

Master's Thesis

**Perspectives of Teachers Working in a Virtual School Environment in Upstate New York**

Valerie Waters

M.S.Ed. Educational Technology Specialist (K-12)

Dr. Gina Solano

Department of Secondary Education and Educational Technology

SUNY Oneonta

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### **Abstract**

The COVID-19 pandemic caused many changes for schools and students. Many schools had to make temporary accommodations to continue instruction virtually during periods of quarantine. Despite the return to in-person learning for many schools, options for virtual learning are becoming more popular. However, there is a lack of professional training for virtual teaching. In addition, there is very little literature on virtual schools, which is needed as virtual K-12 schools become more popular. The purpose of this study was to understand the perspectives of teachers working at the New York Public Virtual Learning Academy (PVLA). This study utilized open-ended questionnaires and interviews of 16 teachers working at the PVLA. Data was organized via reduction into codes and themes. This study found that while many participants described virtual teaching as a positive experience, yet there are a few areas in need of more preparation. This study suggests that with the right support and preparation, virtual teaching can be a viable option for many teachers.

## **Perspectives of Teachers Working in a Virtual School Environment in Upstate New York**

### **Introduction**

The COVID-19 pandemic caused many changes, including to students and schools. Many schools switched to virtual schooling for the end of the 2019-2020 school year (National Center for Education Statistics, n.d.). Some remained virtual for all or part of the 2020-2021 school year, but others returned to in-person learning at the start of the new school year (National Center for Education Statistics, n.d.). Fully virtual schools are becoming more common post-COVID-19 (Hodges et al., 2022). Even prior to the outbreak of the COVID-19 pandemic, virtual schools were already a growing phenomenon (Toppin & Toppin, 2015). There is a gap in literature about K-12 teachers' perspectives of virtual teaching (Hoang & Le, 2021). This paper will explore the perspectives of educators teaching in a virtual school environment in upstate New York post COVID-19.

### **Background of the Problem**

Virtual schooling is becoming more popular for multiple reasons, including COVID-19 outbreaks and severe weather events (Hodges et al., 2022). In the U.S. during the 2017-2018 school year, 39 states had either fully virtual or hybrid schools (Molnar, 2019). During that school year, 501 fully virtual schools enrolled approximately 300,000 students (Molnar, 2019). Virtual school enrollment increased by approximately 30,000 students between the 2017-2018 and 2019-2020 school years, pre-COVID-19 (Molnar, 2021). According to a World Bank report from June 2020, 190 countries experienced full or partial school closures due to the COVID-19 pandemic, and an estimated 1.7 billion students were affected (World Bank, 2020). Some students and families that experienced temporary virtual learning due to the COVID-19

pandemic discovered that virtual learning better suited their learning needs (Kingsbury, 2021). A survey conducted by Education Next in 2020 found that 73% of parents were willing to have their student take at least some online high school courses, up from 56% in 2009 (Henderson et al., 2020).

The switch to virtual schooling in early 2020 was abrupt for many schools (Kingsbury, 2021). Many teachers in brick-and-mortar schools had to adapt to teaching online with little to no training or experience (Kingsbury, 2021). Teachers in the U.S. reported experiencing chaos and exhaustion while trying to navigate hybrid learning (Hodges et al., 2022). Teachers felt they were not providing as much content to students and were not interacting with students as often (Hodges et al., 2022). There is a need for better preparation for teachers to be able to work adeptly in virtual school environments (Hodges et al., 2022). The problem this study will focus on is determining what preparation is needed for virtual school teachers.

### **Context of the Local Problem**

The New York Public Virtual Learning Academy (PVLA; name changed) is a virtual school servicing 3rd-12th grade students in many school districts in upstate New York. The PVLA began accepting students at the start of the 2021-2022 school year. The virtual academy was created as a response to the local school districts' requests for a virtual schooling option (PVLA principal, personal communication, February 24, 2023). Many of the local brick-and-mortar schools were returning to in-person learning for the 2021-2022 school year but had students who needed an alternative remote learning option. Therefore, the Public Virtual Learning Academy was created. At the end of the 2021-2022 school year, the PVLA had

approximately 200 K-12 students from sixteen school districts. As of May 2023, the PVLA had 155 3<sup>rd</sup>-12<sup>th</sup> grade students from 22 school districts.

