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THE LEADER IN STEM EDUCATION

Continuity of Learning Strategies Series

Support Tools and Strategies Needed for Practical Implementation, Part II

This guide is the second in a three-part series that shares ideas and strategies for educators to effectively establish continuity of learning practices.

With the growing prevalence of pandemics and extreme weather, continuation of education in the event of a school closure—or prolonged student absence—has become key in preventing learning loss.

Part two will help educators identify the underlying strategies and tools needed to support the instruction design explored in part one, while offering tips for facilitating instruction delivery. Successful implementation of these tools and strategies will mitigate the need for remediation and intervention when schools reopen.

Addressing Distance Learning Needs

To effectively continue learning when schools close, educators must consider what students need to succeed during distance learning. They will also have to determine and support the needs of faculty, as well as those of parents or caregivers.

- **Developmentally appropriate instructional practices**
  Since children's skill levels, attention spans, and processing capabilities change as they grow, remote teaching strategies should be tailored to the developmental stage of specific age groups. Just as in the physical classroom, strategies and tools that work with elementary or middle school students may not work for high schoolers and vice versa.

  For example, the time spent in remote learning sessions needs to be adjusted for students' age groups. Generally, younger students have shorter attention spans than older students. The National Board of Professional Teaching Standards recommends that when teachers are delivering remote instruction, they should allot one to two hours a day for elementary students, two to three hours for middle school students, and three to four hours for high school students.

  Educators will also need to consider the amount of support and supervision different age groups will require. For example, those working in elementary and middle schools will likely need to create materials for parents as well as students. High schoolers are much less likely to need parental supervision.

- **Virtual feedback for students**
  Another remote learning challenge is ensuring that students receive feedback that can effectively guide their learning. With synchronous (live teacher-student interaction) online sessions, there is no problem because teachers can directly respond to students' questions. But with asynchronous distance learning, students access lesson material and projects on their own schedule. In such cases, teachers can arrange for students to share and provide structured feedback.

  Another avenue for providing remote learners with feedback includes assessments (particularly formative). Teachers can share individual student assessment results with students to help them gain a clearer picture of their progress. Assessments were covered in the first part of this series, but here is a quick recap.

  Many curriculum products now include formative assessments (or resources that can be used as such). These take various forms:
  - Prepared questions that can be used to spark discussions during whole-group sessions or in online breakout rooms
  - Pretests that can be adapted for formative assessments or student self-assessments
  - Graphic organizers that students can complete independently to demonstrate their learning
  - Quizzes
  - Open-ended questions

  Additionally, many software programs include automated feedback. Likewise, digital platforms and Learning Management Systems (LMS) often allow teachers to give individual feedback, show students the correct answers on assignments, and use auto-release feedback.

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- **Support for students with unique needs**
  English language learners (ELL), exceptional needs students, and children who are homeless or in foster care will likely need access to special resources. Documenting specific students' special remote learning needs will make it easier to provide relevant resources or reach out to area partners for provisions during a crisis.

  Examples of what these students may need include the following:
  - Internet connection
  - Curriculum materials in English and the home language of the ELL
  - Leveled reading materials
  - Audiobooks
  - Word prediction software
  - Text-to-speech "read aloud" technology
  - Text magnification
  - Various assessments
  - Reteach materials embedded within lessons
  - Embedded ELL supports, including facilitation callouts for teachers, supplemental activities, graphic organizers, and sentence frames.

- **System training for students, faculty, or parents/caregivers**
  Most school districts will use digital platforms or an LMS to deliver remote instruction. Although the COVID-19 pandemic caused teachers to become familiar with distance learning practices, many will likely refocus on in-person instruction once lockdowns end. Additionally, schools may migrate to a new LMS, or their current system may receive updates that significantly change tasks or functions. All of this means that districts should expect to introduce faculty members to the system or provide refresher training.

  Vendors' systems often provide embedded professional development and support (e.g., manuals or videos explaining how to perform various tasks) to support implementation of remote pedagogy. More sophisticated versions of this professional development can even give teachers in-the-moment instructional ideas. However, professional development resources can come in many formats (e.g., videos, frequently asked questions [FAQ], webinars, implementation training, and coaching).

  The coaching option mentioned above is an invaluable resource not only for implementing standard online pedagogy, but also for helping struggling students. Some vendors provide customized coaching to help teachers support students at greater risk of experiencing learning loss during school closures. Customized coaching can also help with more challenging online teaching tasks, such as incorporating "hands-on" activities or projects in remote learning.

  Additionally, parents and caregivers play a critical role in continuity of education, particularly for younger students. Educators can use school websites to share support tools, such as parent letters, background materials on content (e.g., videos and downloadable guides), and downloadable materials for at-home activities.

