (M-STEP), the assessment used to gauge how well students are mastering state standards, declined 3.5 percentage points between the spring 2019 and 2022 test administrations (Michigan Department of Education, 2022).

In this article, we present findings from a study examining literacy instruction in K-3 classrooms in Michigan during the pandemic-impacted 2020-2021 school year. To do so, we combine results from statewide surveys of K-3 teachers before and during the 2020-2021 academic year with videos of classroom instruction across a range of in-person, virtual, and hybrid modalities to describe the ways that literacy instruction was enacted during the COVID-19 pandemic. We believe Michigan is a particularly noteworthy case given substantive pre-pandemic efforts to support research-based

early literacy instruction across the state (Strunk et al., 2021, 2022). Specifically, we sought to understand (a) how teachers described their literacy instruction before and during the pandemic-impacted 2020-2021 school year; (b) the literacy instructional practices teachers implemented across modalities; and (c) how teachers' implementation of these practices aligns with research on early grades literacy instruction. We also consider how the amount of instructional time teachers provided and the modalities in which they delivered instruction may have influenced our results.

While there were undeniably large-scale structural changes to schooling, and children are now scoring below pre-pandemic norms on reading outcome measures, we know little about the literacy instruction teachers provided in elementary classrooms impacted by the pandemic, particularly from observations of instruction during this time. In particular, little is known about the types of instructional practices teachers implemented across different modalities and how these practices align with research on early grades literacy instruction. Assumptions in news articles (e.g., Goldstein, 2020; Huffman, 2020; Kessler, 2020) and early reports (e.g., Darling-Aduana et al., 2022; Kuhfeld et al., 2020) suggest that remote and/or hybrid instruction was ineffective and led to negative achievement growth compared to traditional in-person learning. However, it is important to understand more about the literacy instruction children received in remote and hybrid modalities to ensure that future policy and instructional decisions are informed by research rather than conjecture. Furthermore, understanding more about teachers' literacy instructional practices during the pandemic can help educators and policymakers to best support children's literacy development in the aftermath of COVID-19.

Research-Aligned Literacy Instructional Practices

While multiple factors can affect elementary children's literacy development (Connor et al., 2005; Hindman et al., 2010; Piasta et al., 2009), there is considerable evidence that classroom teachers' instructional practices impact student learning (Carlisle et al., 2013; Connor et al., 2007; Connor et al., 2009; Roberts & Meiring, 2006; Xue & Meisels, 2004). Students whose teachers use research-aligned instructional practices in their classrooms have stronger reading skills than students whose teachers do not (e.g., Connor et al., 2013; NICHD, 2000; Pianta et al., 2007). As a result, scholars have worked to summarize instructional practices that can boost children's literacy achievement to enable teachers to more easily implement research-aligned instruction (e.g., Foorman et al., 2006; Graham et al., 2012; National Reading Panel, 2000; Shanahan et al., 2010). In this study, we examine research-aligned literacy instruction broadly (e.g., do teachers engage students in read alouds?) and at a more fine-grained level (e.g., when teachers engage in read alouds, do they promote higher order discussion before, during, and after reading?) to describe the literacy instruction children received during the pandemic-impacted 2020-2021 school year and how this instruction might have differed across modalities.

The literacy instructional practices we examine are based on the *Essential Instructional Practices in Early Literacy: Grades K-3* (MAISA ELTF, 2016). In Michigan, stakeholders created and began to disseminate the *Essential Practices* in 2016 as a guide for teachers to enact research-aligned practices that have been shown to improve literacy outcomes for students. State-funded literacy coaches were trained to support teachers in enacting these instructional practices, and the state financed the creation of online modules and training videos to support professional development. Less than four years into this statewide effort, the pandemic interrupted schooling.

The *Essential Practices* are ten research-supported instructional practices that previous experimental or quasi-experimental studies have shown to demonstrate a measurable positive difference in children's literacy achievement. The focus of the *Essential Practices* is on Tier 1 classroom instruction. We examined eight of the instructional focus areas outlined in the document. We did not include the other two focus areas (i.e., observation and assessment; collaboration with families) because we could not fully evaluate these practices using our data collection methods (e.g., we were unable to determine whether teachers' assessment practices were guided by their understanding of children's literacy development). Specifically, we examined teachers' literacy instructional practices in the following areas:

- “deliberate, research-informed efforts to foster **literacy motivation and engagement** within and across lessons” (MAISA ELTF, 2016, p.2), such as providing daily opportunities for children to make choices in their reading and writing; offering regular opportunities to collaborate with peers; and establishing purposes to read and write (Guthrie et al., 2007; Marinak & Gambrell, 2008; Shanahan et al., 2010)
- “**read alouds** of age-appropriate books and other materials, print or digital” (MAISA ELTF, 2016, p.3), which include providing child-friendly explanations of words; higher-order discussion among children and teacher before, during, and after reading; and instructional strategies, such as developing print concepts or building knowledge of text features (Baker et al., 2013; Biemiller & Boote, 2006; Silverman, 2007)
- “**small group and individual instruction**, using a variety of grouping strategies, most often with flexible groups formed and instruction targeted to children's observed and assessed needs” (MAISA ELTF, 2016, p.3), which includes coaching children as they read and write; employing practices for developing reading fluency; and explicit instruction, as needed, in word recognition strategies, text structure, comprehension strategies, and writing strategies (Connor et al., 2011; Graham et al., 2012; Shanahan et al., 2010)
- “activities that build **phonological awareness**” (MAISA ELTF, 2016, p.3), such as listening to and creating variations on books and songs with rhyming or alliteration; sorting pictures, objects, and written words by sounds; and

segmenting and blending sounds in words (Bus & Ijzendoorn, 1999; Ehri et al., 2001; Suggate, 2016)

- “**explicit instruction in letter-sound relationships**” (MAISA ELTF, 2016, p.3) that is verbally precise and involves multiple channels (e.g., oral and visual); accompanied by opportunities to apply knowledge of letter-sound relationships by reading books and other connected texts that include those relationships; and reinforced through coaching children during reading (Lonigan et al., 2008; Ehri, 2005; Cheatham & Allor, 2012)
- “research- and standards-aligned **writing instruction**” (MAISA ELTF, 2016, p.4), which includes daily time for children to write; instruction in writing processes and strategies; and opportunities to study models of and write a variety of texts for different purposes and audiences (Craig, 2006; Graham et al., 2012; Roth & Guinee, 2011)
- “intentional and ambitious efforts to build **vocabulary and content knowledge**” (MAISA ELTF, 2016, p.4), which includes selecting Tier 2 and Tier 3 vocabulary words from read alouds and content area curricula; repeated opportunities for children to review and use new vocabulary over time; and talk among children, particularly during content area learning and during discussions of print or digital texts (Beck & McKeown, 2007; Elleman et al., 2009; Goodwin & Ahn, 2013)
- “abundant **reading material and reading opportunities**” (MAISA ELTF, 2016, p.4) in which the classroom includes a wide range of texts that children are supported in accessing; books and other materials connected to children’s interests and that reflect children’s backgrounds and cultural experiences; and opportunities for children to engage in independent reading of materials of their choice every day (Foorman et al., 2006; Neuman, 1999; Reutzel et al., 2008)

The document states that the *Essential Practices* “should occur throughout the day, including being integrated into opportunities for science and social studies learning, not exclusively in an isolated block identified as ‘English Language Arts’ or ‘Literacy’” (MAISA ELTF, 2016, p.2). Therefore, in our study, we observed teachers’ literacy instructional practices during both ELA and other content area lessons.

Research-Aligned Literacy Instruction in Virtual and Hybrid Settings

The extent to which teachers implement research-aligned literacy instruction in virtual and/or hybrid modalities with elementary-aged children is largely unknown. Much of the literature on virtual instruction has focused on virtual schools (e.g., Ford, 2015; Hart et al., 2019; Kennedy & Ferdig, 2018), which disproportionately serve children in grade six and above (Digital Learning Collaborative, 2020; Molnar et al., 2019). Prior to

the COVID-19 pandemic, attending a virtual school was largely a matter of choice, primarily made by affluent families and older children (Digital Learning Collaborative, 2020), likely due to greater economic affordances and schedule flexibility (Digital Learning Collaborative, 2020; Molnar et al., 2019; Slates et al., 2012).

Few studies have examined adaptations of traditional in-person literacy instruction to synchronous virtual and/or hybrid formats in response to COVID-19 school building closures, in which a range of children from diverse backgrounds engaged in remote learning. However, there is some evidence that research-aligned literacy instruction can be successfully implemented in synchronous online settings with elementary students. Using a multiple-baseline design, Vasquez and colleagues (2011) found that a virtual tutoring program showed a marked increase in oral reading fluency for three low-income fourth-grade students identified for reading interventions. Similarly, Beach and colleagues (2021) used a pretest-posttest design to examine the transformation of a traditional summer reading intervention to a synchronous virtual format in response to school building closures due to COVID-19. The program helped maintain oral reading fluency rates and accuracy for 35 low-income second- and third-grade students reading below grade level. In both cases, instruction was intensive (e.g., 19 sessions for 50 minutes each) and student attendance was high (100% and 89% respectively). However, both studies focused on one-on-one tutoring programs, not traditional classroom instruction. In the present study, we examine how teachers implemented research-aligned literacy instruction in hybrid and virtual modalities during the traditional school day.