At the PVLA, many teachers are unfamiliar with the nuances of the technology platforms used (PVLA principal, personal communication, February 24, 2023). Periodic trainings are held to inform teachers of useful features, provide reminders of how to use the technology, and answer any questions that teachers have. Additionally, there is an administrative assistant available to answer questions, provide immediate support, and help troubleshoot technology issues as they arise. Due to the level of support available to teachers, previous teaching experience in an online school is not necessary for teachers applying to the Public Virtual Learning Academy. However, prior online teaching experience is beneficial to teachers because it makes the transition to online teaching quicker and makes their online teaching skills stronger.

### **Virtual Schools**

Virtual schooling is “the delivery of instruction through technology to students physically separated from their teachers” (Black et al., 2021, p.119). In a virtual school, classes may be synchronous or asynchronous, or a mix of both. Synchronous learning requires students to attend class on certain days or times, whereas asynchronous learning is self-paced, and students work on their own time (Learn.org, n.d.). For elementary students, parent involvement and facilitation of learning is often required (Black et al., 2021). Older students in middle and high school often work independently via individual or group instruction (Black et al., 2021). At the New York Public Virtual Learning Academy, elementary students have synchronous learning for the entirety of the school day, and middle and high school students have a mix of synchronous class periods and asynchronous coursework.

### **Purpose**

The purpose of this qualitative study was to understand the perspectives of teachers working at the Public Virtual Learning Academy. There is an increasing amount of research on how COVID-19 affected education, but there is little research on teachers' attitudes and challenges with teaching virtually (Hoang & Le, 2021). There is a need for increased understanding of the preparation teachers need to be able to successfully work in a virtual school environment as virtual schools become more common (Hodges et al., 2022). Furthermore, there is a lack of research on virtual school teaching practices which is needed with the increase of new K-12 virtual schools (Molnar, 2021).

### **Significance**

This study contributed to filling the gaps in understanding necessary virtual teacher preparation and the identification of virtual school practices. The results of the data were analyzed to identify teachers' perceived needs. This basic qualitative study benefitted the Public Virtual Learning Academy and the school districts it services by identifying areas for improvements within the Public Virtual Learning Academy. The results of this study may also benefit other new K-12 virtual schools in assisting them with strategies to help provide the training needed for optimal virtual teaching.

### **Research Questions**

The problem this study focused on was determining what preparation is needed for virtual school teachers. The purpose of this study was to understand the perspectives of teachers working at the Public Virtual Learning Academy This qualitative study addressed the following research questions:

1. What are the perspectives of teachers working in a virtual school environment?
2. What additional preparation is needed for teachers working in a virtual school environment?

### **Literature Review**

Virtual schools are an emerging area of research. The COVID-19 pandemic brought virtual schools to the forefront of education, and with that came new research. However, there are still a few areas of need. The following literature review will discuss virtual schools in the context of the Diffusion of Innovation theory. In addition, the COVID-19 pandemic and virtual teaching, teacher preparation programs and virtual learning, and existing skills and standards for virtual teaching will be discussed.

#### **The Diffusion of Innovation Theory**

The Diffusion of Innovation (DOI) theory was established in 1962 by E.M. Rogers, and explains how an idea or product spreads through a population or social system over time (LaMorte, 2022). The DOI theory is based on researchers' findings that the first people to adopt a new innovation exhibit different characteristics than people who adopt the same innovation later (LaMorte, 2022). The theory has five distinct categories of "adopters": Innovators, Early Adopters, Early Majority, Late Majority, and Laggards (LaMorte, 2022). Innovators are open to taking risks and are the first to adopt the innovation (LaMorte, 2022). Early Adopters, like Innovators, are comfortable with adopting new ideas (LaMorte, 2022). Early Adopters serve as a role model to the rest of the social system, and often communicate their opinions of the innovation to their peers (Singer, n.d.). Early Majority adopters embrace the innovation before the average person, but typically need to see results of the innovation before adopting it

(LaMorte, 2022). Late Majority adopters embrace the innovation after the majority of the population or social system adopts it (LaMorte, 2022). Early Majority accounts for about a third of the population or social system, and Late Majority accounts for another third – making these two categories the largest (Singer, n.d.). Finally, Laggards are cautious adopters who will only embrace an innovation if they are certain it will not fail (Singer, n.d.).

