UNIVERSITY OF MASSACHUSETTS BOSTON
CENTER OF SCIENCE AND MATH IN CONTEXT (COSMIC)

# WIPRO SEF

## YEAR 9
## QUARTERLY REPORT
June 2022


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# INTRODUCTION

## Wipro SEF Program Overview

The Wipro Science Education Fellowship (SEF) is a four-year STEM district transformation program. Cohorts of K-12 teachers participate in a rolling two-year professional development experience designed to improve individual teacher practice, foster teacher leadership opportunities, and create a district corps of teacher leaders. Professional development for fellows is led by a university in partnership with the local school district. The program was developed at the Center of Science and Mathematics in Context (COSMIC) at UMass Boston and is now in 7 universities and 35 partner school districts throughout the United States.

## Year One: Thinking About Teaching

### › Monthly Fellows Meetings

Fellows from approximately five different school districts gather once a month at the host university to engage in professional development in the areas of instruction, reflective practice, adult learning, and leadership.

### › Collaborative Coaching and Learning of Science (CCLS) groups

Fellows engage in research-based, structured inquiry into their own teaching and growth. Fellows meet in CCLS teams to share videos of themselves teaching in their classroom as well as sharing student work to learn from each other, to reflect on science content and pedagogy, and to improve their teaching of science. These small professional learning communities determine their own schedules, courses of study, and the lessons they will all be videotaping and observing with support and guidance from their university partner.

## Year Two: Implementing the Individualized Growth Plan System (GPS)

Each fellow develops and carries out an individualized growth plan that has a clear vision and identifiable benchmarks. The 100-hour plan focuses on ways to improve the teacher's own instruction and leadership and is developed in collaboration with a university advisor, the district science coordinator and the fellow's principal. The yearlong project includes the fellow leading professional development for other teachers in their school district and culminates with a report and presentation of a poster session at the end of year conference.

### A District Corps of Teacher Leaders

Over a rollout of three successive cohorts of fellows, each participating school district will have as many as 12 fellows who have participated in the extensive 2-year Wipro SEF program. These fellows serve as a leadership group for district science and engineering initiatives.

**Phase II and Phase III**

After completing the two-year "foundation" program, District science coordinators work with their University partners in exploring ways in which to build on the Fellows experiences, projects and leadership skills in order to support district transformation. Though various and varied initiatives, Fellows engage with other teachers in their districts. Simultaneously, administrators are made more aware of the resources that the Wipro SEF program has seeded in their schools and districts. This phase of funding is also intended to encourage district incentives to support future work that will continue after this Wipro external funding concludes.

## HOW TO READ THIS REPORT

This report captures the work of the Wipro SEF program from March 2022 thru June 2022. During this time, all sites met the challenges of maintaining and adapting the Wipro SEF program during the Covid-19 pandemic. The chart below summarizes the activities of this quarter and the activities that will take place in this school year. Each site's report includes an overview of the activities that have taken place this quarter. Use the table of contents to locate a site's report. For a quick look at how the program is influencing individual Fellows please refer to the vignettes in the sections entitled "Featured Fellows" Throughout each site's report, you will find remarkable stories of Wipro Fellows supporting their students as teachers and supporting other teachers as teacher leaders. This report also includes a summary of the 2022 Wipro Leadership Conference.

| Year | CA<br><br>Stanford University | FL<br><br>University of South Florida | MA<br><br>University of Massachusetts Boston | MO<br><br>University of Missouri | NJ<br><br>Montclair State University | NY<br><br>Mercy College | TX<br><br>University of North Texas Dallas |
|---|---|---|---|---|---|---|---|
| 2019-2020 | Year 2 | Year 2 | Phase II & Lead Institution | Year 2 | Phase II | Phase II | Year 3 |
| 2020-2021 | Year 3 | Year 3 | Phase II & Lead Institution | Year 3 | Phase II | Phase II | Year 4 |
| 2021-2022 | Year 4 | Year 4 | Phase II & Lead Institution | Year 4 | Funding ended | Phase II | Phase II |
| 2022-2023 | Phase II | Phase II | Phase III & Lead Institution | Phase II | Phase III | Phase III | Phase II&III |

*Table of Wipro SEF sites*

| | *Cohort 1* | *Cohort 2* | *Cohort 3* | *Phase II* |
|---|---|---|---|---|
| Year 0 | Recruitment | | | |
| Year 1 | Collaborative coaching and learning in Science (CCLS) | Recruitment | | |
| Year 2 | Growth Plan System (GPS) | CCLS | Recruitment | |
| Year 3 | | GPS | CCLS | |
| Year 4 | | | GPS | |
| Phase II &III | | | | Activities proposed by individual sites. |

*Key to yearly activities*

## UMASS BOSTON LEAD INSTITUTION

### UMass Boston Lead Institution- Building and Supporting a Network of Wipro SEF sites

### 2022 Leadership Conference

As mentioned in our March 2022 Quarterly Report, one of the important aspects of the Wipro SEF nationwide program has been to develop a leadership community of Wipro SEF leaders and District Science Coordinators (DCS). Beginning in December 2021 Dr. Eisenkraft surveyed leaders and DSCs to find their interest in planning, attending, and facilitating a leadership conference. The survey included information on what topics would be most helpful, when the conference should be held, what time sessions should occur and if they were interested in being a presenter. Response to the survey came from all 7 Wipro Sites and between 35 and 40 responses to each survey.

Using the survey information, the Wipro Leadership Conference was scheduled throughout the month of March. Presenters were drawn from all 7 Wipro SEF sites and each virtual session was designed to be highly interactive.

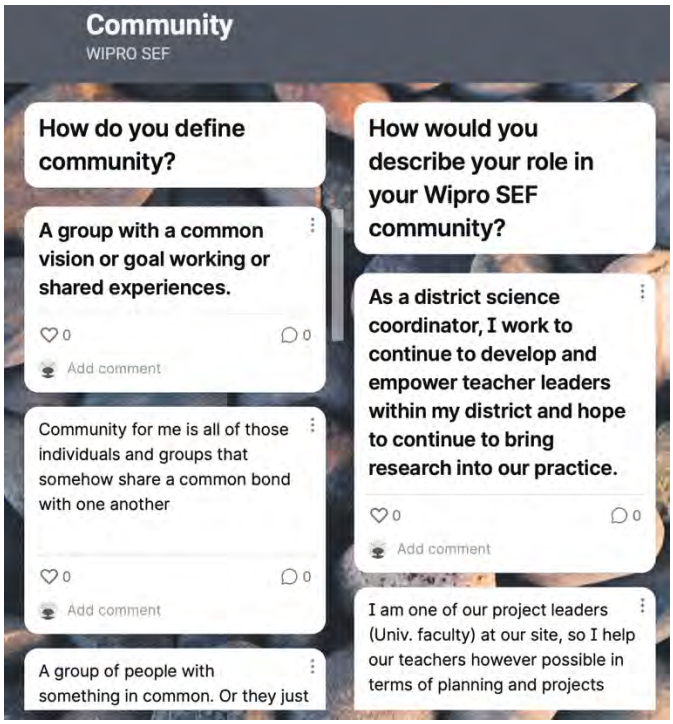
Below is a summary of the contributions and insights from each session.


**Session 1: Creating Community: District Science Coordinators & Wipro Fellows**

Session 1 of the leadership conference started with defining what "community" meant and how each member played a role and contributed to the Wipro SEF community.
16 Fellows attended this session, and it was led by Anne Gurnee, Aimee Ferguson and Lesley Kirkley.

Two big questions that this session was centered on were:

1. What are the criteria for a community?
2. How are we doing when we compare ourselves to that criterion?




The session was structured for 3 small group discussions.
**Group 1** - How can DSCs support Fellows and how can Fellows support DSCs? What has this looked like in your schools/district?

Many takeaways from this discussion were centered on building relationships, sharing best practices and being vulnerable, and open to feedback and change. Some of the ways of this two-way support included:

- Fellows act as leaders in curriculum work, PLCs, facilitating PD
- Recognition goes a long way. It is important to recognize and appreciate the work that the Fellows are doing.
- Fellows aren't afraid to reach out and lean on one another.
- Fellows being present together at conferences.

**Group 2** - How can Fellows support Teachers and how can Teachers support Fellows? What has this looked like in your schools/district?
In this group, Fellows shared their experiences in their respective schools and came up with different examples of what support looks like and how they have offered support to teachers.

Ways that SEFs are supporting other teachers:

- GPS projects

- CCLS collaborations in other subject areas - reading and science, for example
- Leading PD
- Sharing experiences and resources

Ways that Teachers are supporting SEFs:

- Collaboration for GPS
- Clarity around needs for students at our SEFs' sites
- Helping refine projects, ideas, and resources

**Group 3** - Given the relationships that have been created with Institutions of Higher Ed (IHE), how can the Universities support the DSCs? What has this looked like in your schools/district?

**Fellow 1:**
Constant contact with former WIPRO fellows and DC's and have created opportunities to continue the relationship: teacher talks, conferences, ask DCs and former fellows to come (and come without paying). Began a STEM program offered to several districts. 5 teachers per district allowed to come in and do a 6-month workshop with a grant to purchase STEM technology. Opens the door to new ideas and ways to look at teaching with some resources.

**Fellow 2:**
Communication is central. Support folks in house when they want to do stuff. Need to be in the loop. Concerned the fellows will lose their leadership muscle without opportunities to flex them. Sometimes not sure what the parameters are.

**Fellow 3:**
Many have moved on. Did have a change in department head. There was some funding for additional PD. Would be amazing to involve more people. Best PD. Would be helpful to expand the opportunities. May need specific opportunities about very specific conversations.
People have shifted positions.

**Fellow 4:**
University mentors act as mentors to folks in projects. Helping them to coordinate and facilitate.
Help to provide supportive resources. Exposing them to opportunities.

The session then proceeded with a second round of 3 small group discussions.

**Group 1** - What are your meetings with teachers like? What is discussed? How often do you meet? Do the Fellows in your district get together? Can we share best practices/successful strategies for district meetings?

Some of the major takeaways from this discussion included ideas on holding general meetings with teachers to discuss not only the content or standards of the frameworks, but also the different methods of teaching. There was also emphasis on generating new approaches that took the on-going pandemic into consideration.
Conducting meetings with Wipro Fellows was also another practice that was discussed. Though it would look different in each state, the basic idea was collaboration and sharing best practices.

**Group 2** - How do we communicate with others about what the Wipro SEF community is? How do we generate excitement about Wipro SEF in our schools/districts?

This was a challenging question because most group members recognized that the distance and the pandemic had made face-to-face interaction quite difficult. Nonetheless, some of the ideas discussed included adding more information to the district webpage, allowing individuals to connect, and creating and marketing opportunities for collaboration.

**Group 3** - How do we re-engage former Fellows who are less connected than they were before?

This discussion highlighted the fact that all Wipro Fellows once wanted to be leaders so even if they were not as connected, there were ways they could be reached out to. Some of these included creating opportunities to bring the spotlight back on them and their work. It was recognized in this discussion that COVID-19 has had a significant impact on social gatherings. However, connections could be made and did not have to be so formal. The discussion ended on a positive note, with members sharing that they would be reaching out to their Fellows because of this session.

The session concluded with the fellows pondering upon what they could do to not only build a community but also preserve and promote the existing Wipro community.

**Visual Summary:**


**Session 2: DSC Expertise and Experiences: Building Leadership Capacity**

Session 2 of the Wipro Leadership conference was held on March 09th 2022. 14 fellows attended the conference. It was led by Meera Chandrasekhar (MO), Eric Lewis (CA), Molly Peters (MA).

The goals set for Session 2 of the leadership conference included:

1. Continuing building the DSC community
2. Sharing DSC experiences that included challenges, highlights, and successes
3. Brainstorming future directions of the Phase II work.

**Continuing building the DSC community**

Before starting off with the goals, the fellows were divided into four small groups and were given 12 minutes to get to know one another as best as they could using a Jamboard.

**Sharing DSC experiences that included challenges, highlights, and successes**

The session then moved into the first formal discussion that centered on two main questions.

1. What are the different roles and responsibilities that DSCs have in their districts?
2. What are some of the successes, challenges, and opportunities in your role as a DSC?

Each group posted their thoughts, ideas and experiences on a Jamboard. Here are the major takeaways from each group.

**Group 1:** The role really depends on the grade level and the district.

**Group 2:**

**What are the different roles and responsibilities that DSCs have in their districts?**
Several roles were mentioned by different Fellows. These included observing and evaluating staff, analysis of data, hiring new staff, applying for grants, providing professional development, and implementing curriculum.

**What are some of the successes, challenges, and opportunities in your role as a DSC?**
Challenges included staffing, numerous vacancies, lack of a consistent structure by the district. Successes included standard implementation.

**Group 3:**

**What are the different roles and responsibilities that DSCs have in their districts?**
Roles included evaluators, observing Wipro Fellows, Chief Academic officer. Some of the responsibilities discussed included observing other teachers, applying some practices with students – warm and cool feedback and creating more formative assessments.

**What are some of the successes, challenges, and opportunities in your role as a DSC?**
Some takeaways from this discussion were centered on the observation that PD isn't always related to science and that that inquiry-based learning from a younger age would be beneficial for students.

**Brainstorming future directions of the Phase II work.**
The last discussion of the session addressed the following questions.

1. What are some effective strategies for continuing communication and engagement with fellows? In-district? With other districts?
2. What strategies can we create for DSC involvement in Phase II funding?
3. How can we help our fellows to continue forward as leading teachers after the fellowship finishes?

**Group 1: Jamboard shown below.**


| | |
|---|---|
| **What are some effective strategies for continuing communication and engagement with fellows? In-district? With other districts?** | 1. We have district vertical articulation for all teachers.<br>2. The Fellows keep in touch with others<br>3. I just started walk throughs again and teachers begin to talk to me about all sorts of things. If the teachers can't come to us, we can get to them. |
| **What strategies can we create for DSC involvement in Phase II funding?** | 1. Zoom or google meet after school. We now have multiple ways to get in touch.<br>2. Fellows presented at Ed Camp (a place where there are 10 choices and teachers pick) It's done as PD on a school day.<br>3. Do Fellows need invitations from the DSC or the principal? University people coming and talking to science people. The Fellows and teachers hear too much from me as DSC.<br>4. Convince the admin of the value so that the admin will push it. |
| **How can we help our fellows to continue forward as leading teachers after the fellowship finishes?** | 1. We never had the bridges. We have to build them. So much has gone on with Covid. We now have to make the time. Make time to discuss with teachers now that we are past "survival". Get the initial conditions started.<br>2. Natural progression for Fellows to continue reaching out.<br>3. Choose a topic like grading practices. Gather resources and find space to discuss this.<br>4. We didn't build the same relationships across districts through Zoom. |

**Group 2:**


| | |
|---|---|
| **What are some effective strategies for continuing communication and engagement with fellows? In-district? With other districts?** | 1. Call a meeting of members to remind them<br>2. Brainstorm with them ideas that they may have to use their Fellowship skills to improve learning.<br>3. Strategize for moving forward after Covid and next steps with PD<br>4. Continued social gatherings or meetings with DSCs from each site. |
| **What strategies can we create for DSC involvement in Phase II funding?** | 1. Collaborative GPS Projects<br>2. How can DSCs learn what funding is available?<br>3. Increased communication with universities about current status. |
| **How can we help our fellows to continue forward as leading teachers after the fellowship finishes?** | Consciously pull them together regularly, even if only for social purposes. |

The session concluded with a fun activity where each attendee had to pick up to two partners to stay connected with and check in with. Attendees exchanged their contact information using this sheet. The main idea behind this was to build community and make sure that Fellows stay connected.

**Visual Summary:**


**Session 3: District transformation – working with teachers and principals.**

Session 3 of the Wipro Leadership conference as held on March 22, 2022. It was led by Tammy Moriarty (CA), Mike Szydlowski (MO) and Danielle Moore (TX). 16 Fellows attended the session.

There were three goals set for this session are as follows:

1. Brainstorm ways that WIPRO can create better science instruction for both students and teachers.
2. Brainstorm ways administrators and other school leaders can help teachers be even more successful and less stressed.

3. Brainstorm ways that we can intentionally involve school leaders in the Wipro Program.

The session kicked off with the question, "Why do school leaders need to be involved?". It was highlighted in this part of the session that the three factors contributing to teachers

leaving were money, students and workload, all of which fell under the broad category of largely feeling unsupported by the administrators. The Fellows read this article. The purpose of this article was to uncover what scholars know and do not know about instructional leadership, paying particular attention to what they have learned about how this work is done and where knowledge falls short. The author takes a first step at integrating three distinct literatures: (a) the traditional instructional leadership literature (centered primarily on the principal), (b) the teacher instructional leadership literature, and (c) the coach instructional leadership literature.

The fellows were then divided into breakout rooms for small group brainstorming.

Each group was to discuss the following prompts:

1. What are principals and school leaders already doing?
2. Goals for principals and school leaders
3. What would principals or school leaders need to know.

**Group 1:**

Some major takeaways from the discussion included examples of how school principals and/or leaders are involved in supporting Wipro Fellows in their schools. However, this did not always include help in the teaching of science. Mostly principals are focused more on administrative issues. Fellows also discussed how principals and school leaders need to hear the importance of Wipro Fellows' work and get to know Wipro Fellows as a resource/source of expertise.

The group came up with a list for the third prompt – what would principals/school leaders need to know.

1. Principals need to be aware that they need to be leaders and not just managers
2. Look fors (about making the meaning/not dictating/frequent observation is important
3. *a list of what kids are afraid of (share list of teachers/observe teachers multiples times to create a mosaic
4. Over three hundred observations

**Group 2:**

**What are principals and school leaders already doing?**

1. Principals are not alone, there are other players involved. You need to go in person to build work one on one

2. Large districts have principals in a role as "building admin;" have less role in teacher coaching or evaluation
3. Small schools/districts have advantage of frequency of contact; but, have less support overall
4. High school students mentoring lower grade students has promoted lots of connection/communication amongst the students.

**Goals for principals and school leaders**

1. Creating relationships among school leaders, teachers, and coordinators - using Wipro as a lead.
2. Sometimes fellows feel a little intimidated by the authority of principal. Relationships need to be built.
3. Discuss school/district goals and use them as a starting point- have open lines of communication-make this a norm
4. Figure out where the lines of authority are - fellows sometimes feel there is a barrier in some of the GPS projects, particularly if it is a multi-school project.
5. If a program is seen as an asset, they may have an "in."

**What would principals or school leaders need to know?**

1. Structure of the program
2. What will Fellows be doing
3. Expectations when observing a science teacher
    i. Shifts in science learning
    ii. Student centered learning
    iii. Dimensional Learning
4. How to support teachers- knowledge of what the fellow is doing-check-ins

**Group 3:**
**What are principals and school leaders already doing?**

- There is an imbalance in the time and resources spent on Math and ELA vs. Science. There is too little science in the scheduling.
- Biology is the state assessed and principals are involved in getting teachers and students to be psyched for the state exam.
- Every principal with a Wipro Fellow has been supportive.
- The principals who give Fellows a few minutes at a school meeting to discuss their project goes a long way.

- Our district leader made a point of having Fellows and teachers feel like a family. The administrator was supportive

**Goals for principals and school leaders**

- Let Fellows know that you value what they are doing.
- Have a Fellow lead a PD
- The principal should be a member of the team. The principal should be learning as well as supervising.
- Have an explicit time for principals and Fellows to discuss what the Fellow can bring to the school.
- Can a principal play a role in increasing instruction time and the importance of science in the curriculum?

**What would principals or school leaders need to know.**

- What does shared leadership look like and how does it develop?
- How does a leader support teacher work together?
- More principals support teachers emotionally and building community
- Have teachers be the creative soul in the school.
- Having teachers drive the PD that the school offers.
- How do we hold principals accountable for touching base with Fellows during the year?
- Have a meeting with all the principals that have Fellows? Can we get some time at district principal's meeting?
- Presenting the plaques at Board meetings was a way to bring attention to the Wipro program and Fellows.

**Group 4:**
**What are principals and school leaders already doing?**

- Florida - One district is doing district-wide PD (all science teachers went to a place and they got PD for Science).
- Massachusetts - Science teachers are evaluated by administrators at site AND the DSC. Department of ED has done work on evaluation of teachers.
- What is the role of a principal - are they instructional leaders? Or do they focus more on managing the building.
- Many principals do not have a science background.
- What are principals doing in general to support new teachers - lunches, limited preps, focused PD
- Our newest teachers should not be teaching the most challenging students.

- Are school/district leaders supporting teachers to become leaders and deepen their learning
- Support and encourage teachers to update their practices to better match student needs
- PD that has been providing modeling in class with cross disciplinary HS Science teachers (and a principal attended!).

**Goals for principals and school leaders**

- Principals should be present and meet with teachers in their GPS, Phase II, PLCs, etc.
- Wipro fellows tend to be some of the more active teachers - even outside of their classroom. Principals can support their work in the building with others.
- Evaluation - make sure that principals understand the practices and what good science teaching looks like.
- Principals should be open to discussing data, challenges, etc. with DSCs and fellows to inform GPS projects, etc.
- Principal seeing DSC as a partner and understanding the value of Wipro and what it brings to the school
- Principals be open to change and discussion

**What would principals or school leaders need to know.**

- What kind of PD the fellows are getting around TL leadership (HCCLS and VCCLS) and more!
- Where the program is headed - what are the next steps for Wipro!
- Evaluation support - what are the big goals of science teaching in NGSS that might be very different from science teaching in the past…
- Walk throughs are a good strategy to learn about what is happening at sites…
- How can we value science more?

The session wrapped up with describing some of the concrete steps that could be taken for involving principals and school leaders in the Wipro Science Education Fellowship. The Fellows wrote down the steps on a shared document and also read what the other groups came up with.

