Expert Advisory Panel 3: Remote Learning Capacity Building

Progress and Recommendations
23 February 2021

Panel Members

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Enduring Opportunities for Digital Learning

2020 will be remembered for many things. The events of this past year created unimaginable circumstances and challenges. Yet they also provided imperatives and opportunities for individuals and organizations to meet these challenges head-on. Here in Brookline, many educators—by confronting the instabilities and disruptions caused by the pandemic—developed and implemented teaching and learning strategies that not only are supporting student learning during this current disruption, but can serve as the seeds for the continued evolution and growth of PSB's practices around effective teaching and learning and promote resiliency within our public school system for years to come.

Accordingly, our panel—charged with enhancing Brookline educators' *remote and hybrid* teaching capacity—has developed a set of five recommendations to support Brookline educators in their work of teaching our students during the pandemic—*and beyond*. In developing these recommendations, we have considered both the structures, processes, and practices that are working well—and that should be supported, as well as those that can and should be improved. Our recommendations are based on published research and best practices with input from senior members of the PSB administration.

In order for our recommendations to be operationalized, all of us in Brookline have a role to play:

- *Parents*—we urge you to carefully consider, discuss, and support these recommendations.
- *School Committee*—be good stewards and recognize and support educators who take steps to improve teacher and student experiences;
- *Administrators*—use these recommendations to support what is working and work with teachers to make changes where things are not; and
- *Teachers*—Know that our recommendations are intended to support your mission to educate our children, while giving you breathing room as you continue to innovate and experiment.

Recommendations to the Public Schools of Brookline

1. Implement learning experiences that include a mix of synchronous and asynchronous activities—during the pandemic and beyond.

2. Define educator competencies for digital learning and develop self-assessment tools to guide and recognize educator growth.

3. Provide technology tools, support resources, and a professional learning community around the use of those tools.

4. Monitor and evaluate the impact of new digital learning practices and tools on student learning, in order to inform approaches going forward.

5. Develop ways to better leverage the expertise and support within the Brookline community, in order to more rapidly scale and cost-effectively help PSB achieve its goals.

1 Implement learning experiences that include a mix of synchronous and asynchronous activities—during the pandemic and beyond

WHY

- Strong instruction has always featured a variety of instructional modes (individual, small group, whole-class, homework, in-person, “remote”) and tools (e.g., math manipulatives, lab equipment, hardware, software). While the pandemic has had the short-term effect of limiting the use of key instructional modes and tools, in the long-run it has uncovered the potential for even more engaging teaching and learning.

- In order for educator learning to “stick” and for new modes and tools to become incorporated into teacher practice, it’s important that PSB educators have the time to reflect, assess, and practice--together.

HOW

Start with learning goals.
Then find digital and non-digital tools that help teachers achieve those goals. Ensure that teachers get instruction and practice to be proficient with the tools.

Expect challenges. Solve them together.
Allocate structured time to teachers, administrators and tech support personnel to solve new instructional problems together.

Provide easy access to support.
Make sure teachers have scheduled and “as-needed” access to sources of collaboration and support.

Participate in state and national dialogues.
Encourage participation in professional learning collaboratives, consortia, and job-alike groups to engage in sharing and learning about new successful instructional practices and tools. Align new approaches with PSB district goals.

EXAMPLE PSB INITIATIVES

- PSB’s Essential Curriculum project is currently refreshing curriculum for clarity, scope and access. Outcomes include identification of content scope, tools, and pedagogical guidance.

- Identified changes inform curriculum writing and/or adoption resources as well as time and PD structures.

- PSB participates and partners with a variety of technical assistance centers. ie. National Data Privacy Consortium, BU Consortium, and state job-alike groups.

INVESTMENT NEEDED

TIME	●●●
FTEs	●○○
MONEY	●●◉

2 Define educator competencies for digital learning and develop self-assessment tools to guide and recognize educator growth.