Tools to Support the Implementation of Remote Instruction

Teachers and administrators will need tools and resources that make it easier to manage and deliver instruction in a virtual setting.

- **Tools for delivering instruction**

  The U.S. Department of Education suggests that audio or video recordings can be delivered "via live or on-demand television, DVD, captioned closed-circuit or public access television." Additionally, teachers can launch live virtual sessions through tools, such as the following:

  - Conference calls
  - Webinar platforms
  - Teachers' own online courses delivered via the district's LMS
  - Virtual schools that allow for two-way interaction between the teacher and students could serve as continuity of learning partners

  Learning Management Systems also allow teachers to facilitate discussions with students using blogs and discussion boards, etc.

- **Alternative learning resources for students without internet access or computers**

  Many of the strategies mentioned are based on the presumption that students and their families have access to computers and/or broadband internet. However, some students' personal circumstances (e.g., low socio-economic status or homelessness) will mean that online learning is not an option. Also, some causes of school closures (e.g., extreme weather) have the potential to knock out an area's internet service.

  "Hard copy" (that is, paper-based) materials are the most obvious alternative to digital access. In addition to students' textbooks, educators can provide photocopies of reference materials, the curriculum, and assignments. Other hard copy instructional packets may include the following:

  - Worksheets
  - Calendars or schedules of work
  - Directions for homework, projects, or written assignments
  - Excerpts from textbooks or other reading materials
  - Sample assessments

  The main obstacle to using paper-based materials is that educators generally require advance notice to prepare them for distribution. As a result, they may not be practical options for sudden closings. To overcome the problem of advance notice, educators can either prepare generic packets for a specific subject and grade that can be used at any point in the school year. Alternatively, they can create unit-specific packets that are aligned to students' current lessons.

  The U.S. Department of Education has listed other potential distance learning support tools (e.g., cable television, Mp3 players, DVD players, or assistive technology). Identifying what students and faculty have access to at home or at other nearby sites expands educators' options for delivering instruction. Faculty may then still have the option of making audio or video recordings of classes available to students who are learning remotely but are not online.

- **Taking attendance remotely**

  Unfortunately, not much research has been done about effectively monitoring and reducing absentees in blended and distance learning. However, many states have <u>requirements or guidelines</u> regarding what counts as remote learning attendance. Some states have specific definitions for what counts as online attendance. For example, Minnesota considers attendance to be "interaction with a teacher on an instructional day" through an online chat, a video session, or even a phone call or assignment submission.
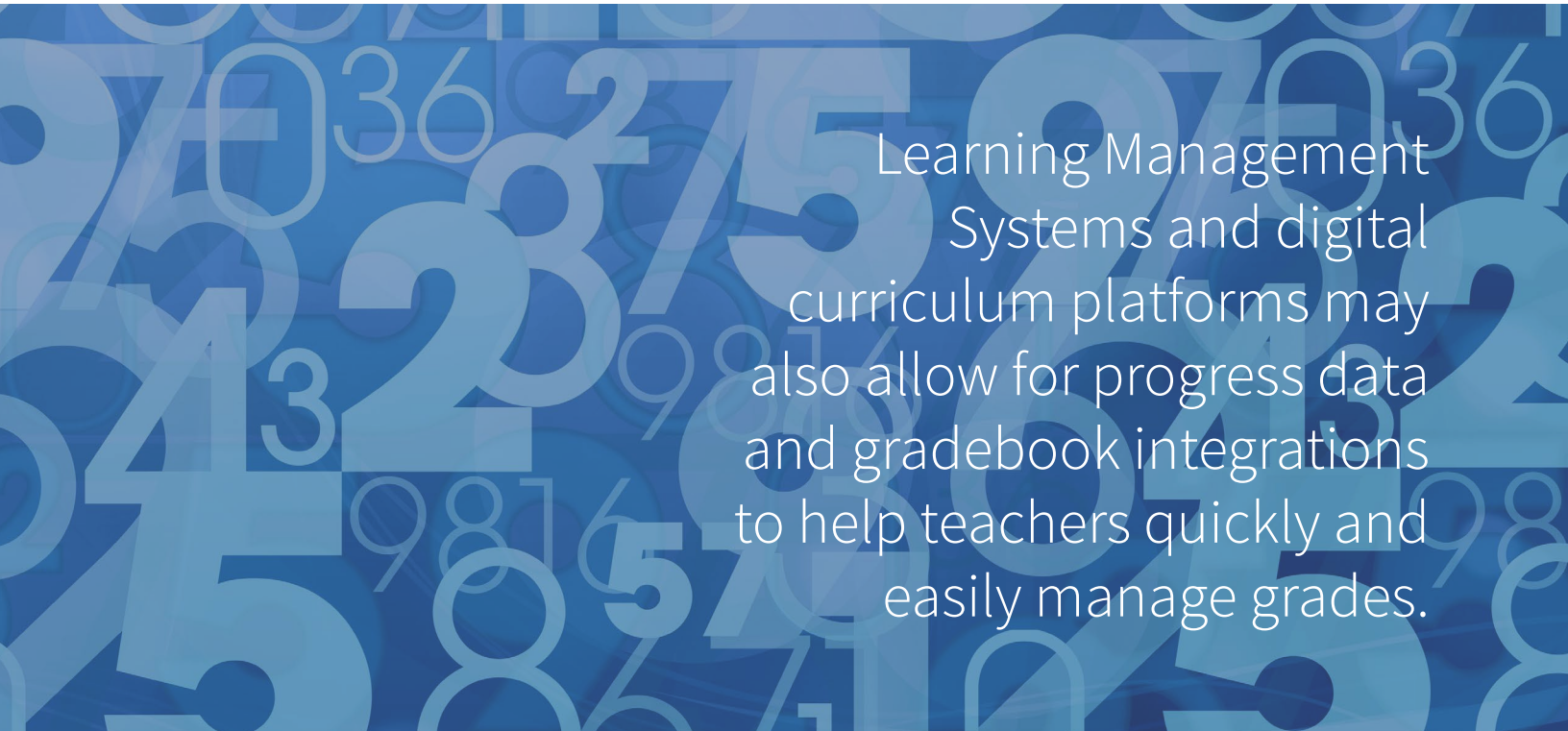
  Other states are more concerned with engagement and thus require teachers to monitor participation. (Interestingly, the criteria for virtual participation often overlap with those for attendance). Another option is reaching out to parents and caregivers via phone calls, texts, or emails to see how or if students are doing coursework. Teachers can also track which students are returning written assignments to the school (this is a possibility in the case of a "soft closing" — that is, faculty members, but not students, can work in the school building). The latter options will work well for students who are not online.