**Group 1:**

- Wipro (introduce/history/skills gained/how it can be done for the district) brochure
- Reminder of letter of agreement/conditions
- Constant reminder of what fellows can do within the buildings
- Next phase: getting school leaders involved-starting with the superintendent (bringing a letter/going in-person)

- A professional short video-marketing (fellows/how Wipro changed…) shared on a website
- Encourage people-Bring it back they were Wipro fellows and sharing across different levels (grants/projects/interests)
- Continue running horizontal/vertical groups

**Group 2:**

- Principals as partners in the GPS projects
- Peer-to-peer communication: share success stories of teacher-principal collaboration with other principals
- Communicate successes to ALL principals since many of them are new to the Wipro project thanks to turnover.
- Bringing the principal in as a partner, have them see the symbiotic relationship
- Use data, nugget to champion.
- Build relationships - the Wipro staff and teachers should be listening to principals' needs- e.g., return to principals regarding obstacles to district goals being addressed in GPS.

**Group 3:**

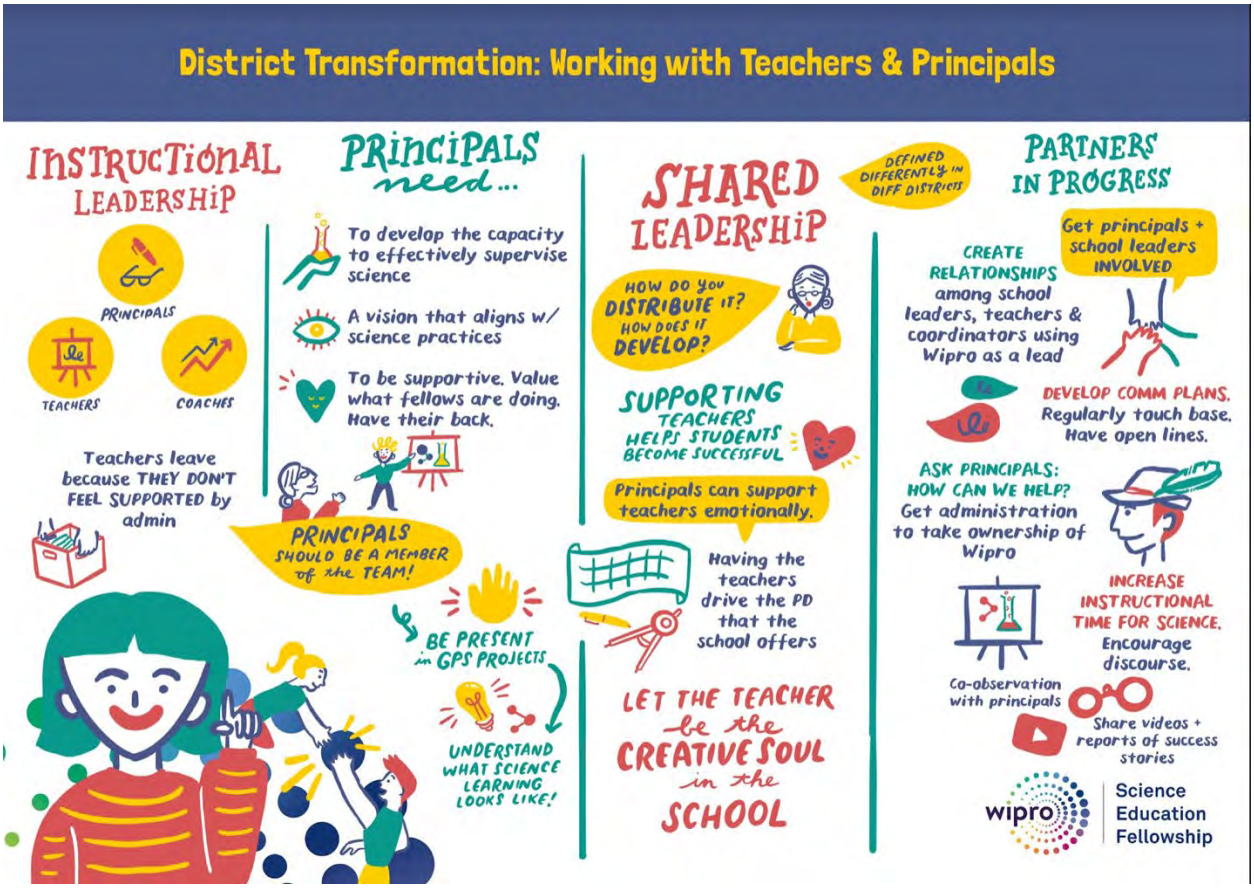
- Presented plaques at board meetings in the Boston area (not Boston) "If we start recognizing teachers for this… we'll have to do it all the time"
- Having fellows and principals touch base a few times a year.
- Principals sharing a plan for how they may utilize the Fellows
- This can be part of the teacher evaluation
- Can there be a showcase at Principal's monthly meeting where -Fellows share what they are doing in their school? Other principals can learn as well. Wipro Fellow "shark tank")
- To get highest evaluation in FL, they must work with other teachers. Are these shared with others?
- Boston Public Schools have committee meetings that is open to the community (parents as well) - how do we get on the agenda? How do we involve community?
- Develop a communication plan.
- Wipro quarterly reports and vignettes of Fellows - should they be shared with administration.
    - How do we get administration of take ownership of Wipro - how can Wipro be a feather in their cap? Can having a Wipro Fellow in your school be part of a principal's success in their evaluation?
- Use of video, podcast, social media

**Group 4:**

- Include principals more in the Wipro work (at our IHE) with a specific strand for them…
- Connect with principals about who the fellows are and phase II plans
- Co-observe a fellow with a principal to talk about changes in science instruction

- Talk with Assistant Superintendent about having the opportunity to talk about changes in pedagogy related to evaluation
- Remove barriers for fellows when possible!

**Visual Summary**




**Session 4: Life during and after the pandemic**

Session 4 of the Wipro Leadership Conference was held on March 28th, 2022. It was led by Ratna Narayan (TX), Fawnia Schultz (FL) and Mary Goffredo (NJ). 19 Fellows attended this session.

The goals set for this session were as follows.

1. Continue to build our DSC community.
2. Reflect & share our experiences during and after the pandemic
3. Discuss and explore new ideas for the future

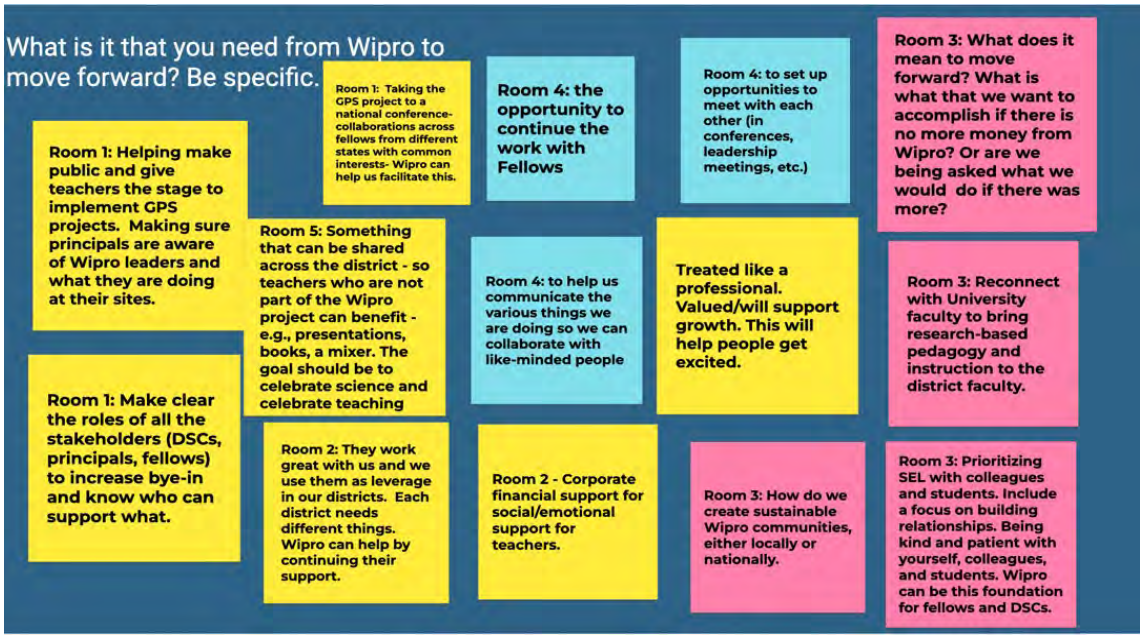
The session was divided into two-part discussions.

Part 1 discussion questions:

1. From the perspective of an IHE, DSC, Fellows, Teachers, and Students discuss experiences during the pandemic in your role.
2. What successes or new learnings have emerged during the pandemic? (For instance, are there any tech lessons learned that can be leveraged in face-to-face classrooms?)
3. What strategies have you found to be helpful during the past two years when working with fellows, teachers, and/or students?

Part 2 discussion questions:

1. What is it that you need from Wipro to move forward? Be specific. (Record your wish list items in Jamboard)

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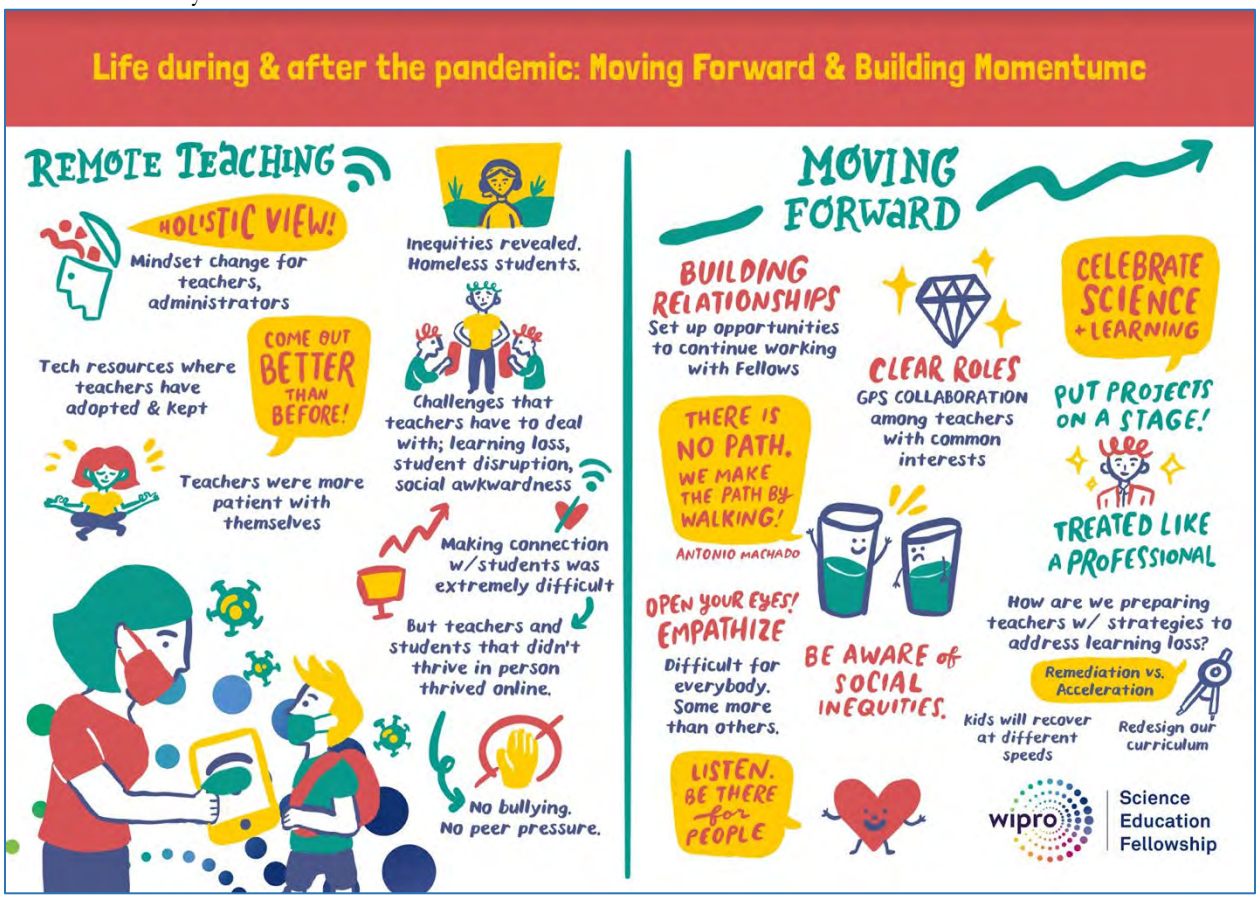
| **Room 1** | • Helping make public and give teachers the stage to implement GPS projects. Making sure principals are aware of Wipro leaders and what they are doing at their sites.<br>• Make clear the roles of all the stakeholders (DSCs, principals, fellows) to increase buy-in and know who can support what.<br>• Taking the GPS project to a national conference- collaborations across fellows from different states with common interests- Wipro can help us facilitate this. |
| **Room 2** | • They work great with us and we use them as leverage in our districts. Each district needs different things. Wipro can help by continuing their support.<br>• Corporate financial support for social/emotional support for teachers. |
| **Room 3** | • What does it mean to move forward? What is what that we want to accomplish if there is no more money from Wipro? Or are we being asked what we would do if there was more? |

| | |
|---|---|
| | • Reconnect with University faculty to bring research-based pedagogy and instruction to the district faculty.<br>• Prioritizing SEL with colleagues and students. Include a focus on building relationships. Being kind and patient with yourself, colleagues, and students. Wipro can be this foundation for fellows and DSCs. |
| **Room 4** | • to set up opportunities to meet with each other (in conferences, leadership meetings, etc.)<br>• the opportunity to continue the work with Fellows<br>• to help us communicate the various things we are doing so we can collaborate with like-minded people |
| **Room 5** | • Something that can be shared across the district - so teachers who are not part of the Wipro project can benefit - e.g., presentations, books, a mixer. The goal should be to celebrate science and celebrate teaching.<br>• Treated like a professional. Valued/will support growth. This will help people get excited. |

2. What is your own source of motivation during difficult times? How can we use this to inspire others? How can this transfer to students?
3. How can we support the social-emotional needs of teachers, fellows, and students?

Visual Summary:



## New Additional Wipro Funding

Phase II and Phase III proposals have been submitted, reviewed, and refined for all of the Wipro sites. Dr. Eisenkraft emphasized that this new funding would not be a mere continuation of the current program but an opportunity for sites to come up with novel approaches.

*"The next four years will focus on how we can ensure that district transformations occur. We want to find ways to sustain teacher leadership and expand the number of teachers involved in our efforts and the number of students impacted. We have invested resources in districts and want to continue to invest more resources as we, simultaneously, wean the districts from external support. We don't want districts to cease their efforts after we withdraw support in four years. We should help set up a system by which districts can continue the efforts of improving science education and providing deeper, more equitable learning for their students after the Wipro support ends. I see that creating some opportunities and/or structure to involve SEF fellows, District Science Coordinators and Principals at schools working together in a shared leadership approach to teaching and learning as a crucial part of our next set of efforts. We would like to see each grant proposal have some strategy for this Fellow/DSC/Principal component of work. We would also like to hear how your proposal links to the overall goal of district transformation. "*

As a result of the proposal reviews and revisions, the Office of Research and Sponsored programs of each university has been working with UMass Boston on amendments to their contracts. A brief summary of each site's plans is provided in the individual site reports.

## Future Meetings

In addition to our monthly Zoom meeting, plans are underway for two forthcoming face-to-face meetings. The "research meeting" will take place in Atlanta, GA in late August. This will provide an opportunity to investigate research initiatives we can undertake in the next four years and ensure that they mesh with our present external evaluation programs.

The "site meeting" will bring together one University representative from each site to Boston, MA in early September. The focus of this meeting will be to create links among the new projects and find ways in which sites can support and collaborate with one another.

## CALIFORNIA- STANFORD UNIVERSITY

### GPS Progress

| Site location (State) | Cohort # |
|---|---|
| CA- Stanford | 3 |

### Fellows' meetings (Cohort 3)

During spring quarter, the CA Wipro SEF Team conducted monthly meetings both in-person as well as virtually. See below for the links to the session slide decks. Sessions continued to focus on science teaching and learning as well as developing fellows' leadership capacity. Fellows also had meeting time to work on GPS Project deliverables.

| | | |
|---|---|---|
| Thursday,<br>Mar. 24th<br>4:30-6:00pm<br>Virtual Session<br><br>Zoom Link<br>Mtg. ID: 978 2787 5649<br>PW: 056728 | Wipro Professional Learning Session<br><br>How People Learn I and II<br>End of Year Conference Preview<br>GPS Work Time | Slide Deck |
| Saturday,<br>Apr. 23rd<br>9:00am-2:30pm | Wipro Professional Learning Session<br>In Person, CERAS building, Stanford University<br><br>● Science Teaching and Learning: Putting it All Together<br>● End of Year Conference & GPS Work Time<br>● Leadership Practices | Slide Deck |
| Thursday,<br>May 19th<br>4:30-6:00pm<br>Virtual Session<br><br>Zoom Link<br>Mtg. ID: 963 8617 6334<br>PW: 860924 | Wipro Professional Learning Session<br><br>Wipro Pillars: Reflections<br><br>End of Year Conference/GPS Project Work Time | Slide Deck |
| Saturday,<br>June 11th<br>9:00am-2:30pm<br>In-Person<br>CERAS Building | End of Year Conference<br>Agenda:<br>● Welcome and Opening Session<br>● Breakout Sessions #1 (Round 1)<br>● Poster Showcase + Feedback<br>● Lunch<br>● Breakout Sessions #2 (Round 2)<br>● Closing | Slide Deck- Main Deck<br>Breakout Room #1<br>Breakout Room #2<br>Breakout Room #3<br>Breakout Room #4 |

| | | |
|---|---|---|
| | | |
| Thursday,<br>June 16th,<br>4:00-5:30pm<br>In-Person<br>CERAS Room 308 | Closing Session | Slide Deck |

*PHOTO 1- CA Cohort 3 Fellows reuniting with their V-CCLS group*


*PHOTO 2- CA Cohort 3 Fellows engaging in a science common experience*

**Leadership meetings**

The Wipro CA Team has met regularly with District Science Coordinators throughout the school year. The meetings usually start with District Coordinators providing updates about what has been happening in their districts so that the leadership team has a better understanding of district progress as well as challenges and concerns. Following district updates, the group discusses how fellows are doing in their classrooms as well as with their Wipro projects. The leadership team then provides updates about important events and meeting sessions coming up, including any action items needed from district coordinators. See below for the links to the meeting slide decks:

- March 2022 District Coordinator Meeting- Link to Slide Deck
- May 2022 District Coordinator Meeting- Link to Slide Deck

**End of the year Conference**

The CA Wipro End of Year Conference took place on Saturday, June 11th from 9am-2:30pm at Stanford University. This was the first in person conference since 2019. All past fellows, district science coordinators, school leaders, and district leaders were invited to attend the event.

The day began with a short opening session featuring a research talk by Dr. Janet Carlson, CSET's Faculty Director. Participants were then excused to various breakout rooms to begin the GPS Presentations. Cohort 3 Fellows were divided into 4 smaller group, with each fellow assigned to a specific room as well as a specific time slot. The CA Team designed the schedule in such a way that allowed district coordinators and guest to be able to see as many fellows from their districts as possible without overlapping times. Guests were allowed to choose which rooms they wanted to attend and were encouraged to move between rooms.

In between GPS Presentations, participants were given time to view GPS Posters in an uncurated Poster Session. This enabled fellows and guests to read and give feedback, using sticky notes, to teachers that they were unable to hear in other presentation rooms.

The conference program linked below shows the full agenda for the day.


Welcome to the Wipro Science Education Fellowship Conference at the Center to Support Excellence in Teaching, Stanford University Graduate School of Education!

The Wipro End of Year Conference is designed to showcase the work that Wipro fellows have been doing as a part of their professional learning. This year, the conference focuses on Cohort 3 Wipro Fellows and their year-long teacher leadership growth projects.

Through your participation in this conference, you will learn more about high quality science teaching and learning, and the different ways that teacher leaders moved science initiatives forward this past year. We hope that by the end of the day, you will leave inspired by these projects and feel invigorated by the opportunities and possibilities in your own school settings.

We are extremely grateful to our five partner school districts, our District Coordinators, and other district and school leaders for their continued support and investment in the Wipro Program.

This conference is made possible by the generous funding from the Wipro Foundation through the University of Massachusetts, Boston. Their investment and vision for education has given us the opportunity to build a strong community of science teacher leaders who continue to lead the way in their schools and districts.

We hope you enjoy the presentations today!

