Teaching and Supporting Pre-Service and In-Service Teachers During COVID-19

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Tori Engel

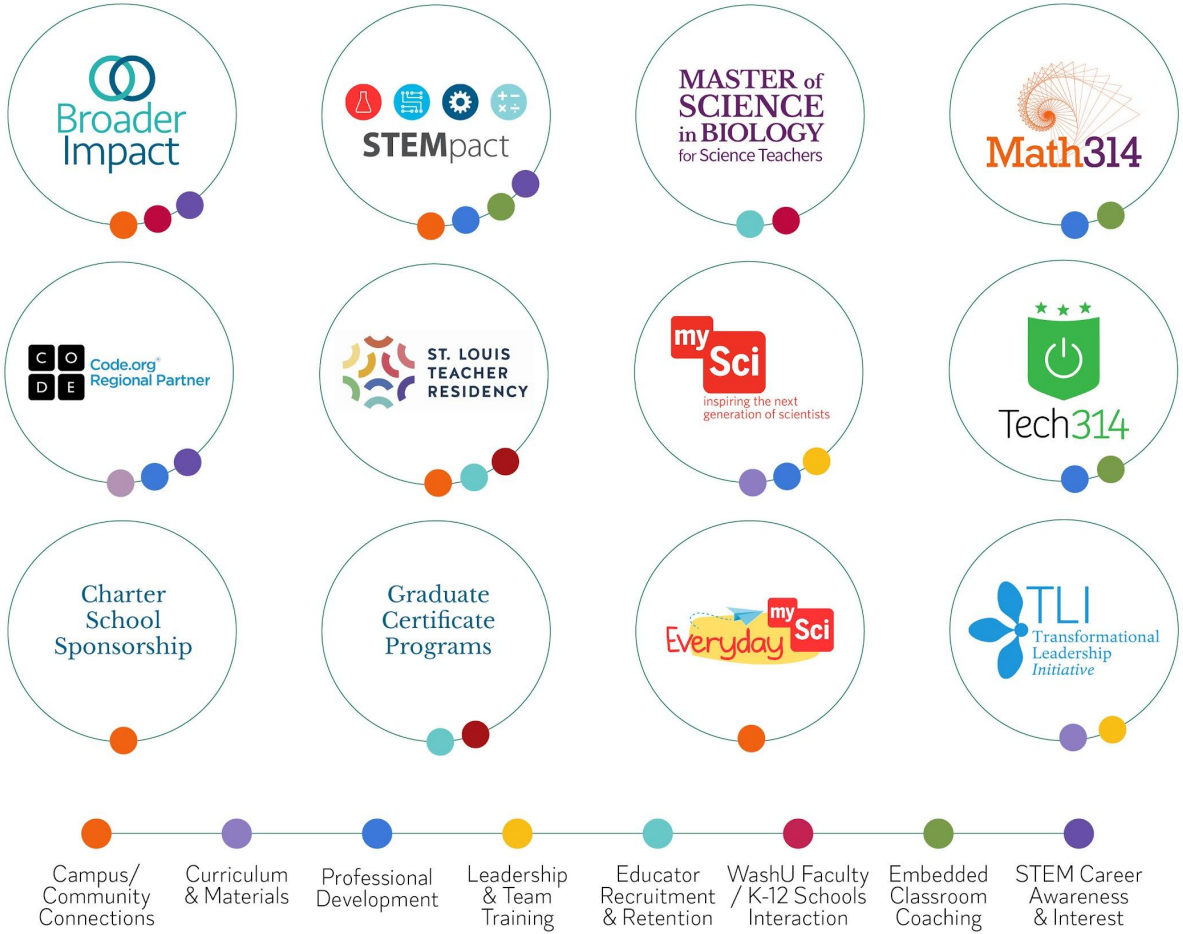
mySci is a project of

Washington University in St. Louis
Institute for School Partnership

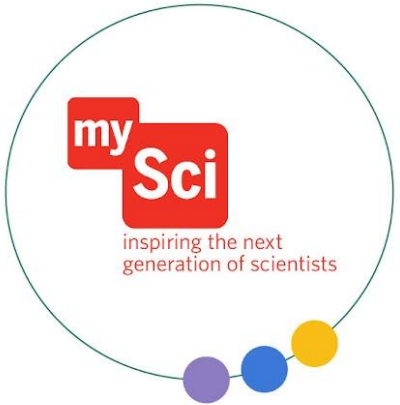
The Institute for School Partnership connects Washington University with the surrounding K-12 community to inspire and empower educators and students with the resources they need to succeed.

We identify best practices in teaching and learning and implement these practices in local schools, particularly those with the most vulnerable and underserved students. We translate the most current research in education into learning opportunities for educators at all levels.

How does the ISP support teacher learning?



How does the ISP support teacher learning?



March 16, 2020

Dear University Faculty and Staff,

We are in unprecedented times. The coronavirus (COVID-19) has changed all of our lives and raised deep concerns for all of us. Our primary responsibilities at this time are to take care of ourselves, support our families, do all we can to slow the spread of the disease, and help the university maintain its essential role. Among the most critical of these roles for the university is, of course, the provision of medical services.

In order to help us meet our responsibilities, the university is taking a set of major steps:

1. **Alternate Operations: To reduce the spread of the disease, starting as soon as possible and no later than next week, only employees who are required to perform essential work that requires a physical presence should report to their place of work. This will last through at least April 6.** This week, managers will be identifying essential functions that must be completed on campus and developing department-specific plans for other work that can be completed remotely. In certain areas, particularly—but not exclusively—**for those critical to delivering medical services, all work will be deemed essential and employees performing that work will be required to report to their regular location.** In some cases, all employees in a unit or doing a specific function that does not require physical presence on campus will be required to work remotely. In others, a skeleton or rotating group will need to be on campus.

