

Pandemic Education: Impact of COVID-19 on Virtual Education in Indiana

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The purpose of this article is to examine ways in which the COVID-19 pandemic impacted the adoption and perception of virtual programs in Indiana public school districts. This mixed-methods sequential explanatory study focuses on beliefs held by Indiana public school superintendents and virtual program administrators regarding the growth of virtual education during the COVID-19 pandemic. Subjects received surveys regarding their views surrounding virtual education. Subjects who volunteered participated in semi-structured interviews conducted in web-based meetings. This study provides a snapshot of the state of virtual education in Indiana, including the perceptions held by school administrators at the end of the 2020-21 school year. COVID-19 significantly affected virtual education in Indiana. Participants cited a need to provide educational options during a pandemic as the primary reason for implementing a virtual program. Additionally, participants noted significant challenges of virtual education while acknowledging an overwhelming need to maintain district enrollment during the pandemic through the utilization of a virtual program. This study identifies factors that will impact school districts should enrollment in virtual education programs remain strong. This provides an opportunity for districts to address these areas and ensure effective virtual education programming.

Keywords: pandemic, virtual education, P-12 school administration

The popularity of K-12 virtual education has exploded in recent years (Barbour, 2018; Clark, 2001; Molnar et al., 2021). From its roots in mail correspondence courses to the fully virtual schools of the 21st century, virtual education has taken hold in the American educational landscape. While it is difficult to ascertain specific numbers of enrolled virtual students at any given time, the National Education Policy Center has reported that in the 2019-20 school year, 40 states had either fully virtual or blended-environment schools. This included 332,379 virtual students and 152,530 students in a blended classroom (Molnar et al., 2021). This is an increase from the 2017-18 school year when 39 states enrolled K-12 students in either full-time virtual or blended-environment schools. This amounted to an enrollment of 297,712 full-time virtual students, as well as 132,960 students in blended learning schools (Miron & Elgeberi, 2019).

The COVID-19 pandemic of 2020 caused a further rise in interest in virtual education programs. On December 31, 2019, the first case of coronavirus disease (COVID-19) was reported in Wuhan, China (Fan et al., 2020). The virus spread quickly, and the first case of COVID-19 was reported in the United States on January 20, 2020 (Harcourt et al., 2020). On March 19, Indiana Governor Eric Holcomb joined ten other states when he ordered all schools closed until May 1. On April 2, 2020, this order was extended through the school year's end (Herron, 2020). Schools were required to provide virtual instruction for students, even while closed for face-to-face instruction (Herron, 2020).

The pandemic caused a steep increase in virtual school enrollment in the fall of 2020. Two of the country's largest virtual education providers, K12 and Connections Academy, noted this growth. K12 reported that its enrollment expanded from 123,000 to 170,000 students that year. Connections Academy indicated a 61% increase in applications that year (Barnum, 2020).

This proved to be a challenging time for students and educators. While there are great benefits in virtual education, including the draw of a healthy learning environment during a pandemic, there are also a variety of common challenges experienced by students in this type of schooling.

This article examines the perceptions of Indiana public school superintendents and virtual program administrators of virtual education and how the COVID-19 pandemic impacted their districts, and their decisions regarding whether to adopt such a program. The following question guided this research: In what ways did the COVID-19 pandemic impact the adoption and perception of virtual programs? Through a mixed-methods sequential explanatory study, subjects were surveyed regarding their perceptions and then interviews were held with volunteers to provide greater context around their thoughts.

Benefits of Virtual Education

Virtual education offers an approach to education that can benefit students and their families in a variety of ways. It can help students achieve their learning goals in a way that is often not possible in a brick-and-mortar environment (Archambault & Kennedy, 2017; Hart et al., 2019). For example, virtual education can offer flexibility of schedule for students who need it. This may extend to students who participate in extracurricular activities that require them to practice and travel during traditional school times. Virtual education can also meet scheduling requirements of students who find themselves in unique personal situations with responsibilities that extend into a typical school day (Archambault & Kennedy, 2017; Borup & Kennedy, 2017; Toppin & Toppin, 2016; Woodworth et al., 2015).

A virtual educational environment allows for individualization of learning and instruction, such as making it possible for a student to independently take classes that are not offered at their school (Borup, 2016; Borup & Kennedy, 2017; Hart et al., 2019). It may also offer students a path to recover failed credits and return to a graduation track (Borup & Kennedy, 2017; Toppin & Toppin, 2016). This may additionally extend to the opportunity for students to retake classes to earn a higher grade (Hart et al., 2019).

Students with special needs may find a virtual environment is conducive to accommodating their specific requirements. For example, virtual education may allow for greater differentiation by individualizing or alternately pacing the material for students who need it (Clifford, 2018; Martin, 2017). Teachers of students with special needs may also find that a virtual environment is conducive to increased and efficient progress monitoring (Martin, 2017; Weatherly, 2016). Likewise, students who have various physical limitations, such as allergies or other impairments, may find themselves more comfortable in a virtual setting (Martin, 2017).

Another benefit of virtual education may be found in the role of the child's parent or guardian. Virtual settings encourage and develop parental engagement in a way that is often not possible in a traditional classroom (Borup & Kennedy, 2017; Rhim & Kowal, 2008). Finally, a virtual environment allows students to experience a unique kind of education that may be similar to what they will experience in a post-secondary institution. Students may be more successful in future endeavors by developing skills, such as virtual peer collaboration (Borup & Kennedy, 2017).

Challenges of Virtual Education

Virtual education may be growing in popularity, but that does not diminish the challenges that some students face in a virtual environment. Some students may find that their physical location makes it difficult to access the internet and maintain internet connectivity (Devaraj et al, 2020; Hart et al., 2019; Miller, 2021). They may also find difficulty in adjusting

to the increased independent motivation needed for successful online learning (Barbour, 2016; Borup & Kennedy, 2017; Hasler-Waters et al., 2018; Toppin & Toppin, 2016). When separated by time or space from their teachers, students may struggle with delayed feedback and interaction with their teachers. Students sometimes begin to feel isolated from their teachers in these situations (Baran et al., 2013; Bohnstedt et al., 2013; Borup & Kennedy, 2017). This isolation may extend to a lack of interaction with their social group resulting in the outcome that a sense of community and feeling of belonging may be difficult to achieve in a virtual setting (Dijkers, 2018).

