

Best Practices for Remote Learning in the Content Areas

We are teaching in challenging times, but fortunately, there is guidance available from others who have similarly ventured into educating students in the midst of a crisis. The Inter-Agency Network for Education in Emergencies (INEE) has produced [a set of minimum standards for education in the midst of crises](#). While many of these standards are most applicable to regions ravaged by war or natural disasters, there are nevertheless many principles in this document that apply to our current work of “[pandemic pedagogy](#).” More specifically, educators have documented their professional responses to natural disasters that more closely resemble the COVID-19 context. In 2010 and 2011, New Zealand experienced multiple earthquakes that severely disrupted the learning environment at the University of Canterbury. Professors from the region have reported their responses to this natural disaster ([Breeze et al., 2011](#), [Buckley & Gilmore, 2011](#), [Mackey et al., 2011a](#), [Mackey et al., 2011b](#), [Mackey et al., 2020](#), [Monti et al., 2011](#)) and provided guidance for others in similar circumstances. Closer to home, schools in the southeastern U.S. and Caribbean grappled with the complexities of schooling in the wake of record hurricane activity in 2017, and a number of research-based recommendations have been gleaned from these experiences ([Simmons & Douglas, 2018](#)).

Many districts and educational agencies across the U.S. have already begun developing principles for emergency distance learning in the wake of COVID-19. For example, Northfield Public Schools (Minnesota) has developed [broad principles for its teachers and educators](#). Further, resources developed by the Chief State Science Supervisors (CSSS) were generalized for all subjects and used in this document. (CSSS is developing additional resources to support students’ learning for [extended school closures](#).) In Michigan, our own agencies have offered guidance for various elements of remote learning during this time ([MDE Learning at a Distance Guidance](#), [MAISA Remote Learning Guidance](#), [Oakland Schools Resources to Support Ongoing Learning](#)). Additionally, there are many [legal and compliance issues](#) that need to be addressed and considered when educating children remotely. Districts should be mindful of the regulations outlined in the [Children's Online Privacy Protection Rule \("COPPA"\)](#).

Our own lived experiences have been captured in the Continuity of Learning Plans (CoLPs) that have been submitted to and approved by Oakland Schools. We have gathered these together in a [brief analysis](#). In this analysis, we see that:

- All 28 public school districts have decided on “primarily digital delivery with hard copy as needed,”
- 25 districts have provided hotspots and Chromebooks or iPads to students (three districts have provided laptops as needed),
- 25 districts have indicated they will use both synchronous and asynchronous learning,
- Budgets for this work range from \$15,000 to \$6.4 million,
- 25 districts’ budgets are less than \$1,000,000,
- Six districts intend to start school prior to Labor Day 2020,
- Five districts have indicated in the CoLPs that they are pursuing or open to a balanced calendar (one district already has a balanced calendar for all but high school students),
- One district is grading the work of middle school and high school students,
- 12 districts have indicated they are using pass/fail or credit/no credit at some or all grade levels, and
- Google Classroom (23 districts), Google Meet/Hangouts (20 districts), Seesaw (15 districts), Zoom (13 districts), and Remind (11 districts) are the most commonly used technology tools.

In addition to the lived experiences of educators operating during times of crisis, researchers have provided helpful meta-analyses of best practices in distance learning environments. Most notably, a comprehensive (and very timely) review of the research on K-12 student engagement in online learning environments was recently published ([Bond, 2020](#)). Further, John Hattie, noted education scholar, has shared [insights from his](#)

[research](#) about what we (teachers, families, schools, etc.) should be paying attention to while school buildings are closed.

Finally, we filter these works through the lens of equity. Equity is the greatest differentiator of success, particularly in challenging times when added support may be needed. Keeping equity at the forefront of decisions in terms of expectations, scheduling, technology, and other resources is a necessity. Each resource and tool should be considered through the lens of equity, thus ensuring (as best as possible) that learning is not limited by access to technology, the ability of families to support learning, and the added challenges for students in poverty, special populations, and student home languages. Most importantly, teachers should [promote instructional equity and protect student well-being](#) during this time of emergency learning.

With the guiding principle of equity and these documents in mind (and the advice of our consultants at Oakland Schools), we offer the following: a) **best practices across the content areas as we transition to remote learning** and b) **available resources and tools to facilitate this transition**. Below, we list seven best practices for emergency distance learning, followed by a brief description of the practice, general guidance for the practice, and specific tools and resources to help educators implement the practice.