   The goal is to implement this change starting March 23, but some units may need more time to develop and implement their plans. If units can develop and implement their plans before March 23, they should. Your manager will provide more information.

2. **Performance of Work:** We recognize that there are some employees who cannot effectively work remotely and whose regular duties and physical presence are not essential under university alternate operations. We will be working with managers to develop plans for redeployment of employees impacted. Employees who cannot work remotely and cannot be re-assigned will be eligible for the special paid time off benefit mentioned below. We will be providing more information to employees in this category as soon as possible.

3. **Special Paid Time Off:** During this pandemic, all employees will be eligible for up to 10 days of special paid time off for circumstances related to COVID-19. This is in addition to regular time off policies available to employees. This time off can be used in the case of quarantine, self-quarantine, illness or family care needs related to COVID-19 exposure or other related scenarios. Details of this benefit are available on the COVID-19 FAQ page. **Given its important role in delivering health care services to the region, the School of Medicine will distribute a separate policy regarding travel and vacation.**

4. **Child Care Services:** Human Resources is working diligently to obtain additional child-care services for faculty and staff, prioritizing those who provide medical services and others whose on-campus work is deemed essential. We will be providing you with more information about child-care services as it becomes available.

Attached are a set of FAQs providing more details on the information summarized above as well as other issues related to COVID-19. Additional information is available on the university's COVID-19 website. Please direct questions to your manager or the university's COVID-19 hotline (314-935-8300 or 888-234-2863).

I will be back in touch as the situation changes.

We're in uncharted territory here, and we all may be asked to contribute and lend our talents in new and unexpected ways in the days and weeks ahead. As needs arise, we'll reach out with opportunities to help support the effort. I hope you'll join me in standing at the ready to pitch in however we each best can. Thanks to each and every one of you for all you do for Washington University, St. Louis and the world.

Sincerely,

Andrew D. Martin
Chancellor

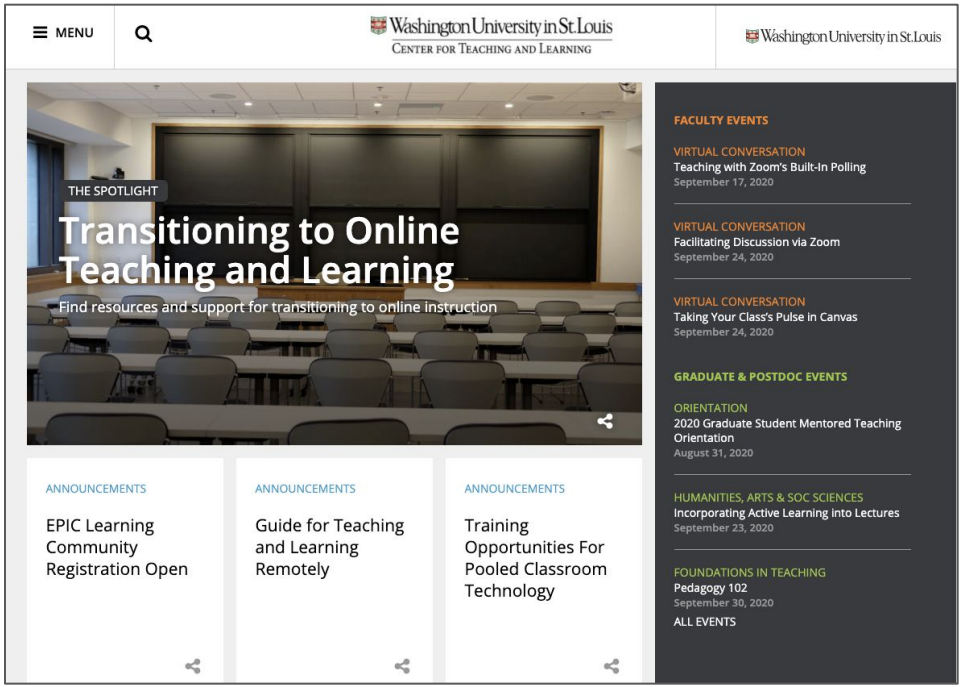
Working remotely beginning now, in response to recent Covid-19 news Inbox ×

Corcoran, Heather <hcorcoran@wustl.edu> Mar 19, 2020, 1:22 PM
to UC-COORD

Hello UC faculty and coordinators,

The university has just requested that all university employees (including faculty, staff, and all students) begin working exclusively from home, starting tomorrow—this afternoon, if possible. Given the four cases of Covid-19 at WashU, we now have early signs of community transmission. WUSTL health experts are now predicting a fast uptick in the number of cases in our vicinity. We need to keep people at home, as many healthy as possible. This includes not visiting the campus for quick pickups of items, mail, etc. I underscore: no one should be on campus.

Graduate Programs



- Sophisticated online course delivery takes a significant amount of planning and work to achieve!
- Mid-semester courses were moved to fully online and faculty had to adapt
- Faculty were encouraged to
  - Focus on meeting key learning goals
  - Move all interactions to Canvas
  - Revise academic policies
- Support was offered in the form of
  - Workshops
  - Consultations
  - Resources and models
  - Virtual conversations
- Additional supports added into the new academic year

Code.org as a Test Case

March - June

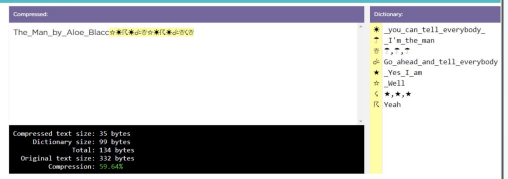
- Uncertainty over fate of Summer PD
- Participated in 3 Code.org Virtual PDs in preparation
  - Released tips for leading virtual workshops
- Building upon Code.org Virtual Model to move workshop online
  - 3.5 hours synchronous daily
  - 1-2 hour asynchronous work daily