Students with special needs may find unique challenges in a virtual setting. Teachers may find it difficult to provide necessary accommodations for these students in a virtual learning environment (Martin, 2017; Weatherly, 2016). Students needing specific types of technology to access their materials may also find a virtual environment challenging (Devaraj et al., 2020; Rice & Ortiz, 2020; Weatherly, 2016). Finally, parents of students with special needs may struggle with providing the daily education their students previously received from a licensed teaching staff (Clifford, 2018; Rice et al., 2019; Weatherly, 2016).

Students in a virtual setting often struggle with maintaining the motivation needed in this type of environment (Hawkins et al., 2012; Kim et al., 2015). The lack of motivation highlights the importance of rich interactions with teachers and the need for prompt feedback and communication with teachers (Dijkers, 2018; Hawkins et al., 2012). Virtual courses are sometimes designed in such a way that makes it challenging for teachers to provide opportunities for students to authentically engage with material (Archambault & Kennedy, 2017; Borup & Kennedy, 2017). Teachers may find that it is difficult to gauge student engagement and learning due to the distance of time and space (Hawkins et al., 2012).

DATA AND ANALYTIC APPROACH

Data was collected from administrative stakeholders in Indiana school districts. This included surveys sent to all public-school superintendents ($N=290$) and virtual program administrators ($N=77$) and follow-up interviews with volunteers from each group. Introductory emails were sent, followed up with a reminder message one week later. Program directors saw a 47% return ($n=36$), while 33.1% ($n=96$) of superintendents responded.

The use of three sources provided a means for triangulation, verification of validity, and the identification of themes among respondents.

Instrumentation

Survey Data Acquisition

The survey was based on a 2014 study by Adams which studied the rise of virtual education in the state of Kansas. The Adams study was chosen as the basis of survey development not only because it provided an understanding of why school districts may choose to implement a virtual education program, but also because it provided information regarding administrative motivation in a non-pandemic time. This study sent surveys to all Indiana public school superintendents ($N= 290$) and directors of virtual programs ($N= 77$). Most respondents (55.6% of program administrators and 58% of superintendents) had been in their current position for five or fewer years. Additionally, the majority of respondents came from rural school districts (61.1% of program administrators and 62.5% of superintendents). This finding is reflected in student enrollment in the respondents' districts, as 55.6% of program administrators and 59% of superintendents served school districts with fewer than 2500 students.

In 2018, the Indiana Department of Education identified 38 virtual programs within the state (Keller, 2018). Shortly thereafter, in 2020, many school districts across the state of Indiana and the entire country found themselves in requiring virtual programming to meet the needs of students and families impacted by the COVID-19 virus (Diliberti & Schwartz, 2021; Maranto et al., 2021).

This rapid growth in virtual education led the researcher to find other means by which to identify the number of virtual programs in Indiana. In the winter of 2021, the researcher reviewed all Indiana public school district websites and contacted appropriate individuals in each school corporation to determine whether they had virtual programs and the names of the staff involved in leadership. This led to the identification of 77 individuals who were identified by their school corporation as a virtual program administrator. Contact information for public school superintendents was accessed through the Indiana Department of Education 2020-21 School Directory.

Interview Data Acquisition

At the end of the survey, participants were asked to provide their contact information if they would like to participate in a follow-up interview. Six school superintendents and five program administrators participated in the interview process. These interviews were semi-structured and provided further insight into the impact of the pandemic on school districts and their perceptions of virtual education. The interviews provided qualitative data that further explained the growth phenomena in virtual education programs.

Ultimately, 13.9% of the responding program administrators ($N= 36$) and 6.25% of responding superintendents ($N= 96$) agreed to be interviewed. One superintendent interviewed did not have a virtual education program in their district. The other five superintendents discussed the virtual programs that they had in their districts. Participants came from across the state of Indiana, including two each from the northeast, north central, and northwest portions of the state. Two came from the southwestern part of the state, and three participants were from southeastern Indiana. Only one participant came from a district with 10,000 students or more, while the other ten participants had fewer than 6,000 students in their districts.

Due to public health concerns surrounding the COVID-19 pandemic, all interviews were held virtually using a web meeting platform. Each interview lasted approximately twenty minutes and was transcribed and coded to allow the researcher to identify themes among participants.

FINDINGS

Factors in Choosing to Implement a Virtual Program

Indiana public school superintendents were asked which factors they considered when determining whether to implement a virtual program. Of these factors, concerns related to the COVID-19 pandemic were identified as “very important” by 79.2% ($n= 61$) of superintendents. Respondents also noted the need for credit recovery. Among responding superintendents, 48% ($n= 36$) identified the need for credit recovery as “very important” when considering the implementation of a virtual program. Table 1 depicts the importance of each factor among superintendents who responded.

Table 1
Factors Considered in Adoption of Virtual Program

Item	Unimportant/not considered		Somewhat unimportant		Important		Very Important		N
	N	%	n	%	n	%	n	%	
Increase enrollment	29	38.7	12	16	14	18.7	20	26.7	75
Increase revenue	29	38.2	11	14.5	18	23.7	18	23.7	76
Develop innovative instructional practice	15	20	13	17.3	23	30.7	24	32	75
Recruit homeschool students	31	41.9	16	21.6	15	20.3	12	16.2	74
Replicate other districts' use of virtual education	34	45.3	17	22.7	17	22.7	7	9.3	75

Table 1, Continued

Alternative for children with mental or physical health concerns	20	27	10	13.5	19	25.7	25	33.8	74
Alternative for children with behavioral concerns	27	37	12	16.4	16	21.9	18	24.7	73
Increased graduation rates	22	29.7	9	12.2	22	29.7	21	28.4	74
Credit recovery for high school students	16	21.3	6	8	17	22.7	36	48	75
Parental concerns about the COVID-19 pandemic	10	13	1	1.3	5	6.5	61	79.2	77

Unlike superintendents, the program directors may not know why their district initially chose to implement a virtual education program. Because of this, the program directors were presented with a seven-point Likert scale which ranged from “Strongly Disagree” to “Strongly Agree” and asked to rate the factors that motivate their district to maintain a virtual program. Directors were presented with statements that corresponded with the factors considered by the superintendents in their survey.

Among program directors, nearly all (84.8%, $n= 28$) agreed or strongly agreed that concerns about the COVID-19 pandemic motivated their districts to maintain a virtual education program. As with superintendents, the next most identified factor was the need for credit recovery. In this case, 77.1% ($n= 27$) either agreed or strongly agreed that the need for credit recovery was a motivating factor in maintaining a virtual education program. Table 2 illustrates the program directors’ responses.