Sincerely,

The California Wipro SEF Team

**Link to CA End of Year Conference Program 2022**

## CA End of Year Conference 2022 Photos


Stanford
EDUCATION
CSET
WIPRO
SCIENCE
EDUCATION
FELLOWSHIP
Stanford
EDUCATION
wipro
UMASS
BOSTON


What was my process but it changed


Nick


Developing and Creating Science Skill Videos to Support Students in the Classroom
Nick Guttadauro, Moreland School District, Moreland Middle School
CSET
GPS Project Goals & Rationale
Actions & Methods
Impacts
Project Background
Evidence
Takeaways & Next Steps
Context & Participants
Student Led Inquiry Projects
Jaclyn O'Brien Diaz, Imai Elementary, MVWSD
CSET

3b. **GPS Poster Session (Cohort 3)** **(Please list the GPS Poster Presentations that were part of the conference)**

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| Robert Coverdell-Meneses | Transforming Biology Classrooms Through PBL: Lessons from Leading a Professional Learning Community of High School Biology Teachers in Project-Based Learning | Through my work as a biology teacher at Downtown HS, I have seen Project Based Learning (PBL) increase student engagement and transform my students from being behind in credits and at risk of dropping out into scholars and activists. PBL has made biology relevant, engaging, and compelling for many students who've struggled in their comprehensive high school. However, PBL is often missing from high school biology classrooms or, when it does occur, projects are just used as an assessment of student learning. For my GPS project, I wanted to bring PBL to a larger group of SFUSD teachers with the hope of helping them feel confident in developing project-based curriculum, and therefore transforming their classroom spaces. Through the process, I grew as a mentor and have ideas on how we might PBL coaching process to help teachers create project-based units where the biology is not just required but essential. | Link |
| Amanda Lim | Using authentic experiences to engage students in science and | Providing students with opportunities to use and develop a deep understanding of Science | Link |

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| | engineering practices in partnership with the Stanford Radiology Department (SEED Program) | and Engineering Practices prepares them to engage in Science and move beyond the regurgitation of scientific facts. In this project, I collaborated with the Stanford Radiology Department to co-design lessons that engaged students with the Science and Engineering Practice, using Mathematical and Computational thinking. We designed the lessons to help students understand what the Science and Engineering practice was, how scientists and engineers use it in the real world and, we broke down the cognitive, social and physical aspects that make up each practice. This project's goal is to engage students in the specific skills and behaviors that scientists and engineers use as they make sense of the natural world or apply them to develop innovative solutions. | |
| Emily Stollmeyer | Implementing Standards Based Grading in the High School NGSS Physics Classroom | Keeping students aligned with learning goals and invested in their own progress can be challenging. Additionally, I was searching for a way to improve my ability to assess students' knowledge of NGSS's Science and Engineering Practices, Disciplinary Core Ideas, and Cross Cutting Concepts authentically and in a student friendly manner. In the 2021-22 school year, I decided to cross over my SFUSD NGSS Physics class to Standards Based Grading (SBG) unit by unit. My standards were implemented on daily exit tickets, group projects, and individual tests to assess student learning. Daily Classwork and homework were not directly assessed with standards. 3-9 standards were created for each assessment and graded on a 4-point scale. After collaborating with SBG PLC's, I discovered that there are many different flavors of SBG and this project is an NGSS Physics example that should be modified to suit future teacher and student needs. | Link |
| Mithril Cox | Increasing Student and Teacher Engagement in Science Education | Science is one of the most neglected curricular areas in elementary education. There are many reasons for this, and while time is obviously the biggest barrier, lack of student and teacher engagement is also a major factor in this neglect. I hope to increase the amount of time teachers spend teaching science by increasing engagement. First, I want students and teachers to see themselves represented as scientists through various | Link |

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| | | means such as literature and video. Second, I want to show how currently relevant their learning is. Third, I want to make learning more enjoyable for students and teachers. | |
| Thomas "Tommy" Fulwiler | Supporting STEM Educators in Biology through instructional guidance in Curriculum Meetings | Science teachers - like all teachers - can often feel isolated and lack the support of colleagues. As a teacher leader in the Biology Department, it has been my job to support the other Biology teachers. As teacher leader, I have been charged with a variety of responsibilities - from mentoring and coaching, to running curricular meetings and providing instructional support. In the past, our science meetings have not been organized and there has been inconsistent attendance from our Biology Teachers. Since the meetings often had no clear focus or goals, it was not necessarily surprising that teachers felt justified in skipping out on this meeting. As a teacher leader, I have been focusing on improving the structure and utility of our Biology meetings through a variety of different strategies with the hope that we are able to create improved supportive relationships at our site. Hopefully, the changes that I have implemented and structures that I have created in my department will be of value to other teachers leaders that are hoping to improve the culture of their science departments in their own schools. | Link |
| Victoria "Tori" Lanterman | Engaging and Supporting Elementary Educators in Science Instruction | Science instruction at the elementary school level is often not the priority. Many new teachers feel overwhelmed by the numerous responsibilities they face, and don't get the kind of support in teaching science that they might get in other subject areas. This project set out to create a system of supports for elementary school teachers at various levels but is specifically focused on those who are not regularly teaching science. The project has two main elements to it, one that has evolved through the course of the project: establishing a coaching/support system for two new teachers at my school site in 2nd and 3rd grade to help them implement science instruction regularly. The second, which will be officially implemented this summer: a curriculum planning tool that will help 4th grade teachers specifically plan out a unit of | Link |

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| | | instruction. Overall, this project sought to accomplish one goal: more consistent science instruction at the elementary school level. | |
| Elizabeth Reiff | Mobilizing the Community to Transform Our Schoolyard into an Outdoor Science Learning Space | The goal of this project was to mobilize students, staff, and community partners to transform our schoolyard into a vibrant outdoor science learning space. This work builds upon a 2020 renovation made possible by funds from the San Francisco Public Utilities' Green Infrastructure Grant Program and the San Francisco Unified School District's Green Schoolyards Program, which aim to engage students in hands-on, outdoor Science learning experiences. This project has involved researching pertinent policy documents regarding outdoor and nature-based education in the local context, documenting and inventorying our outdoor classroom infrastructure and materials, surveying teachers on their interest and comfort levels in teaching outdoors, and collaborating with community partners, staff, and students to plan and execute a mural project in the outdoor classroom that tells the story of where our water comes from. | Link |
| Laura Spanier | Nature Journaling ~~in~~ out of the middle school classroom | I implemented a school-year long program of nature journaling with the goal of engaging students with science, school, and the world around them. I had the additional goal of developing students' observational skills as well as their sense of curiosity and ability to ask questions. Engagement with nature is a critical component of well-being. This is especially important now, after a year of shelter-in-place, lack of social engagement, and increased screen time. This on-going activity gave my students a chance to connect with nature in a very meaningful and directed yet individual way. | Link |
| Adrian Tamayo | Exploring Science Careers through Guest Scientists | Students' perception of what a scientist might look like and what a scientist does is often limited to the traditional scientist with messy hair, working with dangerous chemicals wearing goggles and a white lab coat. The goal of this project was to expand students' idea of what a scientist looks like and does by exposing students to different science careers while also exploring some of the science and engineering practices that those scientists | Link |

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| | | might use in their careers. Over the course of the year, our classroom hosted a bioinformatician, a genomics engineer, marine mammal center staff, and NASA scientists and engineers. Early in the year, students were asked to draw what a scientist looks and describe what their scientist was doing in their picture, and this task and idea was revisited throughout the second semester to keep track of changes in student thinking. | |
| Brittney O'Brien | Seeds of Change: using school gardens to reroot school community. | The vision of the GPS project is to create sustainable garden boxes for children to become environmental stewards. The initiative will bridge the whole school community (TK-5th grade) around the responsibility of gardening and the impact we have on our school campus. General Ed teachers collaborate with STEAM teachers to elaborate and extend learning opportunities around life science in the general education classroom. In addition, the project provides teachers with materials and the physical space for learning experiences outside in the garden. | Link |
| Margaret Poor | Empowering Students through Servant Leadership - Improving our School using the Engineering Design Process | The project is to create a multi-grade student leadership team which fosters the spirit of "servant leadership" in its members and uses the mindset of an engineer to solve school challenges as identified by the study body. Members of the group are representative of their peers within the areas of ethnicity, gender, social group, academic achievement, and behavior patterns. The group will lay the foundation for a growing atmosphere of student empowerment at the school. | Link |
| Jenny DeGraaff | Using Summary Tables to Connect to Anchoring Phenomena and Ensure All Students Can Participate in Scientific Discourse | It can be challenging for teachers to keep students connected to the unit phenomenon, elicit prior knowledge, and present key concepts and vocabulary in a consistent way. Summary Tables are large anchor charts that serve as useful, interactive visual representations of this critical information. These posters help both the teacher and the students make connections, participate in scientific discourse, and construct meaning. In this project, several methods for the use of Summary Tables are presented. Efficacy of the posters is gauged through analysis of student surveys and written work. | Link |

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| Jaclyn O'Brien Diaz | Elementary Student Led Inquiry Projects | Even in an NGSS shifted elementary classroom, the science inquiry process can still feel more teacher directed than student led. Students are still learning the skills needed to complete an inquiry cycle, with many times one step of the process being the focus of a lesson, so they aren't going through the whole process sequentially. Often teachers are orchestrating the Inquiry Cycle, giving them the guiding question, explaining the phenomena, and setting up the investigation for students to complete. This often leads to students' "I wonder" questions to go unaddressed, or their ability to ask questions doesn't lead to thoughtful inquiry that can be investigated. In the 5th grade Inquiry Project students had the opportunity to pick a Life Science phenomenon that they were interested in exploring, developing their own investigation question that they could plan and carry out an investigation for in order to complete the inquiry cycle and make a claim about their phenomena. Through this project general education classroom teachers had the ability to learn about the inquiry project and how we develop students to ask and form their own questions. Teachers observed a lesson on getting students to ask questions and had lesson plans with presentations to take students through the inquiry process in their general education classrooms. The result was all 5th grade students and teachers engaged in meaningful scientific exploration. | Link |
| Yichang Liu | Project-Based Learning Environment in Physics Class | Project-Based learning engages students and helps them make connections between science content to real life. This presentation includes two sections. The first section describes how students were engaging in an inquiry based context where they build models, engage in discussions, collect evidence and do presentations. The second section outlines how to design a Project-Based Learning Environment in a physics class. | Link |
| Jessica Paulsen | Providing opportunities for student collaboration and metacognitive strategies on assessments to decrease anxiety and increase learning. | Learning is meant to be an up and down process where a student's understanding ebbs and flows. By fostering an environment that encourages and enables a growth mindset, students feel less pressure to "make | Link |

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| | | the grade" simply for the sake of gaining points. Instead, a collaborative and metacognitive approach is used during formative assessments to guide students toward becoming more involved in their own learning. This project demonstrates how these opportunities for student collaboration during formative assessments can reduce anxiety and increase student performance. By giving students the ability to work through an assessment with a peer, they are given the opportunity to think critically and help each other identify misconceptions as well as provide evidence to defend their thinking around scientific concepts they do understand. Ultimately, these strategies help move the primary focus away from the quiz grade and more toward the process of learning. | |
| Alex Johnson | Becoming a Science Department Chair; Leading for Equity | We are all growing as educators in different aspects, whether that be in the classroom or within our school or district. I will be sharing with you my experience in my first year as science department chair. I chose to bring a focus on equity to our department and led meetings in which we shared experiences, thoughts, practices, and reflected on how we can bring equity to our classroom. As a department we chose to focus on equity of student voice in our classrooms. In this presentation you will observe my growth as a leader in facilitating discussions among our department on equity of voice in our classrooms. | Link |
| Gargi Verma | Authentic Assessments in a Chemistry Classroom | Students are all the time stressed out and anxious about traditional "paper-pencil" quizzes. Students most of the time want to do experiments and then learn in a science classroom. This triggered me to develop assessments and lessons from students' interests and curiosity. Providing students with different and creative assessments will help them demonstrate their learnings in science and not just by giving them "multiple choice quizzes" all the time. This will help a teacher to be a facilitator and will lead to a student-centered classroom. Providing students, the "Authentic Assessments /tasks" will make students enjoy the lessons using all the components of 5E learning model | Link |

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| | | (Explore, engage, explain, elaborate, and evaluate) that aligns with the science routines like anchoring phenomena, navigation, investigation, putting together the ideas, and problematizing routines. The authentic assessments also implements the "POGIL" (Process Oriented Guided Inquiry Learning); and WICOR (Writing, Inquiry, Collaborate, Organize, and Reading skills). | |
| Chelsea Alvarez | Eliminating Barriers to Science Curriculum at the Elementary Level | Facilitating the utilization of the STEMScopes curriculum, at an elementary school site, in Grades 2 & 3. In this project, unit plans were developed, using Hyperdoc, to simplify ease of access to the existing curriculum. Unit plans included suggested pacing guides to maximize conceptual flow, links to all necessary materials, day to day planning guides, and suggested supplemental resources for extension activities. The teacher leader developed these unit plans prior to leading a kit training in both grade levels. In these kit trainings, the teacher leader took on the role of the classroom teacher with the participating teachers acting as mock students. These kit trainings were conducted to demonstrate how teachers would utilize the plans within the context of their classrooms in real time. Grade level teams then underwent a reflective cycle wherein they enacted the unit plans within their own classrooms prior to evaluating the overall effectiveness of the unit plans. The goal of this project is to demonstrate how planning teams at a district level could promote the use of the given curriculum through the development of cohesive, easy to use, unit plans for grade levels across school sites. | Link |
| Nicholas Guttadauro | Developing and Creating Science Skill Videos to Support Learners in the Classroom | Scientific tools are vital for engaging students and providing them the opportunity to connect with the content. The problem is that not all students know how to use the tools correctly and appropriately. Many times, teachers review how to use the tools at the start of the year but then do not review them often. Then when it comes time to use the tools during an explore activity and students struggle. Safety is vital in a lab space especially when chemicals | Link |

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| | | and glassware are used with students. Teachers want to trust their students and know that they know the proper procedures in the lab space. I have created a bank of videos that cover scientific tools and safety in the classroom. | |
| Julie McKinley-Reed | Using Thinking Maps with visuals and text in the science content areas to support English Language Learners | Thinking Maps have been primarily used to organize information to support student learning in English Language Arts (ELA). Implementing Thinking Maps into a classroom has been proven to be an invaluable organizational tool for all students. Using Thinking Maps with visuals not only supports organizing content area information but reaches visual learners and English Language Leaners (ELLs) with another modality of learning. In my project I was able to strengthen and utilize Thinking Maps into the Science content areas by adding student drawn pictures and text. Using our district adopted Science curriculum StemScopes with visual/text Thinking Maps, I observed students' ability to demonstrate a greater understanding of the NGSS and Common Core Standards. | Link |
| Sierra Vance | Differentiated Thinking Maps to Support English Learners | Thinking maps are visual tools that help develop different cognitive processes across all content areas and grade levels. They can be especially helpful for English Learners (ELs) or students still developing their English because they provide a consistent format to organize information. This project utilized thinking maps in a first-grade classroom using the district's STEMscopes science curriculum. Since my class has a wide range of learners, a special emphasis was placed on differentiating maps to fit the needs of all students, especially ELs. The class created maps together during whole class science lessons. Students also produced their own maps using visuals, color coding, and/or labels, as needed. Students presented their maps to the class at the end of the units. In addition, I shared the differentiated thinking maps and my classroom outcomes with the district first grade English Language Development (ELD) committee throughout the year. Although the differentiated thinking maps took a lot of teacher time to create, they | Link |

| Name | GPS Project Title | Abstract | Poster |
|---|---|---|---|
| | | were beneficial for all students' understanding of the science content. | |

## GPS Posters

Here is a LINK to CA Cohort 3 GPS Posters.

## Site Leadership Reflections GPS Presentations

Overall, CA fellows' GPS Presentations went very well. Each fellow was given 15 minutes to present their projects followed by 10 minutes of warm and cool feedback. One of the highlights from this year's conference was to hear how fellows took up leadership in their settings, especially given the very challenging "post-pandemic" school year that most of them had experienced. There was a deep sense of accomplishment and pride from the fellows as well as the coaches who worked hard to support the teachers in their work.

Fellows were given the following prompts to help them prepare for their GPS Presentations:

- Describe your project
- Describe your goals (personal and district)- Why did you choose to do this project?
- What was your process and how did it change along the way?
- What happened as a result (with students or teachers, etc.)?
- What did you learn about yourself as a teacher leader?
- What did you learn about others (students/teachers)?
- What are your next steps?

## Invited Guests- DSC's, Principals, etc.

All past Cohort 1 and Cohort 2 fellows, district science coordinators, school leaders, and district leaders were invited to attend the End of Year Conference. There was a representation of each of these guests who attended the conference including several principals, one superintendent, several district leaders, and few past fellows. Dr. Arthur Eisenkraft was also able to attend.

## Conference logistics

The CA leadership team worked well as they dealt with all of the logistics for the End of Year Conference. The team decided to keep things simple considering this was the first large Wipro event since the beginning of the Covid-19 pandemic. The team had a simple, but elegant program (see link above), flower arrangements on the table, and catered breakfast and lunch.

## Reflections from the GPS Presenters

### GPS Conference Reflections

At the end of the conference, fellows left informal sticky note feedback. See below for their feedback.

**End of Year Conference Feedback**

- I started off being nervous but realized that there is so much to learn and that building off each other is fantastic
- I have a whole list of inspirational ideas from seeing each other's projects!
- Collaboration is key. Networking, building connections.
- Favorite part: presenting! I felt proud and really appreciative of feedback.
- This was a fantastic day. I really enjoyed my time learning about all of the projects.
- Loved the day and peer feedback
- This day was so uplifting! Thank you so much!
- Thank you for never ending support
- Slow thinking and choosing a goal to focus on
- I can't decide the most meaningful aspect! From the poster walk to the presentations I took away strategies I'm excited to implement next year
- Suggestion: How can we get in to see more projects?
- Thank you for hosting us and appreciate seeing everyone's posters and presentations
- This is a process. How will we continue this work? What is our accountability and keep momentum going?
- I loved getting to reflect with other teachers in positive ways
- I wish there was another teacher at my school site- I feel like my impact on the department could have been more meaningful
- More meetings! Based around specific topics (standards-based grading, outdoor ed, etc.)
- It was an excellence experience
- The posters are excellent
- Blown away by these projects- what great coaches you are!
- It was very wonderful to observe the presenters and engage with them in person
- More time to talk after presentations!

- I appreciated the work all teachers did
- All the passion
- The collaborative conversations were great
- I wish we could be recorded so that I had the opportunity to see more than what I was able to see
- Warm and cool feedback can be digital
- The presentations were stellar

## Cohort 3 GPS Portfolio Submission

Cohort 3 portfolios are due on June 30th. The CA team uses WiX for all GPS Portfolios. Once all portfolios have been submitted, coaches will read and give feedback to each fellow by the fall of 2023.

## Cohort 1,2,3 Involvement

- University and District level:
  For our Phase 2 plan, the CA team will be working with District Coordinators to invite all Wipro fellows from Cohorts 1, 2, and 3 to work together to further excellence in science teaching and learning in their districts. Plans for each district will be developed by each district team with the support of a CSET coach from our CA Wipro leadership team. The idea will be to have the University and Districts working closely together to further their district work by having a concrete action plan that will be co-created by Wipro fellows and District leaders.

## Featured Fellows

**Jessica Seuss (Paulsen) High School San Jose Unified School District**

Like so many other educators during the pandemic I questioned if being a teacher was really the career I wanted; never mind the fact that I had been teaching for almost seven full years. Yet, as fate would have it, the Wipro Fellowship became my beacon of light during these strange times of teaching. Starting the fellowship in the fall of 2020 provided such needed support and comradery. However, at the start I was so unsure of how the program would run, the question at the forefront of my mind was “What can I get out of this, when I’m not even teaching in a normal context like I usually would?” Despite this, from the very first meeting it became clear how lucky I was to be in the program. Having the time and space

carved out to sit and digest what was going on, share war stories and best practices with fellow educators was precisely what I needed.

I've enjoyed every aspect of the program, but one of the most impactful projects was working with my VCCLS peers. NGSS is not something I have yet seen implemented completely in a district. This project helped me see the importance of vertical alignment in a subject area within a district and I began to think of the NGSS standards as a large continuum that begins in elementary and continually builds, spiraling up to high school. As for the greatest impact in my classroom, hands down that goes to my GPS project and the leadership coaching we received. My GPS project has really helped me start to think about the educator I want to be. Prior to this program I'd say I was good teacher, but I was following the tracks laid down by those before me. My project sparked the examination of my current grading and pedagogy and how these tried-and-true practices could use a big shake up. At the conclusion of my project my coach would tell you I'm causing "good trouble" with my new views and insights on grading for equity and facilitating student collaboration during assessments.

Aside from the projects, coaching sessions, and group meetings, being a part of this program has helped me realize something important about myself. I need to keep learning. If I want to be a teacher leader and if I want to stay engaged and excited about the profession, I need to stay active in a professional community that can help facilitate and foster my growth. My passion for education has always been there but participating in this program has solidified the importance of personal growth, risk, and the value of staying up to date with current best practices. My work in this program has and will continue to have a huge impact on my teaching and how I engage with my department and district.

Elizabeth Reiff , Middle School, San Francisco Unified School District

I have been teaching seventh grade Math and Science at an urban preK-8 school in San Francisco for seven years. Just as I was applying for the WIPRO program in 2020, the Coronavirus pandemic had hit, and we had begun the unprecedented task of teaching virtually. As it became apparent that we would remain in virtual teaching and learning mode for much longer than expected, I began to wonder whether this was the right time to add something else to my plate. Would I have the bandwidth to dedicate energy and focus to the WIPRO program while also managing to serve my students virtually during a

global pandemic? Looking back two years later, I could not be more grateful that I followed through with my commitment to WIPRO.

During my first year, my participation in the WIPRO program allowed me to transcend the daily struggles of teaching and supporting students and families online and actually continue to grow professionally. Our work in VCCLS groups left me with a much clearer understanding of how my science teaching at the middle school level fits into the progression of student learning of science concepts and development of skills from kindergarten through high school. In our HCCLS group, we focused on the Science and Engineering practice of *modeling* and facilitating students to illustrate the progression of their thinking through modeling is something that has made a lasting impact on my science teaching. In both of these collaborative learning experiences, the sense of community support and accountability carried me through an incredibly difficult year of virtual teaching.

During my second year, the group meetings and support from WIPRO coaches sustained my developing understanding of what Science teacher leadership can look like. As I envisioned, refined, and completed my own GPS project, and witnessed other fellows as they embarked upon and accomplished their diverse and unique projects, I genuinely came to understand that there is no one way to be a teacher leader. I am finishing the two years of the WIPRO program with a heightened confidence in myself as a teacher leader who can make connections between different school stakeholders and inspire people to become involved in projects that ultimately serve our students.

## Phase II

The CA Wipro Program, Phase II, will have several distinct components described below.

### Wipro SEF Program (Cohorts 4 & 5)

The CA site will recruit two more cohorts of science teachers from the existing five partner districts to participate in the two-year Wipro SEF Program. Strong relationships have been established between the CSET and the districts and there are many science teachers within each of these districts who would benefit from the continued partnership. The goals and pillars of the program will remain fundamentally the same as the current program. For this next phase, a minimum stipend of $1500 will be given to each fellow, with a possible additional stipend amount from their districts. The goal is to continue to build the capacity of science teacher leaders within and across these districts to further excellent science teaching and learning. The Bay Area is densely populated and working with the same districts offers the opportunity to strategically strengthen science leadership by going deeper in each of the current partner districts.

### District Science Coordinators, Principals, and Fellows

The CA site will invest in district teams from the five partner districts. These teams will consist of District Science Coordinators, Wipro Fellows, and principals. We plan to work more closely with each district team to develop their collective capacity to advance effective science teaching and learning in their districts that highlights the NGSS and reduces the persistent inequities that pervade science education. This will not only require working with District Coordinators and Fellows but will also require more direct involvement from principals who have remained mostly in the periphery of the Wipro SEF Program.