Group 1: Screenshots

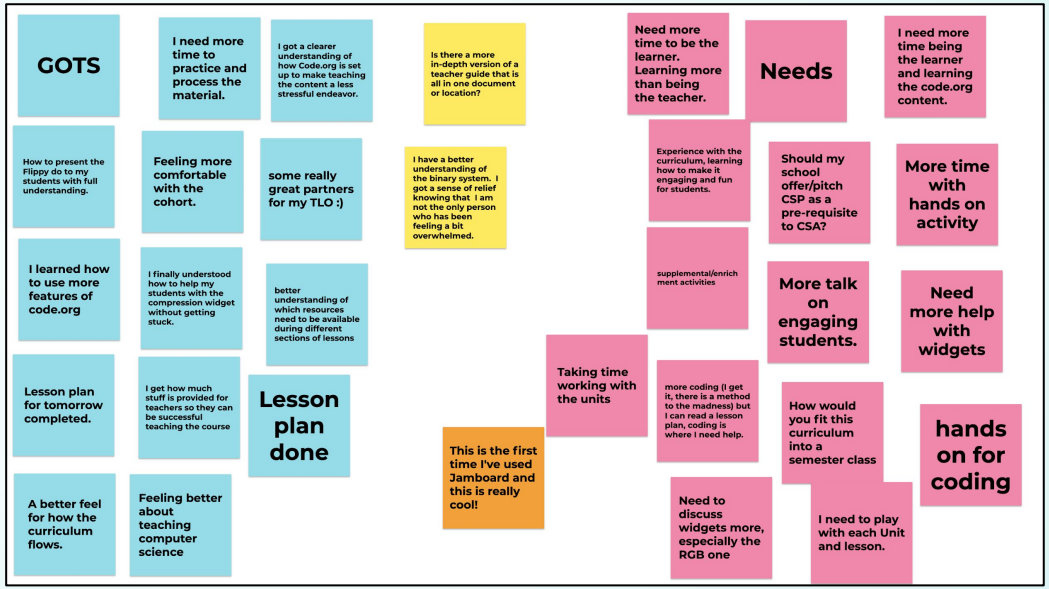
Prompts:

1. Using one computer: work together to compress the 'easy' message as much as you can (share your screen)
2. Using the other computer: work together to compress the 'difficult' message as much as you can (share your screen)
3. Take a screenshot of your dictionary and compression box and post here.

Easy



Hard



[redacted]

Jun 9, 2020

I am glad this is a discussion topic. I have had this conversation with my school's administration, colleagues, parents and students. I teach at an all boys high school and the biggest barrier I face in CS is the lack of [redacted] students of color that participate. This year, I with a group of CS/STEM students, have formed a committee to address this very issue. We have begun by listening to students of color to find out why they don't participate. It has been very educational and enlightening.

[redacted]

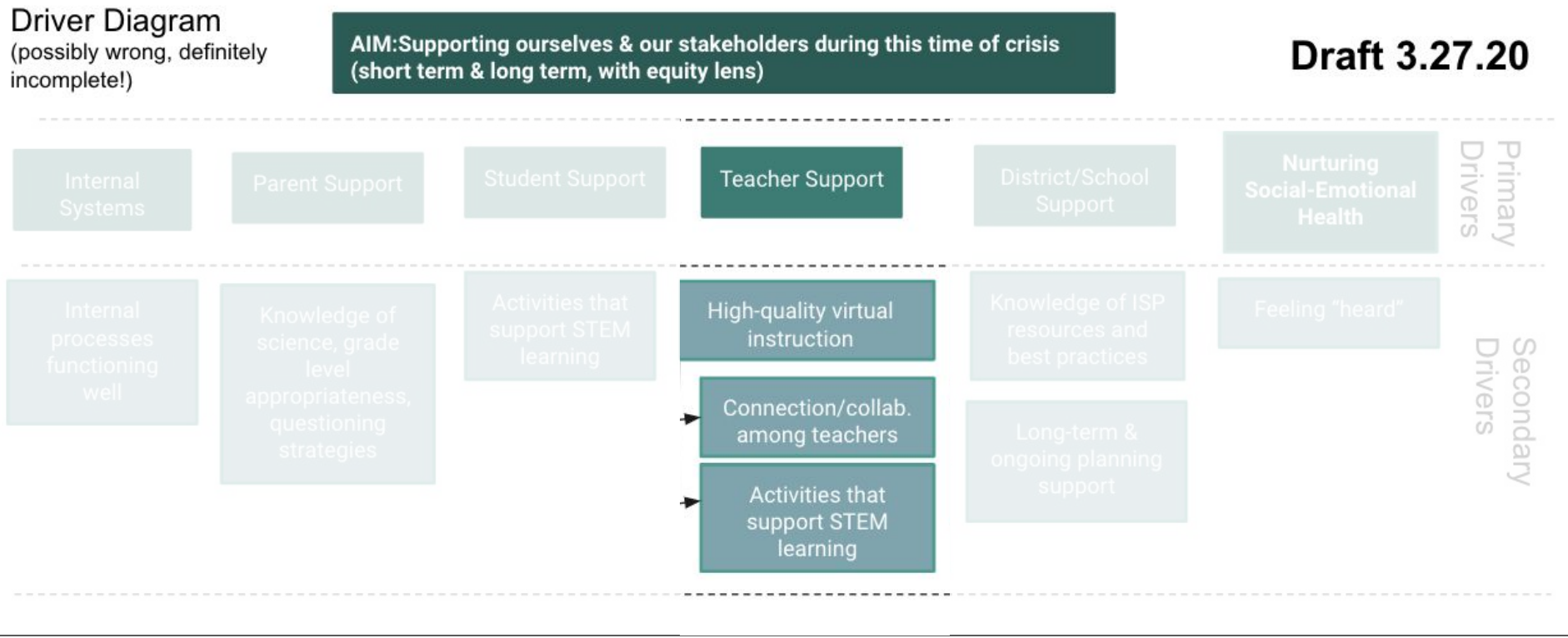
Jun 9, 2020

I have had a very similar issue. I work in a predominantly black school (~95%) and CS-based electives have historically been extremely hard to get students to enroll in and have been disproportionately white when compared to our population.