Table 2
Motivating Factors to Maintain a Virtual Program

Item	Strongly disagree/ disagree		Somewhat disagree		Neither agree nor disagree		Somewhat agree		Agree/ strongly agree		N
	n	%	n	%	n	%	n	%	n	%	
It increases enrollment.	2	5.7	1	2.9	7	20	10	28.6	15	42.9	35
It increases revenue.	2	5.7	2	5.7	9	25.7	8	22.9	14	40	35
It is an innovative instructional practice.	1	2.9	2	5.9	8	23.5	10	29.4	13	38.3	34
It is a way to recruit homeschool students to our district.	3	8.8	2	5.9	6	17.7	12	35.3	11	32.4	34

Table 2 , Continued

Other districts have successful virtual education programs.	3	8.8	1	2.9	10	29.4	7	20.6	13	38.3	34
It provides an alternative option for children with mental or physical health concerns.	1	2.9	1	2.9	5	14.3	11	31.4	17	48.5	35
It provides an alternative option for children with behavioral concerns.	3	8.6	4	11.4	3	8.6	12	34.3	13	37.1	35
It increases graduation rates.	3	8.6	1	2.9	7	20	6	17.1	18	51.4	35
It provides an avenue for credit recovery for high school students.	2	5.8	0	0	2	5.7	4	11.4	27	77.1	35
It provides an option for parents who are concerned about the COVID-19 pandemic.	0	0	0	0	0	0	5	15.2	28	84.8	33

Benefits of Virtual Education

The survey presented respondents with a list of 17 potential benefits of virtual education and asked them to select all that applied to their districts. Again, the impact of the COVID-19 pandemic was evident. As seen in Table 3, both superintendents and program administrators most frequently cited the same three benefits: maintaining enrollment during the pandemic, credit recovery for high school students, and learner convenience and flexibility. Most superintendents (90.1%, *n*= 73) and program administrators (88.6%, *n*= 31) indicated the benefit of maintaining enrollment during a pandemic. Credit recovery for high school students was seen as a benefit for 66.7% (*n*= 54) of superintendents and 77.1% (*n*= 27) of program administrators, while 61.7% (*n*= 50) of superintendents and 77.1% (*n*= 27) of program administrators perceived learner convenience and flexibility as a benefit of virtual education.

Table 3
Crosstabulation for Role and Perceived Benefits of Virtual Education

Benefit	Superintendent		Program Administrator		N
	N	%	n	%	
Financially efficient	25	30.9	18	51.4	43
Learner convenience and flexibility	50	61.7	27	77.1	77
Higher quality instruction	2	2.5	2	5.7	4
Offer difficult-to-staff courses	21	25.9	15	42.9	36
Accelerate students	32	39.5	21	60	53
Students with special needs	19	23.5	8	22.9	27
Expand course offerings	28	34.6	13	16	41
Enroll from outside district	23	28.4	17	48.6	40
Increase district enrollment	30	37	17	48.6	47
School choice option for in-district students	30	37	14	40	44
Access for rural learners	10	12.3	7	20	17
Student mental health concerns	31	38.2	18	51.4	49
Graduation rate	32	39.5	15	42.9	47
Student behavioral concerns	33	40.7	16	45.7	49
Credit recovery for high school students	54	66.7	27	77.1	81
Student physical health concerns	31	38.2	18	51.4	49
Enrollment during pandemic	73	90.1	31	88.6	104

Note. Superintendent N= 81; Program Administrator N= 35

Challenges of Virtual Education

Survey respondents were also asked about their perceptions of challenges in virtual education. Table 4 shows three options (student engagement, ensuring the quality of curriculum and instruction, and staffing of virtual classes) were chosen most frequently by both superintendents and program administrators. Student engagement was seen as a challenge by 80.5% (n= 62) of superintendents and 97.1% (n= 33) of program administrators. Ensuring the quality of curriculum and instruction was designated as a challenge by 79.2% (n= 61) of superintendents and 85.3% (n= 29) of program administrators. Finally, 49.4% (n= 38) of superintendents and 50.5% (n= 17) of program administrators identified staffing of virtual classes as a challenge.

Table 4
Crosstabulation for Role and Perceived Challenges of Virtual Education

Challenges	Superintendent		Program administrator		N
	N	%	n	%	
Staffing virtual classes	38	49.4	17	50.5	55
State regulation and oversight	8	10.4	4	11.8	12
Lack of community support	3	3.9	5	14.7	8
Recruitment of new students	4	5.2	3	8.8	7
Student engagement	62	80.5	33	97.1	95
Student retention	26	33.8	8	23.5	34
Excessive cost	21	27.3	7	20.6	28
Professional development for staff	36	46.8	16	47.1	52
Staff retention	6	7.8	3	8.8	9
Ensuring quality of curriculum and instruction	61	79.2	29	85.3	90

Qualitative Results

Upon completion of the survey, willing volunteers provided their contact information and were given the opportunity to participate in follow-up semi-structured interviews. Five superintendents and six program administrators participated in interviews which were conducted via web meeting. Each lasted approximately twenty minutes.

In keeping with a semi-structured format, the researcher maintained a list of potential questions but allowed the conversation to be fluid depending upon participants' responses. Most participants expanded upon their experiences and the rapid growth of their virtual programs during the 2020-21 school year. They also shared the successes and challenges they experienced, while weighing in on their programs' perceived effectiveness.

The interviews were each transcribed, and the researcher coded and analyzed them to determine broad categories of discussion topics. Three significant themes were identified, each focused on the impact of COVID-19. These themes included the impact of the pandemic on three groups: school corporations, teachers, and students.

In discussing the pandemic as it impacted the school district as a whole, participants pointed out financial concerns and the changes in the district's technology plans. The loss of district enrollment would lead to revenue loss,

which was a concern for participants. A program administrator at a smaller district mentioned that a lack of a virtual program could lead to a loss of students and that even a small number of students leaving could harm the district financially. They said:

One of our biggest issues that we have is that we were already le enrollment within the district. And so, now, due to COVID, I fear that if we don't keep it in some way shape or form, we're gonna lose some more students. Even if it's five or six more students, that's gonna be even, that's gonna be harder on us because we were already projected to lose. So even those five or six students are gonna have an impact.

Another superintendent specifically mentioned school choice and the need to provide options for families. They stated:

You know, we have families that want this [virtual education]). We have a legislature that continues to propose a model in which dollars follow the student, in which we're in competition for students, and if we don't provide it, then they go elsewhere to get it.