  Learning Management Systems and many online curriculum programs can make it easy to monitor students' attendance or participation for synchronous or asynchronous instruction. They will automatically track student logins, activity, and progress. Some digital platforms also include a virtual attendance tool for formal monitoring of student attendance.

- **Data and gradebook integrations**

  Additionally, Learning Management Systems and digital curriculum platforms may also allow for progress data and gradebook integrations to help teachers quickly and easily manage grades. In such cases, the platform will come with software that grades, provides feedback, and uploads the grades onto a school or district's gradebook. (Make sure that the vendor includes cybersecurity measures so that students' data is well protected).

  There are also standalone online gradebooks that allow students to upload homework for review by their teacher. Some of these gradebooks let teachers choose between standard points-based grading, letter grades, and other custom grading scenarios. Teachers can use one that generates progress reports that can be shared with students and their caregivers.

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What Administrators Need

School closures bring about changes in educators' and students' circumstances that result in changes in courses and assessments. Districts need the ability to quickly revise the instructional calendar to account for such unexpected circumstances. Without this capability, instructors are left to make their own decisions about whether to modify the course and how to do it. That could lead to inconsistencies in the content delivered to different classes or teachers omitting lesson content or formative assessments that district personnel consider important for student progress.

Controlling what's required or suggested can help a district avoid the confusion, lack of progress, or even learning loss that could arise. The ability to push out assignments, learning resources, and assessments by curriculum area and grade level is key to providing that consistency. This also helps teachers and students receive the structure needed to quickly adapt to their new circumstances and continue forward.

To simplify the process, districts can use digital tools that allow for curriculum mapping, a functionality that enables personnel to create a "map" or lesson plan and seamlessly push it out to all relevant teachers and students. Some online curriculum platforms offer curriculum mapping tools that allow district administrators to filter by curriculum area and grade level, and then drag and drop ready-to-use lesson plans, student learning materials, and assessments onto specific dates on an online calendar. This allows them to quickly manage the mass deployment of curriculum and assessments, including pre-tests and post-tests. They can also support granular reporting at the district level.

To maintain consistency, district administrators can apply their digital curriculum maps from one school year to the next. Alternatively, if they must revise the instructional calendar for unexpected circumstances — such as inclement weather, snow days, or other factors — a curriculum mapping tool should adjust the lesson plans, student assignments, and assessments accordingly.

Upcoming and Previous Series Installments

Part three of this series will share strategies for preventing students' learning gaps, addressing existing learning gaps, and helping students focus on learning despite the disruptions to their lives.

Part one focused on instructional practices that allow for seamless transition from in-class instruction to remote learning and back again. You can find it at info.stemscopes. com/continuity-of-learning-strategies-part1.

About Accelerate Learning

Accelerate Learning works with more than 200 practicing teachers who help write curriculum, field test lessons and assessment items, and review and edit all materials to ensure factual accuracy, so our curriculum is current and practical for implementation in any type of classroom.

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