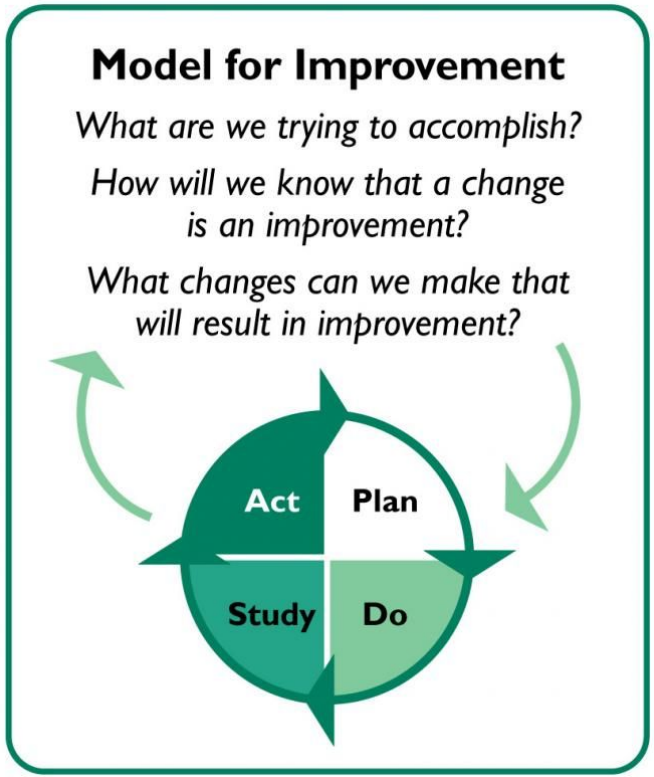
What were the one or two things you liked most about the activities you did in this workshop and why?

- just interacting with others and learning from them.
- I liked the hands on approach to learning and the collaboration with both experienced and new teachers.
- I liked the plugged activities because they gave me more hands-on learning
- I liked the breakout sessions because it allowed us to interact with other CS teachers. The lessons where we worked on code.org was beneficial, since we actually got to experience things as a students, with other teachers around to help us out.
- I enjoyed the break out rooms, I listened and the understanding for the CS class became clear.
- The hands on work in the App Lab, and the collaboration with peers.
- I really liked the hands on stuff where we could be the learner and practice with the widgets and the platform.

Improvement Science



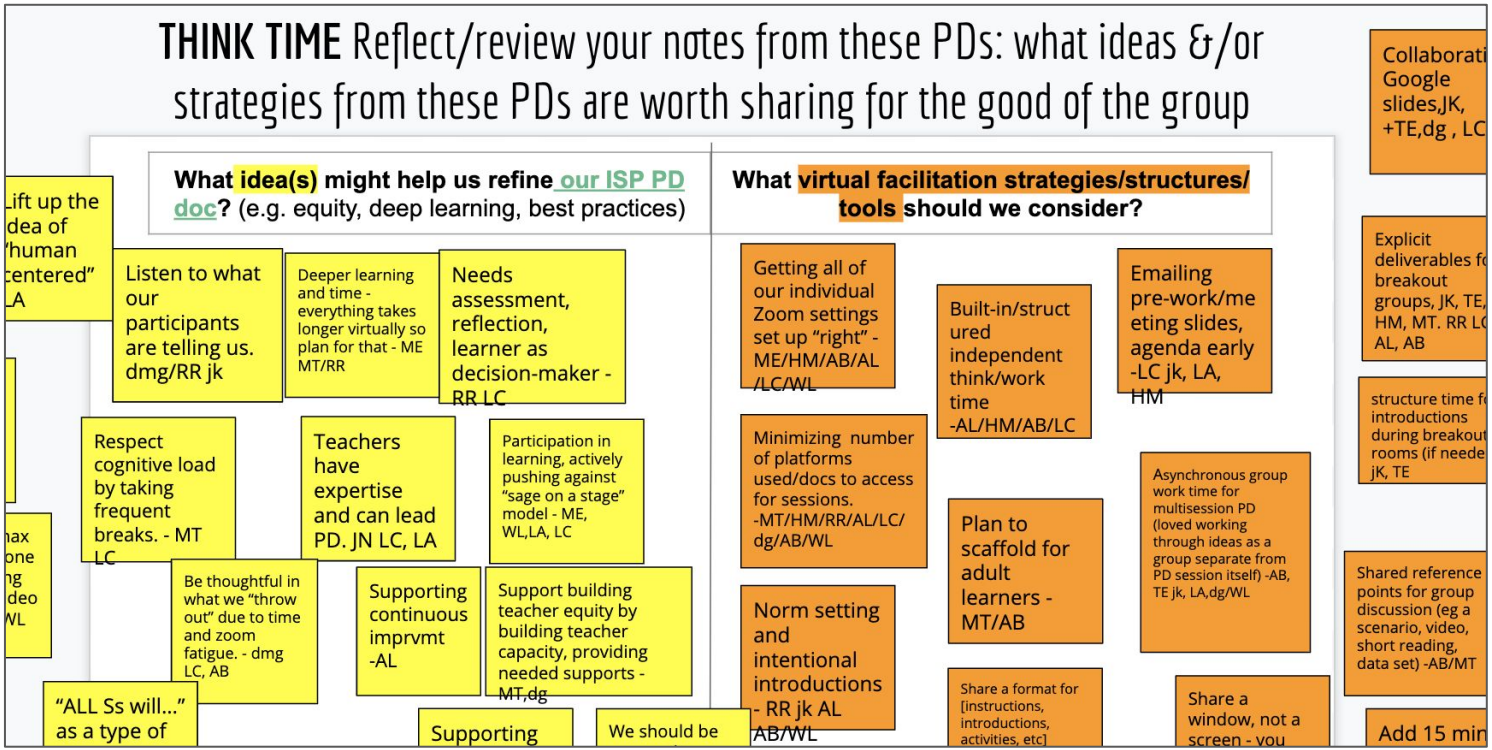
mySci: Using improvement science for teacher learning