WHY

- The identification of best practices for employing technology in the service of teaching and learning, and identifying baseline educator competencies that ensure educator fluency and confidence in applying these practices, is key to recognizing and promoting educator growth.

- The establishment of core educator competencies for digital learning in supporting equitable learning experiences for all students in Brookline.

HOW

Build on others' work.
Use the work of state and national organizations to inform and develop descriptors of what constitutes effective digital teaching and learning at different grade levels. PSB should leverage existing frameworks where appropriate that align with district goals.

Encourage experimentation and creativity. Balance flexibility and uniformity.
Brookline has a history of hiring great teachers and giving them the autonomy to determine how to meet the needs of students. Encourage flexibility, but pursue uniform approaches when they are more cost-effective and/or substantially reduce friction for teachers, students, and parents, to promote an equitable learning experience for all Brookline students.

Give educators time and space to learn.
Recognize that new educator competencies and a shift to a greater reliance on digital tools requires time and space to practice, get feedback, self-assess, adjust, and grow. This applies to educators in all roles.

EXAMPLE PSB INITIATIVES

- PSB's Portrait of a Graduate work seeks to identify key habits of 21st C learning. These values will inform instructional strategies and outcomes.

- Professional learning takes many forms. In addition to workshops and courses offered by teachers and curriculum coordinators, job embedded supports also include guidance and coaching support by math and literacy coaches, educational technology specialists, and librarians.

- Update the staff self-assessment instrument to reflect skills for remote and hybrid teaching.

INVESTMENT NEEDED

TIME	●●●
FTEs	○○○
MONEY	●●○

3 Provide technology tools, support resources, and a professional learning community around the use of those tools.

WHY

- Tools and support will give educators a strong baseline foundation as they implement new digital learning approaches.
- Professional learning communities will enable educators to ask questions, learn with, and teach each other as they experiment with new tools and methods.

HOW

Provide broader access to common resources.
Currently, educators share resources with their close colleagues—for example, other middle school science teachers. There's an opportunity to scale access more broadly through centralized web-based resource collections.

Build structures to encourage and prioritize teacher collaboration.
Teacher collaboration is already supported through funding and dedicated time; these supports can be bolstered through incentives (e.g. recognition, celebration, professional development points, compensation) and collaboration events/rituals.

Participate in Local and National Dialogs
Monitor and participate in the work of local and national organizations (MassCUE, MAPLE, ISTE, COSN, Aurora Institute, Future Ready Schools)

EXAMPLE PSB INITIATIVES

- District created and maintains a staff support site for teachers with tutorials and guidance in the use of instructional tools to support and engage learning.
- School Committee ratified MOU that provides significantly more collaborative time for teachers.
- Office of Teaching and Learning migrated to a new professional development management tool this year to simplify management of offerings, attendance, feedback, and record keeping.
- The Essential Curriculum Project seeks to update the curriculum, curate resources, and simplify access to all materials.

INVESTMENT NEEDED

TIME	●●●
FTEs	●○○
MONEY	●●○

4 Monitor and evaluate the impact of new digital learning practices and tools on student learning, in order to inform approaches going forward.

WHY

During the initial phases of COVID, there have been changes to expectations: teachers have understandably focused on the most important of the standards; homework has decreased; grading has changed.

However, it's important to continue to monitor learning outcomes as new tools and methods are introduced, and to compare those outcomes against baseline levels (pre-COVID, or before the introduction of a significant change in tools/approach). This will inform the district on where more support is needed, and which new methods should stick in the long term.

HOW

Define metrics of success
To start, we recommend using metrics to provide information on both deployment and overall learning impact of digital learning experiences.

Check and adjust
Use a set of common tasks (assignments, tests, projects, presentations) designed or selected by PSB educators, in order to collect information on extent of learning and inform immediate instructional adjustments.

INVESTMENT NEEDED

TIME	●●○
FTEs	○○○
MONEY	●○○

5 Develop ways to better leverage the expertise and support within the Brookline community, in order to more rapidly scale and cost-effectively help PSB achieve its goals.