Participants also discussed how the COVID-19 pandemic impacted their districts' previous technology plans. Several participants noted that while their district had a one-to-one initiative, it changed drastically with the onset of the pandemic. One superintendent said, "We adopted a one-to-one initiative about six years ago and have struggled with implementation to a different degree. And then as the pandemic hit, we, you know, in many ways like others have been, (were) thrown into the deep end." Multiple program administrators discussed how their existing virtual programs changed during the pandemic. One noted, "Our virtual academy was never meant to be an elementary option, but with COVID, we made the decision to make it a K 12 option." Another said, "Our plan changed due to COVID. We were only going to do (grades) six through twelve. We ended up doing (grades) K through twelve."

The interviews also revealed a second theme surrounding the ways in which the COVID-19 pandemic impacted teachers. This included the more specific areas of stress and teachers' computer skills. Respondents attributed stress to a lack of control over the work that they are asked to do, or teacher agency. Others believed that the stress was caused by a lack of professional development surrounding the virtual environment that they would be teaching in.

Regarding professional development, one virtual program administrator stated, “Teachers had a lot of adjustments to make with very little training.... We didn’t get much training on the actual platform we’re using.” Yet another program administrator agreed in saying:

So a lot of our teachers were volun-told that they were going to be teaching this program because we had some interest from teachers over the summer that wanted to be in the program. But we had some who were pulled out of their classrooms-sometimes even three weeks into the school year- because of the way our program just exploded in the first few weeks. And so the teachers had a lot of adjustments to make with very little training.

One superintendent commented:

Another factor, I think, is there’s teacher stressors. No question. Nobody signed up for what we’ve been asking them to do. And I think in large part, they’ve done the best that they can. I think there’s difficulties when teachers haven’t had the type of professional development that they need not only to deliver the best instructional practice but then also assessment strategies.

According to the interviewees, teachers responded to the need for virtual learning and developed the technology skills to better reach this need. One superintendent addressed this and said:

Our teachers have grown a lot. You know, I think it’s forever changed how we’ll approach e-learning... we’ve offered e-learning for years, but it looked a lot different...The teachers have grown a lot with our understanding and use of technology and blended learning.

Finally, the interviews highlighted how the COVID-19 pandemic impacted students. This theme was dominated by discussion of students’ social-emotional learning, the support and engagement of parents, as well as the engagement of students themselves. Educators were concerned about their students’ mental health during this time. One program administrator referenced the social importance of students interacting with their peers. They said, “I think they also struggle with making those personal connections and talking to their peers more in an unstructured setting.” One superintendent spoke plainly of this challenge when they said, “What we’re finding is that our secondary kids are really struggling from a social-emotional standpoint

and really having their world turned upside down and (we are) needing to provide those additional supports.”

One program administrator viewed the situation through a lens focused on the overall well-being of the students. They said:

I think that the biggest thing that I’m seeing from that lens is that in virtual we’re hyper-focused on academics everywhere and I keep trying to tell admin and teachers that are working with virtual families that you’ve got to look at it from a wider lens, like, I want you to look at it in school. How are we looking at behavioral things not writing a behavior plan? But look at it through a social-emotional lens. So I think that the biggest breakdown with virtual is that it’s basically, we’re providing a curriculum and then there’s no connection to the holistic approach of a child.

The lack of parental engagement and support was also evident among interview participants. They focused on the connection between parental engagement and student success. One superintendent noted this impact for younger students. They said, “It’s been relatively successful at the elementary level, right, in homes where there was the agency to support it. In homes where we don’t get that type of parent or other type of support if it doesn’t work well.” A program administrator reiterated the importance of parental support: “If you didn’t have a parent sitting with a child, especially in a primary grade, it doesn’t work. You’ve got to have parents (who) almost have to be willing to homeschool as if this is a resource.”

Student engagement was a topic mentioned by five of the six virtual program directors and two of the five superintendents who were interviewed. Interview participants focused on the consequence that poor engagement has on attendance. Four program administrators and one superintendent expressed concern that students did not have the self-discipline or time management skills to successfully participate in virtual education. One program administrator expanded on this when they said, “For high school, it really is just about discipline, you know, and doing the homework, making sure that you have good time management.” Yet another program administrator addressed this by saying:

Certainly, the biggest problem is initiative and self-direction of the students. We have a whole lot of students who were doing just fine in the building. Some of them were even A-B students, but at the very least, they were passing classes and, and doing okay in the building. And then this year, going into virtual, they just did not do well academically and a lot of that was just attendance and engagement with the program.

DISCUSSION

COVID-19 as a Factor in Implementing a Virtual Program

Both superintendents and program directors were asked survey questions about the factors involved in a district's decisions regarding virtual education programs. Superintendents were asked which factors were considered when deciding whether to implement a program and program directors were asked about the factors considered when choosing to maintain a virtual program.

Both superintendents and program directors noted the exceeding importance of providing a virtual option for families during a pandemic. In fact, every program director indicated the importance of this factor. The need for a virtual option in the face of medical concerns is nothing new in virtual education. Virtual environments have long been used to provide for the needs of students with health issues (Archambault & Kennedy, 2017; Martin, 2017). Additionally, the COVID-19 crises re-emphasized the critical role virtual education plays in meeting students' and families educational needs when faced with challenging health issues.

Diliberti and Schwartz (2021) studied the phenomenon of growth of virtual education after the COVID-19 pandemic began in the spring of 2020. According to their research, 23% of districts planned to continue virtual education offered during the pandemic. This number illustrates an increase from the 3% of schools that maintained such a program prior to the pandemic. Further, 21% of district administrators indicated a need for a fully virtual environment to meet parent requests for the 2021-22 school year (Diliberti & Schwartz, 2021). This study confirmed this finding, which found that virtual education grew among Indiana schools during the pandemic. In this study, most respondents (82.9% of superintendents and 63.9% of program administrators) noted that their districts responded to the pandemic by creating virtual education programs.

The survey results of this study indicated that the need to mimic other districts' virtual programs was not a deciding factor in most corporations' decisions to implement virtual education. This finding was true among both program administrators and superintendents who responded to the survey. This finding contrasted with other research that indicated this factor's importance. Adams (2014) found that educators in Kansas felt compelled to compete for students. They cited decreased educational funding in their state and the financial need to retain enrollment.

Finally, the survey results contrast this study's follow-up interviews with participants. The survey results indicated that a desire to increase revenue

was the ninth most important factor for program administrators and the fifth most important factor for superintendents. Additionally, neither administrators nor superintendents chose a need to mimic successful districts as a reason to start or maintain a virtual program. During the interviews, however, participants mentioned the need to retain students in a competitive environment.