In addition, the CA site will launch a new program specifically for school leaders with the aim of creating stronger district teams that can make transformational changes at the site and district level. The Wipro School Leaders Program will focus on developing school leaders' capacity to build a learning culture and support instructional excellence for all students.

### Developing District Science Coordinator Leadership Across Site

The CA site will support the conceptualization and implementation of an annual virtual leadership conference for District Science Coordinators from all Wipro sites. We believe in the importance of the work and have the expertise in both leadership development and event planning. We will work in partnership with UMASS Boston to implement these leadership conferences over the course of three years.

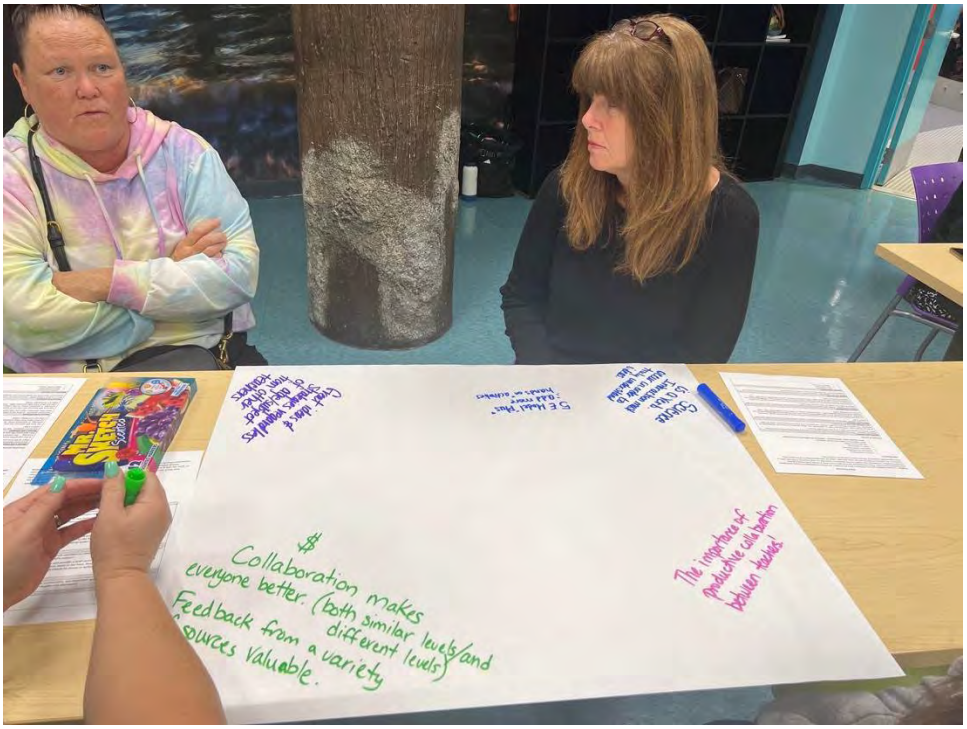
## GPS Meetings (Cohort 3)

### With the IHE

There was one meeting during that past quarter in addition to our conference. This was on April 9, 2022, at the Florida Aquarium. The meeting included Cohort 3 Fellows, the DSCs and the USF team. The Fellows did a world café activity in which everyone had the opportunity to be an "ambassador of meaning" and moved around different tables/stations discussing different questions. It was a great discussion. Fellows had the opportunity to talk with their affinity groups face to face. The leadership team reiterated what was expected for the GPS deliverables. They gave the Fellows information about the STEM Academy including how to propose a workshop at it and got their consensus as to having the conference as part of the Academy. At the end of the meeting, all enjoyed a lunch together and explored the Aquarium.

Agenda

- World Café Activity
- Affinity Groups
- GPS Final Deliverables
- STEM Academy
- Lunch


*April 9th at the Florida Aquarium engaged in the World Café*

### Within districts with DSCs and Fellows

DSCs meet with their Fellows during our bi-monthly meetings. A primary focus of those meetings is for the DSCs to provide information about district priorities and initiatives that the Fellows can be involved in. In addition, they serve as an opportunity for the DSCs to get updates and give advice about the GPS projects.

### Leadership meetings

The USF leadership team (Allan Feldman, Karl Jung, David Rosengrant, & Nancy Islam) typically meet weekly but occasionally we met every other week. This group met at least monthly with the DSC's (Fawnia Schultz – Pinellas, Lesley Kirkley – Pasco, Larry Plank – Hillsborough, Katie Laux – Hillsborough, & Pam Pelletier). During these meetings the following was discussed:

- Professional Development sessions for the April meeting
- Planning out the end of year conference held in conjunction with Hillsborough's STEM Academy
- Monitoring Fellows and their progress on the GPS projects
- Revised the Phase 2 proposal for our project.

### End of the year Conference

The end of the year conference was held on June 3rd in conjunction with the STEM Academy hosted by Hillsborough County Public Schools at Middleton High School. The GPS poster session was the last session of the Academy (see STEM Academy schedule in Trello). This provided the opportunity for all Academy attendees to be at the poster session. A total of 300 teachers attended the Academy. Following the end of the poster session, there was the pinning ceremony and a celebration of the conclusion of phase 1 of the Tampa Bay Wipro SEF. The brochure for the pinning ceremony and celebration is uploaded to Trello. Four photos of the pinning ceremony and nine of the poster session to were uploaded to Trello.

## Program

**12:15-12:30 Welcomes and Remarks**
Allan Feldman, PI, *College of Education, USF*
Deanna Michael, *College of Education, USF*
Nidhi Arora, *Wipro Limited, Tampa, FL*

**12:30-1:15 Lunch and Posters**

**1:15-1:45 Awarding of Fellows Certificates and Pins**
Lesley Kirkley, *Pasco County Schools*
Larry Plank, *Hillsborough County Public Schools*
Fawnia Schultz, *Pinellas County Schools*

**1:45-2:00 Closing**

## Congratulations to the Cohort 2 and 3 Wipro SEF Fellows!

Cohort 2
Sherri Alvarez, *Hillsborough County Public Schools*
Teresa Buckman, *Hillsborough County Public Schools*
Karen Bulino, *Pinellas County Schools*
Jennifer Cogan, *Hillsborough County Public Schools*
Carrie Donatelli, *Hillsborough County Public Schools*
Julie Fine, *Pasco County Schools*
Brett Goodrich *Hillsborough County Public Schools*
Jennifer Griffone, *Pasco County Schools*
Bhagyashree Kulkarni, *Hillsborough County Public Schools*
Tara McClintick, *Pinellas County Schools*
Cayla Repass, *Pasco County Schools*
Ann Salazar, *Pinellas County Schools*

Cohort 2 (cont.)
Latasha Seay, *Pinellas County Schools*
David Seis, *Hillsborough County Public Schools*
Sonila Toska, *Pasco County Schools*
Anita Ventura, *Hillsborough County Public Schools*
Michele Wiehagen, *Hillsborough County Public Schools*

Cohort 3
Dawn Avolt, *Pinellas County Schools*
Ileana Bermudez Luna, *Hillsborough County Public Schools*
Andrea Blomeley-Steen, *Pasco County Schools*
Nicole Caltabellotta, *Pinellas County Schools*
Gina Choate, *Hillsborough County Public Schools*
Lora Darby, *Pasco County Schools*
Kellie Delgado, *Hillsborough County Public Schools*
Kimberly Fox, *Pasco County Schools*
Nicole Holman, *Hillsborough County Public Schools*
Laura Lacy-Carlson, *Pasco County Schools*
Kathryn Laubach, *Hillsborough County Public Schools*
Christina Macurdy, *Pinellas County Schools*
Roshaun Reno, *Pinellas County Schools*
Andrea Smoley, *Pasco County Schools*
Chelsey Swats, *Hillsborough County Public Schools*
Mishell Thomas-King, *Hillsborough County Public Schools*
Charles Turner, *Hillsborough County Public Schools*
Laurie Vaughn-Grantges, *Pinellas County Schools*
Kelleigh Weeks, *Hillsborough County Public Schools*

Conference attendees

| | |
|---|---|
| Gina Choate, Cohort 1 Fellow | Kathryn Laubach, Cohort 3 Fellow |
| Jessica Strauss, Cohort 1 Fellow | Kelleigh Weeks, Cohort 3 Fellow |
| Bhagyashree Kulkarni Cohort 2 Fellow | Kellie Delgado, Cohort 3 Fellow |
| Sherri Alvarez, Cohort 2 Fellow | Kim Fox, , Cohort 3 Fellow |
| Andi Blomeley-Steen Cohort 3 Fellow | Laura Lacy-Carlson, Cohort 3 Fellow |
| Andrea Smoley, Cohort 3 Fellow | Lora Darby, Cohort 3 Fellow |
| Charles Turner, Cohort 3 Fellow | Mishell Thomas-King, Cohort 3 Fellow |
| Chelsey Swats, Cohort 3 Fellow | Nicole Caltabellotta, Cohort 3 Fellow |
| Christina Macurdy, Cohort 3 Fellow | Nicole Holman, Cohort 3 Fellow |
| Ileana Bermudez Luna, Cohort 3 Fellow | Roshaun Reno, Cohort 3 Fellow |
| Katie Laux, , District Science Coordinator | Larry Plank, District Science Coordinator |

| | |
|---|---|
| Lesley Kirkley, District Science Coordinator<br>Allan Feldman, USF Team<br>Daina Kelly, USF Team<br>David Rosengrant, USF Team<br>Karl Jung, USF Team<br>Sharfun Islam Nancy, USF Team<br>Pam Pelletier<br>Catherine Mullins, 9-12 STEM Specialist, Pinellas County<br>Lindsey Craven, 9-12 Science Supervisor/Specialist, Pinellas County Schools<br>Lisa Sinatra, Assistant Principal over Science, Seminole High School<br>Deanna Michael, Department Chair, USF College of Education<br>Jordan Myers, COEDU photographer | Karen Kledzik, Assistant Principal, Gulf Middle School<br>Tisha Doohen, Assistant Principal, Land O' Lakes High School<br>Brittney Wilhelm, Assistant Principal, Middleton HS<br>Gwendolyn Noun, K-5 Science Content Specialist, Pinellas County Schools<br>Andrew Burgess, Principal, Hillsborough High School<br>Colleen Wilkinson, Principal, New River Elementary School<br>Otis Kitchen, Principal, Town and Country Elementary School<br>Ann Cranston-Gingras Associate Dean, USF College of Education<br>Kathy Bradley-Klug, Associate Dean, USF College of Education |

**Pinning Ceremony Pictures**


**GPS Poster Session (Cohort 3)**

| Fellow's Name | Title of Poster | GPS Description |
|---|---|---|
| Andrea Blomeley | Can Life Science = Mental Health? | Pasco county has been focusing on SEL for the last few years, really ramping up their efforts last year. The use of aero gardens in the classroom can have many positive impacts in the classroom especially if teachers use them strategically. Students will also be exposed to long-term hands-on science inquiry, fostering a love a science |

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| Andrea Blomeley | | My ultimate goal would be to bring plants and maybe eventually fish to every classroom. Both are fairly easy to care for and have many benefits. My thinking is that if I can get some teachers hooked on the academic and SEL benefits of having plants in the classroom then I can convince everyone else including administration. |
| Andrea Smoley | Renewing student curiosity through the practice of questioning | I will participate in different professional developments to increase my understanding of what true engagement in the science practices looks like in the classroom. I will begin to use my usual strategies as well as new ones learned to really push my students to engage in meaningful discourse about not only their concepts, but the science practices that I want them to gain confidence in. I will also be working to create a myLearning course to improve participation in our school district's STEM fair. The purpose of this ties with my other goal to further student and teacher understanding/confidence in science practices and concepts. My goal for this part of my project is to lessen the burden for teachers and students and promote participation in the school (and hopefully county and state) fair. |
| Charles Turner | Modeling in Physics | My main motivation for incorporating modeling into the classroom is to teach my students how to think! In my experience, the traditional didactic approach to teaching physics does not teach students how to think, dooms most traditional students to failure, and is less than adequate to meet the needs of many, if not most, STEM students. |

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| Chelsey Swats | Argumentation through Claims, Evidence and Reasoning (C.E.R.) Boards | My goal is to boost my confidence to be able to facilitate discussion in a science classroom. Creating discussion to deepen understanding of content for students in a science classroom. *To achieve this goal, I will* work on with other science teachers along with my mentor to help feel comfortable enough to facilitate discussion in my classroom. *I will a*ttend professional development, ask for help from colleagues and WIPRO leadership, and book studies in order for me to create a comfortable environment for students to discuss content. |
| Christina Macurdy | STEM and STANDARDS | I have been the STEM afterschool teacher for the past 5 years for 5th grade. I recognize the importance of STEM education. STEM related careers are some to the fastest growing and often have the most potential for job growth. During my time as the afterschool STEM teacher, I followed the provided program lessons. The primary focus of the lessons for the STEM afterschool program were based on engineering design process and STEM related careers. While teaching the afterschool STEM program, I witnessed great student engagement and excitement for STEM related science. I would love to see this engagement and excitement transfer to science standards content. As of right now, our county no longer has a director in charge of the STEM afterschool program. I think this is the perfect time to see if I can develop a new afterschool program that would incorporate both STEM and the science standards. |

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| Dwan Avolt | Growing Scientists: Implementing Project-Based Learning in 4th Grade Science | My vision for this GPS project is to give my students experience with the engineering design process. Through the use of problem-based lessons, I hope to empower my students to understand that they are able to tackle real-world problems. I believe that this will increase their critical thinking skills and creativity and help improve their understanding of the 4th grade science content, including the vocabulary. |
| Gina Choate | Extending Science Notebooks with Technology | Use of science notebooks is already a goal and regular practice in my classroom and the district. I would like to expand the "notebook" to include a technology extension.<br><br>I plan to learn about software programs like Flipgrid so that students can use this technology to communicate their learning. Depending on the progress and time, I may try other technology programs |
| Ileana Bermudez Luna | Changing Students' Mindset in the Chemistry Classroom | During the 2020-2021 school year, I will provide my Conceptual Chemistry high school students with a more meaningful learning experience in science throughout Inquiry-based Activities and Labs that will foster their critical thinking and problem-solving skills. Students will also be able to use their experiences in my classroom to gain confidence about how much they are capable as high school students. During the 2020-2021 school year, I will work on becoming a better teacher leader as well as improve my public speaking skills and confidence. |

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| Kathryn Laubach | Small Group Learning and Coding | Utilize coding to increase student engagement and learning. Utilize small group instruction to monitor student learning and increase student mastery. *To achieve this goal, I will research and learn coding myself and then create a plan to implement coding in the classroom.* I will begin by researching coding and coding robots. I have worked with coding mice and students in the classroom, but I am not familiar with computer coding. I would like to investigate programs like Code.org to better understand coding myself and then determine how to implement in the classroom. |
| Kelleigh Weeks | Diverse Students & Communities in the Science Classroom | To increase engagement and interest in physics, astrophysics, astronomy, and planetary sciences among students who are minority students (BIPOC). BIPOC students are very underrepresented in physics, astrophysics, astronomy, and planetary sciences. My goal is to open these worlds to these students and encourage them to explore these areas. To increase my practice of self-care in order to be the best version of me for my students and myself. My living environment is not conducive to relaxing and recharging nor are my practices when related to my work schedule and my personal schedule. My goal is to create a better environment for my both physically and create a work schedule that allows me to recharge. |

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| Kellie Delgado | Building Equity in the Elementary Science Classroom | During the June conference, I had the opportunity to present along with a group of my Fellow Cohort 3 friends, as well as a few from Cohort 2. Our focus was on Equity, more specifically, Working for Equity in Science Education. My presentation was on the current list of white male scientists, that elementary students are introduced to each year and why educators were not including other notable scientists of a different gender or race. I was able to research scientists in each science content area and share lesson plans, with the conference participants. It may have been my favorite part of the second semester of Wipro last school year and I realized how important the topic is and ways I could change the way teachers teach elementary science. |
| Kimberly Fox | Representing the Underrepresented | During the 2021-2022 school year, I will gain a clearer understanding of why some groups of people lack representation in the science community. During the 2021-2022 school year, I will create lessons for staff and students which bring underrepresented scientists to light. |
| Laurie Vaughn-Grantges | Evidenced-Based Arguments: STEAM & AP Capstone | How does argumentation help strengthen the ability to communicate? By implementing a self-study on the practice of argumentation, I will provide opportunities that engage students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. |

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| Lora Darby | How Well Does My Garden Grow? | The issue I want to address is something my students came up with the previous school year, "Can we plan a garden from seed to harvest which will be able to provide fresh fruits and vegetables to our pack-a-sack program that provides a small bag of food for some families over the weekend." I will have the same students this year since I moved to 5th grade science. They are very excited to help with this project and recreate the garden. |
| Laura Lacy-Carlson | Inquiry in the elementary classroom | This year our school made many changes, we are now classified as Title 1 and are going to be a Fine Arts Inclusion School. Art and Science are not that different when one thinks about it: they both have aspects of exploring, inventing, discovering, and critical thinking components. I want to ensure that science is valued in the academic areas of elementary school. By using the school vision, I feel as if I can make science more prevalent in the classrooms across campus. Which will increase student engagement and increase the students' knowledge base. Another important aspect is building a culturally responsive science classroom where there are scientists displayed and studied that look like the students in the classroom. |
| Mishell Thomas-King | A Look Into Bias in the Science Classroom: Creating Equitable Spaces | The overall goal is to ensure that all students feel like they can learn science, and all have the access to do so. This access comes through incorporating student funds of knowledge into our science content and leveraging the elements of NGSS to deliver that content. |

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| Nicole Caltabellotta | Promoting Equity for Girls Through Purposeful STEM Clubs | There are substantial representation gaps in STEM fields for women, especially women of color. There are a growing number of programs that attempt to address this issue, but I feel like there is a huge, missed opportunity to begin combating this discrepancy at the elementary level. If we can give girls the space and tools to develop their confidence and ability in the STEM fields in elementary school, I think they will be more likely to attempt to take advanced courses in those fields in middle school, high school, and college. |
| Nicole Holman | Spiraling the standards in Biology | Teaching Science is a passion of mine. I want the students in my classroom to walk away and answer questions from a scientific point of view. After the past year and a half of pandemic teaching and learning, I feel that it is vital to keep teaching at a high level of rigor and expectations. My plan for the following year is to connect biology to real-world examples to make the content more engaging. I will be doing this by using hands-on labs and activities, using various argument driven inquiry lessons, and making connections to the biology standards throughout the school year. |
| Roshaun Reno | Using Argument-Driven Inquiry to Increase Engagement & Achievement in Science | My vision for my GPS project is to promote equitable and authentic student learning experience using Argument Driven Inquiry with the integration of technology in the classroom to increase student achievement by developing their problem-solving skills and applying their knowledge of the key critical scientific content through engagement. |

## Poster Session Pictures


**Conference Reflections**

**Site Leadership Reflections**

- GPS Presentations: Everything went great! By having the conference in conjunction with the STEM Academy the Fellows were able to present their work to a larger audience.
- Invited Guests- DSC's, Principals, etc. There were more administrators than in the past. This was accomplished through personal invitations to the principals of all the Fellows' schools, district administrators recommended by DSCs, and other administrators recommended by the Fellows. In addition, two associate deans and the department chair from the College of Education attended.
- Conference logistics: As noted above it was great having it with STEM Academy. This provided an opportunity for non-Wipro teachers to attend the poster session. The brochure was a simple agenda with list of Cohort 2 and 3 Fellows. That seemed sufficient.
- Other – Representatives from the local Wipro corporation were invited. A representative was supposed to come but she had a sudden work commitment that prevented her from being there. She sent comments that we read at the conference.

**Reflections from the GPS Presenters**

**GPS Conference Reflections**

**Warm Feedback**

I appreciated everyone's poster presentations. I enjoyed having them in two different sessions so that the Fellows could talk about their work. I appreciated the diversity among the work of the Fellows, even with the focus of one of the goals being on a district aligned goal, All the Fellows focused on different goals.

Felt as a presenter that I could talk to the questions that they had about my project and get more in depth than what I had presented on the poster.

This goes the same as when I went to others about their project. I felt that I could ask questions that did not interfere with their presentation.

Doing it in connection to the STEM academy was a great way to get what work was done out to more people that have a passion for teaching science. The more that science is emphasized, the more it will be taught in schools (especially at the elementary level where it seems to be pushed aside).

Thanks for everything, it was the most rewarding program I have done as a teacher. I have learned a lot and plan to spread the knowledge gained.

Thank you so much! YOU were a HUGE part of this!! Thanks for everything!! 💔 Can't wait to share all about my project in Chicago.

**Cool: none.**

## Cohort 3 GPS Portfolio Submission

The final portfolios were due on June 15th. There were very few stragglers in this process but one or two thought it was due on the 18th. At this point in time, there is only one Fellow who has not completed the project. Each mentor will score the portfolios using the rubric, which was shared with the Fellows. If the portfolio receives a passing score, the Fellow will receive the comments from the mentor and the final stipend payment will be processed. If the score is below passing, then a second member of the leadership team will review the portfolio. They will meet and if it is decided that the Fellow needs to do additional work, then they will reach out to the Fellow with a specific list of action items for the portfolio that they will need to revise and then resubmit. Once the resubmission is completed, the mentor will verify that the work brings the portfolio up to a passing score. If it does, then they will begin to process payments, if not, then this process will be repeated again.

## Cohort 1,2,3 Involvement

- University Level- Four Fellows, three from Cohort 3 and one from Cohort 1, will be joining David Rosengrant in Chicago for NSTA 2022. Ileana Bermudez-Luna (cohort 3), Nicole Caltabellotta (cohort 3), Kellie Delgado (cohort 3) and Jessica Strauss (cohort 1) are going to NSTA.
  Fellows will be invited to serve as cooperating teachers for USF teacher education students.
  As new programs and grant proposals are developed, the Fellows will be invited to be participants in them.

- District Level -- The DSCs are making use of the Fellows in a variety of ways, including as formal and informal science teacher leaders. In addition, they are serving as facilitators of PLCs and as PD presenters. These roles for Fellows will continue and will most likely expand over the coming years.