WHY

PSB has ambitious goals, but often lacks funding and staff resources to achieve them. The Brookline community has expertise in a wide array of domains that can help support PSB. To date, PSB does not have mechanisms in place to identify and leverage community expertise, which results in missed opportunities for the district to achieve its goals more cost-effectively and rapidly.

Recent examples illustrate some notable examples, including:

Scaling Expertise: (a) Expert Panel 4 has enabled PSB to receive free advice, guidance, and recommendations from world class experts scanning the latest science on virus transmission, and safety standards including building ventilation, (b) Panel 3 members in consultation with PSB staff led workshops on remote learning that each attracted 50-100 Brookline educators.

Scaling Resources: PSB's Matt Gillis tapped community volunteers to measure air exchange in many school building rooms far more quickly than if he had to rely only on staff, and without avoiding the time and expense of hiring contractors;

HOW

The four *Expert Advisory Panels,* by the School Committee, and the resulting guidance these groups have issued, is evidence that expertise within the Brookline community can be effectively tapped to support the needs of PSB.

PSB district and school leaders should:

- articulate its goals and needs
- develop ways to communicate those needs to experts in the Brookline community willing to volunteer
- work with these experts to develop a set of activities to meet the articulated needs, schedule the activities, and evaluate their effectiveness

PANEL 3 INITIATIVES

- Assisted in creating a teaching tips exchange database to promote teacher to teacher sharing, including an educator-facing view of available technology tools. (Anne Spencer)

- Panel members delivered workshops and seminars on remote learning:
  - Teaching Effectively with Zoom (Dan Levy)
  - Engaging Students in Asynchronous Learning (Janet Rankin, Ann Koufman-Frederick & Miriam Fein)
  - Reimagining Your Teaching for Remote Learning (Janet Rankin & Sarah Silberman)
  - Building Blocks of Equitable Remote Learning (Ann Koufman-Frederick)

INVESTMENT NEEDED

TIME	●●○
FTEs	○○○
MONEY	○○○

First steps: Increasing PSB resilience

PSB should be prepared for further disruptions. A wide range of currently known, unknown, unpredictable, and immediate threats are likely to impact the ways that the PSB community teaches and learns in the future. If implemented and sustained, the recommendations issued by this Panel can **support effective remote and hybrid teaching and learning, and increase the resilience of PSB in the face of future disruptions.** We urge the BSC to:

- **Conduct a rapid, qualitative assessment** of what remote/hybrid learning practices worked best during the 2020-21 academic year, to inform preparation for remote/hybrid teaching learning moving forward;
- **Identify a BSC subcommittee** (e.g., the Policy or Curriculum Subcommittee) to lead the review for the adoption of some or all of Advisory Panel 3's recommendations;
- **Act urgently**, given the possibility of further COVID-related disruptions: review these recommendations immediately, without waiting for a new school year or a new budget;
- **Renew and revise the School Committee's charge to Advisory Panel 3** to assist with developing an implementation plan for the accepted recommendations; and
- **The administration should provide regular updates to the BSC and Brookline community** on progress toward the implementation plan for remote/hybrid learning preparation.

Appendix

Additional Works Referenced

THE SCIENCE OF LEARNING

- Ambrose, S. A. and Lovett M. C. (2014). “Prior Knowledge is More than Content: Skill and Beliefs also Impact Learning.” In V. A. Benassi, C. E. Overson, & C. M. Hakala (Eds.). Applying science of learning in education: Infusing psychological science into the curriculum (pp. 7–19). Retrieved from the Society for the Teaching of Psychology website.Deans for Impact
  - The Science of Early Learning
  - The Science of Learning
- Digital Promise
- Goodell, J. & Kessler, A. (2020). The Science of Remote Learning.
- Mayer, R. E.
  - (2008). Applying the science of learning: Evidence-based principles for the design of multimedia instruction. *American Psychologist, 63*(8), 760–769.
  - (2005). Applying the Science of Learning, Pearson.
- National Research Council. (2005). *How Students Learn History, Math & Science in the Classroom.* Washington, DC: The National Academies Press.
- Whitman, G. & Kellehe, I. (2020). How brain research helped retool our school schedule for remote learning, Ed Surge, Jun 10.