In other analyses of virtual schooling, scholars have focused on identifying the necessary knowledge, skills, and dispositions teachers need to be successful in online school environments (Barbour, 2019; DiPetro et al., 2008; Kennedy & Ferdig, 2014; Pulham & Graham, 2018; Watson, 2007). However, to our knowledge, no studies have examined the extent to which teachers enacted research-aligned instruction during the COVID-19 pandemic, when as many as 59% of teachers in Michigan reported delivering literacy instruction in virtual and/or hybrid modalities (Strunk et al., 2022). Like traditional in-person instruction, effective online teaching requires extensive content knowledge (Barbour et al., 2013; DiPetro et al., 2008; ISTE, 2008), using multiple strategies to monitor and assess student learning (DiPetro et al., 2008; ISTE, 2008; Kennedy & Archambault, 2012), promoting children's engagement and motivation (DiPetro et al., 2008; ISTE, 2008; Kennedy & Ferdig, 2014), and differentiating instruction based on children's observed and assessed needs (DiPetro et al., 2008; ISTE, 2008; Watson, 2007).

Instructional Time and Children's Reading Outcomes

Another element to consider when examining literacy outcomes and teachers' instructional practices during the COVID-19 pandemic is the effect that reduced class time might have on these outcomes. Few studies have examined how the loss of

instructional time in the early grades might affect children's reading outcomes on standardized assessments. However, there is some evidence that decreased instructional time might have negative effects. Marcotte and Hemelt (2008) found the pass rate for third grade reading assessments fell by more than 0.5% for each school day lost due to weather-related school closures in Colorado and Maryland. Similarly, outcomes for school districts that have shifted to a four-day week and reduced the total amount of instructional time per year are almost uniformly negative, with studies showing a small to moderate decrease in K-6 reading test scores (Kilburn et al., 2021; Thompson, 2021; Thompson & Ward, 2022).

In addition to studies that examine the loss of instructional time, other studies have explored *increases* in instructional time between two time points. The two primary avenues for increasing instructional time in schools are (1) extending the school day and (2) extending the school year. Full-day kindergarten offers the best example of a widescale expansion in the length of the school day for a specific subgroup of children. Results of full-day kindergarten are almost uniformly positive for short-term gains in reading scores (e.g., Amsden et al., 2005; Lee et al., 2006; Zvoch et al., 2008). However, longitudinal studies have been mixed, with some finding positive effects of full-day kindergarten on long-term reading achievement (e.g., DeCicca, 2007; Gottfried et al., 2019; Votruba-Drzal et al., 2008) while others show no significant gains in children's reading outcomes (e.g., Brownell et al., 2015; Friesen et al., 2022; Gibbs, 2014).

Causal studies exploring the effects of additional school days on children's reading outcomes often leverage variation in the number of days students are in school prior to taking standardized tests. Using this method, scholars have found a small, positive increase in ELA scores from the addition of 10 or more school days (Aucejo & Romano, 2016; Fitzpatrick et al., 2011; Hansen, 2011). For instance, Fitzpatrick and colleagues (2011) utilized a natural experiment in which the number of days between standardized assessments was essentially random (i.e., quasi-randomness) and found that each additional day of school results in gains of approximately 0.05 standard deviations in reading scores in kindergarten and first grade. Similarly, Aucejo and Romano (2016) found that an additional 10 days of school resulted in a 1.7% increase in reading scores in third through fifth grade.

However, classroom reading instruction involves dynamic and complex interactions among teachers and students that cannot be captured by instructional time alone. Considerable evidence over the past 50 years suggests that *how* teachers use time also relates to children's reading achievement (Brown & Saks, 1986; Cameron et al., 2005; Connor et al., 2009; Connor et al., 2014; Kim et al., 2021). Connor and colleagues (2014) found that both the quality of teachers' literacy instruction and the amount of time students spent engaging in this instruction interacted to predict third-grade students' reading comprehension and vocabulary gains. Neither instructional quality nor time independently predicted students' outcomes, which supports a complex systems model (Yoshikawa & Hsueh, 2001) of how children learn in the context of classroom literacy

instruction. Other studies have explored whether instruction is more teacher-directed or child-directed (e.g., Connor et al., 2009; Ehri, 2016), the relationship between teacher knowledge and the literacy instructional practices implemented in the classroom (e.g., Hindman & Wasik, 2011; Piasta et al., 2020; Schachter et al., 2016), and the time of year in which certain instructional practices are enacted (i.e., change-over-time) (e.g., Connor et al., 2011). While factors such as these are beyond the scope of this study, the literature suggests that multiple aspects of classroom reading instruction, including how instructional time is used, may affect children's literacy achievement.

Impact of COVID-19 on Literacy Outcomes

To date, most studies that examine the impact of COVID-19 on early literacy in the United States focus on pre- and post-pandemic comparisons of children's outcomes, both predicted (e.g., Bailey et al., 2021; Kuhfeld et al., 2020; Wyse et al., 2020) and actual (e.g., Darling-Aduana et al., 2022; Domingue et al., 2021; Lewis & Kuhfeld, 2021). Uniformly, these studies show declines in reading achievement for elementary students, which arose early in the pandemic and have persisted over time. While the ongoing impact of the pandemic on reading achievement for students in grades 3-8 has been well documented (e.g., Kuhfeld & Lewis, 2022a; Relyea et al., 2022), less is known about its effects on students in grades K-2, who were in preschool or kindergarten when the pandemic began in March 2020, and therefore, have only experienced pandemic-impacted schooling. Preliminary studies show that an increasing number of K-2 students are at risk for persistent reading difficulties (Amplify 2022; Kuhfeld & Lewis, 2022c; Solari, 2022).

Most of the research on early literacy instruction during the COVID-19 pandemic has been conducted outside of traditional public school classrooms in specialized instructional programs such as small group tutoring and/or summer school settings (e.g., Beach et al., 2021; Chamberlain et al., 2020) or religious-based programs (e.g., Hassenfeld et al., 2022). These studies are primarily descriptive or exploratory and focus on the shift from in-person to virtual literacy instruction, including how teachers maintained a sense of community in an online environment and the use of technology tools, such as SeeSaw, to document and support students' literacy development. Other studies examine adaptations of traditional in-person literacy instructional practices in remote settings. For instance, Hassenfeld and colleagues (2022) described the challenges and affordances of implementing dialogic, text-based discussions in a fully remote PreK-1st grade biblical literature class. Beach and colleagues (2021) explored the feasibility and effects of transforming a traditional in-person summer reading intervention aimed at fluency development to a virtual format in response to COVID-19 school closures.

To our knowledge, only one study has examined classroom literacy instruction during COVID-19. Crosson and Silverman (2021) used a smartphone-based research platform (dscout.com) to collect diary entries from 50 K-2 public school teachers working across

10 states to understand their daily literacy instructional and assessment practices with emergent bilingual children before and during the pandemic. Data were collected while teachers were providing remote instruction in winter 2021, during pandemic-impacted instruction in the United States. On average, teachers reported reduced instruction for all literacy skills. They reported the largest declines in time spent writing, with moderate declines in vocabulary, reading comprehension, and book discussions. Least affected were code-based foundational skills related to phonological awareness, decoding, and word recognition. However, while many teachers perceived the frequency of code-based foundational skills to be comparable to pre-pandemic levels, they did not perceive the nature or effectiveness to be similar in remote settings. Furthermore, nearly one-fourth of teachers reported less time for small group instruction, resulting in reduced opportunities to support oral language development and vocabulary, including English proficiency.

In the present study, we examine over 7,000 K-3 classroom teachers' reported time spent delivering literacy instruction before and during the pandemic and their perceived challenges to delivering instruction across a range of modalities, including remote instruction. We add to previous work by combining teachers' self-reported data with video observations in 25 classrooms to further understand literacy instruction during the same period. Classroom observation research can provide insight into teachers' instructional practices and the degree to which students have access to research-aligned instruction (McKenna, 2015). Therefore, we use these observations to describe the literacy instructional practices teachers enacted and how the implementation of these practices aligns with research on early grades literacy instruction.

RESEARCH QUESTIONS

There is considerable evidence that research-based literacy instruction is crucial for children's literacy development. Yet, at present, we have little knowledge about the literacy instruction teachers delivered during the COVID-19 pandemic, during which schools utilized a range of instructional modalities and teachers may have had more limited time with students (Hopkins et al., 2021). Therefore, we examine how teachers described their literacy instruction before and during the pandemic-impacted 2020-2021 school year and the literacy instructional practices they implemented in virtual, in-person, and hybrid settings. We aimed to further understand the instruction K-3 teachers delivered by addressing the following research questions. Across all questions, we consider the ways that instructional time and modality may have related to literacy instruction.

Research Question 1: How did teachers describe their literacy instruction before and during the pandemic-impacted 2020-2021 school year?

Research Question 2: What literacy instructional practices did teachers implement during the pandemic-impacted 2020-2021 school year?

Research Question 3: How did teachers' implementation of these literacy practices align with research on early grades literacy instruction?

METHODS

To address our research questions, we employed an instrumental case study design to examine the literacy instruction students received in Michigan during the 2020-2021 academic year. Instrumental case studies draw from a unique or exemplar case to extend or refine existing theory and/or to gain insight into a particular issue of interest (Baxter & Jack, 2008; Stake, 1995). Cases can be selected based on several factors, including geographic location and the experiences or attributes of individuals or groups of people (Simons, 2012). We believe that Michigan is a particularly interesting case because of efforts to establish agreed upon, research-based professional development and instructional foci (i.e., *Essential Practices*) prior to the COVID-19 pandemic.