It was evident in the interviews that this was an important factor, however, this was not reflected in the survey results. This may lead to a conjecture that the question's wording impacted participant answers on the surveys. While the question on the superintendent survey asked them to choose factors that led to the adoption of their virtual education program, it is feasible that there may have been different responses from those superintendents who were beginning new programs and those who were maintaining existing ones.

Benefits of Virtual Education

The provision of education during the COVID-19 pandemic and the need for credit recovery were the two most frequently chosen benefits by both program administrators and superintendents. This is expected since these groups also identified these as the two most prevalent factors contributing to adopting and maintaining a virtual education program. Learner convenience and flexibility were the third-most-identified factors by both groups. This finding is supported by a body of literature that identifies a need for student flexibility as a frequent benefit of virtual education (Adams, 2014; Archambault & Kennedy, 2017; Borup & Kennedy, 2017; Watson & Murin, 2014). Archambault and Kennedy (2017) also identified several student-centered factors, including the need for credit recovery and students facing health-related issues. They posited that this underlies a demand for education that cannot be met in a traditional environment but is only possible through virtual learning. COVID-19 amplified a need for virtual education that was already present to some extent in American schools.

The interviews unveiled a sense that virtual education, particularly amid a pandemic, has changed how districts see themselves and their students functioning in the future. Two program administrators commented on the success that some formerly struggling students experienced in virtual education. One participant commented:

I would say some kids are truly blossoming...there's other kids that we're finding they're having way more success virtually than they would in person, whether it's because of a lack of distraction from their peer being next to them in the classroom or (they are) just more suited for that type of learning.

Another program administrator said, “We’ve had a couple of kids that have really excelled. Honestly, it’s the ones that were behind, we got them back.” One superintendent discussed the curricular opportunities available within virtual education. They mentioned the importance of personalizing each student’s learning experience during their interview. They said:

As we talk about a personalized learning environment, personalization means different things to different people, and I think as we look to the future, that’s only going to be more and more of an expectation for your families to customize the learning experience for their needs and I think virtual education or hybrid in person, virtual, remote, whatever we want to call it...I think that that will be part of it.

Challenges of Virtual Education

Both superintendents and program administrators identified the same top five challenges when presented with ten potential challenges. These challenges included (in order of most frequently chosen): student engagement, ensuring the quality of curriculum and instruction, professional development for staff, student retention, and excessive cost. Both student engagement and quality of curriculum and instruction were cited by more than 79% of respondents, while the next most frequently chosen item, professional development for staff, was mentioned by 50% of respondents.

The challenge of student engagement is noted frequently in the existing literature. The course design of virtual courses may sometimes make authentic engagement itself difficult to achieve or monitor (Archambault & Kennedy, 2017; Borup & Kennedy, 2017). Student engagement may be seen through motivation, attendance, or self-efficacy. For example, Shea and Bidjerano (2010) noted the connection between a student’s motivation, self-efficacy, and effort regulation, any of which can impact student engagement and success. Adams (2014) also found that engaging and motivating students was challenging, which may be viewed in tandem with the challenge of ensuring and monitoring student attendance. The National Education Policy Center (NEPC) even challenged the notion that student engagement was easily defined, with different states choosing different metrics to gauge this factor, be it task completion, contact with a teacher, or another measure (Molnar et al., 2021).

During interviews, both superintendents and program administrators echoed concerns about student engagement in a virtual environment. Interview participants noted the connection between disengagement, lack of motivation, and poor self-discipline. One program administrator noted that

their district's students were "struggling with engagement or struggling with focus or struggling with having to multitask." Two other program directors specifically mentioned time management skills. One said:

Another issue is with time management and being able to manage the tasks effectively in a different setting. We do as much virtual live as possible, but the rest is self-paced, and being able to manage that time has been a struggle.

Another mentioned time management specifically as a concern for high school students. They said, "For the high school (students), it is really just about discipline and doing the homework, making sure they have good time management."

Ensuring quality curriculum and instruction was the second-most selected challenge by survey participants. This was expected since participants also identified high-quality instruction as the least acknowledged benefit of virtual education. This is a concern expressed by others in this field. The NEPC cites the sheer number of online curricula sources and providers as a challenge in ensuring the quality of materials chosen for virtual instruction (Molnar et al., 2021). The NEPC also expressed concerns with the preparation and qualifications of virtual teachers. They noted that the shift to online learning during the COVID-19 pandemic highlighted the fact that many teachers were unprepared to teach in a virtual environment (Molnar et al., 2021). Before the pandemic, Barbour et al. (2018) also addressed this issue, suggesting the need for a policy requiring professional development to train teachers in effective strategies and models in a virtual environment. They further suggested that these measures be paired with an understanding of a virtual teacher's unique responsibilities and a subsequent adjustment of teacher evaluation tools.

The NEPC also found that part-time teachers staffed virtual schools across the country at a greater rate than traditional schools. Finally, they noted that the difference between synchronous and asynchronous environments makes it difficult to adequately express the characteristics of an effective virtual teacher (Molnar et al., 2021). Other studies have studied small populations of teachers but found it equally challenging to articulate the characteristics of good virtual teachers as they apply to larger groups (DiPietro et al., 2010).

Another survey item that was mentioned at length in the interviews was the lack of professional development (PD) for staff. For some, this lack of professional development was a carryover from the initial rollout of their one-to-one initiative. One program administrator mentioned the issue of a lack of teacher desire, paired with poor PD saying, "We had some interest

from teachers over the summer that wanted to be in the program, but we had some who were pulled out of their classrooms...and so teachers had a lot of adjustments to make with very little training.” Two superintendents pointed to a lack of professional development as an issue in providing a consistent curriculum for students. One said, “(When) we implemented one-to-one... we did not spend ample time with PD for teachers. We had not had a good, established, standardized, viable curriculum across grade levels...so that’s been a challenge.”

Yet other themes emerged that were not mentioned in the survey items. One predominant theme was the challenge regarding a lack of parental support. Respondents mentioned concerns for students at all grade levels. One program director stated, “If you don’t have a parent sitting with the child, especially in a primary grade, it doesn’t work.” Another said:

It’s that issue of the students, especially the older students who maybe don’t have as many supports or the parents that are not keeping on top of them as much. There certainly is a huge number of them that are struggling academically.

Another theme that surfaced was the challenge of teacher capacity and the resulting stress. During interviews, participants connected this with the multiple platforms that teachers were asked to use during the pandemic. One superintendent noted that their district had experienced this at the high school level. They said, “Our teachers are teaching in a dual environment. They are managing the remote students at the same time that they’re managing their in-person students.”

