Teachers' experience of changes to their teaching methods because of the COVID-19 pandemic: A case study of teacher experiences during remote learning in a rural school district.

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EXECUTIVE SUMMARY

The COVID-19 global pandemic created unprecedented change on how teachers were expected to adapt and change their instructional practices. For many teachers, this was their first experience with online, hybrid, or remote learning. The purpose of this study was to examine teacher experiences and their perceptions of change to their classroom instruction due to the pandemic. A qualitative case study collected teacher experiences and perceptions from a survey and interviews at a rural Kansas high school and middle school.

The findings indicate that while some teachers continued to use the new tools and strategies post-pandemic, many reverted to pre-pandemic teaching methods. This return could be seen as a missed opportunity to capitalize on the innovations and skills developed during the pandemic, potentially reimagining education. A notable aspect of the study was the emphasis on mental health, with teachers highlighting the significant impact of the pandemic on both their own and their students' well-being. This area of concern warrants attention from school districts and governing bodies.

INTRODUCTION

In March 2020, a global health pandemic was declared due to the spread of COVID-19. As a result, many countries implemented lockdowns, closing non-essential businesses, schools, and restricting travel. On March 18, 2020, Kansas became the first state to close all PK-12 schools for the remainder of the 2019-2020 school year and moved to remote learning or paper worksheet packets. Late in Summer of 2020, Gov. Kelly used Executive Order #20-58 to delay the start of the 2020-2021 school year until September 8th, about a 3-week delay from the normal school year. This also allowed teachers to plan changes to their classroom procedures and learning environment.

Teachers were given some additional professional development and told to be prepared to teach in-person or remote learning, including being able to switch from in-person to remote learning with only one day's notice. Even more complicated were situations where teachers had students in the classroom and students at home live via video camera in a hybrid learning situation (Henriksen et al., 2020). During the 2020-21 school year, many teachers experienced the continued stress of the pandemic on themselves and their families. Additionally, disparities in internet access, devices, and suitable learning environments became evident, especially in rural schools.

In education, change is slow. Major reforms can take years to implement, then analyze the data, and finally determine if the change was impactful or not. However, the COVID-19 pandemic forced one of the quickest changes on nearly every school in the US and around the world. This shift was unique in that this scale of change would otherwise seem impossible based on previous research of system-wide reforms in education and changes at the classroom level. While the move to a more integrated technology-rich learning environment could be positive, there was not enough time to fully implement best practices for online learning (Shrier, 2021).

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METHODS

A qualitative descriptive case study was conducted that included teacher volunteers for a survey and interview component to capture how teachers perceived the change to online/remote and hybrid learning during the 2020-21 school year. The goal of the study was to explore teachers' perspectives regarding their experiences with the forced changes due to the remote/online and hybrid teaching requirements during the COVID-19 pandemic. The research examined the curriculum and technology changes teachers used to adapt their teaching to face-to-face, hybrid, and/or remote teaching and how that impacted their success and/or stress during that time.

Teachers from one middle and one high school (grades 6-8 and 9-12) in a rural Kansas school district volunteered to complete an online survey; with the option to be interviewed for more details. The Qualtrics survey was completed by 28 teachers and 10 teachers were interviewed from different career lengths and content areas at the middle school or high school levels. Follow-up interviews were conducted as needed to clarify and expand on ideas from the initial interview. Interviews were recorded for analysis and the identification of themes. Additionally, information was gathered about how teachers continued to incorporate (or not) those changes into their classrooms during the 2021-2023 school years.

Analysis of data was conducted in multiple phases. The survey asked teachers about their prior use of technology integration to the changes they had to make to teach during the pandemic. From the survey, 20 out of 28 (71%) teachers experienced a lot or a great deal of change in their prior use of technology versus during the pandemic. Additionally, 16 of 28 (57%) of teachers marked the change to remote and hybrid learning to be extremely or somewhat difficult. The interviews were analyzed first using in vivo coding and then using a priori coding. The researcher compiled field notes to reflect and synthesize the research.

From the interviews, teachers were asked about the successes and challenges they faced when making changes to their classroom instruction during the pandemic. Teachers were asked about the professional learning and what the learning environment was like in hybrid or in-person with spacing and masking requirements. When asked which year was the most disruptive year to their teaching due to the pandemic, 9 out of 10 teachers interviewed selected the 2020-2021 school year (selected from 4 possible school years) because it was the most disruptive due to the unknowns in teachers' experience. Brittany stated: "we weren't entirely sure what it should look like because there were still so many unknowns on like when school was going to start and what school was even going to look like. It was really hard to figure out what we should be planning for." The "unknown" as Brittany stated was a barrier to being able to plan for school. There was a helplessness in not knowing how school will run, so not knowing where to start or what to do was an issue for some teachers during the Fall 2020.