To learn about instruction in Michigan, we engaged in a quantitative analysis of statewide surveys of Michigan's K-3 teachers to better understand how they described their literacy instruction before and during the pandemic-impacted 2020-2021 school year. Additionally, we conducted a content analysis (DeJulio et al., 2021; Krippendorff, 2013) using classroom videos and artifacts from 25 K-3 teachers to understand how they enacted literacy instruction across modalities. Content analysis utilizes the following steps, as described by DeJulio and colleagues (2021): (a) creating research questions linked to theory (see above), (b) aligning decisions with research questions, including limiting the content analysis' focus to a particular purpose, (c) describing the constructs used in the study, (d) describing the sampling process used for the analysis, (e) selecting/developing a coding scheme, (f) discussing the coding process, and (g) tabulating and reporting. Our research questions are addressed above. We describe the remaining steps in the following sections. In our discussion, we describe how our findings might inform professional development, thereby drawing inferences from our data to the contexts we seek to inform.

Together, these data enable us to provide a rich description of literacy instruction as it was enacted during the pandemic-impacted 2020-2021 school year—a time in which researchers had limited opportunities to enter K-3 classrooms due to pandemic-related restrictions to in-person research.

Participants

Statewide Teacher Surveys

To establish how teachers described their literacy instruction before and during the pandemic-impacted 2020-2021 school year, we relied on statewide teacher surveys. As shown in Table 1, 7,110 K-3 teachers responded to the statewide survey in spring 2020 and 5,811 responded in spring 2021. Participant demographics are generally representative of the elementary teaching population in the United States, which is predominantly white and female (Taie & Goldring, 2018). Respondents were demographically similar across the two years.

[Table 1]

The following groups were slightly overrepresented in the survey samples compared to the overall population of K-3 teachers in Michigan: teachers with five or fewer years of experience in their current district (both years), teachers who taught in schools with a higher percentage of students eligible for free- and reduced-price lunch (both years), and teachers who taught in schools with a higher percentage of students who were Black or African American (spring 2020 only). We compared weighted and unweighted survey responses based on these characteristics. However, because the survey sample was generalizable to the population of K-3 teachers in Michigan, there is little difference between the weighted and unweighted results. Therefore, we report unweighted survey responses (weighted results available from the authors upon request). Survey response rates were 43% in spring 2020 and 30% in spring 2021. We attribute the lower response rates in 2021 to the additional challenges teachers were facing due to the COVID-19 pandemic. Nonetheless, the number of respondents and similarity of the respondent population to the overall population of Michigan K-3 teachers allow us to use the results without concern of selection bias.

Observational Study

To describe the literacy instruction teachers provided during the pandemic-impacted 2020-2021 school year, we conducted a content analysis (DeJulio et al., 2021; Krippendorff, 2013) using a sample of classroom videos and artifacts from 25 K-3 teachers in Michigan. As a part of a larger study of Michigan's reading policies, teachers had previously agreed to allow our research team to observe instruction in their classrooms during the 2020-2021 school year. Among the participants were two kindergarten teachers, 12 first-grade teachers, six second-grade teachers, and five third-grade teachers. Teachers in our observational study had, on average, 16.9 years of teaching experience, although there was wide variation in experience amongst teachers ($SD=9.8$). Teachers held a bachelor's degree ($n=13$), master's degree ($n=12$), or Education Specialist (EdS) degree ($n=1$). Nineteen teachers had additional subject matter specializations such as early childhood education ($n=13$), English as a Second Language ($n=4$), or language arts ($n=3$).

During data collection, 12 teachers were delivering in-person instruction to a full classroom of children (i.e., every child in the class attended in-person every day), seven were delivering hybrid instruction, and six delivered full-time instruction remotely using Zoom. In our study, we defined hybrid instruction in two ways: (a) half the children attended in-person a few days per week while the other half attended in-person on the opposite days ($n=3$); or (b) the teacher taught children both in-person and remotely at the same time ($n=3$). As shown in Table 2, teachers were demographically similar across modalities. Hybrid teachers had slightly less teaching experience and a lower percentage of post-bachelor's degrees as compared to in-person and virtual teachers. However, a higher percentage of hybrid teachers held teaching endorsements in language arts.

[Table 2]

Teachers worked in four public-school districts across the state and served diverse populations of students. Ten teachers worked in rural districts, nine worked in suburban districts, and six worked in urban districts. The percentage of students eligible for free- and reduced-lunch in these districts ranged from 57-76%. Additionally, six teachers taught in a district where 89% of students were learning English.

Data Sources

Statewide Teacher Surveys

In the spring of 2020 (Year 1) and 2021 (Year 2), we conducted surveys of K-3 teachers as part of a broader study on the implementation of Michigan's reading law (Strunk et al., 2021, 2022). These surveys included questions about literacy instruction and resources. The second-year survey was substantially shorter than the first year to account for the challenging teaching contexts resulting from the COVID-19 pandemic and asked a set of questions about the ways the pandemic affected teachers' literacy instruction. We generated original survey questions and adapted items from other surveys related to literacy instruction and/or similar literacy policies. To refine questions, we worked with external stakeholders and policymakers, including from the Michigan Department of Education and the Michigan Association of Intermediate School Administrators (MAISA) General Education Leadership Network's (GELN) Early Literacy Task Force (ELTF). Educators from the target population piloted the survey and participated in cognitive interviews to help us refine questions further.

In both years, we administered the surveys online from mid-February to late-June. We used multiple channels to contact eligible participants to invite them to complete the survey. This included direct emails to teachers, promoting the survey through the [Name Blinded] website, social media, and several Michigan education associations, including the Michigan Education Association (MEA), the American Federation of Teachers (AFT), and the Michigan Association of Public School Academies (MAPSA).

Classroom Observation Videos

In January 2021, all teachers recorded their ELA lessons, and 17 teachers provided additional video of content area lessons. We asked teachers to record all the instruction they considered to be part of their ELA/literacy block, even if this instruction was divided across the day. Additionally, we asked teachers to record the entirety of one content area lesson: either science or social studies. We included these content area lessons in the analysis because the *Essential Practices* document recommends teachers integrate literacy instructional practices into science and social studies learning (MAISA ELTF, 2016). Eight teachers did not provide content area lessons because they were not currently teaching science or social studies content. On average, teachers recorded 77.5 minutes of ELA instruction ($SD=37.2$) and 28.7 minutes of content area instruction ($SD=12.1$). In sum, across the 25 teachers, we collected 2,330 minutes of classroom video.

Teachers delivering in-person and hybrid instruction used a Swivl robotic mount for an iPad to record their instruction. The Swivl uses a 360-degree rotating platform in tandem with a handheld tracker to follow the teacher while the tablet records video. We also provided teachers with two additional microphones to place around the classroom, which enabled us to capture children's conversations during whole-class discussions and while working in small groups. To guide their recordings, we gave teachers a data collection manual, which included (a) directions for how to set up and use the Swivl; (b) the types of instructional practices to include in the videos (e.g., read alouds; spelling or word study lessons); and (c) guidelines for where to place the additional microphones. Once teachers finished recording, they uploaded video confidentially to a secure, password-protected cloud-based storage system.

Teachers delivering virtual instruction submitted videos recorded over Zoom. Like in-person and hybrid teachers, we provided remote teachers with a virtual data collection manual, which included (a) guidelines for how to record video on Zoom; (b) the types of instructional practices to include; and (c) how to change display names on the screen so both the teacher and the children remained anonymous. Once teachers were finished recording, they uploaded their videos confidentially to the same password-protected cloud-based storage system.

Classroom Observation Artifacts

In addition to videos, we collected 162 classroom artifacts from teachers, which included items such as student work samples, links to virtual classroom libraries, photos of literacy-related classroom displays (e.g., word walls; anchor charts), and narrated videos of classroom reading and writing spaces. These artifacts allowed us to evaluate instructional practices we could not observe in the classroom videos, such as the types of books and other texts (e.g., digital stories) teachers made available for children. As a part of both data collection manuals, we provided teachers with a checklist of artifacts that included three categories: (a) classroom contents (e.g., materials intended for children to access independently); (b) reading environment

(e.g., books the teacher and/or children used for instruction during video recording); and (c) writing environment (e.g., displays of student-generated or classroom-generated writing). We asked teachers to provide examples of each type of artifact on the checklist. Teachers uploaded these artifacts to the same password-protected cloud-based storage system as their videos. We also asked teachers to include brief captions and/or descriptions of these artifacts for our research team.

Background and Post-Observation Surveys

Prior to the start of the study, the 25 teachers participating in the classroom observations received an electronic background survey asking about their years of experience, teaching endorsements, and professional development experiences. Additionally, we collected electronic surveys from teachers after their video recording to understand aspects of instruction we could not observe, such as how teachers grouped children for small group instruction, whether teachers used any curriculum materials in the lessons they provided, and to what extent these materials informed their instruction. Teachers completed these post-observation surveys within 48 hours of submitting their videos. The response rate for both surveys was 100%.

