COVID-19 Response: Preparing to Take School Online

Background

Novel coronavirus and the resulting COVID-19 disease have more schools and districts faced with the challenge of how to maintain continuity of teaching and learning while facing the threat of extended school closures.

The immediate temptation and seemingly simple solution is to conduct school remotely using online resources to connect students and educators. There are benefits to this approach, such as continuing the school year without extensive interruptions and multi-week school closures. However creating an effective remote learning solution is not as simple as it might first appear.

Moving school systems to a remote learning environment isn't just a technical issue. It is a pedagogical and instructional challenge. Technology is the means for delivery. A successful effort to move school outside of traditional classroom and building structure requires a close cross-collaboration between instructional, content, and technology teams. Taking students and teachers out of the classroom is a pedagogical transformation that requires rapid mobilization across the district to transform delivery.

Before pulling the trigger on a technology initiative to move instruction to an online environment, here are key considerations for districts contemplating moving classrooms online.

Teacher Readiness and Preparation – Questions to Consider

1. Are teachers prepared to teach in an online environment? Teaching online requires specialized skill sets including understanding of how to conduct classes in a virtual environment, knowing when and how to use video conferencing, share content, respond to students' submissions, and more.
2. How and when classroom content should be delivered? Options are synchronously with all students in virtual attendance or asynchronously with students attending as they are able.
3. Will teachers have time and space to provide online instruction? Many teachers are also parents with now homebound children. There will need to be some flexibility for work schedules so teachers can teach and manage interruptions in their households. Online capacity may be an issue for some households.
4. How do you prepare teachers who have never used an online environment to teach before? Teachers in this situation would be starting from the basics, learning the tools as well as how to manage an online classroom. This training will take place in a very compressed timeframe

Asses Student Readiness

Student readiness to learn online needs to be assessed. While we assume that students are tech-savvy, that may not apply to learning online If students are already familiar with a blended and/or online learning approach, moving more fully to online will be an easier lift. However, if students have limited or no experience with blended and/or online learning, they will not be prepared to be successful in a fully online school experience.

The online learning environment may also not be appropriate for all students and all grade levels. While online learning is often quite familiar for middle and high school grades, imagine the challenges of delivering kindergarten or first grade instruction online. Is the district ready to take on that challenge, or are there better alternatives available?

In addition to primary students, the needs of bilingual, special education, and students with special needs for access (such as hearing and visual impairments) need to be considered. Is an online environment appropriate for these students? What are the alternatives that might better support instruction and learning for them.

Alternatives Considered

Has the district considered all reasonable alternatives for delivering instruction? Often technology is seen as "the solution" but it may not be the best solution for students and teachers. Can the district leverage simpler methods of providing instruction including via email or utilizing books and paper/pen assignments more like a traditional correspondence course which may be more appropriate and more reasonable to deploy in a short time frame.

Role of Information Technology Teams

Before moving instruction off site and into an online environment, districts need to clearly define the role of information technology in the process. Information technology teams are technology specialists. While some IT staff members may be former teachers, many are not educators by training. IT is as a resource for providing operational and technical support to an instructional and pedagogical decision.

When the pedagogical and instructional questions have been resolved, the district may proceed to move some, or all, instruction to an online environment. This is where information technology teams step in to collaborate with instructional and academic programs to provide operational support as the district moves to the next layer of planning. Even when moving to operational implementation of online learning, it is essential that technology does not drive instruction and pedagogy. As with any large technology mobilization effort, there are also many factors to consider to make this approach equitable and successful for students and educators.

Considerations for a Large Scale Transition?

- Systems
- Devices
- Network access & connectivity

Systems

In order to deliver an effective classroom experience, there are key systems that need to be in place including a Learning Management System (LMS) or other consistent location such as the Student Information System (SIS) for educators and students to access online instruction. Web-hosted video conferencing can provide students access to their teachers in real-time. Testing must occur to ensure they scale to support the whole learning community. Access credentials must be set up ready for use.

Devices

In addition to having access to an online learning environment, students and educators need a device (laptop, tablet, phone, etc.) with which to access online learning. A critical question becomes, does the district have an adequate supply of devices to support delivering online learning to students? Expecting students to provide their own devices creates a significant equity issue and barrier to learning for many students, especially students from low to moderate-income households that may not own devices.

If the district is expecting to leverage student-owned devices and fill the gaps with district-owned devices, then it is essential to understand who has home access to devices at home and how many devices the district must provide. Additionally, it is important to identify how devices will be distributed to those students who need them.

Network Access & Internet Connectivity

Ensuring access to systems and devices only provides limited options for taking teaching and learning into a virtual environment. The success of this approach is also heavily dependent on the ability of the district's network to handle an increase in network traffic to key systems such as the LMS, SIS, VOIP (phone) systems, etc. Can the district's bandwidth support the increased utilization of these systems? The online experience can be extremely frustrating if students and teachers find systems slow and unresponsive due to bandwidth challenges. Once the district has confirmed the network can handle the increased volume of use, then it is important to examine students' ability to remotely access online and learning.

Students' access to quality Internet connections is essential for connecting to online school resources. This is one of the biggest challenges districts face in rapidly ramping up virtual alternatives.

Key questions to consider about student access to the Internet:

1. Do students in your district have access to the Internet at home?
2. Will they be able to participate in online coursework?
3. Will access become a barrier to teaching and learning?
4. Will lack of access disproportionately impact low/middle income or rural students?
5. Will these students be placed at further risk if they have to go to another location to access the Internet such as a cafe or public library?
6. How do you support alternatives such as teaching and learning delivered via telephone?

Security

Cybersecurity also should be a consideration when deploying large volumes of devices and connecting more students to online teaching and learning.

1. Are devices locked down?
2. Have administrative rights for end users been removed so students can't install unauthorized software on the devices?
3. Does your web content filtering protect these devices when they're being used remotely? Is it set up on every device?

4. Is antivirus/antimalware software installed on each device?
5. If you're using a web conference system, are the video/audio calls encrypted?
6. Is recording enabled/disabled?
7. Can the system have recording enabled for the teacher but disabled for the students?
8. Where do recordings go?
9. How much work is there to get up to speed?

Technical Support

Last, but certainly not least, the district should plan for providing instructional and technical support to teachers and students. Students and teachers need to know how they will get additional support for instructional needs and technology challenges. Is the district prepared to set up a physical or virtual call center and/or online support center staffed by instructional support and IT staff?

Successful support includes plans for how to triage incoming requests and who triages those requests. The role of effective triage is to determine if an incoming request is technical or instruction and route it to the correct team. Some things to consider in implementing a support center include:

1. Are there separate lines or contacts for teachers and students?
2. What is the anticipated wait time for a response? Setting clear expectations for response time and means of response can be very effective in reducing the number of people who submit repeated requests.
3. What are the hours that the district is providing support?
4. How does someone get in line for assistance?

The district should also plan for and implement options for self-support. This can include providing a central location for all how-to guides, troubleshooting tips, cheat sheets, and videos. Providing sufficient self-support options can reduce the impact and demand for individual instructional and technical support and make it easier for teachers and students to solve challenges themselves.

Conclusion

Preparing to move education outside of traditional physical classrooms in response to COVID-19 requires thought, coordination and careful decision-making. This document is a starting point for planning and supporting a significant district transformation.