The specific population of this study is teachers who work in a virtual school environment. However, this specific population is housed within a larger teaching social system that includes teachers in traditional brick-and-mortar schools. Virtual schools, in the context of the DOI theory, can be considered an emerging innovation. Teachers who have worked or are working in a virtual school environment are classed into earlier DOI adopter categories than teachers who have not worked in a virtual school environment. Ideally, the results of this study and similar studies will help the social system become more open to the idea of teaching in a virtual school environment.

### **Virtual Learning and the COVID-19 Pandemic**

There are several stakeholders that provided positive perceptions on virtual learning during the COVID-19 pandemic. Hoang and Le (2021) surveyed teachers in Vietnam about their experiences with virtual teaching during the COVID-19 school closures, and about 90% expressed positive attitudes. A similar percentage of teachers in the study reported feeling that the virtual learning experience was useful to their in-person teaching abilities (Hoang & Le, 2021). Diliberti and Schwartz (2021) surveyed school district leaders in the United States to understand their opinions of and intentions to continue with virtual learning for the 2021-2022 school year. In October 2020, about 2 in 10 district leaders were offering or considering offering



a long-term virtual school option after schools reopened. In June 2021, that statistic increased to 25% of district leaders, with an additional 14% of district leaders indicating they would continue to offer a temporary remote learning option short-term (Diliberti & Schwartz, 2021). Only 3% of districts surveyed had offered a virtual learning option prior to the start of the COVID-19 pandemic (Diliberti & Schwartz, 2021). Overall, the study by Diliberti and Schwartz shows there was an increase in school district leaders that were willing to offer virtual learning options for their students as the pandemic progressed. These statistics show that virtual learning had some success during the COVID-19 pandemic.

Pedagogy and teaching strategies changed slightly during the switch to online learning. Kingsbury (2021) found active learning was missing during the spring of 2020, when schools made a sudden and abrupt change to virtual learning. Many teachers assigned packets and were unengaged with students (Kingsbury, 2021). Hoang and Le (2021) had teachers report virtual learning required more prep work, as the content delivery method was different. Perhaps this is why teachers initially provided less engaging work, but Kingsbury did not address that in his study. Teachers and students found the switch to virtual learning to initially be a bit difficult, as it required a change in content delivery methods and classroom roles (Rizvi & Nabi, 2021). Students had to take on more responsibility for their learning with virtual learning. Rizvi and Nabi (2021) found that students preferred live virtual lectures over asynchronous work, as this was most similar to their experiences with in-person learning. Furthermore, when teachers utilized asynchronous work, students preferred to have multiple modes of accessing information, such as videos, audio, and text options (Rizvi & Nabi, 2021). These results show that in order to have a positive experience with virtual learning, teachers and schools did not need to make

extreme changes to their pedagogical strategies, as it is common pedagogical knowledge and practice to offer multiple means of accessing content.

There were many issues and struggles with the switch to online learning. One area of concern was special education. The United States Department of Education provided very little guidance for special education teachers and students (Jenkins & Walker, 2021). Due to this, special education stakeholders perceived a mismatch between the needs of students with disabilities and virtual learning experiences (Jenkins & Walker, 2021). Special education teachers felt that general education teachers were not prepared to adapt their virtual teaching for students with disabilities (Jenkins & Walker, 2021). Another area of concern with virtual learning during the COVID-19 school closures was classroom management and communication between students and teachers (Kingsbury, 2021). Kingsbury (2021) found teachers struggled with communication, especially with communicating learning expectations to students. Teachers also struggled with managing students in a virtual learning setting (Kingsbury, 2021). Hoang and Le (2021) also found that teachers struggled with classroom management but noted that this was partially due to technology issues. Students with weak internet would often disconnect and interrupt the lesson when they reconnected (Hoang & Le, 2021). In general, technology issues were a significant problem with virtual learning during the COVID-19 school closures, and this was reflected in more than one study (Hoang & Le, 2021; Rizvi & Nabi, 2021). Hoang and Le (2021) had teachers report issues with their own technological skills. A majority of teachers reported feeling technologically incompetent (Hoang & Le, 2021). About half of the teachers reported the students were technologically competent, but about a third reported the students were not competent with technology (Hoang & Le, 2021). Rizvi & Nabi (2021) reported similar