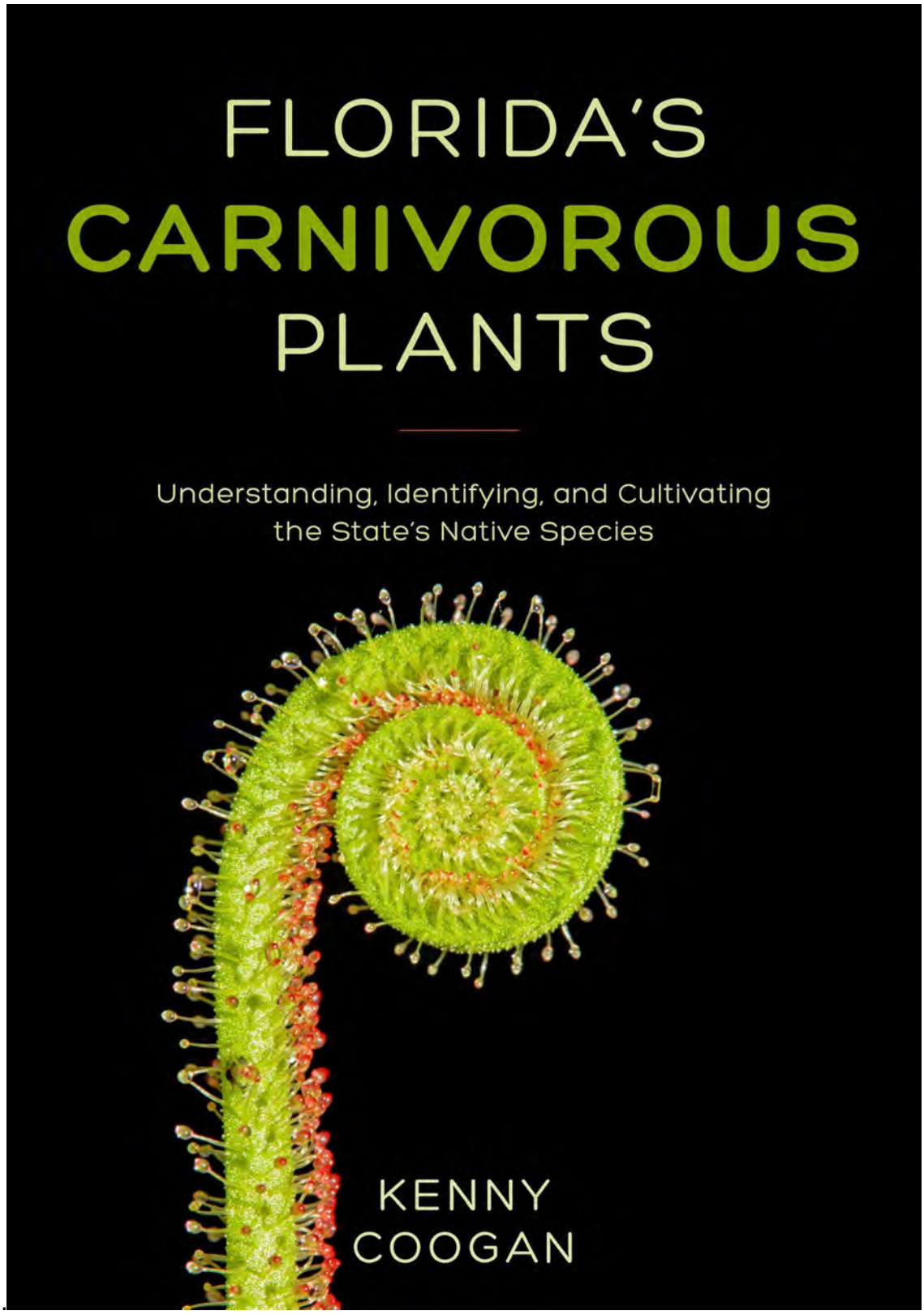
## Awards & Recognitions

A pinning ceremony for cohorts 2 and 3 happened during the conference sample photos are included above.


Kellie Delgado was nominated as a Hillsborough Area Elementary Science Teachers Superhero.

The DSCs have indicated that it will not be possible to get on the agenda of the district board meetings.

Kenny Coogan's book on Florida's Carnivorous Plants will be published in November 2022. A photo of the book jacket is on the next page.


FLORIDA'S
CARNIVOROUS
PLANTS
Understanding, Identifying, and Cultivating
the State's Native Species
KENNY
COOGAN

## Phase II

For Florida Phase 2 project they are inviting our fellows to create teams (a fellow as lead, another teacher not involved with the project, and a district leader) to submit a project to one of the major categories (VCCLS, Equity and Social Justice, Curriculum Development, Technology Enhancements, or a special invite. These projects would be for up to 2 years and receive funding of up to $10 K.  The goal is to not only continue impacting the district with what our fellows have learned during their time with this project but to expand the level of impact of the projects.

## Timeline

The project will begin with the fall semester.

## MISSOURI- UNIVERSITY OF MISSOURI

### GPS Progress

| Site location (State) | Cohort # |
|---|---|
| Missouri | 3 |

### Fellows' meetings (Cohort 3)

The bimonthly meeting for C3 fellows was held on April 7, 2022. The focus of the meeting was the annual May conference, which was held on May 7. Fellows, Wipro staff and advisors attended the meeting.

The first segment of the meeting focused on the poster – fellows had begun working on their posters and had questions about what was appropriate to include. Fellows were then given a short period of time to work in small groups on their posters, allowing for peer feedback and discussion.

In the second segment of the meeting, we returned to the third and final discussion of the development of their own leadership over the two year period. Fellows again discussed the assumptions of leadership described in the document "A systematic Approach to Elevating Teacher Leadership" and entered their comments on a Jamboard (https://tinyurl.com/Jamboard-040722). Their comments reflected their personal growth and provided examples of new collaborative practices that they have led or initiated in their schools. Here are a few responses listed on the Jamboard (some responses with names):

- Mentoring new teachers, buddy systems for those new to school but not new teachers, Vertical Teams, working with other colleagues on same goal (Jennifer's project) –(Jennifer Bacon, Josie Hess, Kayla Eads)
- New Teacher Cohort- meet once a month and discuss items such as P/T Conferences, data, establishing routines, positive engagement, celebrations. Team leads can lead or admin leads.
- Leadership committee acts as liaison for "big" and "small" topics of discussions/decisions, CTA, SWAG, DFAC (with superintendent)
- I have been the go-to person for bringing more science of reading (awkward grammar) into our classrooms. Moving grade levels next year, and admin has asked me to bring that info to the new grade level. (Brandy Albrecht)
- I lead a New Teacher Technology In-Service Annually for my district. (Nikki Golden)
- Observing other teachers with a checklist of our tier 1 priorities as a school and giving feedback.

- Having courage to get in front of everyone to present, speak, etc. (Nikki Golden, Brandy Albrecht, Erin Snelling, Tyler Helton)

In the third segment of the meeting, we discussed the upcoming Wipro conference in detail, including ideas and questions about their presentations and presentation PowerPoints.

In the fourth segment teachers shared the successes and challenges of their GPS year. Overall, the feeling was the project looked daunting when they started, but as the year progressed, they found ways to both manage their projects and expand on them.

### Leadership meetings

There were two topics the IHE's and DC's focused on – the May conference, and Phase 2 project planning. IHE staff had several detailed discussions related to the management and logistics of the conference (location, setup, time allocation for various conference activities, and meal logistics). DC's provided several ideas for both the structure and recruitment of fellows for Phase 2.

### End of the year Conference

The end-of-year conference was held on May 7, 2022, at the University of Missouri Life Sciences Center. The auditorium was used for presentations, the lobby for registration and posters, and the atrium for lunch. All Cohort 3 fellows, three DCs, all four Missouri IHE staff, and Arthur Eisenkraft attended. Cohort 3 fellows were expected to attend all day, and Cohort 1 and 2 fellows were invited for any segments they wished to attend, with a special invitation for poster session and reception and the closing ceremony, which included a Cohort 1 and 2 graduation ceremony, and recognition of Cohort 3, DCs, and GPS advisors.

Agenda:

| | |
|---|---|
| 9:00 – 9:30 am | Registration and Breakfast - Monsanto Lobby, Life Sciences Center |
| 9:30 – 10:00 am | Welcome - Monsanto Auditorium |
| 10:00 –11:00 am | GPS Presentations Session 1 - Monsanto Auditorium |
| 11:00 - 11:10 am | Break |
| 11:10 –12:10 pm | Keynote by Dr. Christi Bergin, Associate Dean, College of Education MU |
| 12:15 – 1:15 pm | Lunch - McQuinn Atrium, Life Sciences Center |
| 1:15 – 2:15 pm | GPS Presentations Session 2 - Monsanto Auditorium |
| 2:15 – 2:30 pm | Break / Set up Posters and materials |
| 2:30 – 3:30 pm | Poster session and reception - Monsanto Lobby |
| 3:30 – 4:30 pm | Graduation Ceremony Cohorts 1 and 2; Recognition of Cohort 3, District Coordinators, and GPS Advisors |

wipro | Science Education Fellowship

# Missouri Wipro Conference Program

## May 7, 2022

## Bond Life Sciences Center

## University of Missouri, Columbia

In the class of Katy Canote (left) and Brandy Albrecht (below).

**GPS Poster Session (Cohort 3)**

| Fellow's Name | Title of Poster | GPS Description |
|---|---|---|
| *Elementary School Grades K-5* | | |
| Brandy Albrecht | Pursuing Your Passion | I have implemented passion projects in my classroom. My students were allowed voice and choice in their learning to explore things of interest to them. My poster will show the 6 p's of passion projects, and how they have enhanced my classroom. In viewing my poster, I'm hoping you will see a theme of student empowerment of their learning. This project has affected not only my students, but also my own teaching. I now realize that releasing control can be scary, but kids can do amazing things when you give them the opportunity. |
| Melissa Baker | Make Time for Writing | My journey as I implemented, "Make Time to Write," in a small group setting is outlined in my poster. My goal with this initially was simple...we need to bring back the pencil and paper. Students are spending too much time on technology. Each week we started out the week by writing in journals. Writing topics included: weekend news, dump your junk, rewrite endings, record science experiments, write facts, summarizing etc. We spent time reviewing the proper paragraph form and writing mechanics. Teacher modeling was shared with the group prior to their individual writing time. As a result, writing stamina and creativity increased as the year progressed. |
| Robin Bishop | The Importance of Place | I implemented place-based learning opportunities at my elementary school. Students completed various lessons focused on plants utilizing our outdoor garden beds. These lessons included how to clean and prepare soil for planting, how to plan and measure for planting based on growing guidelines for each plant type, and finally how to provide what each plants need to survive. Student engagement and interest rose as we used the garden bed area to teach these grade level standards. There is a lot of excitement about continuing place-based learning opportunities at our school including planting a pumpkin patch, creating a garden club, and donating our produce to the local food bank. |

| | | |
|---|---|---|
| Katy Canote | Using Place-Based Learning to Engage Second Grade Students | I incorporated place-based learning activities into each of my four science units. Students were given unique opportunities for each unit. These include finding force and motion on our school's playground, taking a field trip to our local high school's jazz band, and observing erosion at the creek behind our school. An interest survey was given after each unit which found that student engagement was highest with each of the place-based activities. Though student learning did not necessarily increase after these activities, students enjoyed the activities more than our "usual" science curriculum. This study has also increased my personal enjoyment of teaching science. I am excited to begin incorporating place-based learning across more disciplines. |
| Natalie Dixon | Incorporating Place-Based Learning into Science | My poster outlines the process I took to learn, plan, and implement place-based learning into my second-grade classroom. My poster shows the books I used to research place-based learning, the lesson plans created, and my students following through with the lesson. It also shows my students using the outdoor flower / pollinator garden and space as an outdoor classroom. This project has taught me that we have so much to offer and use in our school surroundings and our community. Students love getting outside. They are more excited to learn especially when it is somewhere familiar to them. It has helped boost both my students and my spirits as we explored new places to learn! |
| Kayla Eads | Let's Begin with Brain Bins | In my GPS project I implemented Brain Bins in place of curriculum-based assignments during our daily morning work time. The students were given choice while immersing themselves in activities that allowed time for kids to be kids. You will learn how these Brain Bins included activities that could be done individually, in partnerships, or as a small group. In regard to data, my poster showcases improved iReady data in both math and reading and how I hope to see the same trend in coming years while continuing the use of these Bins. In viewing my poster, I hope you will notice some key |

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| | | takeaways. These takeaways include how I adapted my ideas throughout the pandemic, how I felt our sense of classroom community was stronger, and how our days starting off in a collaborative way allowed students to learn while having fun! |
| *Middle School: Grades 6-8* | | |
| Nicole Golden | Focusing Brain Breaks | My poster highlights my experience implementing Brain Breaks to refocus and recharge students for curriculum. Twice a week, students would participate in a Brain Break, a quick ten-minute activity or one that presented a challenge over multiple days. Structuring Brain Break into the week gave students a brief reprieve from the curriculum, helped relieve academic frustration or fatigue, and helped students focus on being more productive in the afternoon. Students learned to self-regulate, tracking their time on tasks. Through some activities, students built and explored self-esteem in unique challenges. Focusing on Brain Breaks was also a powerful motivation tool. |
| Josie Hess | Integrating Science and ELA | My students and I integrated science and ELA instruction this year. My poster outlines the steps I took to write guided reading units based on current and historical fiction that met student reading level standards, cross-cutting vocabulary and science skills and concepts. Students were more successful with vocabulary when interacting with it in different contexts and enjoyed demonstrating their learning in new ways beyond a paper/pencil or online assessment! Students had fun making text connections that aligned with what we were learning in science and showing those connections through their choice of project! |
| Jennifer Bacon | Standards Based Grading | Being accountable for your learning and challenging yourself is difficult at any age. For middle school students these skills begin with being confident in themselves and their level of knowledge. My project and poster looks at the highs and lows of converting from traditional percentage grades to standards-based learning for the students AND the teacher. |

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| Melanie Manning | Engaging Students in Argumentation | Argumentation can be a challenging Science and Engineering Practice to engage students in. My project focused on trying several different strategies to determine best methods for practicing argumentation. I first facilitated students through successfully identifying the components of an argument: claim, evidence, and reasoning to eventually writing an argument with all three components as a conclusion paragraph. The final skill level required students to engage in small group arguments and a whole class argument session during which students had to agree on a final argument. I have concluded that consistently using the same format for claim, evidence, and reasoning is beneficial for students and utilizing small group argumentation sessions is better than whole class sessions for middle school students. |
| Chelsea Jacobs | Standards-Based Grading in Middle School | Standards-Based grading in middle school is one of our district goals. What started as a need to dig deeper into best practices soon turned in to learning how to involve students with the standards we were learning about. After researching different ideas on how to get students to understand the standards we were learning about, I decided to try out notebook tabs for each unit as well as "Level-Up" days. My poster talks about the change I have seen in my students in how they talk and ask questions about their grades. With the success I have seen throughout this project, I would like to next work with our special education teachers to see how to shift our proficiency scales so we can best serve our entire population of students. |
| *High School grades 9-12* | | |
| Rex Beltz | Transitioning and Implementing Standards Referenced Grading | During my GPS project I created and implemented standard referenced scoring scales for the Introduction to Astronomy class. |
| Tyler Helton | Reviving an Outdoor Classroom | My poster mirrors my experience in bringing an outdoor classroom back to life from years of neglect and lack of maintenance. The Missouri |

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| | and Discovering Tech Tools | Department of Conservation built this outdoor classroom for Fulton High School many years ago as a part of a grant. Using this outdoor classroom, I plan to improve student engagement and enhance instruction by creating more labs, lectures, and activities that can be completed outside. My poster also encompasses a few tech tools I researched and implemented in my classroom. Blooket was the tech tool I used most throughout the year. It makes reviewing for a test fun thus increasing student performance on tests. |
| Erin Snelling | Meaningful Technology in the Science Classroom | I worked on researching, finding, and using various digital resources in my classroom. During Covid, I was not prepared to go virtual and provide meaningful digital lessons. After learning about and implementing new digital resources in my classes, I am now more comfortable with my students using their Chromebooks for various lessons and activities in my classroom. I also received great feedback from my students and figured out what resources they prefer and which ones they learn the best with. Finally, I was able to create quick formative assessments and receive instant data on my computer. |
| Christie Zoeller | Cooking with Science | The design, development, and implementation of "Cooking with Science" lessons that were added to our science curriculum is described in my poster. The lessons introduced students to new ways to look at science in the world around them. My poster also showcases the development of a mentorship program we implemented with a second-grade class in our district. We were able to share the "Cooking with Science" lessons with them and invite them to our classroom space to conduct cooking experiments with their mentor. The main goal of the mentorship program is to help facilitate and grow the love of science through all grade and age levels. The takeaways from all of this showed how valuable science lessons and experiments can be to students. Providing alternative methods of learning can be crucial to so many students, regardless or their age or |

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| | | grade level, and it showed all the students how enjoyable learning can be! |

**Conference Reflections**

**Site Leadership Reflections**

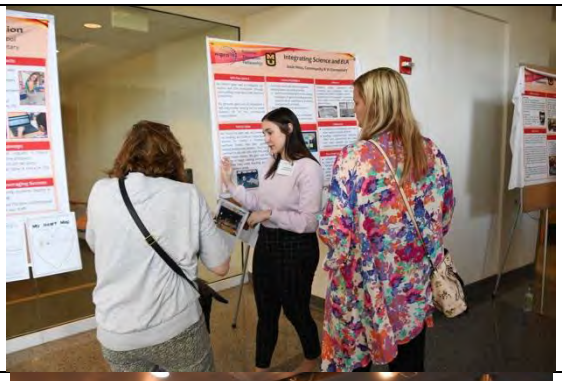
In addition to the posters of GPS projects, we had fellows make 5-7 min presentations about them. The purpose of the presentation was to allow all attendees to hear about all GPS projects, and also provide a forum to present pictures, videos, or other visuals about the project. Furthermore, it provided time to show and discuss information that was hard to condense into a poster. The audience was asked to save questions for the poster session, where a more in-depth one-on-one discussion could occur. This format worked very well. Fellows created their presentations with care. They made sure it was a supplement to their poster, rather than a duplicate. They also worked on making the presentation professional-looking and had clearly rehearsed their talks to fit into the allocated time.

While we had invited all DCs, Cohort 1 and 2 fellows, and encouraged fellows and DCs to invite Principals, a very small number of them attended the conference. We heard that Mother's Day weekend and early May was bad timing. Our (only) face-to-face conference in 2019 was better attended by DCs and Principals. We will need to work on this group in the Phase 2 project to determine how we can improve their attendance.

The talk by the keynote speaker created a lot of interest among fellows. The speaker, Dr. Christi Bergin, came with her spouse, who is a professor of educational psychology at MU, and they stayed for lunch and interacted with fellows. Both are approachable and accomplished, and the fellows enjoyed speaking with them.

The last hour of the day was set aside for a combined graduation and recognition ceremony. Cohort 1 and 2 fellows were invited to the graduation ceremony (sadly, only three of them came). They received a certificate, a pin, and a goody bag of science toys. Cohort 3 fellows received the goody bag. District Coordinators and GPS advisors received a certificate and a goody bag. Cohort 1 and 2 fellows who did not come will receive their certificates and pins by mail.

The conference brochure has been uploaded to Trello. This YouTube video captures pictures from the conference: https://www.youtube.com/watch?v=Qw9-Gvumbmo



*Top left: Melissa Baker presenting her GPS work.*
*Top right: Missouri Conference attendees.*
*Center left: Josie Hess explains her poster.*
*Center right: Dorina Kosztin hands a goody bag to Brandy Albrecht during the closing ceremony. Arthur and Meera look on.*
*Bottom left: Whirling a sound pipe in celebration.*

**Reflections from the GPS Presenters**

This was the first face-to-face meeting we have had with Cohort 3 fellows. They were excited to see everyone in person, and we observed animated conversations during the breaks, lunch, and poster sessions. They were proud of their presentations and posters and appreciated the opportunity to see the completed work of their colleagues. The poster sessions were set up with small adjoining tables where fellows could display artifacts. The artifacts turned out to be of much interest to all attendees. Several fellows said they learned a lot from others' GPS projects. We note that all our bimonthly meetings included time for

fellows to discuss GPS progress with their peers, thus seeing the completed projects was of particular interest to all fellows.

### Cohort 3 GPS Portfolio Submission

GPS portfolios are due Aug 31, after which GPS advisors and MU staff will provide feedback. Our GPS portfolios have been set up as Wix websites, with monthly reflections and quarterly reports due on a regular schedule and viewed on a continuing basis by advisors and staff. Thus, the final portfolio will be part of this continuing review.

### Cohort 1,2,3 Involvement

### University Level

Cohorts 1, 2 and 3 have been kept appraised about the Phase 2 proposal, and two of the three teams that have applied thus far include Phase 1 fellows (Brea James from Boonville and Erin Snelling from Hallsville). We are continuing to reach out to other fellows and districts. They will be included in summaries of the work done in the Phase 2 project and invited to presentations and conferences.

### District Level

Wipro Fellows are leading or participating in several in-district efforts. Examples include curriculum reorganization, local V-CCLS style collaborations for science and non-science subjects, presentations to school boards on GPS projects (e.g., Josie Hess' presentation on integrating ELA with science, which included presentations by her students), and expansion of GPS projects to other sections of that grade (e.g., Melissa Milius and Kayla Eads' Brain Bins).

### Awards & Recognitions

The graduation and recognition ceremony were held during the end-of-year conference. We also plan plaque presentation ceremonies at school board meetings in the fall, when all three cohorts will be recognized.