Additional Works Referenced

ENGAGEMENT STRATEGIES

- Actively Engaging Students in Asynchronous Online Classes, Riggs, S.A., Linder, K.E., IDEA Paper #64, 2016.
- 8 Ideas Designed to Engage Students In Active Learning Online, Catlin Tucker, July 9, 2020.
- How to Develop Culturally Responsive Teaching for Distance Learning, Amielle Major, *Mindshift*, May 20, 2020.
- Ideas and demos of asynchronous math teaching by Advisory Panel 1 member Igor Golger who teaches at the Math Plus school in Newton.
- Managing Students' Behavior During Remote or Hybrid Learning: Tips for teachers in an uncertain time, Grace Berman, and Allison Dubinski. Child-Mind Institute.
- A Powerful Model for Understanding Good Tech Integration, Terada, Y. *Edutopia*, May 4, 2020.
- Teaching Effectively with Zoom (2021). Dan Levy (Advisory Panel 3 member), 2nd ed,
- Teaching Strategies of Award-Winning Online Instructors, Michael Ralph, *Edutopia*, April 17, 2020.
- 3 Participation Strategies for Live Video Instruction, Monica Burns, *Edutopia,* 10 September 2020.
- The last video example on this TLC blog of a teacher starting the year with a "get to know you" assignment that also explicitly teaches kids how to actively engage with asynchronous video and fosters agency. Includes good recommendations for 'agency phrases"

Additional Works Referenced

GENERAL RESOURCES

- Chris Gabrieli & Colleen Beaudoin, In a Time of Crisis, What Can We Learn About Learning Time? , *Educational Leadership,* 77, June 2020.
- Carl Hooker, New Learning Models for Fall, *TechLearning*, June 15, 2020
- Amielle Major, How to Develop Culturally Responsive Teaching for Distance Learning, *Mindshift,* May 20, 2020
- Jal Mehta & Shanna Peeples,Marie Kondo The Curriculum, The Albert Shanker Institute, June 25, 2020.
- Justin Reich & Jal Mehta, Imagining September: Principles and Design Elements for Ambitious Schools during Covid-19., MIT Teaching Systems Lab, Harvard Graduate School of Education.
- Heather Staker & Michael B. Horn, Classifying K–12 Blended Learning,
- Two-Step Process and Online Form for Reopening Plans - DESE, July 15, 2020.
- Recover, Redesign, Restart 2020 - Virginia Public Schools
- See also the curated resources within Building Block Tool - Building Blocks for Equitable Remote Learning LearnLaunch and MA Dept of Elem. & Sec, Ed. .

Survey Insights: What I Need

In November 2020, Panel 3 conducted a survey of educators and administration. Of approx 1300 respondents, we received 140 responses in the space of 2 days. The following slides depict highlights of our findings.