Data Coding and Analysis

Statewide Teacher Surveys

To examine how teachers described their literacy instruction before the pandemic-impacted 2020-2021 school year, we analyzed our Year 1 survey question that asked teachers to report the types of literacy instructional practices in which they engage during a typical week. We aligned teachers' responses to the *Essential Practices in Early Literacy: Grades K-3*. For instance, if teachers reported providing spelling instruction or writing process instruction (e.g., planning, drafting, revising), we included these responses under "research- and standards-aligned writing instruction" (MAISA ELTF, 2016). Similarly, if teachers reported engaging children in read alouds or discussion of texts, we included these responses under "read alouds of age-appropriate books and other materials" (MAISA ELTF, 2016). As educators' experiences with literacy instruction substantially changed because of COVID-19 and subsequent school-building closures in March 2020 (i.e., midway through survey administration), we added language to the beginning of the Year 1 survey asking educators to answer all questions as they would have before the suspension of face-to-face instruction.

To examine how teachers described their literacy instruction during the pandemic-impacted 2020-2021 school year, we analyzed our Year 2 survey questions that asked teachers about their primary mode of instruction (e.g., virtual; in-person), their perceived access to literacy resources, and their perceptions of how COVID-19 impacted literacy instruction. These last two questions asked teachers to rate responses (e.g., my students have access to technology necessary for literacy instruction) on a four-point Likert scale from "strongly disagree" to "strongly agree." For Likert-scaled survey items, we combined relative frequencies for the highest two

categories (e.g., “agree” and “strongly agree”) and reported the percentage of teachers who selected these items.

Finally, to understand how the amount of time teachers spent on literacy instruction might have changed during the pandemic-impacted 2020-2021 school year, we analyzed our Year 1 and Year 2 survey question that asked how many hours teachers spent on literacy instruction during a typical week.

Classroom Observations, Artifacts, and Surveys

To understand the types of literacy instructional practices teachers implemented during the pandemic-impacted 2020-2021 school year and how these practices were enacted across modalities, we analyzed all videos and classroom artifacts blind to condition using an a priori observation protocol examining the presence and quality of the eight *Essential Instructional Practices in Early Literacy: Grades K-3* (MAISA ELTF, 2016) that we identified for this study.

We developed a coding scheme by creating a 40-item observational tool that accounts for these eight research-supported instructional practices (e.g., read alouds of age-appropriate books and other materials) and five recommended ways to implement each practice (e.g., using text sets across read-aloud sessions). A 5-point quality scale accompanies each item and uses the descriptors of 5 (Exemplary), 4 (Strong), 3 (Proficient), 2 (Developing), and 1 (Beginning). Since each *Essential Practice* has five recommended ways to implement the practice, the maximum quality score teachers can receive for an *Essential Practice* is 25 points. Appendix A shows an excerpt from our coding protocol for Literacy Essential 7: Intentional and Ambitious Efforts to Build Vocabulary and Content Knowledge (MAISA ELTF, 2016). We computed Cohen’s kappa to assess the agreement between two raters in quality scoring for 30% of our video and artifact data. There was near perfect agreement between raters, kappa = 0.924 (95% CI, 0.84 to 0.95), $p < 0.001$.

To describe the literacy instructional practices teachers implemented during the pandemic-impacted 2020-2021 school year, we used enumeration (LeCompte & Preissle, 1993), a data analysis technique that uses frequency counts to identify categories of phenomena. We calculated the percentage of teachers who engaged in each of the eight *Essential Practices* as well as the five recommended ways to implement each one. Additionally, we recorded the length (in minutes) of video that teachers provided of ELA and content area instruction. We conducted a hypothesis test of the correlation coefficient to determine whether there was a linear relationship between the amount of literacy instructional time we observed and the number of instructional practices teachers implemented.

To determine the extent to which teachers enacted research-aligned instruction, we computed an average instructional score for each *Essential Practice*. To do this, we divided teachers’ total instructional scores for each practice (e.g., 12 points) by the

number of recommended ways they implemented this practice (e.g., three). An average score of “5” indicates that an instructional practice is well-aligned with research (i.e., “exemplary”), while a score of “1” indicates that an instructional practice is not well-aligned (i.e., “beginning”). We assigned a score of “0” if we did not observe an instructional practice and excluded these scores from our analysis. We conducted a hypothesis test of the correlation coefficient to determine whether there was a linear relationship between the amount of literacy instructional time we observed and teachers’ average quality scores for each *Essential Practice*.

Finally, we used a series of matrices to look for qualitative patterns (Miles, Huberman, & Saldaña, 2020) and created shared analytic memos (Saldaña, 2016) that identified examples of instructional practices that aligned to the quality descriptors in our observation protocol. We wrote a shared memo of themes we identified from the data, such as the ways that teachers were able to implement small group instruction in hybrid and virtual settings or conduct read alouds when children needed to remain distanced due to safety protocols. We provide exemplary practices from virtual and hybrid modalities to demonstrate our findings.

RESULTS

Teachers’ Descriptions of Literacy Instruction Before and During the Pandemic-Impacted 2020-2021 School Year

Prior to the COVID-19 pandemic, teachers reported spending an average of 9.3 hours per week on literacy instruction ($SD = 5.6$). During this instructional time, most teachers reported engaging in the focus areas outlined in the *Essential Practices in Early Literacy: Grades K-3* (MAISA ELTF, 2016). As shown in Table 3, most teachers reported engaging students in read alouds of age-appropriate books and other materials (95.2%), small group and individual reading instruction (94.2%), building phonological awareness (93.3%), and explicit instruction in letter-sound relationships (92.8%). Most teachers also reported providing research- and standards-aligned writing instruction (95%), engaging children in efforts to build vocabulary and content knowledge (94.9%), and providing abundant reading materials and reading opportunities in the classroom (94.3%). However, the survey data does not provide information on how teachers enacted these instructional practices and whether this enactment aligned with the research-based recommendations in the *Essential Practices* document.

[Table 3]

During the pandemic-impacted 2020-2021 school year, teachers reported spending significantly less time on literacy instruction ($M = 8.3$, $SD = 5.3$) than they did in 2019-2020, prior to the pandemic ($M = 9.3$, $SD = 5.6$), $t(12,920) = 7.09$, $p < .001$. Based on teacher reports, students in Michigan received, on average, one hour less of literacy

instruction per week relative to the prior year. Teachers reported delivering this instruction in a range of modalities: 41.9% primarily delivered in-person instruction, 32.5% delivered hybrid instruction, and 25.6% delivered remote instruction.

Teachers held different perceptions on how COVID-19 affected literacy instruction based on modality. Most remote and hybrid teachers reported that delivering effective literacy instruction (87.3%) and interventions (89.7%) was difficult in a remote setting. Teachers delivering remote or hybrid instruction also reported that it was difficult to identify students who needed additional support (75.8%). Teachers delivering in-person or hybrid instruction reported that social distancing (75.4%) and mask requirements (74.8%) made it difficult to teach students how to read and write. Regardless of modality, most teachers (97.4%) reported that inconsistent attendance made it hard to expand on students' literacy skills. Table 4 shows these perceived impacts of COVID-19 on literacy instruction.

[Table 4]

In sum, while teachers' self-reported pre-pandemic literacy instruction was well-aligned with the *Essential Practices in Early Literacy: Grades K-3* (MAISA ELTF, 2016), these data make it clear that the amount of literacy instructional time teachers reported decreased during the 2020-2021 school year. Additionally, K-3 teachers delivering instruction across a range of modalities reported substantial challenges to providing literacy instruction during the COVID-19 pandemic.

Observations of Teachers' Literacy Instructional Practices During the Pandemic-Impacted 2020-2021 School Year

In the following sections, we present data from our content analysis of classroom videos and artifacts from 25 K-3 teachers in Michigan. This data allows us to better understand how teachers enacted literacy instruction during the pandemic-impacted 2020-2021 school year and provides additional context to teachers' responses on the statewide surveys. We describe the *Essential Practices* we observed from most frequent (100%) to least frequent (76%). We also describe the percentage of teachers we observed implementing the five different ways to enact each practice. Following this description, we compare our observations to teachers' responses on the Year 1 statewide survey prior to the pandemic. Furthermore, we determine whether there was a relationship between the instructional practices we observed, the amount of time teachers spent on literacy instruction, and their instructional modality. Table 5 shows the overall percentage of teachers who engaged in each of the eight *Essential Practices*. Below we describe how teachers enacted these practices at a more fine-grained level.

[Table 5]

Literacy Engagement and Motivation

Across the classroom videos and artifacts, we observed all teachers (100%) engaging in “deliberate, research-informed efforts to foster literacy motivation and engagement within and across lessons” (MAISA ELTF, 2016, p. 2). This included providing children with choice in literacy activities (96%), supporting children in setting goals for literacy learning (68%), providing opportunities for collaboration with peers (64%), and establishing purposes for reading and writing beyond being assigned to do so (64%). Teachers were least likely to use additional strategies to generate excitement for reading and writing such as book talks or updates about new reading materials (16%).

Reading Materials and Opportunities

All teachers (100%) also provided “abundant reading material and reading opportunities in the classroom” (MAISA ELTF, 2016, p.4). Regardless of instructional modality, most teachers (80%) provided children with a wide range of books and other texts (e.g., digital; audio) including information books, poetry, and storybooks that children were supported in accessing. Teachers also offered children opportunities to engage with reading materials of their choice (40%) and provided places in which to read books, frequently visited by the teacher and/or adult volunteers (40%). Of the practices that we examined, teachers were least likely (28%) to provide books and other materials that connected to children’s interests and that reflected children’s backgrounds and cultural experiences.