A final theme that emerged throughout the interview process was the challenge of meeting the social-emotional needs of students. Both superintendents and program directors indicated their concern about their students’ emotional growth and well-being and the need for students to make personal connections with their teachers and one another.

Impact of the COVID-19 Pandemic on Virtual Education Stakeholders

Not surprisingly, the interviews highlighted the profound impact that the COVID-19 pandemic had on school districts, teachers, and students. For many this impact was highlighted by the growth of virtual education during that time. Participants discussed the changes their school corporations experienced and the rapid changes that the pandemic precipitated in their technology plans. One superintendent commented on the impact of the pandemic on their school models by saying, “The move to virtual for 20- 21 was pandemic specific, and I think we wanted to provide flexibility for our families always to have a choice. And I think that we’ve been able to do

that.” Others mentioned the need to hasten their technology plans to provide devices for all students. One program administrator explained this in saying, “Prior to COVID we were not even one-to-one yet. We were creating one-to-one. We quickly accelerated our one-to-one.”

District leaders also recognized the financial need to maintain enrollment levels during the COVID-19 pandemic. Amid fears of reduced enrollment, one program administrator said:

One of our biggest issues that we have is that we were already projected to have a declining enrollment within the district. And so now, due to COVID, I fear that if we don't keep it (virtual education) in some way shape or form, we're gonna lose some more students. Even if it's five or six more students, that's gonna be even, that's gonna be harder on us because we were already projected to lose. So even those five or six students are gonna have an impact.

Some leaders noted that the need for virtual education options will likely outlast the direct impact of the COVID-19 pandemic. One superintendent explained:

The move to virtual for 20- 21 was pandemic specific and I think we wanted to provide flexibility for our families to always have a choice. And I think that we've been able to do that. So, from that standpoint, yes, I do think that we accomplished our goal. As we move forward and explore virtual options for 21-22 and beyond that, those are not pandemic-specific. That is based on the premise of school choice and personalization and options that they're looking for students, that whether we can deliver for our community.

Concerns about enrollment and its connection to funding could be felt in public schools even prior to the 2020 pandemic. In 2014, Adams noted that Kansas district leaders felt the need to compete for enrollment amid funding declines in their state. A superintendent in the current study echoed this sentiment when commenting on the political environment and its impact on education in Indiana. They said:

We have a legislature that continues to propose a model in which dollars follow the student, in which we're in competition for students, and if we don't provide it, then they go elsewhere to get it. So, we feel that we're compelled to explore these options and see if we can deliver for our community.

The impact of the pandemic on teachers was not lost on the district leaders who participated in the interviews. The participants noted the stress teachers felt and the benefit of teacher growth in technology use. However, one of the biggest downfalls of the pandemic response was the lack of professional development available to teachers negotiating a new environment. One program administrator addressed this in saying, “The teachers had a lot of adjustments to make with very little training. Even the ones that have been in the full-time (virtual), so we didn’t get much training on the actual platform we’re using.” Another superintendent reiterated this lack of professional development as they noted:

When we implemented one-to-one or gave student devices... we did not spend ample time with professional development for teachers. We had not had a good established standardized, viable curriculum across grade levels. Everybody was doing something a little bit different in every classroom. And that’s still the case to some degree.

Concerns about the lack of professional development for teachers in virtual education are echoed through other studies, as well (Adams 2014). These educators need professional development regarding standard topics such as assessment, differentiation, and student data analysis, but with a focus on how these topics are addressed in a virtual environment (Molnar et al., 2021). Barbour et al. (2018) further pressed this issue and recommended policy and teacher evaluation changes to emphasize the importance of professional development on strategies specific to virtual education.

The third and final theme exhibited in the interviews was the impact that the pandemic had on students and families. Educators witnessed students struggle with attendance and engagement. They also noted that many students lacked time management skills. One superintendent noted, “(virtual education) requires kids to work independently, you know, kind of control their own actions and a lot of kids struggled with that. So, it wasn’t anything like one course in particular. It’s just they couldn’t handle the independence piece.” One program director also addressed this issue in saying:

The biggest problem is initiative and self-direction of the students. We have a whole lot of students who were doing just fine in the building. Some of them were even A-B students, but at the very least, they were passing classes and doing okay in the building. And then this year going into virtual...they just did not do well academically and a lot of that was just attendance and engagement with the program.

Adams (2014) pointed to these challenges as well. She found that monitoring and ensuring student attendance were a challenge to virtual educators in Kansas, particularly those who taught in an asynchronous environment. Additionally, she noted that many of her study participants noticed that families with truancy issues were drawn to virtual education to avoid the consequences of their actions.

Participants in the current study noted the social-emotional challenges faced by students who entered virtual education during the pandemic. One program administrator noticed students' difficulty in the absence of interaction with their classmates. The emotional health of virtual students is a long-standing concern of educators. Participants in Adams' (2014) study noted the lack of social interaction among virtual students, causing a sense of isolation among these children. These educators also mentioned the difficulty in developing essential relationships between students and their teachers. Dikkers (2018) also noted the increased difficulty of creating these relationships within all virtual environments, especially those asynchronous. They underlined the need for intentional opportunities for students to interact with their teacher and one another.

A final frequently mentioned, student-related topic was the need for parental involvement in a virtual environment. The sheer number of families involved in virtual education during the pandemic highlighted the importance of this support. One program administrator pointed to the academic consequences of a lack of parental involvement. They said:

It's that issue of the students, especially the older students who maybe don't have as many supports or the parents that are not keeping on top of them as much. There certainly is a huge number of them that are struggling academically.

The current body of research supports the issue of parental engagement. Borup and Kennedy (2017) addressed this concern by noting that virtual education provides an opportunity for parents to engage with their children and their education in a way that is impossible in a traditional school. They acknowledged, however, that this is often difficult to achieve due to a parent's time constraints and their lack of familiarity with an online platform. Adams (2014) reiterated the importance of parental involvement as key to a student's success yet noted that many parents fail to understand the structure of a virtual classroom and may believe that it is easier for students than a traditional school.

Only one superintendent who was interviewed came from a small, rural district with no virtual education program. Students were socially distanced at school and, as a result, their district remained open and face-to-face during the 2020-21 school year. This superintendent acknowledged

an understanding of the challenges in virtual education, including student social-emotional issues and teacher stress. They said, “We feel like that connection between the student and teacher in person is the most critical thing... It’s about building relationships, and we’re their biggest advocates. It’s very hard to do that unless they’re here with us.” They also addressed the effectiveness of a virtual environment. They said, “We don’t believe that it’s the same. There’s not a replacement for this eye-to-eye. While it (virtual) closely approximates it (traditional), it doesn’t replace it.”