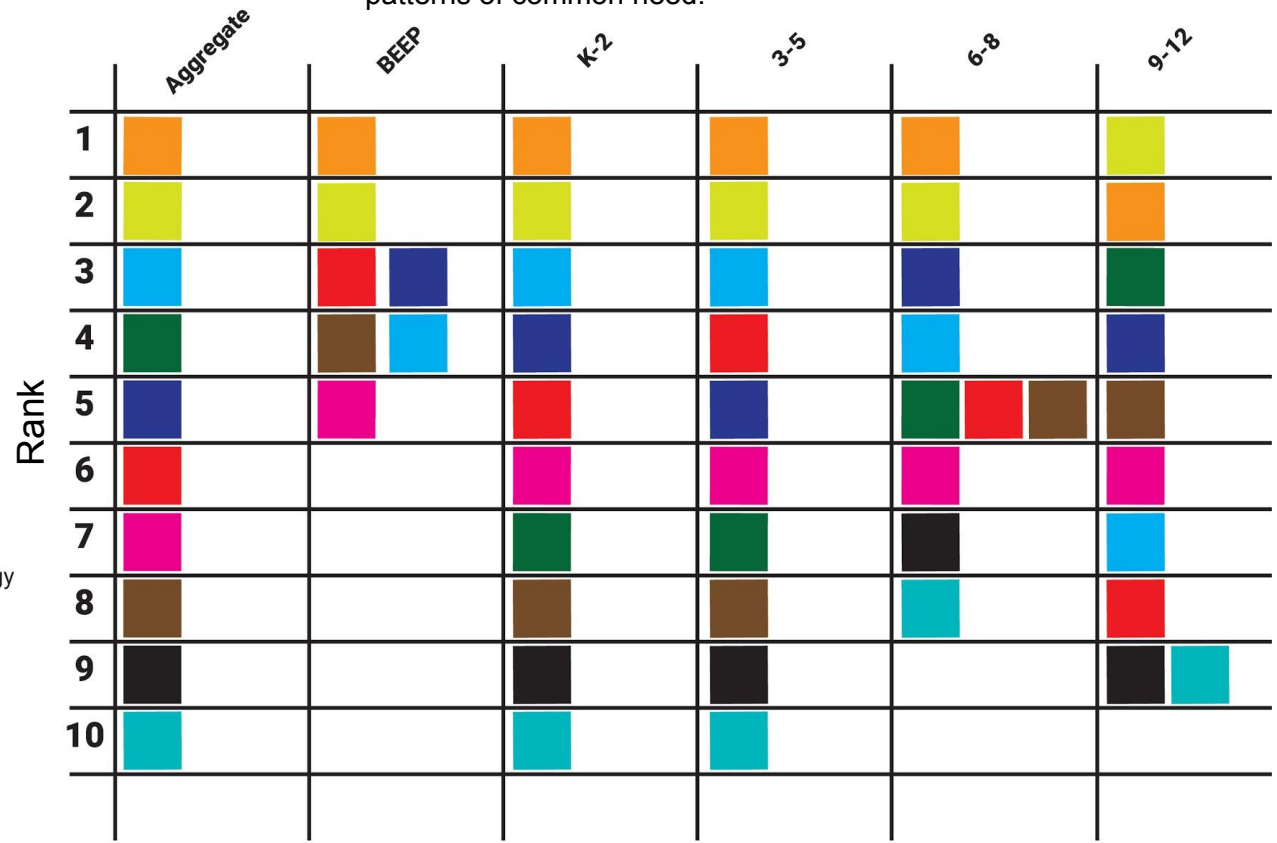
Two significant takeaways from the survey informed our recommendations:

- Educators sought more time for individual professional development and to collaborate with other educators on learning strategies. Our data validated this perception, and underscored the need for extra professional development opportunities. As a result, PSB allocated additional hours for collaboration.
- Educators sought training in Zoom and Peardeck, and common curriculum materials to augment their synchronous and asynchronous classroom activities.

