Remote Learning During a Pandemic

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The impact to schools due to the pandemic including the closure of schools during 2020 have pushed schools and districts to rely on the remote learning mode to a varying degree. The quality and intensity of the remote learning has also evolved over time as the pandemic worsens during the year. Beyond educating our children, schools play other critical roles in supporting students and families in the communities, such as after-school programs, mental health counseling, and meal programs. This research brief aims at providing teachers and administrators with evidence-based practice regarding remote learning as the pandemic continues.

Unfinished Learning during Pandemic

Many students in Grades PreK-12 may experience unfinished learning during the pandemic schooling. Younger grades and math growth tend to experience more learning loss than others[vi].

According to the November NWEA report on student growth[1], math was more negatively impacted than reading on a national level. Students in Grades 3-8 had lower math performance in fall 2020 and smaller growth, when compared to fall 2019. However, the most vulnerable student population, including racial and ethnic minority students, students with lower prior achievement, and students in schools with higher concentrations of low-income students, are more likely to be absent from NWEA's analysis, as they did not participate in the fall assessment. The NWEA study concluded that the missing of the most vulnerable student groups in the testing might have inadvertently underestimated the impact of the pandemic on students' learning loss, which called for equitable access to high-quality math teaching and learning for students across the country.

Schools' Focus Areas and Strategies to Combat Learning Loss While Remote or Blended Learning is in Place

Overall, supportive school environments and strong teacher-student relationships would help stem the learning loss caused by the earlier school disruptions and build resilience in students.

A few evidence-based strategies to stem pandemic learning loss while remote learning is in place are as follows:

1. Successful implementation of remote learning relies on the degree to which teachers and administrators adapt to new pedagogies, such as the flipped classroom model, to make sure strong lesson design is in place[2].
2. Most effective synchronous class time is built around small-group peer interactions and direct teacher-to-student feedback, and supplement the synchronous or in-person class time with asynchronous time for expository instruction such as videos or texts to explain ideas and model process as a preview for synchronous sessions[ii].
    a. Some peer interaction can be created asynchronously, using apps or websites that allow students to post videos and comment on each other's work such as Google Docs, message boards on learning management systems, and flipgrid.

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[1]Kuhfeld, M., Tarasawa, B., Johnson, A., Ruzek, E., & Lewis, K. (2020), "Learning during Covid-19: Initial findings on students' reading and math achievement and growth", NWEA Research, https://www.nwea.org/research/publication/learning-during-covid-19-initial-findings-on-students-reading-and-math-achievement-and-growth-2/

[2]Gallagher, H., & Cottingham, B. (2020). "Improving the quality of distance and blended learning", Policy Analysis for California Education, Stanford University, https://www.annenberginstitute.org/sites/default/files/EdResearch_for_Recovery_Brief_8.pdf

   b. Students need real-time specific and actionable feedback on their work from their teachers during remote or blended learning. Some online tools with real-time feedback features include Kami for ELA, Desmos for Math, polls on Zoom, Google Docs, and strategies such as holding up a whiteboard in front of the camera would also work.
   c. Younger students, who have shorter attention spans than older students, will require a more engaging presentation of materials and activities (such as games or short videos) to hold their attention.
   d. For students with disabilities, small group or one-on-one instructions is most effective. Targeted and validated interventions that focus on foundational skills in reading and math or on student behavior and mental health should be prioritized during remote and blended learning. Interventions that jointly target both academic and social emotional well-being of students with disabilities show promising evidence of effectiveness[3].
3. Some best practices within the self-regulated learning framework might benefit K-12 students learning in online environments, as remote and blended learning emphasizes more on learner control. Students are asked to set their own learning goals, make learning plans, use diverse strategies to help themselves learn and stay on task, and reflect on their performance afterwards. Teachers could consider the following strategies, including asking students to consider how they learn online, providing pacing support, and monitoring student engagement with instructional materials, and providing social and emotional support for families and communities[4].
4. The most struggling students will benefit from high-dosage consistent tutoring that is directly tied to classroom content[5].
5. Schools should also identify students who may disengage from remote instruction using administrative data from online learning platforms and have teachers or other adults in the school reach out[vi].
6. Grade retention and teaching academic content with a shortened timeframe does not show evidence of improving learning outcomes of struggling students.
7. Implementing well-conducted school-based social-emotional learning interventions is vital to building and rebuilding students' academic engagement.
   a. The specific SEL approaches should focus on creating predictable norms and routines and ensuring students' post-trauma physical and emotional well-being. This recommendation is in line with RCSD's roll-out of Multi-tiered Systems of Support (MTSS) across all elementary schools in school year 2020-21.
   b. Students also need designated time to connect socially on a regular basis in ways that build community and engagement[ii].
8. Teachers should be allowed more role-sharing during the remote and blended learning phase, and teacher collaboration time should be reserved for across grade-level support and learning[ix].