Writing Instruction

Most teachers (96%) delivered “research- and standards-aligned writing instruction” (MAISA ELTF, 2016, p.4). We observed 91.7% of in-person teachers, 100% of virtual teachers, and 100% of hybrid teachers offering children opportunities to write throughout the day. Most teachers provided explicit instruction in letter formation, spelling strategies, capitalization, punctuation, sentence construction, keyboarding, and/or word processing (64%). Teachers also engaged children in interactive writing experiences (48%) and provided instruction in writing processes and strategies, particularly those involving researching, planning, revising, and editing writing (52%). Teachers were least likely to offer opportunities to study models of how to write a variety of texts for different purposes and audiences (e.g., opinion; informative/explanatory) (12%).

Building Phonological Awareness

Most teachers (92%) engaged children in “activities that build phonological awareness” (MAISA ELTF, 2016, p.3). We observed 91.7% of in-person teachers, 100% of virtual teachers, and 85.7% of hybrid teachers incorporating phonological awareness activities into their instruction. These activities included opportunities to write meaningful text in which children listen for the sounds in words to estimate their spelling (56%), sorting pictures, objects, and written words by sounds (48%), segmenting (40%) and blending sounds in words (32%), and listening to and creating variations on books and songs with rhyming or alliteration (36%).

Vocabulary and Content Knowledge

Most teachers (92%) provided “intentional and ambitious efforts to build vocabulary and content knowledge” (MAISA ELTF, 2016, p.4). We observed 100% of in-person teachers, 100% of virtual teachers, and 71.4% of hybrid teachers offering children an opportunity to build vocabulary and content knowledge throughout the day. This included selecting vocabulary words to teach from read alouds of literature, informational texts, and content area curricula (84%), introducing word meanings to children during reading and content area instruction using child-friendly explanations (84%), providing repeated opportunities for children to review and use new vocabulary (72%), and encouraging talk among children, particularly during content-area learning and during discussions of print or digital texts (76%). Teachers were least likely to teach morphology (i.e., meaning of word parts), including common word roots, inflections, prefixes, and affixes (16%).

Small Group and Individual Instruction

Most teachers (80%) provided “small group and individual instruction, using a variety of grouping strategies” (MAISA ELTF, 2016, p.3). We observed 75% of in-person teachers, 66.7% of virtual teachers, and 100% of hybrid teachers providing children with small group and individual instruction. While doing so, teachers ensured that children used most of their time reading and writing (80%), were deliberate in providing high-quality instruction to all children (80%), included explicit instruction, as needed, in word recognition strategies, text structure, comprehension strategies, and writing strategies (68%), and coached children as they engaged in reading and writing, with prompts focused primarily on monitoring for meaning, letters and groups of letters in words, and rereading (68%). Teachers were least likely to employ practices for developing reading fluency, such as repeated reading, echo reading, and paired and partner reading (44%).

Read Alouds

Most teachers (80%) engaged in “read alouds of age-appropriate books and other materials, print or digital” (MAISA ELTF, 2016, p. 3). We observed 75% of in-person teachers, 100% of virtual teachers, and 71% of hybrid teachers implementing read alouds as a part of their instruction. While doing so, most teachers fostered higher-order discussion (80%), provided child-friendly explanations of vocabulary words (68%), and incorporated instructional strategies (e.g., word recognition strategies; comprehension strategies) (68%). Teachers were least likely to use text sets that were thematically and conceptually related (16%).

Letter-Sound Relationships

Finally, most teachers (76%) provided “explicit instruction in letter-sound relationships” (MAISA ELT, 2016, p.3). We observed 66.7% of in-person teachers, 100% of virtual teachers, and 71.4% of hybrid teachers providing instruction in letter-sound relationships. Teachers’ instruction was often (72%) verbally precise and involved multiple channels (e.g., oral and visual) and taught systematically in relation to

students' needs and aligned with the expectations of the Michigan K-3 Standards for ELA (68%). Teachers' instruction was less often (36%) taught with full analysis of letter-sound relationships within the words, accompanied by opportunities to apply knowledge of letter-sound relationships by reading books or other connected texts (36%), and reinforced through coaching children during reading (32%).

Taken together, most teachers provided instruction that was well-aligned with the *Essential Practices in Early Literacy: Grades K-3* (MAISA ELTF, 2016). Furthermore, we observed teachers enacting the *Essential Practices* at comparable rates as teachers reported on the Year 1 statewide survey prior to the COVID-19 pandemic (see Table 2). Despite the challenges reported by teachers on the Year 2 statewide survey, our observations suggest that teachers continued to engage in the same literacy instructional practices during the pandemic-impacted 2020-2021 school year that they reported prior to the pandemic. While our observations reflected slightly lower rates in some areas of literacy instruction (e.g., letter-sound relationships), this may be because we observed only one day of instruction, whereas statewide surveys asked teachers to report practices they engaged in during a typical week.

We were unable to make statistical comparisons between modalities due to the small sample size in each group (e.g., six virtual teachers; seven hybrid teachers). However, we did not observe systematic differences in the percentage of teachers engaging in the *Essential Practices* based on modality. For instance, across modalities, all teachers used instructional practices that promoted children's literacy engagement and motivation and provided children with reading materials and daily opportunities to read. Furthermore, most teachers provided writing instruction, engaged children in activities that build phonological awareness, provided instruction in vocabulary and content knowledge, and engaged in read alouds of age-appropriate books and other materials. Although some differences appear sizeable based on modality (e.g., small group instruction), we attribute this to the small number of teachers in each group. For example, four out of six virtual teachers engaged children in small group and individual instruction, but the percentage appears comparably lower (66.7%) than in-person (75%, or eight out of 12) and hybrid teachers (100%, or seven of seven).

Finally, we ran a Pearson's correlation to understand the relationship between the amount of literacy instructional time we observed and the number of instructional practices teachers implemented. We analyzed instructional practices by the total number of ways to enact the *Essential Practices* (40), as the number of overall *Essential Practices* (8) was too small to detect variation. There was a moderate, positive correlation between the number of minutes of literacy instruction provided in the videos and the number of instructional practices we observed, $r(23) = 0.43$, $p = .033$, with literacy instructional time explaining 18.2% of the variation in the number of instructional practices. This suggests that teachers who were able to spend more time on literacy instruction enacted a broader range of instructional practices in this time.

In sum, during the pandemic-impacted 2020-2021 school year, most teachers provided literacy instruction that was well-aligned with the *Essential Practices*. Furthermore, we observed teachers enacting literacy instructional practices at similar rates as teachers reported prior to the COVID-19 pandemic. Although we could not make statistical comparisons between groups, we did not observe considerable differences in the number of literacy instructional practices teachers implemented based on modality. However, instructional time was positively correlated with the number of literacy practices teachers implemented, suggesting that teachers who had more time for literacy instruction were able to engage children in more opportunities for literacy learning.

Teachers' Implementation of Literacy Instructional Practices during the Pandemic-Impacted 2020-2021 School Year

In this section, we consider the quality of teachers' enactment of the instructional practices we documented in the previous section. While the previous analysis examined *whether* teachers implemented the *Essential Practices*, here we describe *how* teachers' implementation of these practices aligns with research on early grades literacy instruction. Furthermore, we determine whether there was a relationship between the quality of enactment of the instructional practices we observed, teachers' instructional modality, and the amount of time teachers spent delivering literacy instruction. Table 6 shows the average quality score for each of the eight *Essential Practices*.

[Table 6]

While most teachers engaged children in the eight *Essential Practices* (see Table 5), the quality of their enactment ranged broadly. Across modalities, the average quality scores ranged from 1.98 to 3.45 ($M = 2.74$, $SD = 0.51$). Teachers received the highest average quality scores for instruction in letter-sound relationships ($M = 3.45$, $SD = 0.92$) and for providing reading materials and opportunities ($M = 3.34$, $SD = 0.94$). This means that teachers' literacy instructional practices in these areas were more aligned with research as compared to other practices. For instance, in one in-person classroom with an average quality score of 5.0 for letter-sound relationships, the teacher introduced consonant-vowel-consonant-e words to children by handing out "magic e" plastic wands and inviting them to tap on words in a story while they practiced saying them out loud with and without the "e" on the end. In this example, the teacher provided instruction that was verbally precise and involved multiple channels (i.e., oral, visual, and tactile) while also providing an opportunity for children to apply their knowledge of letter-sound relationships by reading connected text that included "magic e" words.

While most teachers provided instruction in writing (96%) and phonological awareness (92%), these were the practices in which teachers received the lowest quality scores. This means that teachers' literacy instructional practices in these two areas were not

as aligned with research as compared to other practices. The average quality scores for writing instruction and phonological awareness were 2.3 ($SD = 0.66$) and 1.98 ($SD = 0.93$), respectively. For instance, in a virtual classroom with an average quality score of 1.67 for phonological awareness, children independently sorted written words by the soft /c/ and /g/ sounds but were not given the opportunity to discuss what they learned about these sounds. In another classroom, where the teacher was delivering in-person instruction, the only opportunity children had to write was one brief instance where the teacher encouraged children to use their “kindergarten spelling” to label pictures of community helpers.