Click on the desired section below that will lead you to the Best Practices resources:

Remember Maslow	Nurture a Positive Home Climate for Learning and Parental Involvement	Establish and Maintain Remote Classroom Norms and Learning Routines	Culturally Responsive Teaching
Encourage Student Collaboration and Discourse	Create Opportunities For and Attend Carefully to Feedback	Engage Students in Meaningful Learning Opportunities	

Remember Maslow

[Before students can learn, they need to feel safe...physically, socially, and emotionally.](#) It will be important to nurture students' feelings of safety during this transition and beyond. Teachers can contribute to students' sense of safety by first attending to their emotional needs and productive social interactions in distance learning settings.

Guidance

- Ascertain the safety, emotional, social and physical well-being of each student prior to planning any learning experiences.
- Accept that each individual will be managing different circumstances in their remote environment.
- Be flexible and patient.
- Check-in frequently with learning community members and ask how they are managing.
- Set small goals for yourself and for learners.
- Invite and offer gratitude.

Resources and Tools

- In this time of rapidly changing public health and economic uncertainty, districts must ensure that their method of remote learning accounts for health, family, food, and financial contexts. Assess the needs of your students and families using a [School Wellness Checklist \(directions for translation included\)](#).

- Know who to contact in your district to provide additional support for students' needs for counseling, food security, special education, translation/interpretation, and additional [Community Supports and Resources](#).
- Make regular personal contact with each individual student via phone call or text using apps such as [Google Voice \(guide\)](#) and [Remind \(guide\)](#) (allows calls without using your personal number). Consider dividing up this effort among teachers to prevent overwhelming contact.
- Share personal messages of care and encouragement via email, postcard, etc. or post short videos of yourself to provide needed reassurance for students.
- Spend time in each digital classroom meeting with an "ice breaker," getting a sense of how things are going for everyone using polls, breakout room small group discussion, or in social media posts.
- Be mindful to spend time reconnecting with your students, staff, and families. We'll need to take time to attend to needs that [support health, safety, and overall well-being](#), which may look like: Helping them navigate the wide range of feelings they have during this time.

Nurture a Positive Home Climate for Learning and Parental Involvement

We should remember that during these times, the quality of the home environment is one of the largest predictors of K-12 student achievement. As educators during a pandemic, our work should enhance (as best as possible) the home environment for students and their families. Home-based learning is most successful when students, families, and educators work together in complementary and collaborative ways. Students, families, and educators all have key roles to play, including how they support meaningful home-based learning.

Guidance

- Encourage parental/guardian involvement with specific and manageable asks, which will vary by student age.
- Help parents/guardians understand that they do not need to be the "school police."
- Reassure parents/guardians that no one is asking them to be a content area expert.
- Ask parents/guardians what, if anything, that you (or the school) can do to make students' learning experiences more positive; gather information on resources needed to support English language development and translation/interpretation/multilingual resources for multilingual families.
- Be empathetic to the added stress on families due to working from home while managing school, loss of employment, food insecurity, and potential loss of life.

Resources and Tools

- Provide resources for parents to communicate with their children, such as sentence starters and questions to promote student inquiry ([See, Think, Wonder](#), sample [Talk Moves](#), or [At Home Learning for Science](#)).
- Encourage parents to stay involved in their child's learning by periodically reviewing their online school account for course materials, feedback, and announcements.
- Establish a suitable home learning environment that is free of distractions, with necessary equipment, and comfortable surroundings, but don't stress about creating the perfect homeschool environment.
- Work with students and families to develop a schedule to organize time and balance new demands; including time for independent work, synchronous, and asynchronous connections.
- To ensure meaningful communication with multilingual students and families, consider [a variety of apps and tools to communicate in multiple languages](#).

Establish and Maintain Remote Classroom Norms and Learning Routines

As with any face-to-face classroom, developing and implementing [classroom norms and learning routines \(pdf\)](#) is an essential step for creating the conditions for successful learning, but in the midst of emergency distance learning, these norms and routines become even more critical to positive student outcomes https://issuu.com/openscienced/docs/resources_for_remote_teaching_-_norms/8.

Guidance

- Remember that the norms and routines that we've used in the past may or may not work in a distance learning environment.
- Consider the need for new routines and norms centered on the use of technology.
- Build in redundancies (e.g., back-up plans or alternative tools) for technology- and communication-related breakdowns.
- Use non-digital methods (e.g., phone calls, paper letters/notes) to reinforce norms and routines, even in technology-rich environments.