## Featured Fellows

### Josie Hess, grade 5, Community R-VI


In May I completed my fifth year teaching 5th grade, which is a self-contained classroom. In 2021-22 I had 25 students in my class, and I worked on integrating my science and reading instruction, which was part of my Wipro GPS project. Using my Wipro funding I purchased 7 new novel sets and companion novel studies. I planned guided reading and reading stations that integrated cross-cutting vocabulary between science and reading such as "analyze," "draw conclusions," "cite evidence," and "compare and contrast." I also planned unit projects to integrate science vocabulary and concepts. In fall we focused on realistic fiction and analysis. In spring we focused on historical fiction and earth's four systems (atmosphere, geosphere, hydrosphere, and biosphere). At the end of first semester my students worked in groups to create a presentation using Prezi that analyzed their novel's plot, characters, and conflict. At the end of the second semester my students completed an independent project in the form of either a poster, diorama, slideshow, or research paper. Each option integrated their historical fiction setting and events and earth's four systems. I developed rubrics and reflection pieces that the students used for both projects. It was exciting to see the improvement in students' engagement, comprehension, and vocabulary. Going forward I am working with other teachers at my school who would like to integrate their science and reading units. I am also working towards integrating the writing units into my science and reading framework for next year. It is my hope to eventually integrate social studies and math as well so that we are making cross-content connections each day throughout our units.

### Erin Snelling, grades 9-12, Hallsville School District

I teach high school Biology, Anatomy & Physiology, and AP Biology. My school received a grant for Chromebooks and each student received one in March 2022. For my GPS Plan District Goal, focused on using meaningful technology in the science classroom. This goal was particularly useful because my school had abruptly shifted to virtual learning when the COVID pandemic hit, and I had to scramble to implement this shift. I started by doing a lot of research and found many new digital resources and learning applications to use with my students and their new Chromebooks. We tried out several of the apps in the

classroom, and I followed up with a survey of my students. They seemed to enjoy the game platforms such as Quizizz and Kahoot the best. They also found digital platforms such as Learn.Genetics and HHMI Biointeractive useful. Their least favorites were Mentimeter and Ziplet. I enjoy using these apps because they provide quick feedback, an easy way to assess students, and data. Overall, I think these resources have been a great addition to my teaching. My students are engaged, motivated, and challenged.

**Phase II**

The Phase II project will expand the teacher network, provide new opportunities for leadership, and focus on collaboration between science and math teachers in middle and high school. Middle and high school teachers from each district will enroll in the Wipro SEF project as teams of 2-4 teachers, with each team having a math and a science teacher from the grade band. Three cohorts of 15 teachers each will be recruited, with each teacher participating for two years. The project will address the challenges of teaching science and math in a harmonious manner at the middle and high school grade levels. The collaboration between math and science teachers is essential to the implementation of a successful science curriculum. Teachers will collaborate in V-CCLS and H-CCLS teams and devise an implementation plan for restructuring their science/math instruction at the end of year 1 to be more compatible. Working together with their district coordinator and school administrators, they will define how wide the restructuring will be, how it integrates with the district goals, and how they will evaluate it. They will expand and implement the changes in year 2 and report back on their successes and challenges. They will share their plans within and beyond their cohorts. They will be encouraged to disseminate their learnings through professional development, conferences and/or websites.

Timeline:

| Spring 2022 | Summer 2022 | 2022-23 | 2023-24 | 2024-25 | 2025-26 |
|---|---|---|---|---|---|
| Hire Project Coordinator; recruit teacher participants | Plan academic year (AY) activities | | | | |
| | | Cohort 1 | | | |
| | | | Cohort 2 | | |
| | | | | Cohort 3 | |

**Schedule of activities/meetings for Year 1:**

| Month | Activities |
|---|---|
| August | Introductory meeting and Induction Ceremony<br>V-CCLS teams are formed, each consisting of at least 2 math teachers (MS and HS) + 2 science teachers (different districts)<br>Presentation on mathematical practices by Math Coordinator<br>Review science and math research materials (how math is integrated in science)<br>Introduction to teacher leadership |
| September | Select research topic<br>Presentation by a faculty member<br>Set up schedule of recorded lessons<br>Fellows discuss how a specific math concept is taught in math vs science |
| October | Presentation by a faculty member<br>Fellow presentations on team research article<br>Discussion of teacher leadership |
| November | Presentation by a faculty member<br>Continue work on V-CCLS and plan presentations |
| December | V-CCLS Presentations<br>District coordinators and Phase I fellows attend |
| January | H-CCLS teams are formed (fellows from the same district stay together)<br>Identify mathematical practices (MO common core) to address and research topic<br>Set up schedule of recorded lessons<br>Math and science coordinators participate |
| February | Presentation by a faculty member<br>Fellow presentations on team research article |
| March | Presentation by a faculty member<br>Continue work on H-CCLS |
| April | Presentation by a faculty member<br>Continue work on H-CCLS and plan presentations<br>Each team should have one lesson completed.<br>Revisiting teacher leadership – lessons learned in the past year. |
| May/June | H-CCLS presentation at annual conference |

## NEW YORK -MERCY COLLEGE

**Meetings this Quarter**

The GNY Wipro team hosted an in-person Wipro SEF reunion for all of its Fellows in May. The event was attended by 12 Wipro Fellows (two of whom are now DSCs) representing all three Cohorts. The Fellows used this time to reconnect with MCCSE and each other. We also got anecdotal updates on the other Fellows from their districts. MCCSE used this time to remind Fellows/DSCs about the opportunities for mini grants and professional development opportunities. Below are photos from the event.

*Patricia McCue, Dan Pepe, and Claudia Gianserra talk over dinner.*


*Aimee Ferguson, Elizabeth Barrett Zahn, and Amanda Gunning catch up.*

*Leana Peltier and Mayerlin Strippoli enjoy the outdoor space.*


*David Erenberg holding a physics poster gifted to him by MCCSE.*

**Phase II Activities**

MCCSE awarded mini grants to two GNY Fellows this quarter (both are the featured Fellows mentioned further down in this document). Cenia Santana (Cohort III, now Tarrytown) and Mary Rosenberg Cincotta (Cohort III, Tarrytown). Cenia took her students to the Bronx Zoo and had her students research animals that they saw. This engaged students in an outdoor science experience while integrating math, chemistry, and nutrition. Mary had her students create artwork or poems that centered around lights connected to circuits they built. This integration of STEM into art was an excellent way for students to find enthusiasm for both at the end of a long school year. More information and photos are in the highlight section below.

**Documentation of Fellow's work**

MCCSE collects photos and narratives from each Fellow engaging in mini grant projects. Fellows submit their project descriptions via Google Forms. The team collects photos, lesson planning/professional development materials from Fellows participating in MCCSE events. Additionally, MCCSE asks that any Fellow share with the team when they are featured in a social media post (districtwide or Wipro related) or news article (such as

Leana Peltier in the previous quarter). As the team looks ahead towards Phase III, they will continue to collect these types of artifacts and hopes to continue growing and strengthening relationships with new participating members.

### Cohorts 1, 2 and 3 Involvement

The MCCSE works with a growing network of teachers through several programs, such as the Westchester STEM Ambassadors program, the MISTI Scholarship program, and the STEM Master Teacher Fellowship program. As leaders in their schools and districts, GNY Wipro Fellows are often involved in the professional development and leadership activities that run within these other programs.

For instance, in May, Maia Starcevic helped lead the FLORES family science program with on the Mercy College STEM Master Teacher Fellows at Columbus Elementary School in New Rochelle. A short article about the program was featured on the district website: https://www.nred.org/article/757615. A photo from the program is below:

*Maia Starcevic leading discussions with families on sound waves and vibrations.*

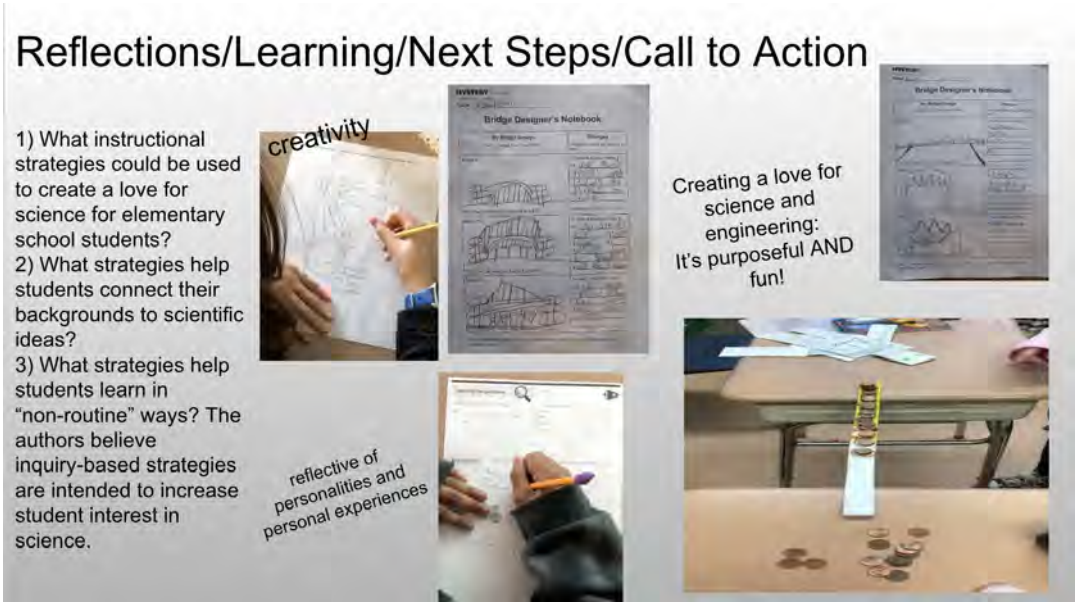
*Maia Starcevic helping a FLORES 1st grader pick out an instrument to explore with their parent.*

In April, Mary Rosenberg Cincotta (Cohort 3 from TT) attended the MCCSE Makey Makey, workshop lead by a MISTI Scholar, which later inspired the work for her mini grant project (although it did not end up featuring Makey Makeys, Mary did use a similar concept to integrate circuits as described above).

*Mary Cincotta completing the circuit using Makey Makey.*

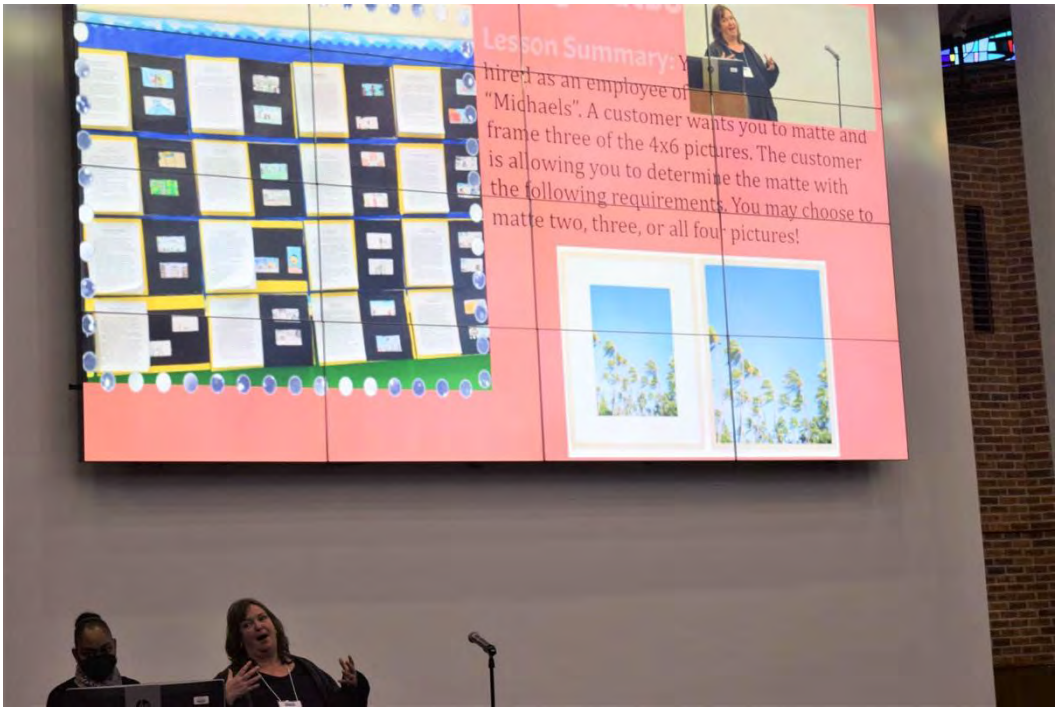
In March, four Fellows (Carmen King, Aimee Ferguson, Scott Misner, and Carrie Poulos) presented their final projects as part of the Westchester STEM Ambassadors program.


Carmen King presented on integrating engineering into inquiry-based STEM lessons.




*Carmen laid out the potential next steps and made a call for action for colleagues.*

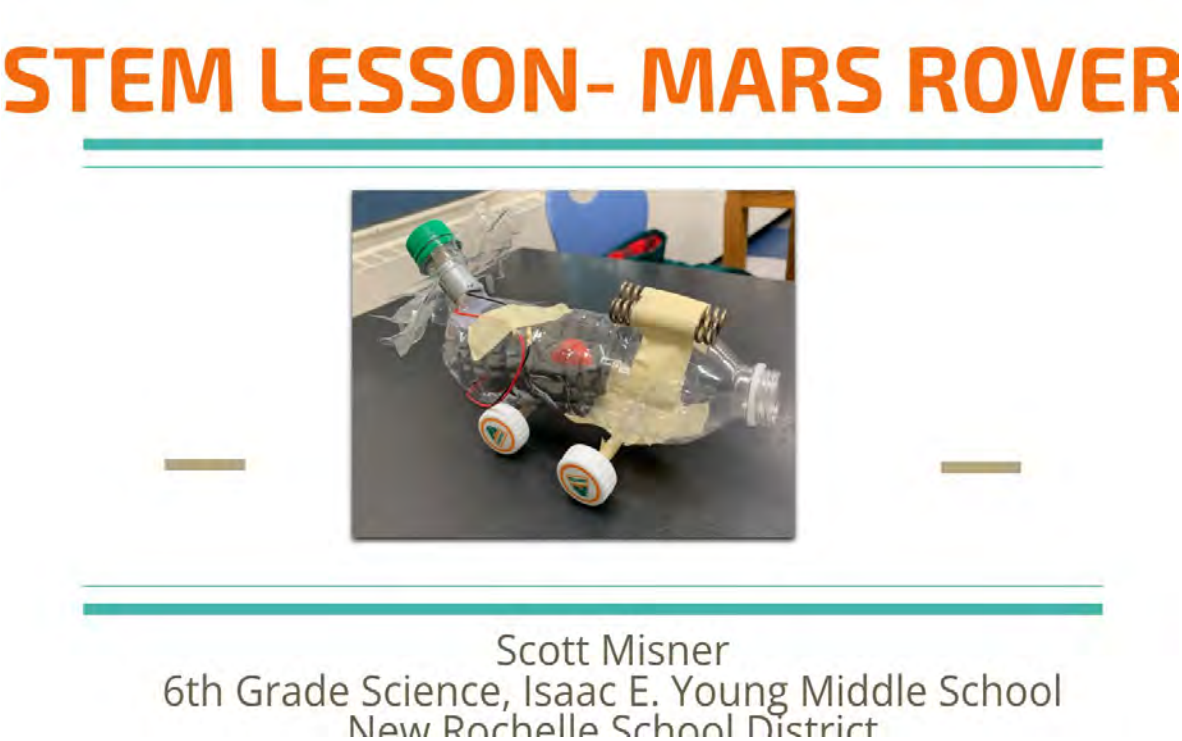

*Aimee Ferguson presented on using the Engineering Design Cycle to support integrated STEM lessons across grade levels.*




*Carrie Poulos presented on STEM integration.*


*A close up of Carrie's work with her 5th graders in STEM.*


*Scott Misner presented on digital literacy in STEM classrooms.*




*Scott Misner's Mars Rover project exemplified digital literacy skills in his classroom.*

In February, Maureen Nimphius (Cohort 1 from White Plains) attended the Gardening Sip n Share hosted by MCCSE for all of its participating teachers. This event brought together teachers from all of its programs to help facilitate discussions about starting school gardens and leading change in schoolwide science classrooms around ecosystems and sustainability.


*This virtual event helped teacher leaders from several programs to brainstorm garden ideas for their school districts.*

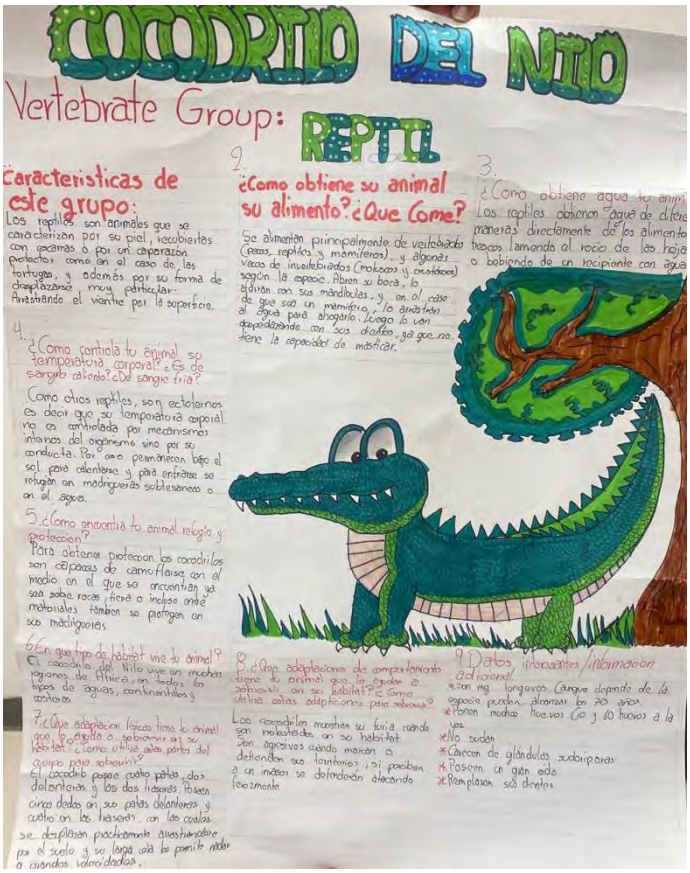
## Featured Fellows

| **Cenia Santana, high school, Tarrytown UFSD (ENL science)** |
|---|
| Cenia took her students to the Bronx Zoo. Here she engaged ENL students from Biology and Chemistry in claim, evidence, reasoning, and questioning through observation of animals in the Bronx Zoo. Her students focused on biochemistry, especially feeding relationships and macronutrients. The following is her reflection following the trip:<br><br>"Our trip to the Bronx Zoo combined the ENL chemistry and ENL Biology classes in Sleepy Hollow High School. Our students are all relatively new to the country and were very excited to see different animals, visit NYC, and learn more about animal adaptions. |

We observed a plethora of species, ranging from reptiles to large mammals, and many species of birds. Students were most intrigued by how the animals specifically only target their preferred prey, and leave the squirrels and rabbits alone.
We also touched upon the benefits of zoos and sanctuaries, and how many of our species are endangered mainly due to invasive species.

The chemistry students learned about ratios and how animal feed varies based on chemical composition & nutritional needs.

I also attached a handmade poster. Students were asked to research a particular animal of their choice and create a poster with a detailed description focusing mainly on physiological and behavioral adaptations."



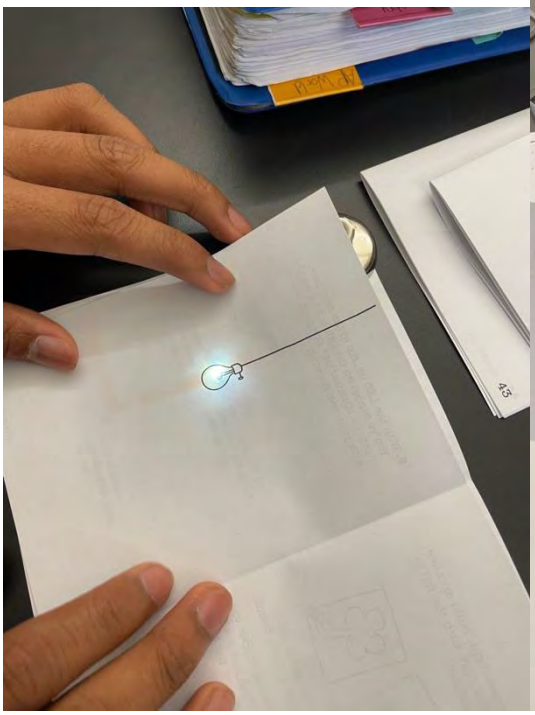

**Mary (Rosenberg) Cincotta, high school, Tarrytown UFSD (Art)**

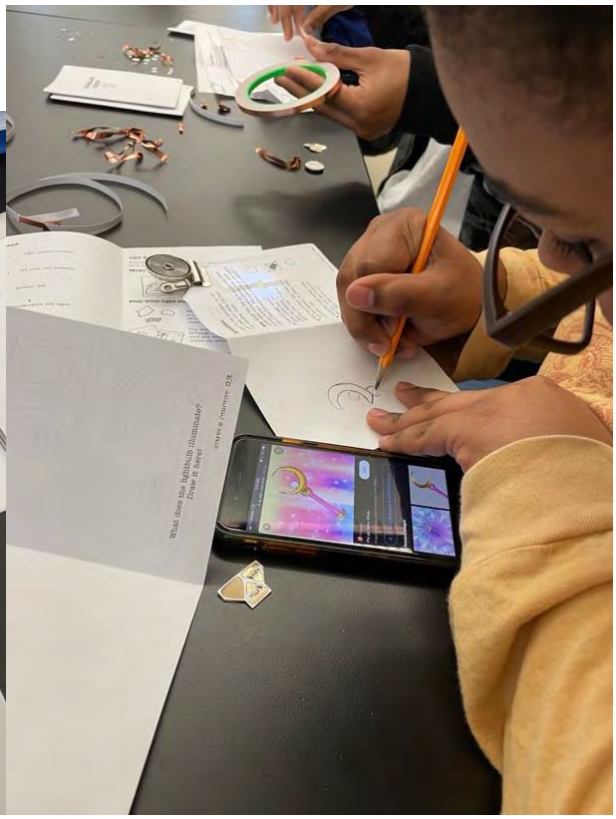
Mary connected with MCCSE to participate in a Makey Makey workshop held at the center. After exploring Makey Makey and building simple circuits, Mary saw an

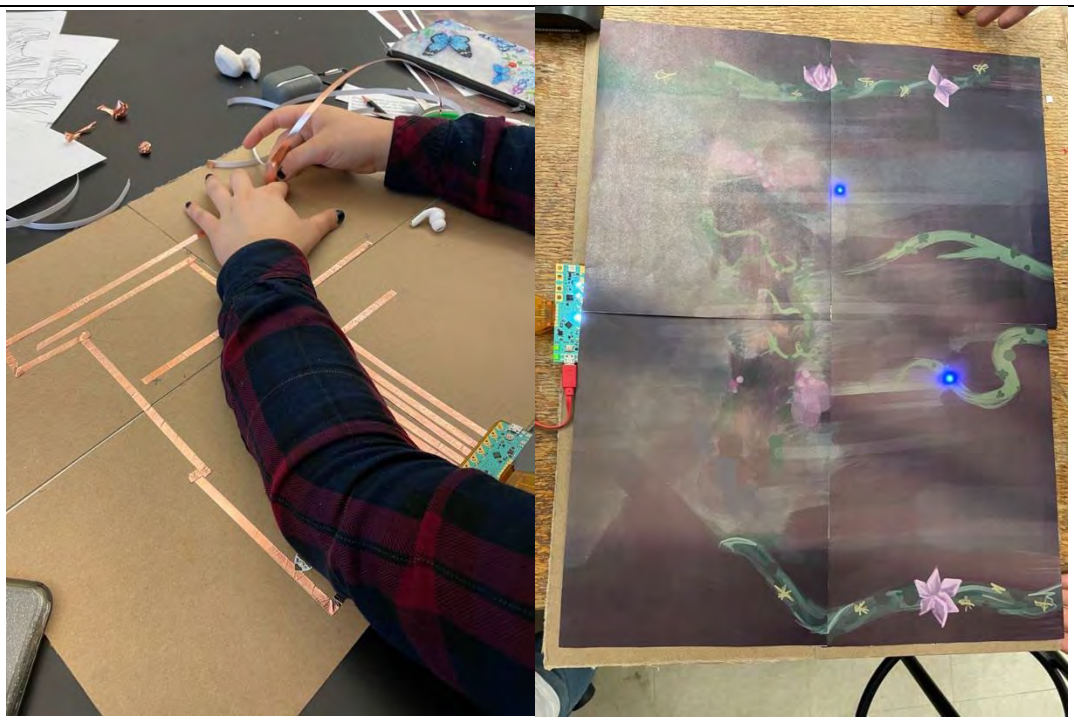
opportunity to bring this type of idea to her art classroom. This work was designed to be in partnership with a Creative Writing Course, where students create written prose with drawn illustrations. Mary anticipated that students would "learn to design an electric circuit and use basic coding skills to illuminate their stories, creating an interactive and electronic work of art, that is equally written, programmed and drawn". This project is on-going and Mary's update is below:

"Sleepy Hollow High School students are merging science/technology, poetry, and coding to create beautiful works of art! Students wrote poetry in their creative writing courses and teamed up with me to bring their words to life, using the Chibitronics LED stickers and Chibi Chip & Clip Microcontroller to program circuits and illuminate their artwork and words. Here are a few images of the process, from learning to create simple, parallel, and switch circuits, to creating artwork and designing a circuit to illuminate their art and highlight their poetry."