concerns with technological skills and digital literacy, both for students and teachers. Overall, there were many issues that needed to be addressed during the initial transition to virtual learning, ranging from technological to pedagogical.

### **Virtual Schools and Teacher Preparation Programs**

Very few teacher education programs provided teachers with virtual school preparation prior to the COVID-19 pandemic (Archambault & Kennedy, 2018). In 2010, only seven programs were found to offer virtual school preparation; in 2016, that number only increased to fifteen programs (Archambault & Kennedy). In a survey of teacher education program personnel, Kennedy & Archambault (2012) found that only 13% of respondents planned on offering virtual school field experience to their preservice teachers. Virtual field experience has been shown to help preservice teachers develop a sense of community in virtual classrooms, which is a known challenge in virtual settings (Moore-Adams et al., 2016). In another study, Barbour (2012) found that teacher preparation frequently occurred via professional development instead of teacher education programs. Furthermore, Barbour noted that many universities offered separate certificates in online teaching for graduate programs, instead of incorporating it into their teacher education programs. Of the few programs that did provide preparation for virtual teaching, common topics included: ethics and digital citizenship, online assessment, technology skills, pedagogical integration of technology, and supporting students with disabilities (Rice & Deschaine, 2020). Interestingly, in another study, special education teachers reported feeling unprepared to create, modify, and implement assessments online (Smith et al., 2016). Furthermore, Moore-Adams et al. (2016) argued that very few programs covered the range of

skills and knowledge required by virtual school teachers, but did not specify what those skills were. In general, virtual school preparation was lacking prior to the COVID-19 pandemic.

The COVID-19 pandemic shed new light on virtual teaching and the preparation needs of virtual school teachers. The pandemic led to an increasing desire to include virtual school preparation in teacher education programs (Choate et al., 2021). However, even post-pandemic, teacher education programs are lacking (Choate et al., 2021; Hodges et al., 2022; Hunter-Johnson et al., 2023; Keefe 2020). Many teacher accreditation organizations have yet to require that teacher education programs prepare preservice teachers for virtual schools (Hodges et al., 2022). Teacher education programs still need to provide meaningful opportunities for preservice teachers to interact with virtual students, so they can practice their virtual teaching skills (Gutierrez et al., 2021). Additionally, there is a need for teacher education programs to acknowledge and address digital educational technology (Keefe 2020). Many teacher education programs do not include educational technology courses (Hodges et al., 2022). Hunter-Johnson et al. (2023) argued that in general, teacher education program curricula need to be updated to better prepare preservice teachers for virtual schools. Furthermore, teacher education programs need to focus on developing preservice teachers' synchronous and asynchronous teaching strategies (Gutierrez et al., 2021). Overall, there is still a need for better teacher preparation.

More research is needed on virtual schools, specifically with teacher preparation. Prior to the COVID-19 pandemic, there was little research on virtual schools in general (Barbour, 2012). Research about virtual schools and teacher preparation was scarce, and the studies that did focus on teacher preparation were small case studies (Archambault & Kennedy, 2018). Similarly, Moore-Adams et al. (2016) noted that research on virtual school preparation was developing, and

some best practices were emerging, but most of the information was from single-program case studies. There is still a lack of research on virtual schools post-COVID-19. More studies have emerged since the pandemic started, but a significant amount of early pandemic research focused on universities instead of K-12 schools (Gutierrez et al., 2021). Research on K-12 virtual schools and teacher preparation is currently an area of need.