The relatively large standard deviations signify that the quality of teachers’ literacy instructional practices varied widely within the same instructional practice, with some teachers providing instruction that was aligned closely with research while others did not. For example, the average quality score for read alouds was 2.88 ($SD = 0.71$), with scores ranging from 1.67 to 4.5. In the classroom with the highest average instructional score, the teacher engaged all children in interactions with the text while reading, provided child-friendly explanations of words before and during the read aloud, then revisited the words using pictures and examples following the read aloud. Additionally, the teacher employed a variety of questions to prompt discussion among children, including higher-order and follow-up questions. In the classroom with the lowest quality score, the teacher played an audio recording of a poem and did not attempt to engage children in any interactions with the text. Prior to listening, the teacher mentioned three vocabulary words but did not provide explanations of these words for children before, during, or after the recording. Once the poem was finished, the teacher relied on simple recall questions to engage children in discussion. Therefore, although both teachers implemented the same recommended ways to enact read alouds, the quality of their instruction varied widely.

However, we did not observe differences in teachers’ average quality scores based on modality. As shown in Table 6, teachers’ combined average quality scores ranged from 2.66 ($SD=0.71$) in the virtual modality to 2.79 ($SD=0.49$) in the hybrid modality—a difference of only 0.13 points. Furthermore, teachers in each modality received the highest average quality scores for at least one *Essential Practice*. For instance, teachers delivering in-person instruction received the highest average quality scores for letter-sound relationships, teachers delivering virtual instruction received the highest average scores for reading materials and opportunities, and teachers delivering hybrid instruction received the highest average scores for small group instruction.

The relatively large standard deviations signify that the quality of teachers’ literacy instructional practices varied widely within each modality, with some teachers providing instruction in each modality that was aligned closely with research while others did not. For example, the average quality score for in-person teachers delivering letter-sound instruction was 3.76 ($SD = 1.1$), with scores ranging from 2.0 to 5.0. In the classroom with the highest average instructional score, the teacher

provided instruction through multiple channels as she guided children to sort beginning consonant blends into columns on their whiteboards. Following this activity, the teacher provided an opportunity for children to apply their knowledge of the consonant blends they were learning by reading a short passage that included these letter-sounds. In the classroom with the lowest quality score, the only opportunity children had to apply letter-sound knowledge was reading five words with “-le” endings from the screen at the front of the room. Therefore, although both teachers provided in-person instruction in letter-sound relationships, the quality of their enactment varied widely.

Notably, we documented high-scoring, research-aligned enactments of instruction in both virtual and hybrid settings. Across these lessons, teachers used technology resources to enact literacy instruction that looked like traditional in-person instruction. For instance, a first-grade teacher delivering virtual instruction received the highest average quality score for letter-sound relationships. This teacher had an average score of 4.5 points and was rated “exemplary” on our coding scheme for delivering verbally precise instruction through multiple channels (i.e., oral, visual, and tactile) and aligning instruction with grade-level expectations. In the video, the teacher used a digital tool called *e-pocket chart* to support students in practicing the “soft c” (e.g., *mice*) and “soft g” (e.g., *giraffe*) sounds during a whole class lesson. The tool worked like a physical pocket chart in that it allowed the teacher to move individual letter cards into “pockets” to build words. The software included a graphics library that allowed the teacher to illustrate words for children as well as vowel cards that highlighted letters in red font. During the lesson, the teacher chose a few letter cards (e.g., *e, c, a, r*) and then called on children to help build pre-determined words (e.g., *race*). After each word, the teacher unmuted the children’s microphones and guided them through blending the sounds together to decode the word.

A second-grade teacher delivering hybrid instruction received the highest average quality score for small group and individual instruction. In this hybrid classroom, the teacher instructed children both in-person and remotely over Zoom at the same time. This teacher had an average score of 4.4 points and was rated as “exemplary” on our coding scheme for ensuring children spent most of their time reading and writing, employing practices for developing fluency, and providing high-quality instruction to all children. In the video, children worked together in pairs to read a short passage. In one pairing, an in-person student used a laptop to read with a student learning virtually through Zoom. While the first student read, the second student followed along, tracking the words with their fingers as they listened. If the first student got stuck on a word, skipped a word, or paused for more than a few moments, the second student pointed to the word, asked if they needed help, and then read the word aloud if they asked for support. Then, the first student went back and re-read the sentence. The teacher circulated between pairs to listen to students read and prompted them to support each other when they needed help.

In both examples, teachers delivering virtual and hybrid instruction used technology as a resource to provide literacy instruction that was well aligned to research. However, in both instances, these technology tools enabled teachers to employ practices that resembled instruction often seen in face-to-face classrooms (e.g., displaying a physical pocket chart in the front of the classroom or in-person partner reading). Therefore, in classrooms with the highest quality scores in virtual and hybrid modalities, the technology supported teachers' enactment of early literacy practices, yet the focus remained on research-aligned instruction.

Finally, we ran a Spearman's correlation to examine the relationship between the amount of literacy instructional time we observed and teachers' average quality scores for each *Essential Practice*. Importantly, there was not a significant correlation between literacy instructional time and the teachers' average quality scores. This suggests that while instructional time may have been related to the number of literacy instructional practices teachers provided, it did not relate to the quality of their enactment. For example, the teacher who received the highest average quality scores for literacy motivation and engagement (3.67) and building vocabulary and content knowledge (4.0) provided only 24.5 total minutes of literacy instruction. In contrast, the teacher who scored among the lowest for read alouds (1.75), small group instruction (1.25), building phonological awareness (1.0), and vocabulary and content knowledge (1.5) provided 126.5 minutes of literacy instruction.

In sum, during the pandemic-impacted 2020-2021 school year, the quality of teachers' literacy instructional practices ranged broadly. However, modality and instructional time did not seem to influence the quality of teachers' literacy instructional practices. Furthermore, we observed high scoring, research-aligned literacy instruction in both virtual and hybrid settings.

DISCUSSION

This study uses multiple data sources to provide a description of the literacy instruction children received during the pandemic-impacted 2020-2021 school year. While previous studies have primarily used self-report data to understand instruction during this time (e.g., Crosson & Silverman, 2021), to our knowledge, this is the first study to include the use of video data to observe teachers' literacy instructional practices during the pandemic. In addition to using large-scale data from statewide surveys to identify how teachers described their literacy instruction before and during the 2020-2021 academic year, we used a content analysis to understand the literacy instructional practices teachers implemented across modalities and how teachers' implementation of these practices aligns with research on early grades literacy instruction.

Survey responses from 5,811 K-3 teachers indicate that teachers had many concerns about instruction during the 2020-2021 academic year. For example, most teachers

reported that delivering effective literacy instruction was difficult in a remote setting, while teachers delivering in-person instruction reported that social distancing and mask requirements made it difficult to teach students how to read and write. Crosson and Silverman (2021) found teachers had similar concerns about providing literacy instruction during the pandemic-impacted 2020-2021 school year. Yet, despite their own concerns, we observed teachers implementing the *Essential Practices* at comparable rates as teachers reported in the statewide surveys prior to the pandemic. There is evidence from previous research indicating that implementing these practices in K-3 classrooms can make a measurable positive difference in children's literacy achievement (MAISA ELTF, 2016). Thus, under the most challenging of circumstances, we saw K-3 teachers continuing to enact instruction to support their students' literacy development.

However, across all modalities, teachers reported declines in the amount of literacy instructional time they provided. Results from our statewide surveys indicate that teachers delivered one hour less per week of literacy instruction during the pandemic-impacted 2020-2021 school year as compared to the previous year. This constitutes approximately 40 fewer hours of literacy instruction than in a typical pre-pandemic school year (assuming 40 weeks of instruction per year). Crosson and Silverman (2021) found similar reductions in time spent on literacy instruction in 2020-2021. Therefore, while teachers continued to implement the *Essential Practices*, they likely reduced the amount of time they dedicated to these practices during the pandemic. Previous studies suggest that decreased instructional time might negatively impact children's literacy outcomes (e.g., Kilburn et al., 2021; Marcotte & Hemlet, 2008; Thompson & Ward, 2022). Therefore, less instructional time may be one factor that has contributed to lower reading scores on large-scale assessments since the start of the pandemic.

Furthermore, we found a relationship between the amount of literacy instructional time teachers provided and the number of different ways they addressed each *Essential Practice*. This suggests that teachers may have contended with reduced instructional time by focusing their attention on a select few recommended practices instead of implementing a range of practices. Although we know little about how the *Essential Practices* were implemented prior to the pandemic, there were important aspects of instruction that we rarely observed: using text sets across read alouds sessions (16%), activities focused on segmenting (40%) and blending (32%) sounds in words, providing children with opportunities to study mentor texts during writing (12%), and teaching morphology during vocabulary instruction (16%). Therefore, some children may have had limited experiences with specific types of practices that contribute to literacy development.