Photos of her students' work are below:







*Above, students use circuits to bring their artwork to life.*

## Phase III

MCCSE put forth a Phase III proposal that expands on the Phase I GPS projects to facilitate district change in the existing Wipro Districts over the course of the next four years. This phase will have a rolling start beginning this summer and officially kick off at the MCCSE K-12 STEM Teacher Conference in October 2022. This conference will feature a Wipro Strand that will welcome any teacher from Wipro districts to participate in one of two workshops on "Brainstorming for District Change" which will be led by MCCSE staff and District Science Coordinators with the explicit support of district administrators, including principals and assistant superintendents. Through these brainstorming workshops and follow up events, Wipro Fellows and new members will work together in groups to design and implement projects that will push for sustainable district change. Together, they will create proposals for collaborative GPS projects and seek the support and backing from their district administration. With mentorship from MCCSE team members, and funding from Wipro, groups will enact change over the course of the following years of Phase III with the goal of establishing long lasting change that can sustain even when Wipro funding has ended. A draft calendar follows:

| Month | Persons | Action |
|---|---|---|
| August | MCCSE Team<br>Administrators | Organize district-specific Wipro reporting materials to give to administrators<br>Meetings with admin to discuss the new funding and initiative |
| September | MCCSE Team<br>Wipro Fellows<br>Administrators | Recruitment and planning<br>Organizing Wipro strand for K-12 STEM Teacher Conference |
| October | MCCSE Team<br>Wipro Fellows<br>Invited Teachers | Initial workshop at the MCCSE K-12 STEM Teacher Conference: Brainstorming for District Change |
| November | MCCSE team<br>Wipro Fellows<br>Invited Teachers<br>Administrators | Follow up virtual meeting |
| December | MCCSE team<br>Wipro Fellows<br>Invited Teachers | Individual group meetings, mentored<br>Planning of group GPS<br>Group log reporting |
| January | MCCSE Team<br>Wipro Fellows<br>Invited Teachers<br>Administrators | Individual group meetings<br>Continued planning and proposal of GPS with feedback returned<br>Group log reporting<br>MCCSE team meeting with administrators to debrief program goals |
| February | MCCSE Team<br>Wipro Fellows<br>Invited Teachers<br>Administrators | Individual group meetings, mentored along with input from assigned DSCs and/or administrators<br>Implementation of GPS<br>Group log reporting |
| March & April | Wipro Fellows<br>Invited Teachers | Implementation of GPS<br>Group log reporting |
| May | MCCSE Team<br>Wipro Fellows | Implementation of GPS<br>Group log reporting |

| | | |
|---|---|---|
| | Invited Teachers | |
| June | Wipro Fellows<br>Invited Teachers<br>Administrators | Whole group meeting to share progress and prepare for presenting for fall conference/board presentations |

**Site News**

The MCCSE team is working on potential conference proposals and will have more information on them this summer. MCCSE will share news on research as we progress this summer/fall!

## Phase III

The main objective of the project is to leverage the teacher leadership nurtured in Phases I and II, support Wipro SEF Alumni Fellows as they plan for and enact a teacher leadership program that brings new Fellows into the program, creates sustainable district structures in partnership with District Coordinators and principals that consistently allow for science teacher leadership and equitable access to learning for all K-12 students. The Alumni Fellows will work with a faculty mentor to recruit new teachers, develop, and implement a two-year project, and assess the impact of that project. All projects will extend the past program (by including a new discipline, teacher, or district, for example) and will directly address a district initiative. The project will involve thirty new Fellows and 30 Alumni Fellows from districts that include the five past participating districts and new districts identified by the Alumni Fellow. Research will continue to illuminate the supports necessary for teacher leadership in the schools and contribute to the literature on teacher leadership.

## Project Timeline

During Year 1, each Fellow will attend four meetings each year at MSU

- September 13 4:30—6pm
  - Spheres of influence
  - Backward Design
- December, TBA
- March, TBA
- June, TBA
  - Culminating event for year
  - Fellows present their progress

## Meetings this Quarter

Dr. Narayan met each group / individual involved in the Phase 2 projects via zoom. The focus of the meetings were the projects the participants were involved in and the progress on their project.

Dr. Narayan hosted the first annual Wipro Meeting and dinner at UNT Dallas on May 6th, 2022. Invitees included Dr. Eisenkraft, the President and Provost, the Dean of the School of Education, all the Wipro fellows and the 5 DSCs, proposal reviewers for Phase 2, all Wipro Phase 2 participants, superintendents, and administrators from all 5 participating districts and informal science educators.


Agenda

| | |
|---|---|
| 5:20 - 5:30 pm | Registration<br>Attendees enter and be seated |
| 5:35 pm | Dr. Narayan welcomes guests, introduces Dr. Eisenkraft |
| 5: 40 – 5:50 | Dr. Eisenkraft address |

| | |
|---|---|
| 5:50 – 6 pm | Presentation of Plaques to Dr. Eisenkraft, President Mong |
| 6:00 - 6:15 pm | Group Pic, Attendees go to Buffet table and get entrees |
| 6:15 - 7:00 pm | Presenting of plaques and badges to all Wipro Fellows and DSCs<br>Individual and group photos |
| 7:10 – 7:40 pm | Report on Phase 2 projects |
| 7:40 – 7:50 pm | Desert bar |
| 7:50 pm | Slide regarding SW Conference<br>Video Message from STAT/CAST |
| 8:00 pm | Presentation regarding Phase 3 projects<br>Questions<br>Thank you |

This was our first face to face meeting since the pandemic and we enjoyed it immensely. Dr. Eisenkraft was initially supposed to leave for the airport to fly to Missouri by 6 pm, however, his flight was delayed, and he was able to attend almost the entire event.
The meeting enabled us to do several things. We presented Plaques to Dr. Eisenkraft, the President, Kendra, Michael (our IT support) all the DSCs and fellows from all 3 cohorts. The Fellows also received the Wipro pin. The plaques were well received and looked really good.

Each individual / group had a small power point presentation and presented about their Phase 2 project and their progress to the group. Dr. Narayan introduced the third annual collaborative Southwest Professional development conference, and also played a video message from the President of the Science Teacher's Association of Texas (STAT) regarding presenting at CAST. (All our Phase 2 participants have to submit a proposal to CAST 2022 in November. This is a requirement.)

Dr. Narayan made a brief presentation about the Phase 3 projects, expectations, timeline, and requirements. All attendees received a gift bag with an agenda and information about phase 3 projects, a bag of friendship soup, a face mask and hand sanitizer.
It was a very good meeting and Dr. Narayan hopes to hold a similar event annually.

https://www.flickr.com/photos/187611547@N04/albums/72177720298776741/page1

This is a link to the pictures of both Wipro events held at UNT Dallas that day. ( more about the other event in other news)

## Phase II Activities

There are 7 collaborative mini grant projects and 1 WalkSTEM project for the DSCs described below. All the projects were presented at the 3rd Southwest Collaborative Professional development conference (June 13-14th) and have also been submitted as conference proposals to be presented at the annual Conference for the Advancement of Science Teachers (Nov 2022, Dallas).

**Collaborative Mini Grant reports:**

### Investigating Climatic Impacts Using CER

| | | | |
|---|---|---|---|
| Marquita Mohammed<br>Sam Houston Elem<br><br>Marshall ISD<br><br>5th grade science<br><br>Wipro C3 Fellow | Vickie Hines<br><br>Sam Houston Elem<br><br>Marshall ISD<br><br>5th grade science<br><br>Not a Wipro Fellow | Danielle Moore<br><br><br><br>DeSoto ISD<br><br><br><br>Wipro DSC | Rhenett Ingram<br><br>The Meadows<br><br>DeSoto ISD<br><br>5th Grade Science<br><br>Not a Wipro Fellow |
| **Quarterly Report of Wipro Phase 2 (June 2022)** | | | |
| Please respond **individually** to the prompts below:<br>a) Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project<br>b) What challenges (expected and unexpected) have you had to overcome and how did you do this? | | | |
| **<u>Marquita</u>** | Created lessons and gathered study material for collaborative projects covering effects of acid rain on plants, endangered species, and changing ecosystems. Students were tasked with working in groups to monitor growth and effects of acid on their assigned plants; groups completed activity on changing ecosystems and interdependence of organisms while discussing | | |

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| | their results; and they completed an activity to identify the effects of invasive species on various organisms (Hines students were grouped with my students for collaboration). Coordinated lab materials and kits for the three classrooms. Monitored and facilitated student participation during the live Zoom sessions. Student participation and activities are the same as Vicki and Rhenett as the three classrooms collaborated during each lab activity. Students completed post assessment as well as presentations.<br><br>The challenges I have faced were repetitive interferences with schools' scheduling due to STAAR preps; personal days off due to illness and medical appointments; and dedicating time needed to project as I also taught three other subjects. I overcame these challenges by doing what I could when I could while considering the students' voice. Lastly, on our acid rain experiment, we had to re-plant three times due to the miscalculation of measurement; using the incorrect soil (I used chicken poop fertilizer and seeds did not germinate). |
| **Danielle** | Supported fellow with supplies for classroom implementation.<br>Attended Wipro Annual Dinner.<br>Checked-In and provided feedback to fellows. |
| **Rhenett** | Students were given the task of making a Claim, Evidence, and Reasoning statement that expresses how global warming has affected the climate, landscapes, and extreme weather patterns (natural disasters). Our task as teachers was to monitor and answer questions that students may have had about the assignment. Students worked in groups of 2-3 to create Google Slides or PowerPoint Presentations. |
| **Vicki** | I monitored collaborative weekly Zoom sessions with Marquita's and Rhenett's classes. Students planted seeds and monitored plant growth and the effects of different types of rain. Student groups were guided during an invasive species simulation and how it affected the environment and completed a summary activity. Students created a Claim and supplied supporting Evidence and Reasoning that explained how global warming has affected the climate. Documentation was noted |

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| | with partners creating Google Slide presentations explaining the Claim and noting research that supported the Claim.<br>The challenges included erratic school schedule on our meeting day due to STAAR sessions and school activities, plants died and had to be replanted, and trying to focus on 4 other class subjects that were also occasionally interrupted because of the school schedule. I tried to overcome the scheduling problem by having students watch videos about global warming and writing summaries during the morning warm up sessions. |

Please respond **collaboratively** to the prompts below:

. Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project.

- Our final product for the collaborative project includes samples of the students' data charts, presentations, and post assessment results. Photos were also taken of students participating in each activity.

a. What challenges (expected and unexpected) have you had to overcome and how did you do this?

- Campus schedules - some activities were completed individually per classroom; however, we met and discussed collaboratively before and after.
- Some of the selected kits were geared toward higher level (middle to high school); we modified to fit our grade levels.
- Pandemic affected DeSoto campuses by closure and Marshall classrooms by student absenteeism. Classes caught up as needed, in Marshall we used Google Classroom.

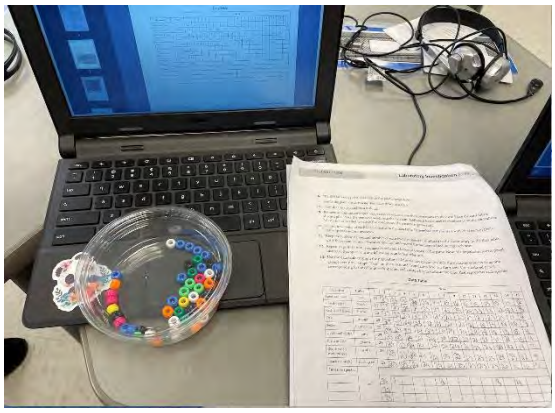
Results: Please describe what the results of your project are (you can use bullets).

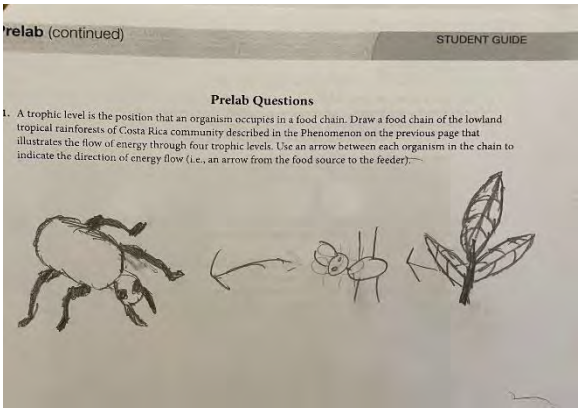
- Students learned about climate change and global warming.
- Students created bird feeders while learning about effects of climate change and global warming on organisms and what we as humans can do to help.

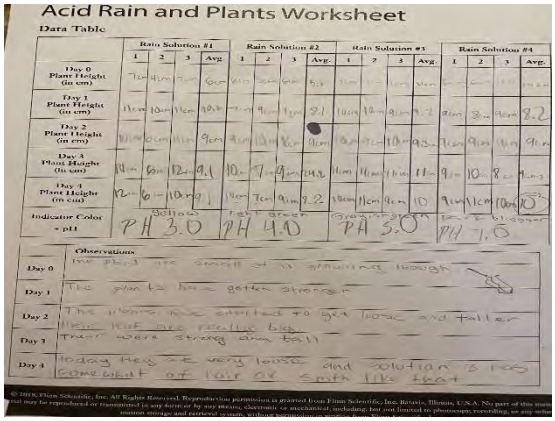
- Students planted seeds, grew and monitored, and measured plants for three weeks; and documented observations/collected data.
- Students created culminating presentation using CER model
- Students learned about major causes of climate changes.
- Students learned that some substances are acidic and non-acidic.

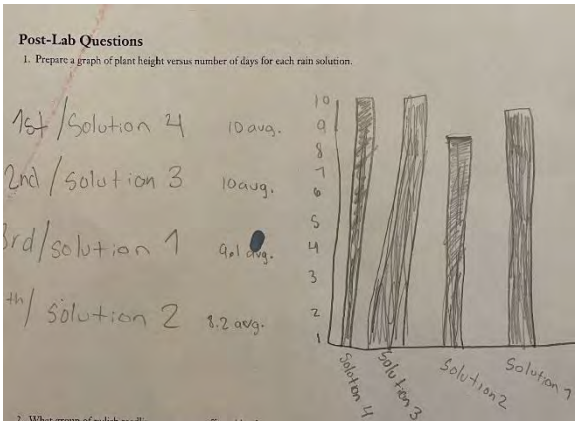







. Reflection: (what worked, what didn't work and how to fix it? Please reflect about the collaboration. Next steps?)

- The collaboration went well considering the location of the two districts. The students became more engaged during the process after initially being shy on Zoom. Marshall students (and Hines) were not too familiar with using Zoom and its features, but soon became accustomed.
- As the year went on, students became more receptive to collaborating and participating over Zoom.
- Occasionally, students would have difficulties hearing the speaker and sometimes the Zoom application would cause glitches in student voices.

SW Conference: Title of the presentation, date and time of presentation

Title of the Presentation: Climate and Its Impact on Environments

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| Date of the Presentation: Tuesday, June 14th, 2022<br>Time of the Presentation: 10:00-11:00 am |
| . <u>CAST conference:</u> Please send me a Google doc link of your CAST conference presentation proposal and the confirmation of submission of the proposal<br><br><u>To be added</u> |

**<u>STEM Bin Activities and Writing in Science:</u>**

| | | |
|---|---|---|
| Maria Louisa Soto<br><br>Arlington ISD- Speer Elementary School<br><br>4th-grade science and social studies<br><br>Wipro fellow (C1-C2) | Tracey Craft<br><br>Irving ISD - Townley Elementary School<br><br>3rd-grade math, science, social studies, and SEL<br><br>Wipro fellow C2 | Courtney Silverberg<br><br>Irving ISD - Barton Elementary School<br><br>4th -grade math and science<br><br>Wipro Fellow C1 |

| **Quarterly Report of Wipro Phase 2 (June 2022)** |
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| Please respond **individually** to the prompts below:<br>. Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project.<br><br>● **<u>Soto-</u>** Since March I have ramped up the number of STEM opportunities in my classroom. I have collected writing samples and worked with students to better aspects of their expository writing. I had to modify the number of students who participated, and the amount students had to write.<br><br>● **<u>Craft</u>** - Students given multiple opportunities per week to explore STEM bins without guidance to encourage exploring and collaborating (skills they lack). Collected writing samples (they are in a cabinet at school - I will have to retrieve them). |

- **Silverberg** - Had to remove STEM bins for a time due to behavior issues. Reintroduced on a more limited basis.

. What challenges (expected and unexpected) have you had to overcome and how did you do this?

- **Soto -** In December, the fourth-grade team at my school lost a teacher. We have 5 sections and were reduced to only 3 teachers, so we consolidated all of the sections including monolingual students who were not previously assigned to me.
- This caused a long period of readjustment on the grade level and prevented me from conducting STEM activities.
- We also had to do STAAR Bootcamp which lasted several weeks and again, put STEM activities on the back burner.
- Another challenge I encountered was that students were not used to writing after being home during COVID.
- Behavioral problem also posed several challenges with regards to supplies and reteaching
- **Craft**
- Expected - time constraints
- Unexpected: students unfamiliar with exploring, writing skills suffered much more than anticipated during Covid.
- Students unwilling to write
- More time constraints: A lot of class time pulled for STAAR review the last 6 weeks of school.
- **Silverberg**
- Students struggled with expectations, after 5-10 minutes they would begin to be destructive
- Even after changing them to morning work, students still struggled.
- Students also struggled with working together and frustration tolerance.
- Even after lessons on working together, students refused to engage in a positive way and prevented any more attempts.

Please respond **collaboratively** to the prompts below:

. Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project

- We have met several times to collaborate and troubleshoot challenges.
- We have compared writing samples.
- We brainstormed ideas and reconsidered how we will do things in the future including more purposeful lessons in how to explore with STEM BINs, how to plan investigations, how to work collaboratively with other students, and how to discuss experiences so that students are then better prepared to write about them.

. What challenges (expected and unexpected) have you had to overcome and how did you do this?

- Expected challenges
    - working across grade-levels and at different schools.
    - Scheduling constraints
    - teaching obligations
- Unexpected challenges
    - Changes in subjects taught
    - Losing faculty members
    - Student Behavior
    - Student Frustration Tolerance and Engagement

. Results: Please describe what the results of your project are (you can use bullets). **Please add pictures and de- identified student writing samples**

- Students were lacking some of the basic skills needed for this activity to be successful as originally planned.

- STEMbins by themselves weren't enough to improve writing because the students had so little experience in exploring and building with the items and with working collaboratively with other students.
- We are working on an adapted plan for trying this again - beginning with some direct instruction/experience with the STEMbin materials and working together in teams.




. Reflection: (what worked, what didn't work and how to fix it? Please reflect about the collaboration. Next steps?)

- STEMbins were well received by all grade levels participating.
- Students were excited to have the opportunity to use different materials they could manipulate rather than just standard classroom supplies.
- We will need to make a plan to introduce the materials, then teach exploration and manipulation of materials, teach collaboration/communication pieces -- all before moving on to a writing piece.