### **Skills and Standards for Virtual Teaching**

There does not seem to be a generally accepted or agreed-upon list of what skills are needed for online teaching. After reviewing multiple studies, Rice & Deschaine (2020) suggested the following skills were important: multimodal communication skills, ability to cultivate relationships in an asynchronous environment, digital recordkeeping and assessment skills, ability to encourage learning via online tools, and ability to synthesize multiple forms of online data to determine student performance. Many of these skills are also useful in a brick-and-mortar setting, a sentiment that Barbour (2012) echoed. Barbour noted that many skills, such as organization and communication skills, are useful for both virtual schools and brick-and-mortar schools. However, Barbour (2012) added that virtual school teachers need technology skills. Generally, there is a common perception that effective brick-and-mortar teaching translates to effective virtual school teaching (Kennedy & Archambault, 2012). However, multiple studies noted the importance of conducting more research into the differences between virtual and brick-and-mortar schools, and identifying their similarities and differences (Barbour, 2012; Moore-Adams et al., 2016). It would be beneficial for teacher education programs to have an idea of the necessary skills required for virtual schools.

The COVID-19 pandemic helped identify some important skills needed by virtual teachers. One necessary skill is familiarity with common virtual school technologies, such as learning management systems (Hunter-Johnson et al., 2023). Additionally, Keefe (2020) found that teachers and preservice teachers who had strong digital literacy skills were more successful with teaching in a virtual environment during the COVID-19 shutdown. Another useful skill for virtual teachers is the ability to teach via multiple digital modalities (Hodges et al., 2022). Again, it would be beneficial to further identify necessary virtual teaching skills.

There is also a lack of nationally accepted standards for virtual schools. Prior to the COVID-19 pandemic, many teacher accreditation organizations did not acknowledge online learning as an option (Smith et al., 2016). Therefore, they did not create any standards or guidelines for virtual schools (Smith et al., 2016). Multiple professional organizations created standards or guidelines for online learning, but most recommendations were not based in research (Archambault & Kennedy, 2018; Moore-Adams et al., 2016). The Online Learning Consortium created a series of scorecards for virtual learning (Online Learning Consortium, n.d.). The purpose of the scorecards is to “[provide] institutions with the necessary criteria and benchmarking tools to ensure online learning excellence for the entire institution” (Online Learning Consortium, n.d., para. 1). However, these scorecards are intended for colleges and universities, instead of K-12 schools. The International Association for K-12 Online Learning (iNACOL) created a set of standards for online courses in 2011 (iNACOL, 2011). The purpose of the standards was to “provide states, districts, online programs, and other organizations with a set of quality guidelines for online course content, instructional design, technology, student assessment, and course management” (iNACOL, 2011, para. 1). However, it is important to note

that iNACOL is not a teacher accreditation organization (Smith et al., 2016), and the standards were created by a committee of online learning experts (iNACOL, 2011). The iNACOL standards were adopted by many states prior to the COVID-19 pandemic, but they have also recently been found to be flawed, lacking, and not based in validated research (Hodges et al., 2022). Better, research-supported national standards are still needed for virtual schools.

### **Methodology**

This study used qualitative methods to collect data on teachers' perspectives of working in virtual school environments. This study utilized questionnaires and interviews of teachers working at the Public Virtual Learning Academy. This type of study was chosen due to qualitative data providing a rich depth of data that included teaching experiences in virtual school environments, which are highly subjective and personal. Therefore, a qualitative study utilizing questionnaires and interviews was best suited to reflect the individual experiences and perspectives of the participants (Creswell, 2012).

### **Participants**

The participants of this study were teachers who work at the Public Virtual Learning Academy (PVLA). They were selected via purposeful sampling (Creswell, 2012), with the defining characteristic being employment as a teacher at the PVLA. For the 2022-2023 school year, the PVLA hired 9 full-time and 25 part-time teachers. The questionnaire was sent to all 34 teachers at the PVLA, and 12 teachers participated. In addition to the questionnaire, 4 different teachers were interviewed. The number of teachers interviewed was limited due to the need to provide in-depth analysis of their responses (Creswell, 2012).

