A Whole New World:
Bitmoji Classrooms, Novice Teachers, and Traditionally Marginalized Students' Virtually Learning During a Pandemic

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[Abstract] As a result of the COVID-19 pandemic, a large local "urban" school district chose virtual learning to start the 2020-2021 school year. I decided to support a traditionally low-performing school with an entirely traditionally marginalized student population in this district. I will share my experience as a STEM Instructional Coach supporting Math and Science teachers and the challenges we faced teaching traditionally marginalized students in a completely virtual environment. I will share some of the strategies and supports we leveraged to combat many of the issues related to school district policy changes, student absenteeism, engagement, instructional quality, teacher burnout, and student outcomes.

[Keyword] COVID-19, Traditionally Low-performing, Traditionally Marginalized, Virtual Learning

Introduction

During the fall of 2019 through the spring of 2020, COVID-19 (COVID) swept through the world like a raging wildfire. Many developed nations fell victim to the spread of COVID because of international travel. COVID was an airborne virus and easily transmitted between people who were within six feet of each other through respiratory droplets in the air. The United States of America, along with many other nations, enacted national lockdowns to contain the spread of the virus. As a result, every aspect of society requiring social interaction between people shut down unless it was essential for survival.

COVID forced us all to rethink how to function in society with a global pandemic. The federal government enacted social distancing guidelines, and schools across the nation made plans to educate students virtually to start the 2020-2021 school year.

My Call to Arms

A good friend and former colleague, Ms. Reinhardt, for the sake of anonymity, reached out to me looking for help filling an Instructional Coach (IC) position for the 2020-2021-COVID-school year. She was returning to this school in a new role as a part-time Humanities-English Language Arts (ELA) and Social Studies (SS)-IC. Ms. Reinhardt told me the school Principal had been there in his role for about a decade. She said he was a great leader, the school was a great school with a great staff and great students, but he struggled to produce in Math. The current Science Technology Engineering and Mathematics (STEM) IC was part-time, and the math data had declined for three consecutive years. She asked me to connect her with anyone I knew that could support this endeavor. I told her I would contact anyone I knew that would be a good fit.

Over time I grew interested in how states and school districts planned to deal with schooling through the pandemic. The more I learned, the more concerned I became for marginalized communities. I decided to be a part of the solution and help where I could. I had a conversation with Ms. Reinhardt about me fulfilling the role. She was excited. She worked as a liaison between

the Principal and me to discuss the role's particulars and how we could make it work with my full-time job. The response was promising, we scheduled an interview, and the Principal offered the role to me shortly after the interview.

I was very familiar with this school district, having taught there in the past. I will use the pseudonym Anonymous School District (ASD) to refer to it. Besides my teaching experience, I facilitated several professional development workshops and worked on alignment projects for ASD since leaving my tour of duty as a classroom teacher. I was confident in my past success and my abilities to develop teacher capacity and enhance systems and practices to improve student outcomes in this space. However, the school's conflating issues, the district, the political climate, Covid-19, and virtual learning were more than I anticipated.

Article Overview

This article will share my experiences as a part-time STEM Instructional Coach, supporting a traditionally low-performing Title I school in a large "urban" traditionally low-performing school district during the COVID-19 global pandemic school year 2020-2021. I will use Anonymous Elementary School (AES) as the school's pseudonym to keep all parties involved anonymous. I will outline the general problems I noticed that affected math outcomes before COVID became a factor. I will discuss some of the issues we faced with virtual learning as a response to COVID-19. I will address some of the mistakes we made with implementing an entirely virtual school program for primary education students in a traditionally marginalized community. I will share some strategies that worked well for us, as well as lessons learned.

Challenges Before COVID

AES faced significant challenges before the COVID-19 pandemic. AES was an elementary school located in one of the most impoverished areas in the city. About 300 students enrolled in AES. Its student population was 99% Black and 1% Latinx. Every student was economically disadvantaged, and the special education population was bout 20% of all students. The teacher retention rate declined from 2017-2018 to 2018-2019, 87% to 50%, and the highly-rated teacher retention dropped during the same timeframe, from 90% to 61%. The weekend before the first day of school, one of two fifth grade teachers resigned, and the other left within the first month of the school year. The Principal hired a new third-grade teacher, moved a fourth-grade teacher to second grade because of poor student outcomes, and moved a third-grade teacher to fourth grade with her students from the previous year. There was only one returning teacher at the same content area and grade level between the six teachers in grades three through five.