Goal: Identify the needs of our teachers, gather practice based evidence and evidence based practice to build consensus within our organization around our to approach to virtual professional development.

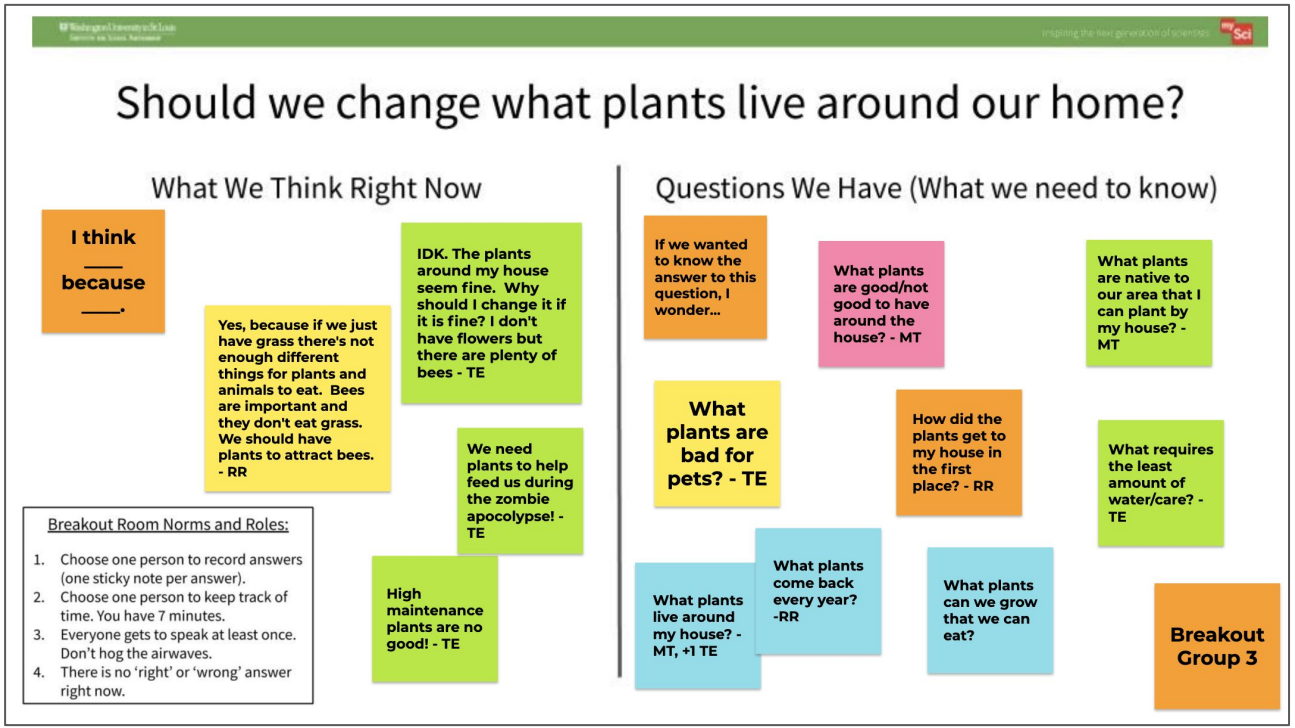
mySci: Using improvement science for teacher learning

Plan: Shared lessons learned from participating in and/or leading virtual PD.



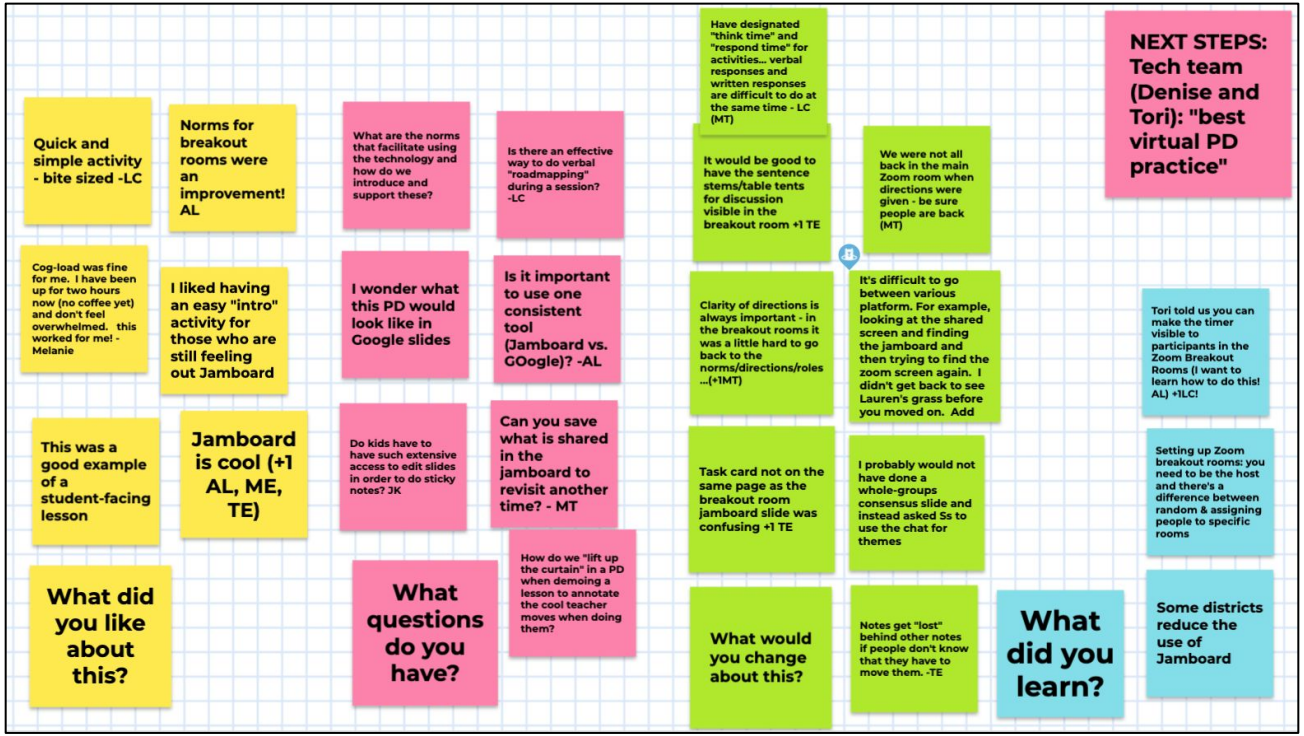
mySci: Using improvement science for teacher learning