The number of participants was sufficient to meet data saturation. Upon initial review of the questionnaire results and the interview transcripts, similar answers were noted for many of the questions asked. Common themes and ideas emerged amongst the participants' responses, indicating that saturation had been reached. The questionnaire participants were assigned a participant number to protect their identity and maintain confidentiality. For the same reasons, the interview transcripts and file names used only the participants' initials in place of their name. In this paper, they have also been given a participant number.

### **Procedures**

After receiving IRB approval, a questionnaire was sent to all the teachers at the Public Virtual Learning Academy. The questionnaire contained open-ended questions about working in a virtual school environment. At the same time, an invitation was sent out for teachers to participate in an interview regarding their perspectives and experiences working in a virtual school environment. The interviews were conducted via video conference software and were recorded. A transcript was generated of each interview. Participants were able to choose if they wanted to complete the questionnaire or an interview. After the data was collected, coding was done to identify common themes.

### **Instruments**

The main instrument used in this study was a digital questionnaire. The questionnaire was created and sent via Google Forms. In order to answer the research questions, the questionnaire asked open-ended questions about the teachers' experiences. These questions provided insight into the teachers' experiences with and feelings towards teaching in a virtual school environment.



A smaller subset of teachers participated in an interview using a separate interview protocol, instead of completing the questionnaire. The interview asked teachers to elaborate on their experiences with teaching in a virtual school environment. The interview questions were open-ended and were modified from the questionnaire.

### **Data Collection**

The data was collected via Google Forms and video conference software. All data was saved on a password-protected computer and in a double-verified password-protected cloud drive only accessible to the researcher. A spreadsheet of the questionnaire responses was automatically generated via Google Forms and secured. Video recordings and written transcripts of the interviews were generated and secured.

The collected data was sufficient to answer the stated research questions because saturation was reached. Similar responses were received by multiple participants across the questionnaire and interviews. The questionnaire and the interview protocol contained similar questions, allowing responses to be compared from both. Together, the responses from the questionnaire and the interviews were enough to answer the research questions.

At the time of data collection, the researcher was employed by the Public Virtual Learning Academy as an administrative assistant. Although the researcher was in an administrative position, they were in a non-supervisory position and held no authoritative power over the participants due to their respective positions. However, it must be noted that there is potential for some researcher bias in the data collection and data analysis due to the researcher's professional relationship with the participants, and the researcher's employment at the Public Virtual Learning Academy.

## **Data Analysis**

The data was analyzed via reduction into codes and themes. The themes were then aligned to the research questions. Validity is established because the codes and themes can be used to answer the research questions (Mills, 2018). Reliability is established because similar themes would most likely emerge if the data were collected again, and new responses were received (Mills, 2018). The data is trustworthy because multiple sources of data collection were used (Mills, 2018). Interviews were conducted to collect lengthier and more in-depth responses, to compensate for the limitations of questionnaire responses. No discrepant data was collected.

## **Data Results**

Four themes emerged from the data that aligned with the research questions. The themes are: Benefits and Challenges, Interactions with Parents and Colleagues, Level of Preparation, and Desired Support. The themes and their relevant data are discussed below.

**Benefits and Challenges.** A majority of participants reported positive feelings and experiences with virtual teaching. Several participants mentioned flexibility as a benefit of virtual teaching, namely flexibility in work hours and work location. Two participants (P1 and P9) mentioned medical conditions in their responses and noted that virtual teaching benefits students and teachers with medical conditions. One participant (P1) stated, “I have medical issues that make working in person a little difficult. Having the opportunity to work from home allows me to be in a comfortable environment.” Two participants (P8 and P14) in this study were retired teachers, and they reported virtual teaching is a useful option for them to remain involved in education. One retired teacher (P14) stated in their interview:

*Personally, it's kept me in touch with kids, and that's what I love. I didn't retire because I was tired of teaching; there were other things that came into play. So, this way, it gives me back something I love doing.*

The other retired teacher (P8) echoed similar sentiments in their responses.

Despite generally having positive feelings, the participants mentioned several challenges with virtual teaching. A few participants (P7, P14, and P16) mentioned technology issues are a challenge, particularly with internet connection. However, the biggest issue mentioned by several participants was the lack of student engagement. Several participants mentioned that students do not attend virtual lessons, do not engage with the work, and do not have their cameras on. Due to this, the participants mentioned they struggled with building relationships with their students.