The ASD's large-scale state assessment data showed math proficiency increased by 1.5% from the previous year and by 5% over the last three years. AES's schoolwide math proficiency dropped by 8% during this timeframe. However, AES educators celebrated ASD district assessment outcomes for math. The district assessments were not predictors for the large-scale state assessment and did not correlate to those outcomes. So, there was a disconnect between teacher effectiveness and student outcomes. Teachers were under the impression that they were doing an excellent job. Yet only 11% of AES students were grade-level proficient in math, and the average score on an AES district math assessment was around 40%. The district math program used to assess 1-year growth showed a steady decline over the same 3-year period. The percentage of students that showed 1-year growth in math dropped from around 73% to about 42%. Thus, mixed messaging, celebrating mediocrity, and ignoring the steady decline in student math outcomes

complicated the work to support teachers before the pandemic was an issue.

Accountability and Evaluations Systems

To add to the pre-pandemic issues, systems in ASD were overly prescriptive. The evaluation systems governed every instructional decision. Most of these decisions focused on producing student outcomes that were near district averages. Teachers and ICs adhered to the suggested guidance in curriculum resources with fidelity regardless of if it was appropriate for their students or not.

For example, The STEM supervisor in my area asked me to develop and facilitate a district professional development workshop for other STEM ICs to demonstrate the programmatic changes we made in math at AES. These changes supported more purposeful and intentional planning and instruction aligned to the district's scope and sequence and testing schedule. She asked me to demonstrate how we implemented these changes through instructional coaching. Moreover, I was strongly encouraged to produce a scripted protocol that all ICs could follow while coaching their teachers. Although there was a meeting agenda template that we used to guide all AES meetings, the coaching conversations were individualized and formulated for each teacher's needs and their particular professional development needs. This concept seemed foreign to the person making the request. She told me about the importance of having a protocol for others to follow verbatim to build their best practice coaching capacity. Again, I was strongly encouraged to develop a protocol for others to follow to replicate what I was doing at AES.

Limited and Inexperience Instructional Support

My instructional coaching counterpart was a product of ASD's prescriptive system. All of her coaching decisions came from ASD resources, supervision, and training. She did an outstanding job following any ASD protocol with extreme fidelity. She ensured teachers at AES adhered to the curriculum and planned their instruction as suggested by the curriculum resource down to the proposed script. Her way of supporting teachers made it difficult to make adjustments. She did not find any issues with her approach because she was confident in how well she practiced ASD procedures. She was unaware that this approach was not beneficial for their students, making the start of our working relationship challenging. She internalized my perspectives of AES as a criticism of her work. After some weeks of explaining and building her capacity, she admitted that she had not received this training level to improve her coaching acumen. She bought in, and we were able to begin doing the work we needed to do collaboratively.

Challenges with Virtual Instruction

Virtual instruction brought about an extra set of challenges that made everyone's job a daily arduous exercise in planning, preparation, practice, and patience. In this section, I addressed the challenges we faced with virtual instruction. We contented with debates about virtual learning appropriateness, home disruptions, issues with devices and the internet, larger class sizes, less instructional time, and adapting in-person curriculums to virtual instruction.

Appropriate Ages for Online Instruction

Elementary was a difficult age group for online learning. We were essentially asking pre-K through grade 5 students to engage in online instruction from 8:30 am to 3:00 pm with a 45-minute lunch break that started somewhere between 11:30 am and 12:00 pm. Even with brain breaks,

elective classes, asynchronous learning, small groups, and daily check-ins, student attendance and participation regularly declined after lunch. According to the Illinois State Board of Education, elementary students should have 1 to 2 hours of online instruction per day (Dixon & Kirmes, 2020). However, ASD tried to make a regular in-person school day virtual.