Do: Practiced Internally



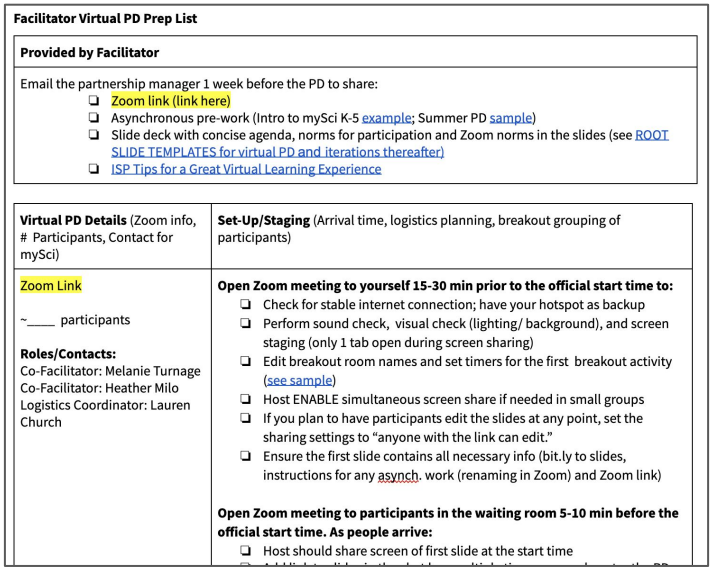
mySci: Using improvement science for teacher learning

Study: Gave and received feedback



mySci: Using improvement science for teacher learning

Act: Developed tools to promote consistency through our organization.



Facilitator Virtual PD Prep List

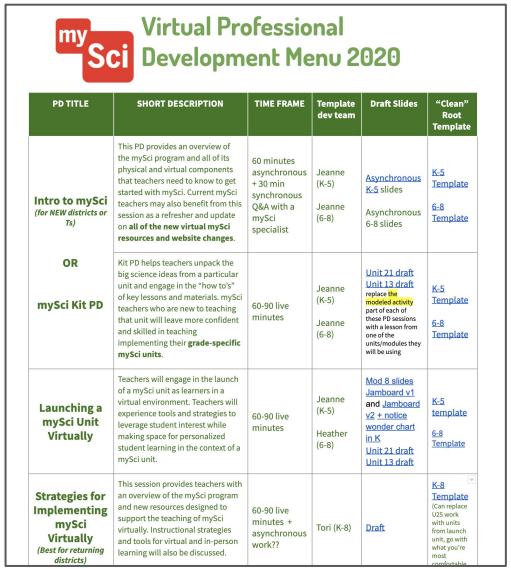
Provided by Facilitator

Email the partnership manager 1 week before the PD to share:

- ❑ Zoom link (link here)
- ❑ Asynchronous pre-work (Intro to mySci K-5 example; Summer PD sample)
- ❑ Slide deck with concise agenda, norms for participation and Zoom norms in the slides (see ROOT SLIDE TEMPLATES for virtual PD and iterations thereafter)
- ❑ ISP Tips for a Great Virtual Learning Experience

Virtual PD Details (Zoom info, # Participants, Contact for mySci)	**Set-Up/Staging** (Arrival time, logistics planning, breakout grouping of participants)
Zoom Link ~____ participants **Roles/Contacts:** Co-Facilitator: Melanie Turnage Co-Facilitator: Heather Milo Logistics Coordinator: Lauren Church	**Open Zoom meeting to yourself 15-30 min prior to the official start time to:** ❑ Check for stable internet connection; have your hotspot as backup ❑ Perform sound check, visual check (lighting/ background), and screen staging (only 1 tab open during screen sharing) ❑ Edit breakout room names and set timers for the first breakout activity (see sample) ❑ Host ENABLE simultaneous screen share if needed in small groups ❑ If you plan to have participants edit the slides at any point, set the sharing settings to "anyone with the link can edit." ❑ Ensure the first slide contains all necessary info (bit.ly to slides, instructions for any asynch. work (renaming in Zoom) and Zoom link) **Open Zoom meeting to participants in the waiting room 5-10 min before the official start time. As people arrive:** ❑ Host should share screen of first slide at the start time