Another major issue mentioned by participants was time management. Multiple participants (P5, P13, and P15) stated they found themselves working late at night and on weekends. One participant (P5) noted, "I find myself working all day, every day, off and on. I work when I can, and sometimes I am working until midnight." Other participants (P13 and P15) mentioned that students also work at odd hours. One participant (P15) stated:

*Our students don't sense time often the way that other students do. Other students who go to school buildings, they go class to class, the bell drives them from class to class, then they leave the building. Whereas our students are online all the time and don't have that.*

Another participant (P13) mentioned that many students often wait until the last week or the last day to submit a large amount of coursework. Similar issues with course and assignment pacing were noted by other participants as well.

**Interactions with Parents and Colleagues.** The participants' perspectives on parent interactions varied depending on whether they taught elementary (3<sup>rd</sup>-6<sup>th</sup> grade) or secondary (7<sup>th</sup>-12<sup>th</sup> grade). Elementary teachers typically reported virtual teaching increased parent interactions and involvement. A few elementary teacher participants (P1, P6, P16) noted that parents would often be near their students during instructional times, and therefore interacted more with the teacher. Middle and high school teacher participants reported that parent interaction was not affected by virtual teaching, and noted similar levels of involvement and interactions as brick-and-mortar teaching. One elementary teacher (P16) shared in their interview, "When you're teaching [virtually], you are in their homes. So, your expectations of school have to be put against their backdrop, which is literally their house. So, you have to communicate expectations to parents." This participant went on to elaborate that parents' perspectives of technology plays a role in their level of involvement, in addition to their perspectives on education in general, and virtual teachers need to be cognizant of that.

The participants' experiences with colleague interactions varied as well, albeit with no clear distinction between elementary and secondary teachers. Some participants (P4, P12, P13 and P14) reported feeling isolated from their colleagues, due to not being in the same building with them. However, many participants noted that it was still easy to communicate with their colleagues via email and video conferencing software. A few participants (P1, P8, and P9) reported that this was very similar to how they communicated with their colleagues when teaching in-person.

**Level of Preparation.** Several participants reported feeling prepared to teach virtually. A few participants (P4, P5 and P7) mentioned the COVID-19 pandemic provided them with virtual

teaching experience and felt prepared to teach in a virtual school because of that experience. Three participants (P12, P13, and P14) specifically mentioned having educational technology backgrounds that benefitted them while teaching virtually. A few participants (P3, P4, and P12) were veteran teachers with many years of teaching experience, and noted that their years of in-person teaching helped them teach virtually. The veteran teachers noted that because they were already familiar with the curriculum and content of their course, it was easier to adapt it to virtual learning. Some participants (P1, P9, P13) noted they had completed trainings that focused on virtual teaching. Two participants (P8 and P11) noted they prepared for virtual teaching by talking with other virtual teachers and researching online. Another participant (P12) stated, “Last spring I took an online graduate course. This helped me gain the perspective of a virtual student,” and they used that experience to shape their virtual teaching. In general, the consensus among participants was that they felt prepared to teach virtually.

**Desired Support.** Almost every participant expressed a desire for more support or training. Some participants (P4, P7, P9, and P16) wished they could have more resources. One participant (P7) expressed desire for more virtual special education resources. Another participant (P9) wished for access to more virtual math applications. A third participant (P6) desired more information about virtual field trip opportunities. Several participants wanted more training on how to use the resources and tools they had access to. In particular, three participants (P1, P9, P14) wished they had had more training on using virtual conferencing software prior to beginning teaching virtually. They expressed frustration with not knowing the features and how to best utilize them. One participant (P1) stated, “It is so important for the teacher to be able to not only use the programs correctly, but also teach students how to use them as well.” This

participant elaborated that this applied to video conferencing software as well as learning management systems and other educational websites. One interview participant (P13) who had been teaching virtually for almost twenty years mentioned that they periodically search for college courses on virtual K-12 teaching. The participant (P13) stated, “I’ve actually Googled it, and thought maybe I’d learn something, but I found very few places that have a course like that.” The participant went on to express frustration about having no college preparation for virtual teaching when they entered the field, and the continued lack of college courses in this field. Further, this participant wished for opportunities for preservice teachers to complete student teaching in virtual schools.