The younger the student, the more difficult it was to keep them engaged in an online environment. The American Heart Association and the Council on Communications and Media recommend children 8-18 years old have no more than 2-hours of high-quality screen time per day (Barnett et al., 2018; Council on Communications and Media, 2016).   Additionally, children 2 to 5 years old should be limited to 1-hour screen time per day (Barnett et al., 2018; Council on Communications and Media, 2016). Therefore, 5 to 6-hours of screen time for virtual learning was unhealthy. Virtual learning made it easier for students to fall asleep during instruction because they were in their home space. It was easier for students to engage in off-task play during instruction. It was easier for students to tune teachers out and turn teachers off. Students could simply mute the volume, turn the camera off, or log out of the virtual platform when they wanted to. We could not account for or control all the disruptions we faced using a virtual meeting platform to educate students in their homes.

Home Disruptions

Home disruptions were some of the more disturbing challenges we faced with virtual learning. In many homes' parents did not demonstrate consideration for their students' attempts to learn virtually. Some parents were loud and disruptive in their conversations and behaviors. Some parents played loud music and television while their students were in their virtual classes. Some parents interjected during instruction because they felt their student was not getting enough attention or support. Some parents would interrupt a lesson to have a parent-teacher conference. Some parents would interrupt a class to get a tutorial or technical support. Some parents exposed students to things in their homes that other parents would object to. Some parents let us know that this was their house, they could do what they want in their place and did not care what anyone thought about it.

Finding a quiet space was a significant challenge for most of our students. Many of our students lived in small apartments and shared rooms with a family member. I recall one student who went into the bathroom of her home to take a district math assessment because it was the only place she could go to reduce the background noise. It was usual for more than one student to be in the same room, on different devices, attending other virtual classes. In some instances, the parent worked remotely as well.

Devices and the Internet

Each AES student was given a device for virtual instruction, and their parents had to come and pick it up before the start of the school year. Sometimes there were technical issues with students' devices that our tech specialist could not resolve remotely. In these cases, we needed parents to coordinate with the AES administration to schedule a device trade. In some cases, students were attending classes by cell phone because their device was not working, and the parent had not made arrangements to pick up a new one. As a result, these students did not have full access to the resources used in virtual learning experiences. Thus, students' had limited access to instruction and were relegated to their parent's phone availability.

ASD shared several options for families to obtain free internet access. As a part of this list, some cable service providers offered a couple of months of free internet access. Others offered

free public hotspots to non-customers if they were within a coverage area of the service provider. ASD's Office of Technology installed hotspots throughout the city. Also, ASD reminded families that if they had Metro PCS as a cell phone service provider, they had unlimited data as a part of their data plan and could use their cell phones as a mobile hotspot for internet access.

Even with these supports, internet access was inconsistent, and internet quality was consistently an issue for some students. Some students had audio problems, camera issues, inability to use specific programs or resources during a lesson, their chat feature may not work some days, or they simply could not access the internet to use their device. These issues caused students to miss part of the instruction or lose instructional days altogether.

Less Instructional Time and Larger Class Sizes

The virtual school day was structured in a way to replicate the in-person school day. Components of an in-person lesson, like small group instruction, were created as separate classes. The Principal reduced the class time for new lessons to 45 minutes at the beginning of the school day. The reduced class time created an issue because the math curriculum required, on average 60 minutes per lesson. Also, teachers generally lost 5 to 15 minutes of instructional time navigating tech issues, disruptions, participation, and engagement. Toward the end of the day, students revisited the math lesson in their scheduled small group rotation.

Class sizes were large at times. Our grade 5 classes had over 50 students between two teachers. Class sizes made our small group rotations rather large, except when students did not show up after lunch. Additionally, about seven students in this grade level missed at least 50% of class per quarter.

Adapting In-person Resources to Virtual Instruction

Vendors of our curriculum resources developed them for in-person instruction. Textbook adoption committees selected the math resource for in-person learning. Doing Math and Science in elementary school, especially with students who are grade levels behind in their education, requires developing concrete conceptual understanding aided by hands-on manipulatives. Our primary instructional resources did not have built-in virtual alternatives. ASD asked teachers to use autonomy and be creative with Web 2.0 tools to substitute manipulatives for concrete learning. However, teachers struggled with this idea because of the culture of following protocols as advised.

Mistakes Made

I could fill this article with a list of mistakes but attempting to replicate in-person learning virtually with elementary students encompasses them. There was no rational justification for pushing children to participate in virtual instruction 5 to 6 hours a day except to justify educator pay.