All the teachers interviewed had used technology due to the district-wide one-to-one technology initiative, or during their undergraduate teacher preparation, or taking online master's classes. Most of the teachers interviewed felt comfortable using technology and stated they only needed to make minor changes to adjust for remote learning. In Roger's Diffusion of Innovation (2003), an attribute of the rate of adoption is how compatible the innovation/technology is to current values and experiences. Teachers are more likely to adopt changes if the changes align to current technology use. Despite the interviewed teachers being frequent users of technology, they wrestled with the complexity of remote learning. Teachers shared some of the barriers to learning, including students and teachers without reliable access to the internet and the problem of being in a rural school district complicated access. Even with a hot spot provided by the district or the ability to pay for better service, sometimes that service just isn't available in rural areas.

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When teachers were asked about the professional learning, they received for the 2020-2021 school year (the school start was delayed), most did not find the training helpful. Prior experience using technology plays an important part in how much training teachers needed to move from face to face to online teaching. Kyle shared that being an online student prior to the pandemic was the most helpful training. Despite the professional learning opportunities described as not being as helpful, teachers found a great deal of help from peer teachers. One teacher in the survey reported, "I learned more by trying things out with my cohort when we were given additional time to plan together." The peer support of teachers made an impact on teacher innovation and adoption during this time.

The pandemic had a tremendous impact on teacher and student mental health during the 2020-2021 school year and has continued through to 2022-2023 as well as multiple school years were impacted by the pandemic. Teachers commented on changes to teacher and student mental health during the pandemic. Even though teachers were not specifically asked about mental health, when asked about successes and failures or changes to instruction, mental health was the most frequently mentioned topic. From the Qualtrics survey, 25 out of 28 (89%) teachers answered that they experienced a moderate or more stress teaching during the 2020-2021 school year than prior to the pandemic. Teachers felt they had to make changes to their teaching to try to engage students and had to compete with video games and television, so they had to make school more entertaining for students. Even in the classroom, teachers had to change their typical pedagogy and routines and that had an impact on how they interacted. Deborah felt that she couldn't keep her proximity to the students during the pandemic which impacted her instruction: "I was super worried about giving my kids COVID, so one major change in my teaching is the proximity to kids. I kept away from them behind a plexiglass partition." Not being able to walk around the room and interact with students like they previously would, out of fear of getting or giving COVID, made teachers change the environment of their classroom. Sitting behind plexiglass was a sterile and less welcoming environment.

The public perspective of teachers took a drastic swing from the early Spring 2020 support of teachers to a negative and sometimes public outcry when schools went remote in the Fall 2020-2021 school year. Parents were exasperated with remote learning and wanted their children to be in school, so they could go to work. The public disdain was stressful and impacted teachers who were working very hard to meet with students. The stress of the pandemic and public pressure was hard for many teachers. From the survey, one teacher shared that "teachers were given no trauma care, and no grace, no consideration. We had to dive-in regardless of our own trauma responses and be everything to everyone at all times." Teachers didn't receive any training for the emotional toll of the pandemic, the training was mostly focused on policy/procedure changes and academic content.

CONCLUSIONS

Using Roger's (2003) Diffusion of Innovation theory to analyze how teachers made instructional changes during the pandemic from remote and hybrid learning that exacerbated and revealed barriers to learning for students, especially at-risk students. The barriers to learning presented a stressful burden to teachers, who often didn't have the tools or power to overcome issues because of their limited scope of influence as teachers. The stress from the number of changes teachers experienced during the pandemic had a significant impact on teacher's mental health as revealed in the interviews and could influence the health and welfare of the teaching profession. The use of a social system of peer mentoring was evident as a successful way for teachers to implement change, an already known evidence-based process of implementation. However, the move back to pre-pandemic teaching styles due to the stress of the pandemic indicates that this was possibly a missed opportunity in making changes to the design of the education model currently used in schools.

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RESEARCHER RECOMMENDATIONS

This study is relevant to other researchers wanting to study how teachers adapted and changed their instruction during the pandemic and could be used to contribute to larger meta studies about the overall impact on education and future implications to the teaching field. Focusing on how forced changes were implemented and then continued after the pandemic underscores how change can be successful or not using Roger's (2003) Diffusion of Innovation theory. Policymakers and administrators interested in leading teachers through pedagogical change should use an effective model for change. At the school/district level, the information is useful in understanding what training or support teachers need going forward or how the change process impacts teachers. More research on the impact of teacher mental health during the pandemic and in general is needed to see how it impacts teacher pedagogy and teacher effectiveness.

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