Resources and Tools

- Contextualize familiar norms for students. Then ask them to describe and agree on actions that reflect the ideals.
- Establish signals/digital responses to facilitate taking turns to avoid simultaneous talking (e.g., raising hands, thumbs up, muting when others are speaking). Use strategies to manage speaking such as each person nominating another to speak, until all have spoken.
- Adhere to agreements about when to use cameras, when to mute/unmute audio, video recording, and screen capture of virtual meetings or student work.
- Be culturally sensitive to students that may feel discomfort showing their home on video or maintaining eye contact online.
- Encourage patience, support, and kindness among the group, paying particular attention to those who might be new to technology or selected platforms.
- Take time to learn and practice using the digital platform and post tutorial videos for reference.
- Assume technological glitches will happen. Recognize that students will access digital platforms with a variety of devices that may have differing capabilities.

Encourage Student Collaboration and Discourse

One of the prime opportunities we have during this time is to use the tools of social media and web-based connectedness to deepen student collaboration and discourse. Encouraging student collaboration and discourse is one of our best levers for sustainable change during this time.

Guidance

- Student-to-student talk about content is important for sense-making and provides students an opportunity to discuss observations and organize thinking.
- Students work together, as contributors to the learning, to advance the class collectively.
- Optimize the social interaction aspects (students do not want to listen to a virtual lecture; they prefer to learn collaboratively).
- Check for understanding (listen to the feedback from students about their learning, even more when you do not have the usual cues found in the classroom).
- Make sure there is a balance between the previous knowledge and the deep thinking (too often online favors the former over the latter).

Resources and Tools

- Provide a space for all students to be heard by encouraging [productive discourse](#) in pairs via phone/text or the chat feature of video conferencing software, and in small teams using breakout groups in video conferencing software.
- Students post in a shared [Google Slides](#) show and view as gallery walks. Use the comments feature for feedback.
- Post thought provoking phenomenon, questions, or ideas that students have shared using social media such as [Google Classroom](#) ([guide](#)), [Flipgrid](#) ([guide](#)) or [Seesaw](#) ([guide](#)), and encourage students to

respond and contribute to the class dialogue. Consider providing sentence starters to scaffold productive talk.

- Use [Kialo-edu \(guide\)](#) or [Parlay \(guide\)](#) to engage students in argumentation dialog sessions.
- Ask students to identify and sort reasons for two competing claims on a [Padlet \(guide\)](#) or [Stormboard \(guide\)](#). They can then link related pieces of evidence before polling students about which sources of evidence are more compelling.

Create Opportunities For and Attend Carefully to Feedback

Constructive, productive, caring feedback is one of the most important aspects for student learning and is especially important during this time. Students can receive supportive feedback from a range of sources, including from peers, family members, teachers, and self-reflections. While everyone is trying out new systems of learning, authentic feedback can be particularly meaningful and may even set students up to continue reflective- and growth-oriented practices beyond this emergency.

Guidance

- Take ownership of student feedback. Providing feedback is one of the core competencies of teachers, and we should continue to give students meaningful guidance on how to improve.
- Provide feedback for students in a way that prioritizes the mental and physical health of the students as well as growth mindsets, rather than an emphasis on achievement alone.
- Prioritize feedback over grades and scores. Traditional grades and scores are not as meaningful in home-based learning paradigms when opportunity to learn, availability of resources, and social-emotional factors are so varied.
- When providing feedback, focus on one actionable area at a time.
- Ensure that these clear expectations are shared with students at the outset of learning can improve both student engagement and successful completion.

Resources and Tools

- Encourage students to engage in learning and reflection with their families and communities.
- Use the polling feature of virtual meeting software, [Poll Everywhere \(guide\)](#), or [Google Forms](#) for students to take a poll-before then poll-after lessons. Use the results to guide future learning or offer additional supports.
- In class meetings, keep a paper class list with a set of “look-fors” to quickly note contributions to the group thinking.
- Provide students with a rubric for self reflection, so they can reflect on their work and add missing components.
- Students write journal entries and models to record progress in their learning online [Google Docs](#) or [Google Science Journal \(guide\)](#) or in a notebook. Students can reflect on their own ideas and learning over time. If they are shared virtually, teachers can offer feedback and additional guidance by annotating the documents using the comments feature.