The model we used significantly reduced instructional time for math educators. It made one day a week an asynchronous day for students and reduced ten teacher-lead days of instruction per quarter. There were about 45 days in a quarter. No one in ASD accounted for this until I raised it as an issue.

ASD tried to conduct business as usual, including district accountability assessments. Policymakers in ASD did not consider how schooling adjustments because of COVID could introduce misalignment issues with the curriculum, scope and sequence, and assessment schedules. The district math assessments were scheduled weeks before the end of the quarter. The scheduling usually resulted in a loss of at least ten instructional days for elementary math teachers. The total

number of days for any unit of ASD's math curriculum was between 35 and 45 days at an average of 60 minutes per day. Elementary math teachers were losing almost half a quarter of instruction. The loss of instructional days was evident in quarter two. ASD policymakers scheduled the quarter two math assessment administration to be given two weeks before the winter break. This assessment covered the content teachers were teaching during quarter two. The individuals who scheduled the quarter two math assessment's initial date did not account for the month of content in quarter two teachers still needed to teach after the winter break. At this point, it was clear ASD did not make the necessary adjustments to address online elementary math instruction during the pandemic appropriately.

We all made the mistake of not understanding and respecting the weight of this undertaking and what it meant to do something of this magnitude that none of us had ever done. Granted, it was unprecedented, fluid, and sometimes there was a spur of moment last-minute decision made. However, I have a hard time seeing how policymakers made some decisions with students' best interests in mind. That was probably the biggest mistake, and it was most noticeable when considering if a decision or action put students in the best position for success.

Effective Strategies

My alignment evaluation of ASD's elementary math program components identified structural issues with using it to improve our students' outcomes. According to English (2000), The cornerstone for student achievement success is ensuring the written, taught, and tested curricula are aligned. I discovered the ASD math assessment, curriculum, and scope and sequence were misaligned. I found using two different vendors, one for curriculum and another for district accountability assessments, led to the following issues: the curriculum content teachers taught within an instructional quarter was not guaranteed to be on the district math assessment; the scope and sequence did not introduce some content standards until after the assessment; teachers did not have enough time to teach the assessed content if they followed the district scope and sequence. I advocated for teachers to get more time to teach the content assessed in a quarter and not be held accountable for the content they were yet to introduce. I was able to get both requests granted. I also noticed teachers were not using standards-based planning to ensure they addressed the content for a given instructional window. Instead, they were simply instructing the next lesson in the curriculum sequence.

I realized I needed to help teachers be more purposeful and intentional in their planning and instruction because of the alignment evaluation results. Our virtual schedule gave us less time, and it was critical that we backward mapped our learning goals from the assessment to each daily learning target. Building teachers' content knowledge of the standards helped them better understand the objectives in the curriculum resource. It also helped them create more manageable daily learning targets since they understood what they were teaching instead of blindly following the curriculum resource's suggested steps. More robust content knowledge and more focused learning targets helped teachers develop lesson activities that were more appropriate for their students and allowed them to use Web 2.0 tools that were more appropriate for their lessons. These changes to lesson planning and instruction helped increase engagement with students. Students were able to understand better and apply what they were learning.

As a result, participation and engagement increased as teachers found ways to make their lessons more inclusive, and student disruptions decreased as this continued happening. In our coaching sessions, teachers shared that they went from feeling hopeless and defeated to feeling

rejuvenated and better equipped to succeed with virtual learning. Their efforts were evident as our quarter two district math assessments improved by 12% from quarter one.

Lessons Learned

The welfare and wellbeing of marginalized groups continue to give way to political agendas. Consequently, it was vital for me to redefine my perspective of success. I always want students to do well, but they need good high-quality learning opportunities to do so. Even with being a results-oriented individual, I understood we needed appropriate structures and systems in place that would produce results. I do not think many people in policymaking positions or those making decisions affecting schools and their communities took the time to consider the challenges students who attend schools like an AES were facing and how COVID exacerbated them. The students were the real heroes because we asked a lot of them. When we made learning accessible, engaging, and worthwhile to them, they were willing to step-up to learn and show us what they learned. During this COVID school year, virtual learning exposed our weaknesses and showed the lack of consideration for protecting some of our most vulnerable populations.

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