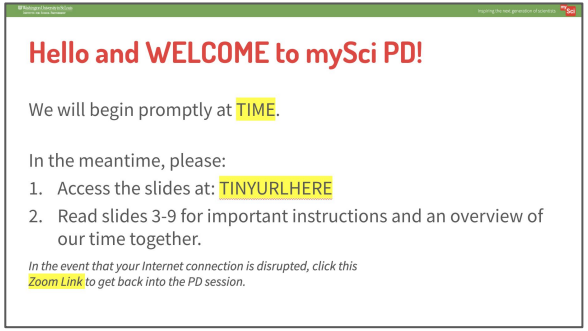
Virtual PD Agenda



mySci Virtual Professional Development Menu 2020

PD TITLE	SHORT DESCRIPTION	TIME FRAME	Template dev team	Draft Slides	"Clean" Root Template
Intro to mySci *(for NEW districts or Ts)*	This PD provides an overview of the mySci program and all of its physical and virtual components that teachers need to know to get started with mySci. Current mySci teachers may also benefit from this session as a refresher and update on **all of the new virtual mySci resources and website changes**.	60 minutes asynchronous + 30 min synchronous Q&A with a mySci specialist	Jeanne (K-5) Jeanne (6-8)	Asynchronous K-5 slides Asynchronous 6-8 slides	K-5 Template 6-8 Template
OR **mySci Kit PD**	Kit PD helps teachers unpack the big science ideas from a particular unit and engage in the "how to's" of key lessons and materials. mySci teachers who are new to teaching that unit will leave more confident and skilled in teaching implementing their **grade-specific mySci units**.	60-90 live minutes	Jeanne (K-5) Jeanne (6-8)	Unit 21 draft Unit 13 draft replace the modeled activity part of each of these PD sessions with a lesson from one of the units/modules they will be using	K-5 Template 6-8 Template
Launching a mySci Unit Virtually	Teachers will engage in the launch of a mySci unit as learners in a virtual environment. Teachers will experience tools and strategies to leverage student interest while making space for personalized student learning in the context of a mySci unit.	60-90 live minutes	Jeanne (K-5) Heather (6-8)	Mod 8 slides Jamboard v1 and Jamboard v2 + notice wonder chart in K Unit 21 draft Unit 13 draft	K-5 template 6-8 Template
Strategies for Implementing mySci Virtually *(Best for returning districts)*	This session provides teachers with an overview of the mySci program and new resources designed to support the teaching of mySci virtually. Instructional strategies and tools for virtual and in-person learning will also be discussed.	60-90 live minutes + asynchronous work??	Tori (K-8)	Draft	K-8 Template (Can replace U2S work with units from launch unit, go with what you're most comfortable

PD Menu



Hello and WELCOME to mySci PD!

We will begin promptly at TIME.

In the meantime, please:

1. Access the slides at: TINYURLHERE
2. Read slides 3-9 for important instructions and an overview of our time together.

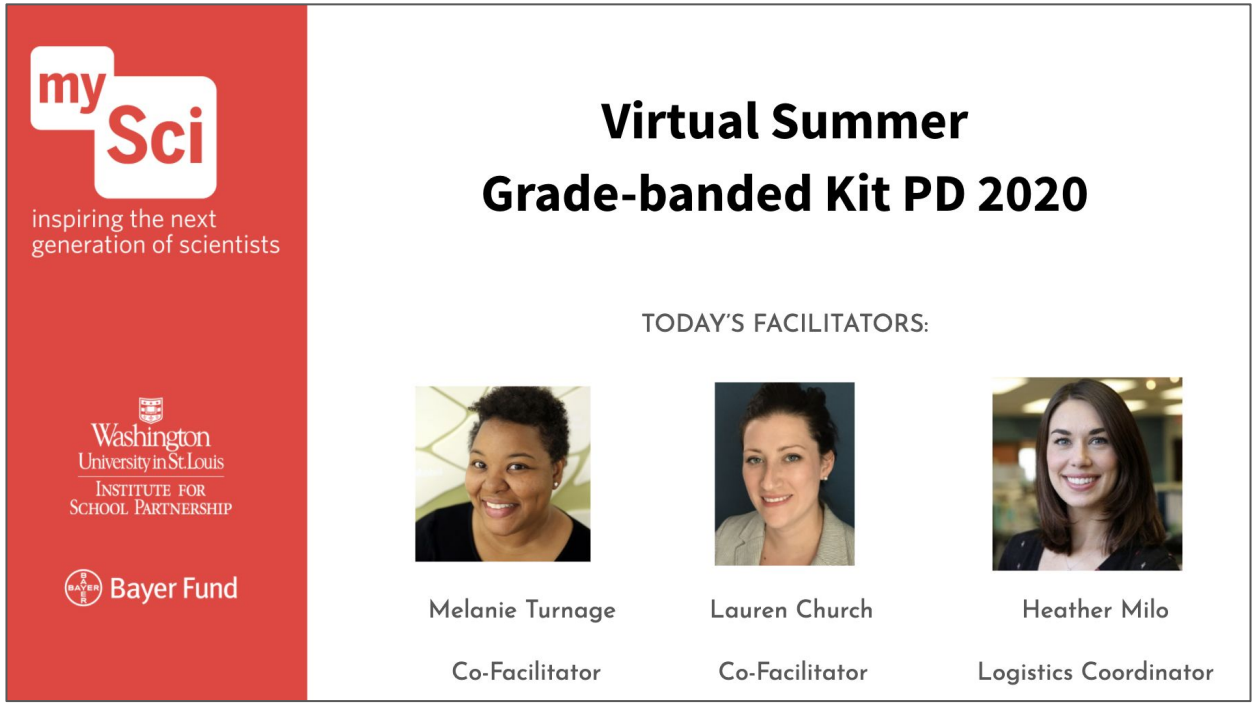
In the event that your Internet connection is disrupted, click this Zoom Link to get back into the PD session.