During the interviews, participants tended to temper their view of program success by noting that it took place during a pandemic. In nearly every situation, these individuals referred to their perception of success as having kept students engaged and enrolled in their school during the national health crisis. One superintendent summed this theme up by saying, “the move to virtual for 20-21 was pandemic specific and I think we wanted to provide flexibility for our families to always have a choice and I think we’ve been able to do that.”

It is important to note that these interviews took place during the spring of the 2020-21 school year. By September of 2021, the Delta variant of the COVID-19 virus had spread, causing an increase in school cases. For example, by the end of October 2021, there were more cases of the COVID-19 virus reported among schools than there had been during the entirety of the previous school year (Slaby, 2021). Because these interviews were a snapshot in time, there is no way of knowing if these changes in the virus spurred Indiana school districts to change their virtual education plans yet again.

Implications for Practitioners

This study identifies the factors precipitating the growth of virtual education in the state of Indiana. This knowledge will help practitioners understand why families are choosing this type of education for their students. It will allow districts to understand the reasons why they might need a virtual education program. In understanding why virtual education is needed, districts can address the needs of students and teachers participating in the virtual environment and design programs that will meet their needs. In the case of this study, for example, families largely chose virtual education as a response to the COVID-19 pandemic. Districts need to understand that virtual education in this instance may be a short-term solution for families needing to protect themselves from potential health issues. This knowledge would help a district design a program to meet the needs of these families.

This study also identifies the challenges of virtual education that are supported by current research. These challenges include important topics such

as the effectiveness of virtual education and the issue of student engagement. In understanding the historical concerns surrounding virtual education, districts can develop programs that address these issues at the start. This allows them to form new programs that are stronger and more well-conceived.

This study identifies some of the setting-specific needs of virtual educators. These needs include professional development that would help them better meet the needs of their students, while reducing teacher stress and anxiety in a virtual environment. Understanding the existence of these needs provides district leaders with points of focus that can be used as they develop or evaluate virtual education programs. It can also be used as a basis for the expansion of professional development plans to support teachers in a virtual environment.

Implications for Future Research

There is no question that virtual education grew considerably in Indiana due to the COVID-19 pandemic. This precipitates a need for research to learn how virtual education programs changed or remained the same in post-pandemic years. The growth also underscores a need in research regarding successful virtual education programs' characteristics to make this option as effective as possible for schools and families.

The need for further research includes studies about the types of students participating in virtual education, including the characteristics of stakeholders who succeed in the virtual environment. There is a need to better understand virtual students, including their academic background, social-emotional traits, and access to parental support. This type of research will allow districts to create programs that more thoroughly and effectively meet student needs in a virtual environment.

This research should extend to the types of educators drawn to a virtual environment. There is a gap in the literature specifically surrounding the characteristics of successful virtual educators. There is a need for a better understanding of teachers who successfully implement virtual instructional practices and create a virtual environment conducive to student learning and growth. This type of research can guide districts' professional development plans, as well as their hiring practices for virtual classrooms. The overall impact could be greater effectiveness in teaching and learning in a virtual environment.

CONCLUSION

There is no question that the COVID-19 pandemic impacted Indiana schools. During this study, public school superintendents and program administrators were surveyed and interviewed to learn about their perceptions of virtual education and its growth during the pandemic. A triangulation of the surveys, interviews, and current research supported the findings, which indicated common challenges and benefits of virtual programs.

This study was conducted during the 2020-21 school year. It is a snapshot of virtual education in Indiana during that time. It provides insight into school districts and their responses to the pandemic. While participants in this study indicated a range of benefits and challenges, it is important to note that these are the same factors which have historically been evident in virtual programs, even without a pandemic.

Currently, it is impossible to know the scope and lasting impact of the pandemic on public school districts and their virtual education programs in Indiana. Suffice it to say, however, that pandemic spurred the growth of virtual education in Indiana and provoked a response by school leaders in Indiana.

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APPENDIX A
SURVEY ITEMS FOR PROGRAM ADMINISTRATORS
AND SUPERINTENDENTS

1. How many years have you served in your current role.
 - 1-5 years
 - 6-10 years
 - 11-15 years
 - more than 15 years

2. Which word most closely describes your district?
 - Rural
 - Urban
 - Suburban

3. What was student enrollment for your district in the fall of 2020?
 - 1-500
 - 501-1000
 - 1001-2500
 - 2501-5000
 - 5001-10000
 - 10001-15000
 - more than 15000

4. What percentage of students in your district received free or reduced price meals in the fall of 2020?
 - 0 - 25%
 - 25.1 - 50%
 - 50.1 - 75%
 - 75.1 - 100%

5. In what year did your district's virtual education program/school begin?
 - Before 2010
 - Between 2010 and 2015
 - After 2015

6. Which of the following best describes your district's virtual education program? (Choose all that apply)
 - Available for students in grades K-8
 - Available for high school students
 - Options for students to attend a traditional school and take one or more classes online.
 - Full-time online enrollment (students attend all classes virtually)
 - Blended instruction (online content is supplemented with face-to-face instruction)

7. What are the motivating factors in maintaining a virtual education program in your district? "Virtual education is important in our district because...."

Rating Scale

Strongly Disagree
 Disagree
 Somewhat Disagree
 Neither Agree nor Disagree
 Somewhat Agree
 Agree
 Strongly Agree

- It increases enrollment.
- It increases revenue
- It is a way to homeschool students in our district.
- Other districts have successful virtual education programs.
- It provides an alternative option for children with mental or physical health concerns.
- It increases graduation rates.
- It provides an avenue for credit recovery for high school students.
- Other. _____

8. Indicate the strength of TRADITIONAL SCHOOL in achieving these commonly stated educational goals.

Rating Scale

Ineffective
 Somewhat effective
 Effective
 Very Effective
 Unsure

- Socialization opportunities for children
- Encouragement for students to participate in extracurricular activities
- Development of strong student/teacher relationships
- High quality academic preparation
- Successful preparation for students in their future role as adult citizens

9. Indicate the strength of VIRTUAL SCHOOL in achieving these commonly stated educational goals.

Rating Scale

Ineffective
 Somewhat effective
 Effective
 Very Effective
 Unsure

- Socialization opportunities for children
- Encouragement for students to participate in extracurricular activities
- Development of strong student/teacher relationships
- High quality academic preparation
- Successful preparation for students in their future role as adult citizens