Notably, while we observed differences in the *number* of literacy practices teachers implemented, we did not find a relationship between instructional time and the *quality* of their implementation. In fact, we observed some teachers providing research-aligned literacy instruction in relatively short periods of time (e.g., 30 minutes). Moreover, although virtual teachers reported providing fewer minutes of literacy instruction on

average compared to in-person or hybrid teachers (Authors, 2022), we still observed virtual teachers enacting research-aligned instruction, though reductions in instructional time may have resulted in teachers implementing fewer instructional practices. This is particularly important because evidence from other states (e.g., Cohodes et al., 2022; Kuhfeld et al., 2020) and from Michigan (Authors, 2022) show that remote teachers were more likely to be working in historically-underserved districts. Indeed, the remote teachers in our study also worked in a historically under-served district and provided fewer minutes of literacy instruction on average compared to in-person and hybrid teachers. Yet, our results suggest that some virtual teachers still were able to enact research-aligned literacy instruction, hopefully mitigating the effect of less time on literacy instruction on student outcomes.

As expected from previous classroom research (e.g., Coker et al., 2016; Connor et al., 2014; Foorman et al., 2006; Silverman, 2010; Wright & Neuman, 2014), teachers' instructional practices varied widely, with some teachers providing instruction that was aligned closely with research while others did not. This range in quality was evident across modalities, including within the group of teachers providing in-person instruction. Although we did not have a large enough sample to make statistical comparisons between modalities, our observations suggest that the quality of instruction was likely not attributable to instructional modality. This finding mirrors previous studies that have found research-aligned literacy instruction in synchronous online settings with elementary students (e.g., Beach et al., 2021; Vasquez et al., 2011) and challenges news articles (e.g., Goldstein, 2020; Huffman, 2020) and early reports (e.g., Darling-Aduana et al., 2022; Kuhfeld et al., 2020) that suggest remote instruction was of poor quality.

As our classroom examples indicate, some virtual and hybrid teachers implemented literacy instructional practices that were well-aligned with research. These teachers typically used simple technology tools (e.g., breakout rooms; placing laptops on students' desks so they could talk to children participating online) to support research-aligned instructional practices. However, these technologies seemed to be alternative ways to engage in practices that teachers typically employ in their in-person classrooms. As such, we found that teachers did not completely adapt instruction in the virtual and hybrid modalities, but instead used technology tools that were available to them to meet their instructional goals. This finding aligns with previous studies conducted during the pandemic that examined adaptations of traditional in-person literacy instructional practices in remote settings (e.g., Beach et al., 2021; Hassenfeld et al., 2022). Overall, it seems that teachers who knew how to enact research-aligned instruction found ways to use technology to continue to do so.

LIMITATIONS AND CONCLUSIONS

Several limitations suggest the need for future research. First, the greatest limitation of our study is that we focused only on the literacy instruction teachers provided, not students' experiences of that instruction. Our view into K-3 classrooms using Swivl technology meant that the camera primarily followed the teacher. We were unable to use video to follow individual students, and we did not interview students or caregivers to understand their experiences with the instruction that teachers provided. Even when teachers implemented research-aligned instruction, it is possible that children in their classrooms were unable to consistently attend or access instruction on a regular basis. On our statewide surveys, 98% of teachers reported that inconsistent attendance made it hard to expand on students' literacy skills. Considerable evidence suggests that absenteeism and/or lack of access to consistent schooling has a negative effect on early literacy outcomes for students in kindergarten through third grade (e.g., Aucejo & Romano, 2016; Chang & Romero, 2008; Gottfried, 2014). Therefore, the inability to access schooling may be one factor that has contributed to recent findings that the pandemic has negatively impacted elementary students' literacy achievement.

Another limitation is that teachers in the observational study volunteered to record instruction during a time in which many teachers faced challenges due to the pandemic. Therefore, our observations may have occurred in classrooms with teachers who were either more confident about their instruction and/or perceived less pandemic-related impact to instruction than the general population of teachers. As such, our analysis may reflect the best-case scenario. Furthermore, our observations are based on a single day of instruction for each teacher. Previous observational studies have found that teachers' instruction varies across lessons (e.g., Kelcey & Carlisle, 2013), and therefore, multiple observations are preferable to make claims. While the goal of our study was to provide a "window" into the literacy instruction children received during the pandemic, it is possible that our conclusions may have differed had we examined multiple days of instruction.

Finally, although we provided teachers with a data collection manual that detailed the types of literacy instruction to record, it is possible that teachers may not have provided us with all the literacy instruction they delivered. For instance, some teachers may have turned off the video camera while children were reading independently or during transition times (e.g., after lunch), in which many teachers engage children in read alouds or short literacy-related games. Therefore, our observational data may underestimate some aspects of instruction, including the number and types of *Essential Practices* teachers implemented and the amount of literacy instructional time teachers provided.

Despite these limitations, our study provides a unique view into K-3 classrooms during the pandemic-impacted 2020-2021 school year. Our findings suggest that both the types and quality of literacy instruction may not have differed greatly from the instruction teachers provided before pandemic. Our study also calls into question some existing theories about instructional time and modality that have been posed to explain why the pandemic has negatively impacted literacy outcomes for many elementary students. As such, our findings serve as an important reminder that structural factors (e.g., instructional time) may not, on their own, explain the quality of early literacy instruction that teachers enact. Although we found many high-quality enactments of the *Essential Practices*, instruction ranged broadly within modalities, including within the group of teachers who delivered in-person instruction. Therefore, continued efforts to improve the quality of instruction in K-3 classrooms is crucial to support children's literacy development in the aftermath of COVID-19.

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Table 1. Statewide Teacher Surveys: K-3 Teacher and District Demographic Data				
	Year One (2020-2021)		Year Two (2021-2022)	
	Survey Sample	Target Population	Survey Sample	Target Population
Teachers, K-3	7,110	16,401	5,811	19,633
Gender				
Female	95.2%	95.1%	93.9%	94.5%
Ethnicity				
White	90.0%	93.1%	91.4%	90.1%
Black or African American	6.6%	3.7%	4.7%	6.5%
Hispanic	1.3%	1.3%	1.4%	1.4%
Asian	0.7%	0.7%	0.9%	0.7%
Other	1.4%	1.2%	1.6%	1.3%
Percent with ELA Endorsement	38.7%	40.1%	36.4%	38.8%
Student Composition in Schools				
Percent English Learners	7.9%	8.0%	7.7%	7.8%
Percent with IEP or 504 plan	16.2%	15.7%	16.1%	15.4%
Percent FRL-eligible*	60.1%	54.2%	60.5%	57.1%
District Characteristics				
Percent Suburban/Town	51.9%	57.4%	51.9%	53.8%
Percent Urban	24.4%	20.4%	21.6%	24.7%
Percent Rural	23.8%	22.1%	26.5%	21.5%

Note. *FRL-eligible represents the average percentage of students eligible for free- or reduced-price lunch in teachers' schools

Table 2. Observational Study: K-3 Teacher Demographic Data by Instructional Modality

Characteristic	Total Sample (N=25)	In-person (n=12)	Virtual (n=6)	Hybrid (n=7)
Gender Female	100.0%	100.0%	100.0%	100.0%
Ethnicity White	100.0%	100.0%	100.0%	100.0%
Teaching Experience (average years)	16.9	19.8	18.7	12.0
Highest Degree Earned				
Bachelor's Degree	48.0%	25.0%	33.3%	100.0%
Master's Degree	48.0%	75.0%	50.0%	0.0%
Education Specialist Degree (Ed.S.)	4.0%	0.0%	16.7%	0.0%
Teaching Endorsements*				
Early Childhood	16.0%	41.7%	66.7%	42.9%
English as a Second Language	12.0%	8.3%	50.0%	0.0%
Language Arts	12.0%	8.3%	0.0%	28.6%
Reading	4.0%	8.3%	0.0%	0.0%
Current Teaching Role				
Kindergarten	8.0%	16.7%	0.0%	0.0%
First Grade	48.0%	25.0%	66.7%	71.4%
Second Grade	24.0%	25.0%	33.3%	14.3%
Third Grade	20.0%	33.3%	0.0%	14.3%

Note. *Teachers may hold more than one teaching endorsement

Table 3. Statewide Teacher Surveys: Pre-Pandemic Literacy Activities in a Typical Week (2019-2020)	
Essential Instructional Practice	% Teachers (N=7,811)
Read alouds of age-appropriate books and other materials	95.2
Small group and individual reading instruction	94.2
Building phonological awareness	93.3
Explicit instruction in letter-sound relationships	92.8
Research- and standards-aligned writing instruction	95.0
Efforts to build vocabulary and content knowledge	94.9
Abundant reading materials & reading opportunities	94.3

Note. Teachers were asked, “The time spent on this activity has _____ since the implementation of the Read by Grade Three Law in 2016.” The column “% Teachers” represents teachers who selected the options decreased, stayed the same, or increased. Excluded from this column are teachers who selected I do not engage in this activity or did not respond to the question.

Table 4. Statewide Teacher Surveys: Teachers’ Perceived Impacts of COVID-19 on Literacy Instruction	
Perceived Impact	% Teachers (N=5,811)
Delivering effective literacy instruction is difficult in a remote setting (remote/hybrid)	87.3
Delivering effective literacy instruction is difficult in person during COVID (in-person/hybrid)	57.5
Delivering effective literacy interventions is difficult in a remote setting (remote/hybrid)	89.7
Delivering effective literacy interventions is difficult in person during COVID (in-person/hybrid)	64.8
It is difficult to identify students who need support remotely (remote/hybrid)	75.8
It is difficult to identify students who need support in person during COVID (in-person/hybrid)	32.9
Social distancing makes it difficult to teach students how to read/write (in-person/hybrid)	75.4
Mask requirements make it difficult to teach students how to read/write (in-person/hybrid)	74.8
Inconsistent attendance makes it hard to expand on students’ literacy skills (all)	97.4
Family members are unable to support literacy instruction in the home (all)	89.7
Safety protocols make it challenging to provide students with literacy resources (all)	80.3

Note. Teachers were asked, “To what extent do you agree with the following statements about how the COVID-19 pandemic affected your literacy instruction?” The column “% Teachers” represents the percentage of K-3 teachers who selected “strongly agree” or “agree.” Parenthesis indicates which questions teachers received based on their reported instructional modality.