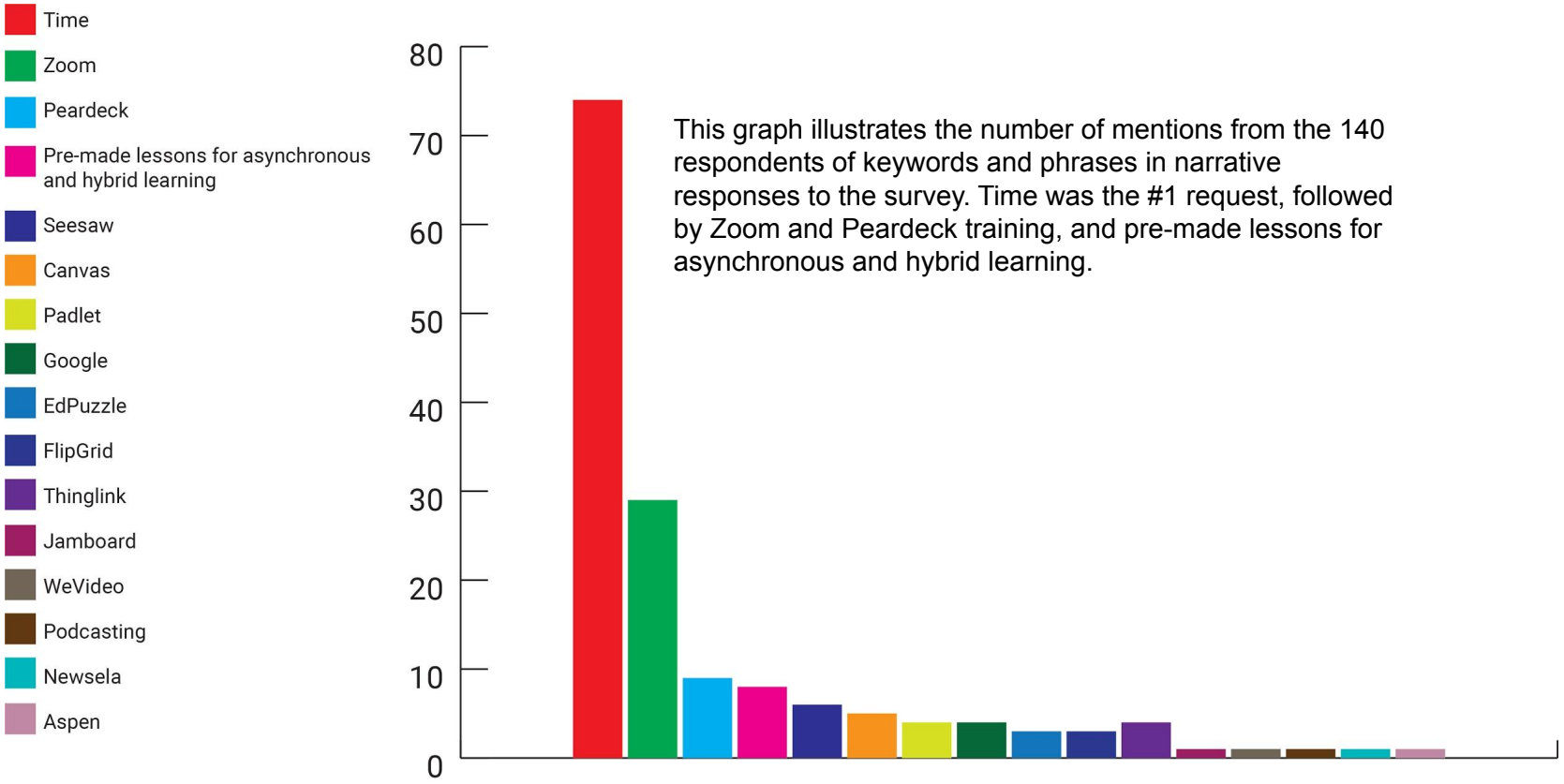
Survey Results: “What I need?”

This graph illustrates the ranking of the resources desired by teachers across various grade levels, and allows us to see patterns of common need.

- Pedagogy for teaching asynchronously
- Training on specifioc tools (eg: Zoom, Seesaw, PearDeck, EdPuzzle)
- Designing flexible lessons for a hybrid environment
- Basic tech training (eg: using Google Drive)
- More time to collaborate with colleagues to apply what I have learned
- Pedagogy for teaching synchronously)
- Pre-made video tutorials on basic technology to share with students and parents
- Pre-made lessons and activities that work asynchronously
- More time to independently to apply what I have learned
- Time to attend PD for the tools we have available.



Survey Results: Keyword mentions



This graph illustrates the number of mentions from the 140 respondents of keywords and phrases in narrative responses to the survey. Time was the #1 request, followed by Zoom and Peardeck training, and pre-made lessons for asynchronous and hybrid learning.