10. Indicate any of the following as perceived benefits of virtual education for your district. (Choose all that apply)
- Financially efficient to educate in a virtual setting.
 - Convenience and flexibility for learners
 - Higher quality instruction than in traditional schools
 - Offer courses that are difficult to staff in a traditional school setting.
 - Students can accelerate and earn additional credits.
 - Support students with special needs
 - Expanded course offerings.
 - Ability to enroll students from outside the district.
 - Increasing district enrollment
 - Offer school choice option to in-district students.
 - Expanded access to rural learners.
 - Alternative education option for children with mental health concerns
 - Increased graduation rate
 - Alternative education option for children with behavioral concerns
 - Credit recovery for high school students
 - Alternative education option for children with physical health concerns
11. Which best describes the perceived effectiveness of your district's virtual educational program.
- Ineffective
 - Somewhat Effective
 - Effective
 - Very Effective
12. Explain the perceived effectiveness of your district's virtual education program.
-
13. From your perspective, what are the challenges of operating a virtual education program?
(Choose all that apply)
- Staffing of virtual classes
 - State regulation and oversight
 - Lack of community support
 - Recruitment of new students
 - Student engagement
 - Student retention
 - Excessive cost
 - Professional development for staff
 - Staff retention
 - Ensuring quality of curriculum and instruction
 - Other _____

14. Would you be interested in participating in a brief interview used to gain more insight about your perceptions and opinions of virtual education? If so, please include contact information below.
- Yes
 - No
15. If so, please include your name and contact information below.
- Name
 - District
 - Email
 - Phone

APPENDIX B SUPERINTENDENT SURVEY

1. How many years have you served in your current role?
- 1-5 years
 - 6-10 years
 - 11-15 years
 - more than 15 years
2. Which word most closely describes your district?
- Rural
 - Urban
 - Suburban
3. What was student enrollment for your district in the fall of 2020?
- 1-500
 - 501-1000
 - 1001-2500
 - 2501-5000
 - 5001-10000
 - 10001-15000
 - more than 15000
4. What percentage of students in your district received free or reduced price meals in the fall of 2020?
- 0 - 25%
 - 25.1 - 50%
 - 50.1 - 75%
 - 75.1 - 100%

5. Select the descriptor that fits your district.
 - Currently offer some form of virtual education
 - Offered virtual education in the past, but not currently
 - Not currently offering, but considering virtual education
 - Not currently offering and not considering virtual education

6. In what year did your district's virtual education program/school begin?
 - Before 2010
 - Between 2010 and 2015
 - After 2015

7. Which of the following best describes your district's virtual education program? (choose all that apply)
 - Available for students in grades K-8
 - Available for high school students
 - Options for students to attend a traditional school and take one or more classes online
 - Full-time online enrollment (students attend all classes virtually)
 - Blended instruction (online content is supplemented with face-to-face instruction)

8. Indicate your perception of the importance of the following that led to the adoption of a virtual education program in your district.

Rating Scale

Unimportant

Somewhat Important

Important

Very Important

Not Considered

- Increase enrollment.
- Increase revenue.
- Develop innovative instructional practice.
- Recruit homeschool students in our district.
- Replicate other districts' use of virtual education.
- Alternative option for children with mental or physical health concerns.
- Increases graduation rates.
- Credit recovery for high school students.
- Other: _____

9. Indicate your perception of the importance of the following factors leading to the consideration of a virtual education program in your district.

Rating Scale

Unimportant

Somewhat Important

Important

Very Important

Not Considered

- Increase enrollment.
- Increase revenue.
- Develop innovative instructional practice.
- Recruit homeschool students in our district.
- Replicate other districts' use of virtual education.
- Alternative option for children with mental or physical health concerns.
- Increases graduation rates.
- Credit recovery for high school students.
- Other. _____

10. Indicate any of the following as perceived benefits of virtual education for your district. (Choose all that apply)

- Financially efficient to educate in a virtual setting
- Convenience and flexibility for learners
- Higher quality instruction than in traditional schools
- Offer courses that are difficult to staff in a traditional school setting
- Students can accelerate and earn additional credits
- Support students with special needs
- Expanded course offerings
- Ability to enroll students from outside the district
- Increasing district enrollment
- Offer school choice option to in-district students
- Expanded access to rural learners
- Alternative education option for children with mental health concerns
- Increased graduation rate
- Alternative education option for children with behavioral concerns
- Credit recovery for high school students
- Alternative education option for children with physical health concerns
- Other _____

11. Which best describes the perceived effectiveness of your district's virtual educational program.

- Ineffective
- Somewhat Effective
- Effective
- Very Effective

12 Explain the perceived effectiveness of your district’s virtual education program.

13. From your perspective, what are the challenges of operating a virtual education program? (all that apply)

- Staffing of virtual classes
- State regulation and oversight
- Lack of community support
- Recruitment of new students
- Student engagement
- Student retention
- Excessive cost
- Professional development for staff
- Staff retention
- Ensuring quality of curriculum and instruction
- Other _____

14. Why did your district choose to discontinue virtual education programming?

- Lack of district support
- Lack of community support
- Perceived ineffectiveness of virtual education
- Financial considerations
- Does not meet the goals of our district
- Other _____

15. Why has your district refrained from offering a virtual education program in the past?

- Lack of district support
- Lack of community support
- Perceived ineffectiveness of virtual education
- Financial considerations
- Does not meet the goals of our district
- Other _____

16. Indicate the strength of TRADITIONAL SCHOOL in achieving these commonly stated educational goals.

Rating Scale

Ineffective

Somewhat effective

Effective

Very Effective

Unsure

- Socialization opportunities for children
- Encouragement for students to participate in extracurricular activities
- Development of strong student/teacher relationships
- High quality academic preparation
- Successful preparation for students in their future role as adult citizens

17. Indicate the strength of VIRTUAL SCHOOL in achieving these commonly stated educational goals.

Rating Scale

Ineffective

Somewhat effective

Effective

Very Effective

Unsure

- Socialization opportunities for children
- Encouragement for students to participate in extracurricular activities
- Development of strong student/teacher relationships
- High quality academic preparation
- Successful preparation for students in their future role as adult citizens

18. Would you be interested in participating in a brief interview used to gain more insight about your perceptions and opinions of virtual education? If so, please include contact information below.

- Yes
- No

19. If yes, please include your name and contact information below:

- Name
- District
- Email Address
- Phone