A few participants (P2, P3, P4) expressed desire for professional development regarding classroom management and virtual teaching best practices. One participant (P12) wished for more opportunities to connect with other virtual teachers in other virtual schools and discuss “tips and tricks” for teaching online. Another participant (P3) expressed wanting more information on best practices for virtual teaching. Two participants (P2 and P4) wanted support with building and organizing their virtual classrooms to optimize performance.

## **Discussion**

### **RQ1: What are the experiences of teachers working in a virtual school environment?**

In general, the participants of this study found virtual teaching to be a positive experience. This is similar to the results of the study conducted by Hoang and Le (2021). One potential explanation for the positive results can be found in the Diffusion of Innovation (DOI) theory. The participants of this study can be classed as either Innovators or Early Adopters in the DOI theory (LaMorte, 2022). Like Early Adopters, the participants of this study were likely

comfortable with adopting new ideas and innovations and were open to doing so before other teachers. It is also important to note that the participants in this study made the choice to teach virtually, as opposed to being required to teach virtually. This likely influenced their perspectives on their virtual teaching experiences.

Other similarities exist between the results of this study and other studies. Hodges et al. (2022) noted that virtual teaching is becoming more popular for reasons other than just the COVID-19 pandemic. This concept was reflected in this study, with participants reporting medical conditions and retirement as their reasonings for teaching virtually. Technology concerns and issues were mentioned by participants in this study, similar to the issues reported by Hoang and Le (2021) and Rizvi and Nabi (2021). Kingsbury (2021) noted that teachers struggled with communication and classroom management, which were both reflected in this study. However, elementary teachers in this study found communication with parents increased when teaching virtually, due to the parents being present during instructional times. Middle and high school teachers reported no change in communication when teaching virtually. This is likely due to their students being older, and more independent than younger students. Middle and high school teachers in this study reported more issues with communication than elementary teachers, but noted that it was the same as their brick-and-mortar teaching experiences. Again, this discrepancy can be explained by older students being more independent and requiring less parental involvement in general.

**RQ2: What additional preparation is needed for teachers working in a virtual school environment?**

The participants of this study generally felt prepared to teach virtually. This is in contrast to results from other studies (Hoang and Le, 2021; Kingsbury, 2021). One possible explanation is that several participants of this study were either veteran teachers or came from educational technology backgrounds. For veteran teachers, the transition to virtual teaching was easier because they were only learning the technology, and not the content of their course. Because they knew their course content well, they could focus on learning new technology and adapting their teaching strategies.

However, there were still areas of need identified by participants in this study. One participant mentioned a lack of virtual student teaching opportunities, which was also noted by Gutierrez et al. (2021). Several other studies noted a lack of virtual teaching preparation in teacher education programs (Choate et al., 2021; Hodges et al., 2022; Hunter-Johnson et al., 2023; Keefe 2020). Participants in this study did not speculate on why there is a lack of virtual teaching preparation, they just mentioned that it did not exist. Several participants wished for more support and training with virtual teaching, specifically with technology use and technological resources. This gap is likely due to not having formal preparation for virtual teaching in their teacher education programs.

**Implications**

This study identified areas of need for virtual teachers. The results of this study can be used by other K-12 virtual schools to change and improve how they support their teachers. Administrators of teacher education programs can also use the results of this study to shape how



they prepare preservice teachers for virtual teaching. Furthermore, this study can help provide insight for teachers who are considering teaching virtually.

### **Conclusion**

Fully virtual schools have been becoming increasingly more common for several years (Hodges et al., 2022; Toppin & Toppin, 2015). Despite the growth, there has been a lack of research on teachers' attitudes and challenges with virtual teaching (Hoang & Le, 2021). This study surveyed teachers working at the PVLA to determine their experiences and identify areas of need with teaching virtually. This study found that while many participants described virtual teaching as a positive experience, there is a need for more preparation for virtual teaching. This study suggests that with the right support and preparation, virtual teaching can be a viable option for many teachers.

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