Engage Students in Meaningful Learning Opportunities

When supporting home-based learning experiences, teachers should consider providing a roadmap or guardrails for projects and investigations that take advantage of the assets of home-based learning. Teachers should design work that students can pursue flexibly, asynchronously, and within a variety of home environments; offering choices for assignments that allow students to explore something that matters to them; prioritizing feedback and guidance during check-ins with students; and leveraging available technology to lean into the essential features of learning.

Guidance

- Allow students to explore their interests through meaningful and manageable tasks and projects.
- Consider the availability of materials required for a project or learning opportunity.

- Avoid busy work or work centered on memorization.
- Consider including time for independent work, synchronous, and asynchronous connections.
- Keep lessons brief and use the majority of class meeting time for discussion.
- Attend to [learner variability](#) by incorporating principles of [Universal Design for Learning \(UDL\)](#).

Resources and Tools

- Communicate clear directions and scaffolds for using new online tools, possibly create short video tutorials using [screencasting tools](#).
- Post Google Slides with hyperlinks (or use [Pear Deck \(guide\)](#) to make it more interactive) to guide students through lessons and provide supporting materials.
- Make learning authentic in home settings by connecting [phenomena and problems](#) to household activities, like cooking, fixing things, or gardening.
- Ask students to identify relevant problems in their lives or deeply explore phenomena or problems of interest, and engage in learning cycles to address them.
- Present investigations in the form of a narrative description or as a set of data, along with some questions for making sense of data.
- UDL [planning tools](#) should be pursued in distance learning settings.

Culturally Responsive Teaching

As students continue their learning in the midst of a pandemic, it's particularly critical that students have access to a rich, rigorous and relevant schooling experience that is responsive to their identities, experiences and cultural ways of being. Culturally responsive teaching through [culturally responsive-sustaining remote learning](#) is as an essential practice for content area teachers, as it is with learning in the traditional context because it grounds the use of education tools and arranges the educational experience in a cultural view of learning and human development in which multiple expressions of diversity (e.g., race, social class, gender, language, sexual orientation, nationality, religion, ability) are recognized and regarded as assets for teaching and learning (NYU Metro Center, 2020). The Metropolitan Center for Research on Equity and the Transformation of Schools has offered the following guidelines for accomplishing this:

Guidance

- Culturally responsive educators understand the inside-out approach to their practice, and that to be culturally responsive one must also pursue cultural competence and anti-racism.
- Make education accessible to all students;
- Ensure learning is co-constructed by students, families, community, and schools;
- Affirm the racial and cultural identities of your students to foster positive academic outcomes;
- Develop students' abilities to connect across cultures;
- Empower students as agents in their own teaching and learning;
- Anticipate and design the education experience around and in response to particular social and cultural differences, and;
- Contribute to an individual's engagement, learning, growth, and achievement through the cultivation of meaningfully relevant conversations, activities, and engagements.

Resource and Tools

- Build educators' capacity in the areas of [cultural competence](#) and [anti-racism](#), which includes an exploration of their own identities, beliefs, mindset, experiences, and [implicit biases](#) as it relates to cultural diversity and their professional practice.
- Provide guidance for educators to consider with an intentional focus on [equity and well-being](#), and their importance in the continuity of learning plans.
- Commit to investing in [building meaningful and authentic relationships with their students](#) for the purpose of forming [learning partnerships](#) with them, and to solicit [student voice](#) to give them ownership over their own learning and schooling experiences. Students and families bring assets with them from

their homes and communities; these [funds of knowledge](#) can be accessed and used to facilitate a more culturally responsive and relevant learning environment for our students and their families.

- Make it a priority to develop [engagement strategies for families and communities](#) that have been historically marginalized and excluded from our schools.
- Build a classroom culture that [honors the identities, experiences and voices of students](#) so that we can use the assets that students bring to the classroom to create a [culturally affirming](#) learning environment and [classroom community](#). Make space in your learning environment for students to [reflect, connect, and to share with one another](#).
- Use [curricular materials](#) that provide students with an opportunity to see themselves and their experiences in the context of their own learning, and [instructional practices](#) that are [meaningful and relevant](#) to the lives of your students. The purpose of these practices is to ensure that they support, affirm and respond to the cultural diversity of your students and their families.
- Normalize the facilitation of meaningful, engaging and courageous [conversations about race and racism](#). The [Black Lives Matter at School Resource Toolkit](#) is a great resource for teaching all students about the Black Lives Matter movement, and how they can work as agents of change for racial equality and racial justice.

*Click [here](#) for suggestions on where to get started with implementing these resources and tools.

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