Slides Template

mySci: Using improvement science for teacher learning

Act: Continuous iteration based on feedback from colleagues and teachers

Co-facilitation



How was the PD valuable to teacher professional growth?

"This was a super helpful session which gave me very practical tips about using MySci in a virtual environment. I don't think I necessarily grew in my knowledge of teaching science but it is EXACTLY what I needed. I really wish other curriculum companies had something like this.
-Maplewood Richmond Heights Teacher
Gained Virtual Teaching Skills

"It was helpful to know where to find and how to use the virtual resources so that we don't have to re-create them."
-Pattonville Teacher
Exploring Resources

"Very valuable in showing me the new features for online learning as well as going through the different ways that students can respond to the various questions asked throughout science lessons. LOVED getting time to explore the site, resources, and discussing with fellow grade level mates on how we would use these items in our teaching."
-
Multiple: **Navigating the mySci Website, Student Engagement Strategies, Peer Collaboration**

"This PD was very well put together and super engaging. I appreciated the facilitators and their willingness to allow the teachers to share their experiences, questions and resources."
-UCity Teacher
Multiple: **Engaging and/or Interactive PD, Professionalism of PD**

"Offering ideas to implement and challenge me to go outside my box! Thank you for that!"
-Southern Boone Teacher
General Tips and Ideas

What adaptations should we consider for future mySci PD?

"Nope, it/everything/you was great!"
-Pattonville, Macon Co. R-I, Confluence, Hazelwood x3, and Union Teachers
Don't Make Any Changes

"Breakout rooms for grade levels to look at specific content? Or stick to one unit, like, exclusively, even when looking at extra online resources-- so that you get an idea of what it looks like to cobble together a lesson for your kids."
-Northside Community Teacher
Grade Banding or Grade Level

"Some time for teachers to plan and work together with a resource, mysci partner Lauren, there to help them if they have questions."
-Northside Community Teacher
Work Time

"It was a bit too long spent on one activity I wish I had more freedom to explore the resources."
- Northside Community Teacher
Pacing/Use of Time

"I wish we'd had more time"
-Hillsboro Teacher
Pacing/Use of Time

"As an educator of 2nd graders, I spent the entire time thinking how this would look in my classroom. 7yr olds are struggling with technology. I would've like to have seen a lesson for younger students. PD's are always geared around older students."
-Northside Community Teacher
K-2 Focus

"Maybe have a video of a lesson being taught for each grade level?"
-Warren County Teacher
Modeling

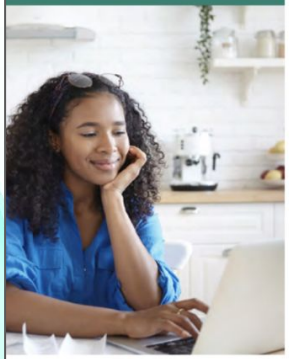
Washington University in St. Louis
Institute for School Partnership

Designing effective, high-quality, virtual professional learning for educators

September 2020
Jeanne Norris, ISP Instructional Specialist
Rachel Ruggirello, ISP Associate Director

Looking at the consequences of COVID-19, it's often easy to focus on what's lost and not what has been potentially gained. While traditional in-person professional development has been the norm, virtual PD, despite some challenges, presents unique opportunities for providers. Pivoting from in-person to online can be an efficient way to meet learning needs, even for those people used to the in-person touch. What's key is setting up the conditions for a growth mindset.

Below are 10 strategies for educators to design effective, high-quality, virtual professional development learning environments for educators, with practical implementation suggestions.



1 ACKNOWLEDGE HUMANNESS

The virtual environment can feel detached and isolating, as if everybody is on their own island. It can be difficult to read body language and emotions. That's why it's extremely important to cultivate empathy by engaging meaningfully with people in your virtual room. Spend time building connections and relationships with participants. Here are some ways to set up your learning experience to counteract the challenges of self-isolation and build a learning community:

- ***Connect to the people in your room***

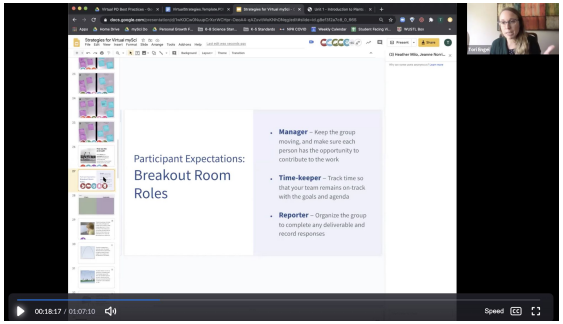
While ice breakers can be polarizing, there are ways to authentically allow for teachers to connect to you and other teachers. You can use breakout rooms.

What have we learned?

- Acknowledge humanness
- Know your audience
- Reduce cognitive load
- Test the technology
- Engage teachers
- Don't sacrifice deeper learning
- Advocate for ideal learning experiences
- Allow for multiple learning pathways

Implications

- Improvement takes time and a disciplined approach
  - Learn fast, fail fast, and improve quickly
- Some challenges persist
  - Access to reliable internet
  - Variety of technology platforms and steep learning curve
- In a time of crisis, embrace the potential for innovation and growth!
  - Connect with educators in new ways
  - Promote collaboration across schools and districts
  - Allow for ubiquitous learning
  - Increase confidence with technology



Surprisingly, the constraints put in place by technology, allow for more interactive or collaborative experiences than you might have otherwise had in person

Thank you!

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Tori Engel
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mySci

mySci is a project of

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Institute for School Partnership

Our reach with virtual PD

Over **439 teachers** attended trainings

Participants from at least **27 districts**

98 hours of mySci PD provided