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[3]Jones, N., Vaughn, S., & Fuchs, L. (2020). "Academic supports for students with disabilities", EdResearch for Recovery, the Annenberg Institute, Brown University, https://www.annenberginstitute.org/sites/default/files/EdResearch_for_Recovery_Brief_2.pdf

[4]Carter, R., Rice, M., Yang, S., & Jackson, H. (2020). "Self-regulated learning in online learning environments: Strategies for remote learning" by from Information and Learning Sciences, https://www.emerald.com/insight/content/doi/10.1108/ILS-04-2020-0114/full/html

[5]Allensworth, E., & Schwartz, N. (2020). "School practices to address student learning loss", EdResearch for Recovery, the Annenberg Institute, Brown University, https://www.annenberginstitute.org/sites/default/files/EdResearch_for_Recovery_Brief_1.pdf

Engaging Families to Support Remote and Blended Learning during the Pandemic

Remote learning puts high demands on parents and guardians, who are in need of specific guidance and support from schools to meet these demands. According to a recent survey by Pew Research Center, only 29% of lower-income families reported that their children received high levels of remote instruction, as compared to 51% of higher-income families[6]. Consequently, the question arises as to how schools and districts can engage their families to support student learning during the pandemic[7].

A few evidence-based strategies and recommendations to engage and re-engaged families during pandemic schooling are as follows:

1. Regular, well-timed communications with families that include actionable support strategies would be most effective during pandemic remote learning.
    a. Examples of such communications could be simple individualized text message alerts sent to parents with timely information about their children's academic progress such as missing assignments or low average class grades[8].
    b. For younger students, text messages to caregivers that include suggestions and encouragement on home learning activities (e.g. Tips-by-Text program) has shown promise as a low-cost tool for improving student literacy skills[9].
    c. Furthermore, such communications should not wait until the end of each marking period.
2. Parent involvement in students' remote learning should primarily focus on helping students establish good work habits and time management, instead of providing supplemental instruction or academic support.
    a. Parents who provide structure and independence in student learning are considered as supportive, while helping students with schoolwork are viewed as not conducive to student achievement.
    b. Schools should provide better access to tutors or "homework hotlines" to provide academic support for students so that parents do not have to teach content during remote learning.
    c. For younger students, parents and guardians can support their mathematical growth by talking about math in everyday activities such as cooking and shopping, and playing games and puzzles that involve math if resources are available[vi].
3. In terms of establishing routines and schedules, schools should provide a consistent daily schedule that focuses on different academic subjects, physical activities, and leisure time for younger students, while allowing teenage students to have a voice in setting their routine and schedules during the remote learning phase.

Ultimately, schools should not hold a deficit view of families' willingness and capacity to support their children and building consistent school-family trust and relationship is still the key to parental engagement for pandemic schooling.

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[6]Horowitz, J. (2020). "Lower-income parents most concerned about their children falling behind amid COVID-19 school closures", Pew Research Center, https://www.pewresearch.org/fact-tank/2020/04/15/lower-income-parents-most-concerned-about-their-children-falling-behind-amid-covid-19-school-closures/ft_2020-04-15_k12parents_01/

[7]Hill, N., & Gayle, L. (2020). "Engaging parents and families to support the recovery of districts and schools", EdResearch for Recovery, the Annenberg Institute, Brown University, https://www.annenberginstitute.org/sites/default/files/EdResearch_for_Recovery_Brief_12.pdf

[8]Bergman, P. and Chan, E.W. (2019). "Sending text messages to parents to improve student achievement in middle and high schools in the United States" by from J-PAL, https://www.povertyactionlab.org/evaluation/sending-text-messages-parents-improve-student-achievement-middle-and-high-schools-united

[9]Lynch, K., & Hill, H. (2020). "Broad-based academic supports for all students", EdResearch for Recovery, the Annenberg Institute, Brown University, https://www.annenberginstitute.org/sites/default/files/EdResearch_for_Recovery_Brief_6.pdf