Table 5. Observational Study: Percent of Teachers Engaging in the Essential Instructional Practices

Essential Instructional Practice	All Teachers (N=25)	In-Person (n=12)	Virtual (n=6)	Hybrid (n=7)
Literacy Engagement & Motivation	100.0	100.0	100.0	100.0
Read Alouds	80.0	75.0	100.0	71.4
Small Group & Individual Instruction	80.0	75.0	66.7	100.0
Building Phonological Awareness	92.0	91.7	100.0	85.7
Letter-Sound Relationships	76.0	66.7	100.0	71.4
Writing Instruction	96.0	91.7	100.0	100.0
Vocabulary & Content Knowledge	92.0	100.0	100.0	71.4
Reading Materials & Opportunities	100.0	100.0	100.0	100.0

Table 6. Observational Study: Average Quality Scores

Essential Instructional Practice	All Teachers (N=25)	In-person (n=12)	Virtual (n=6)	Hybrid (n=7)
Literacy Engagement & Motivation	2.36 (SD=0.73)	2.24 (SD=0.71)	2.04 (SD=0.54)	2.83 (SD=0.72)
Read Alouds	2.88 (SD=0.71)	2.62 (SD=0.62)	2.88 (SD=0.61)	3.35 (SD=0.84)
Small Group Instruction	2.70 (SD=0.96)	2.39 (SD=0.87)	2.64 (SD=0.85)	3.14 (SD=1.1)
Building Phonological Awareness	1.98 (SD=0.93)	2.11 (SD=1.1)	1.71 (SD=0.6)	2.0 (SD=0.89)
Letter-Sound Relationships	3.45 (SD=0.92)	3.76 (SD=1.1)	3.23 (SD=0.94)	3.23 (SD=0.62)
Writing Instruction	2.30 (SD=0.66)	2.4 (SD=0.7)	2.16 (SD=0.63)	2.3 (SD=0.71)
Vocabulary & Content Knowledge	2.92 (SD=0.70)	2.92 (SD=0.74)	2.74 (SD=0.55)	3.15 (SD=0.82)
Reading Materials & Opportunities	3.34 (SD=0.94)	3.19 (SD=0.57)	3.92 (SD=1.4)	3.12 (SD=0.91)
Average Quality Scores (Overall)	2.74 (SD=0.51)	2.7 (SD=0.56)	2.66 (SD=0.71)	2.79 (SD=0.49)

Note. The maximum quality score for each Essential Practice is 5 points. Instructional practices not observed (0) are excluded.

APPENDIX A

Excerpt From Video and Artifact Data Coding Protocol

Coding Procedures for Essential Seven: We will assign one score for each bullet in this essential practice, based on all observed instances of intentional and ambitious efforts to build vocabulary and content knowledge. *Intentional and ambitious efforts* is defined as any deliberate effort by the teacher to select vocabulary words to teach children; discuss words with children; review previously taught words; encourage discussion among children using new words; and provide morphology instruction (i.e., common word roots, inflections, prefixes, and affixes).

Bullet #1					
The teacher selects Tier 2 and Tier 3 vocabulary words to teach from read alouds of literature and informational texts or from content area curricula					
Exemplary (5)	Strong (4)	Proficient (3)	Developing (2)	Beginning (1)	Not Observed (0)
Word selection is intentional and planned. The teacher selects words to teach regularly across the day including during read alouds AND during content area instruction. Word selection includes both Tier 2 and Tier 3 words.		Word selection is intentional and planned. The teacher selects words to teach in one context OR during one time of day OR teaches only one type of word (e.g., Tier 2 OR Tier 3 words but not both).		Word selection is incidental. The teacher explains words infrequently OR as they come up once or twice per day OR these words do not seem to be related to read alouds or to content area learning OR the teacher focuses primarily on Tier 1 words.	

Coding Rules for E7B1: Definition of Tier 2/Tier 3 words from modules

- Tier 1: words from everyday speech that children likely already know (e.g., jacket, clock)
- Tier 2: relatively frequent in adult vocabulary and found across a variety of domains; sophisticated synonyms (e.g., *spectacular*, *coincidence*, *fortunate*)
- Tier 3: low-frequency words usually found in specific knowledge domains such as science or math; often a new word and a new concept (e.g., photosynthesis; climate; parallelogram)

Bullet #2					
The teacher introduces word meanings to children during reading and content area instruction using child-friendly explanations and by providing opportunities for children to pronounce the new words and to see the spelling of the new words					
Exemplary (5)	Strong (4)	Proficient (3)	Developing (2)	Beginning (1)	Not Observed (0)
The teacher introduces children to new vocabulary words across the day including during both content area instruction and read alouds. The teacher regularly provides a child-friendly explanation of the word, shows children the spelling of the word, and provides children with an opportunity to say the word.		The teacher uses child-friendly explanations to introduce children to new vocabulary words across the day including during both content area instruction and read alouds.		The teacher introduces children to new vocabulary words, but the explanation provided is confusing or not developmentally appropriate.	

Bullet #3					
The teacher provides repeated opportunities for children to review and use new vocabulary over time, including discussing ways that new vocabulary relates to one another and to children's existing knowledge, addressing multiple meanings or nuanced meanings of a word across different contexts, and encouraging children to use new words in meaningful contexts (e.g., discussion of texts, discussions of content area learning, semantic maps)					
Exemplary (5)	Strong (4)	Proficient (3)	Developing (2)	Beginning (1)	Not Observed (0)
<p>The teacher provides opportunities for children to review and use new words across the day. The teacher does one or more of the following: teaches multiple or nuanced meanings of words in different contexts; compares and contrasts the meaning of new words; re-reads text with the explicit purpose of revisiting new words; incorporates text sets to provide multiple exposures to new words; incorporates new words in content area learning; creates semantic maps; or other engaging activities (e.g., incorporating new words through play, music, or drama).</p>		<p>The teacher provides some opportunities for children to review and use new vocabulary words during classroom instruction. The teacher may briefly review new words across the day, but this is mostly focused on providing children with the word meaning.</p>		<p>The teacher rarely draws attention to previously learned vocabulary words during classroom instruction. When these instances are present, the teacher does not provide or discuss word meaning information. For example, the teacher might say, "Remember last week when we talked about the word 'baking?' Here it is again in this book."</p>	

Coding Rule for E7B3: Previously taught vocabulary words ("Remember how we talked about the word 'evaporate'")

Bullet #4					
The teacher encourages talk among children, particularly during content-area learning and during discussions of print or digital texts.					
Exemplary (5)	Strong (4)	Proficient (3)	Developing (2)	Beginning (1)	Not Observed (0)
The teacher regularly encourages talk among children during content-area learning AND during discussions of print or digital texts. The teacher supports these discussions by doing some of the following: helping children connect ideas to one another; synthesizing children's contributions across ideas; displaying new words and concepts for children to refer to while talking; asking questions to clarify and extend children's thinking; prompting children to elaborate their ideas and statements; or using sentence stems to support discussions.		The teacher encourages talk among children during content-area learning OR during discussion of print and digital texts. The teacher supports these discussions by doing some of the following: helping children connect ideas to one another; synthesizing children's contributions across ideas; displaying new words and concepts for children to refer to while talking; asking questions to clarify and extend children's thinking; prompting children to elaborate their ideas and statements; or using sentence stems to support discussions.		The teacher rarely encourages discussions among children related to content-area learning and print or digital text OR discussion is primarily the teacher asking children questions (IRE).	

Coding Rule for E7B4: Talk **among** children means talk between children, not only between child and teacher.

Coding Rule for E7B4: IRE= Initiate- Respond- Evaluate. A teacher asks a question, a student responds, the teacher provides an evaluative response and moves on to another student or asks another question.

Bullet #5					
The teacher provides morphology instruction (i.e., meaning of word parts), including common word roots, inflections, prefixes, and affixes.					
Exemplary (5)	Strong (4)	Proficient (3)	Developing (2)	Beginning (1)	Not Observed (0)
The teacher provides morphology instruction including one or more of the following: common base or root word (e.g. photo, graph), inflections (e.g. -s, -ed), prefixes (e.g. re-, anti-), or suffixes (e.g. -ness, -ble) AND the teacher explains why morphological knowledge is useful for learning the meanings of new words, figuring out unfamiliar words while reading, and/or figuring out the conventional spelling of new words using knowledge of its parts.		The teacher provides morphology instruction including one or more of the following: common base or root word, inflections, prefixes, or suffixes. However, there is no discussion of how morphological knowledge is useful for figuring out unfamiliar words or figuring out the spelling of new words.		Discussion of morphology appears incidental, or it is unclear what children are supposed to learn. For instance, when reading the word "creation" during a read-aloud, the teacher might say "this word looks like the word 'create,' but it has a different ending," without discussing either the root word "create" or the affix "-tion."	