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| . SW Conference: Stem Bins and Writing in Science, June 14, 2022, at 11am |
| . CAST conference: https://docs.google.com/document/d/13GrFmPu93kjGe6SYPbz9pqfjw93X_P3-CaB5FdYIbiU/edit?usp=sharing |

**3.Science Staar Bootcamp:**

| | | |
|---|---|---|
| Brittney Preston<br><br>Lancaster ISD - Pleasant Run Elementary<br><br>5th Grade Science<br><br>Wipro C2 Fellow | Faith Milika<br><br>Lancaster ISD<br><br>K-5 Science Coordinator<br><br>Lancaster ISD DSC | Shelby Allen<br><br>Lancaster ISD - Rosa Parks Elementary<br><br>5th Grade Science<br><br>Wipro C3 Fellow |

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| **Quarterly Report of Wipro Phase 2 (June 2022)** |
| Please respond **individually** to the prompts below:<br>. Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project<br>a. What challenges ( expected and unexpected) have you had to overcome and how did you do this? |
| **Brittney:** We have successfully completed the STAAR bootcamp with the students and began to receive preliminary results for STAAR. Overall, I did see growth with the program but not the growth I expected.<br>**Shelby**: I concluded the science STAAR bootcamp with my students. There was growth with many students but not the overall growth I was hoping for, however there are many factors involved. I see how this will be a great program to continue to build with the coming years.<br>**Faith:** We expected more gains with the STAAR Bootcamp, but we did grow in all three areas (approaches, meets, and mastery). |
| Please respond **collaboratively** to the prompts below: |

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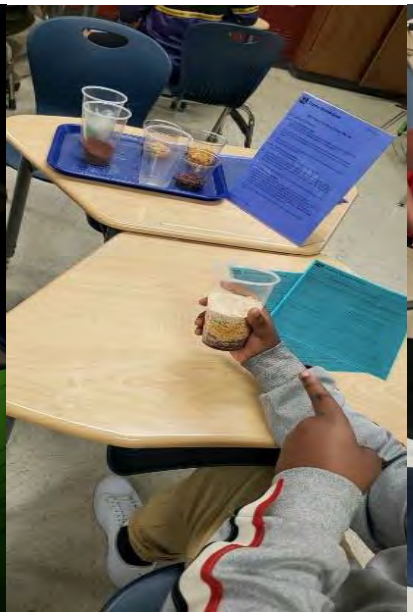
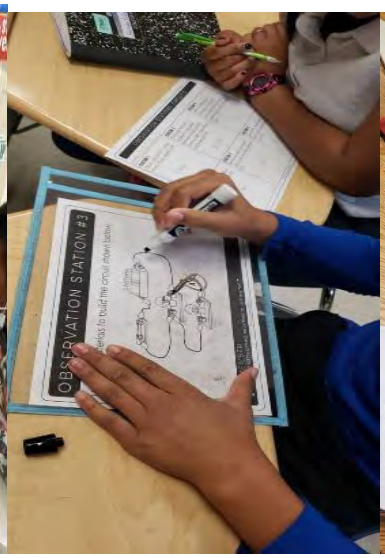
| . Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project<br><br>a. What challenges (expected and unexpected) have you had to overcome and how did you do this? |
| Overall, the experience was great, and we feel that the Bootcamp is something we can continue beyond this year. With proper planning and preparation each year we will be able to see what works and what doesn't. The challenges we faced throughout this project are the various expectations of our campus. |
| . <u>Results</u>: Please describe what the results of your project are (you can use bullets). |
| **Pleasant Run:**<br>Approaches: 12% Increase<br>Meets 9% Increase<br>Masters 5% Increase<br>2022- 101 students<br>2021- 50 students<br>**Rosa Park:**<br>Approaches- 4% Decrease<br>Meets- Same<br>Masters- 8% Increase<br>2022- 66 Students<br>2021- 27 Students<br>**Virtual students were included in percent scores for both campuses although they were not taught by campus teacher.** |



OBSERVATION STATION #3


. Reflection: (what worked, what didn't work and how to fix it? Please reflect about the collaboration. Next steps?)

Overall, the collaboration and STAAR Bootcamp had a positive effect on our students, and we saw growth although with other factors we did not see the growth we originally hoped for this year. STAAR was back-to-back for 5th grade and the students had large gaps in learning from the pandemic. Continuing this bootcamp will yield larger results as time passes and the gap is closed.

. SW Conference: Title of the presentation, date and time of presentation

Why Wait? STAAR Review can Begin Today! June 13 @ 2:00pm

. CAST conference: Please send me a Google doc link of your CAST conference presentation proposal and the confirmation of submission of the proposal

CAST Proposal: Why Wait? STAAR Review Can Begin Today!

## 4.Intra District Science Collaboration

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| Tamesha Brown<br><br>Lancaster ISD - Rosa Parks Elementary | Markus Burkhalter<br><br>Lancaster ISD-West Main Elementary | Beverly Moore<br><br>Lancaster ISD - Rosa Parks Elementary |

| | | |
|---|---|---|
| ELAR content Coach<br><br>Wipro C3 Fellow | 3rd grade Science<br><br>Wipro C3 Fellow | 4th Grade Science<br><br>Not a Wipro Fellow |

**Quarterly Report of Wipro Phase 2 (June 2022)**

Please respond **individually** to the prompts below:

. Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project

a. What challenges (expected and unexpected) have you had to overcome and how did you do this?

**Tamesha-** The collaborative project has continued to be iterative. Our team has worked collaboratively to implement the proposed grant requirements; however, state standardized test preparation caused our schedule to change.
**Markus-** our team continued to work collaboratively. We ran into different challenges that arose due to STAAR and MAP testing for both grade levels.
**Beverly-** our team has worked collaboratively by sharing ideas in order to improve methods of teaching and learning; however, we ran into challenges being moved to different grade levels due to testing and schedule changes.

Please respond **collaboratively** to the below:
Since the last quarterly report in March, please tell me a) what you have with regards to the collaborative project
What challenges (expected and unexpected) have you had to overcome and how did you do this?
Our team continued to work collaboratively to implement the proposed grant requirements; however, state standardized test preparation caused our schedule to change. We altered our planning dates and times as well as our lesson implementation to fit our campus and district schedules. This was the most challenging part of our collaboration,

. Results: Please describe what the results of your project are (you can use bullets). **-** Our reports showed growth in each class. Students who struggled during the pre-tests did great on our posttests. Our 3rd graders were also able to see how what they're learning starts to get more complex as they move to 4th grade. We had our students complete pre and posttests during all units. The scores were amazing showing at least 40% growth for each class during each unit. We also used flipgrid as a way to gauge students' knowledge

and how effective hands-on activities are. The last indicator we used was our MAP data that shows growth from the beginning of the year to the end of the year.

. Reflection: (what worked, what didn't work and how to fix it? Please reflect about the collaboration. Next steps?)

-Our overall collaboration worked very well. Being able to support one another in the planning and implementation process was rewarding. Our schedules occasionally did not work due to STAAR camps and different strategies used by each school. This made it hard to find times for students to get together and collaborate between schools.

. SW Conference: Title of the presentation, date and time of presentation

-All Hands-on Deck. June 14th 11:00am-12:00pm

. CAST conference: Please send me a Google doc link of your CAST conference presentation proposal and the confirmation of submission of the proposal

CAST Proposal https://docs.google.com/document/d/1_YZmtpijXiumyWQKqDLUwChh-jisZRlmw_J4G7gfseI/edit?usp=sharing

. Anything I need to know? How can I make this better?

-Nothing, everything was perfect. The materials that were ordered allowed us to be able to prepare in advance for our hands-on activities with the students.

**5.Fishing for Science with a dash of Montessori:**

Matthew Gaines

Lake Ridge Elementary

5th Grade science / social studies

Wipro fellow

**Quarterly Report of Wipro Phase 2 (June 2022)**

Please respond to the prompts below:

. Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project. Since the last report, I have been featured on the news. https://www.wfaa.com/article/features/cedar-hill-teacher-shows-kids-how-to-fish/287-9420bda0-4bed-4dfb-88aa-0a18c3530d43 As the year ended and the last fishing club cohort wrapped up, they took an exit survey. The academic measurements indicate a 26% jump in content comprehension from pre to post.

a. What challenges (expected and unexpected) have you had to overcome and how did you do this? This last cohort did not have any Montessori students to measure/compare. So, I tried to twist the fishing activities to challenge the GT kids which was successful in their overall growth.

Results: Please describe what the results of your project are (you can use bullets).

- 26% jump in academic performance from pre-post.
- On a 5-point rating scale 1 being low fishing knowledge/confidence and 5 being competent enough to teach others to fish. The students rated themselves on average a 2 for the pre-survey. By the end of the year, the self-rating shifted to an average of 4.7. In other words, my students went from very little knowledge to confidently learning a new skill to the point that they can teach others how to be successful.
- ALL club members caught a fish by the end of the year.
- 6 out of the 10 kids in the last cohort passed the science STAAR. Out of the 4 who didn't, 3 had learning issues or ELL. Of the 4 who didn't pass the state test 3 had

nearly double-digit growth in the growth measurement system used by CHISD (NWEA) from the BOY to the EOY.





. Reflection: (what worked, what didn't work and how to fix it? Please reflect about the collaboration. Next steps?) I did not get a lot of opportunities to do many of the indoor activities. That is not really a bad thing in my opinion because it means the weather was good enough for us to head to the lake. However, I would like to incorporate more of those activities next year to measure their effectiveness.

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| . | SW Conference: Title of the presentation, date, and time of presentation<br>Hooked on Fishing with a Catch - June 14, 2022 - 11-12 |
| . | CAST conference: CAST Proposal submitted to CAST May 12th 2022 |
| . | Anything I need to know? How can I make this better? N/A at the moment. |

**6. Engaging IPC Students Using Filmmaking in Science**

| | |
|---|---|
| Marsha Bolden | Olutoyin Makinde |
| Irving ISD/Student Reassignment Center | Irving ISD/Student Reassignment Center |
| 9th grade | 10-11 grade chemistry and physics |
| Wipro C3 fellow | Not a Wipro fellow |

**Quarterly Report of Wipro Phase 2 (June 2022)**

Please respond **individually** to the prompts below:

. Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project

**Marsha** - The collaborative project is complete, and it was successful.
**Makinde**- I think the project went well too. We just seemed to run out of time for some activities.

. What challenges ( expected and unexpected) have you had to overcome and how did you do this?

**Marsha**

- Expected: the students were excited about the project and participated willingly. Unexpected: some students were released unexpectedly which caused us to do some reshooting to complete the project. And time was an issue in that we were so engrossed in the project that we had to watch the clock closely.

**Makinde**

- My students were not expected to film like Dr. Bolden's class so we served as the control for the project.

Unexpected - only a few students wanted to participate in filming but not a lot of them wanted to film and I thought that was a little strange.

Please respond **collaboratively** to the prompts below:
Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project.

**Marsha** - I have completed filming projects on Chemistry in a Bag, the Kinetic Molecular Theory, Making Bubbles, Acids and Bases, the students constructed a rollercoaster to demonstrate Kinetic and Potential Energy, Invisible Ink, Heat Transfer, and several other subjects.

**Makinde** - I followed the normal course of the curriculum and compared my test results to Dr. Bolden's class results. The scores were about the same.

What challenges (expected and unexpected) have you had to overcome and how did you do this?

**Marsha -** The challenges we've had was teaching the same subject at the same time. Sometimes my subject was ahead of hers and vice versa. We decided to not rearrange the curriculum schedule and teach as normal and it worked out. Unexpected - The students wanted to film items that were outside the plan, for instance, wanting to film students jumping off tables, etc. Some students overcame their shyness and were eager to work with the project. Another concern was initially selling the idea to the students.

**Makinde** - Expected challenges- my only challenge was that some students wanted to participate in the filming project. Unexpected - the students did not complain much about not being involved with the filming. I think we could have worked something out so both groups could film, but this is after the fact.

Results: Please describe what the results of your project are (you can use bullets).
Student Work
Link:https://drive.google.com/drive/folders/1DfYZ3c7rT8N_wk_BoN14zH1ndJKMa6NT
(this link has several student made videos and student journal entries)
**Marsha -** My students excelled in student collaboration and critical thinking skills. They learned how to communicate correctly with each other although, there were a few inappropriate words spoken on film and we had to reshoot all the one that we caught. The writing skills of some students were not so great because they did not want to write,

but some students took my advice and wrote what was on their minds. I'm sure the project could have gone better, however, I would like another opportunity to put that to the test.

**Makinde** - I wished my students would have participated in the film project so that they could learn a new skill. I will do more record keeping the next time to get student's responses and work.

Reflection: (what worked, what didn't work and how to fix it? Please reflect about the collaboration. Next steps?)
We should have had two separate surveys for the students shooting film and the students in the traditional class setting. The results from the survey are somewhat skewed because we are not able to distinguish between the groups.
**Marsha** - The collaboration between us could have been better as Ms. Makinde did not want to use the camera to take pictures. I thought she understood from our meetings that this should have occurred. Maybe I did not communicate clearly. The next collaboration project should include a contract between the participants to ensure accountability. As the year progressed, it became increasingly difficult to meet with each other due to other commitments. I do not like collaborations, but Ms. Vasquez was the perfect collaborator. I will seek her out next time. Also, the student survey should have been separate for my class and Ms. Makinde's class which accounts for the results. We should have had two different surveys to capture our student's experiences with the project because the setups were different. This was an oversight on my part.

**Makinde** - This was a lot of work for my class because we have our regular classwork to complete. I will consider this information for the next project. It was interesting to see Dr. Bolden's class so active with the project.

SW Conference: Title of the presentation, date and time of presentation
Engaging IPC Students Using Filmmaking in Science Time - 9-10 AM

CAST conference: Please send me a Google doc link of your CAST conference presentation proposal and the confirmation of submission of the proposal
https://drive.google.com/drive/folders/1mSjYxiASJgVGTS8B9y5490xgAvQ2gp4A

Anything I need to know? How can I make this better?

**Marsha** - For me, this was a dream come true and now that I have a better handle on it, I have an idea for a cross-curricular project that I would like to implement next year. I need to work on time management to have a smoother transition into film

**Makinde** - I enjoyed watching Dr. Bolden's class film different experiments. My class was okay, and the students did good work. We just need more time to complete some activities.

**7. Cross-District Collaborative STEM Initiative**

| | | | |
|---|---|---|---|
| Julien Yacho<br>Irving ISD Gilbert Elementary<br><br>Elementary Digital Learning Coach<br><br>Wipro C3 Fellow | Sherry Thompson<br>Irving ISD Thomas Haley Elementary<br><br>4th & 5th grade Science GT<br><br>Wipro C3 Fellow | Tiffanie Johnson<br>Bray Elementary in Cedar Hill ISD<br><br>3rd Grade Math and Science Teacher<br><br>Wipro C3 fellow | Shelby Allen<br>Lancaster ISD - Rosa Parks Elementary<br><br>5th Grade Science<br><br>Wipro C3 Fellow |

| **Quarterly Report of Wipro Phase 2 (June 2022)** | |
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| Please respond **individually** to the prompts below:<br>. Since the last quarterly report in March, please tell me what YOU have with regards to the collaborative project<br>. What challenges ( expected and unexpected) have you had to overcome and how did you do this? | |
| **Tiffanie** | Since March, school responsibilities have been very overwhelming. Coordinating STEM Night, organizing STAAR prep, preparing schoolwide stem activities, finalizing LPAC meetings, Team Lead meetings, STAAR Meeting, NAPE presentation, end of the year celebration, end of the year award ceremony are a list of some of the responsibilities that I have been tasked with during this quarter. Along with those tasks, I am currently completing my master's in educational leadership. Regardless of my challenges, the students were able to complete the erosion project. All students were given a foil pan |

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| | with a house glued in the middle of the pan towards the end. Students worked in groups of 3 to 4 persons. Before students were allowed to build their structure, they had to come up with a design, plan and list the materials they would use to complete the task. Once students constructed the structure, students had to explain what they did and why. There are two big takeaways from doing this project that reiterates how collaboration and project based learning helps all students. First, one of my special education students was able to explain what was done in the project and why. The second was the so-called smart were able to see the value in other opinions and ideas. As a result of completing these types of projects. Over 80% of my student showed growth on the Map NWEA Test. |
| **Sherry** | Since the last project my students were able to complete the erosion project. Students were in 4 groups with 4 scholars in each group. The students were able to set up a house, sand, and create a barricade to prevent erosion. Once their design was complete, each team used the same amount of water to pour over the sand which simulated weathering and erosion. The designs that the students came up with were based on a prototype they researched and sketched. Once their designs were tested, some teams were expecting a different outcome. Although the sand did not get past the barricade for most groups, flooding did occur. One group was able to prevent the sand and water from getting to the house. Once we were able to test every design, students were able to reflect and think about which changes could be made to make it better. Overall students were successful in completing the project and reflection of how it can be better. The timeframe was a challenge for me. We had to overcome testing dates as well as extra time given to intervention. Unfortunately, due to time constraints and conflict of schedules, the scholars from the other districts were unable to meet. |
| **Shelby** | Since March, my students have been able to complete their Erosion project. The students created a model using sand and Lego houses to test their project. There were four groups of 3-4 students for this project. They tested their designs and made adjustments for a second test. The challenges for this phase in the project were due to this being done with an after-school club, unfortunately we had to cancel a few meetings for STAAR prep, a death in the family, and other unforeseen meetings. However, even though these unexpected challenges we were able to complete this project before the school year ended. We did use some in school time to make sure this was able to be completed. |

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| **Julien** | Since the last project I updated the website for the erosion project. This included getting out new templates to teachers, removing the previous embedded projects and replacing them with the new templates. I also kept up with moderating the Padlets as needed. I communicated with the team to make sure we collected all of our content into the main drive and make sure we were all on the same page. |

Results: Please describe what the results of your project are (you can use bullets).

Students were given the opportunity to share their projects online and receive feedback from students from other schools. On the website students were able to comment on other students' projects, post information about their project, and make adjustments based on feedback. Students put more effort into the 2nd project (Erosion) because they knew other students from other schools would see it. Students completed the pre and posttest on the website. The students had to comment on 1 project from each school. To ensure that all students received feedback, students were not able to post on a project that had received two comments.

Reflection: (what worked, what didn't work and how to fix it? Please reflect about the collaboration. Next steps?)

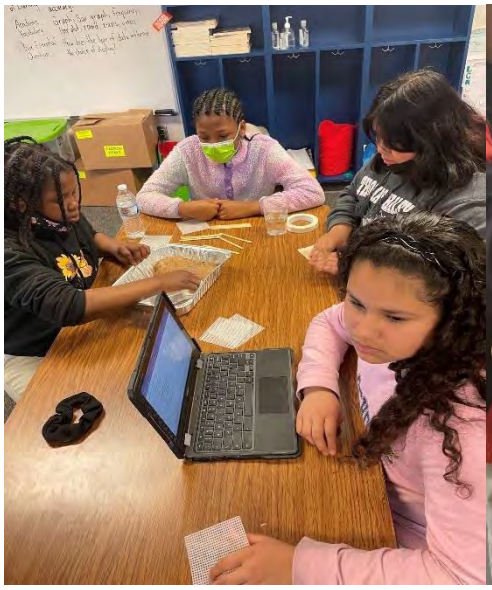
Setting aside time to collaborate cross-district was difficult. We initially planned to meet after all projects were completed. However, due to STAAR testing, intervention, and other factors beyond our control, our scholars were unable to meet. Although our scholars were not able to meet, we all discussed how things were progressing among our scholars and kept each other updated. The materials provided by Wipro were essential for our projects. Students used materials appropriately and creatively. Overall, the project yielded great results. The students were able to think critically and work collaboratively.


## Reflection Page

After each STEM activity, students would complete reflection questions on a Google Slide.

Each groups reflections were uploaded on a group page for others to view.

Students were to leave constructive comments on each other's work on a padlet embedded in the groups page.




SW Conference:

Cross-District Collaborative STEM Initiative, June 14th, 9-10am

CAST conference:

Anything I need to know? How can I make this better?

This school year came with its own unique set of challenges. Something that we all experienced is a conflict of our schedules. Some of our scheduled science time was used for intervention for reading and math. However, the students did benefit from the critical thinking and collaboration associated with our projects. Thank you for the opportunity to order supplies. Our projects were successful because of them.

**WalkSTEM collaborative project for the DSCs:**

| | | | | |
|---|---|---|---|---|
| Jeremy Hesse<br>Cedar Hill ISD, DSC<br>Nicole Rose | Faith Milika<br>Lancaster ISD, DSC<br>Ana Rodriguez | Chris Dazer<br>Irving ISD,DSC<br>Julien Yacho | Danielle Moore<br>DeSoto ISD, DSC<br>Christina | Tamara Majors<br>Grand Prairie ISD,DSC<br>Megan Hunt, |

| | | | | |
|---|---|---|---|---|
| Cedar Hill ISD<br>Secondary Math<br>Coordinator | Lancaster ISD<br>Bilingual 4th<br>grade teacher | Irving ISD<br>Digital Learning<br>Coach<br>Wipro C3 fellow | DeSoto ISD<br>master Science<br>teacher | Grand Prairie<br>ISD<br>STEM<br>Coordinator |

Each of the 5 participating districts completed their WalkSTEM tour with 6 stops each and the tours have been uploaded on Ottocast, the app.
https://talkstem.org/walkstem-in-dfw/ ( this is a map of existing WalkStem tours in Dallas)
How to access the WalkSTEM tours:
Please download the Ottocast app on your device ( free download)
Please search for and view the following:

1. WalkSTEM @ Katherine Johnson Technology Magnet Academy (DeSoto ISD)
2. WalkSTEM @ Cedar Hill High School
3. WalkSTEM @ Lancaster Community Park
4. WalkSTEM @ Grand Prairie ISD
5. WalkSTEM @ Lady Bird Johnson Middle School, Irving ISD

As each WalkSTEM tour includes photos, audio, and text I encourage all to download the app and experience the tours in their entirety. Photos don't do it justice.

Dr. Narayan shared the WalkSTEM tours with 49 elementary preservice teachers enrolled in her science methods course this spring as an assignment. She is still analyzing the data. A lot of her pre-service teachers do not know anything about STEM deeper than what the acronym stands for. There was a lot of surprise at learning simple things that they see every day also counts as STEM. They further agreed that there is a huge need for activities like this in South Dallas. Each student looked at 2 walk stem tours, she will change this when she administers the assessment in Fall to her new preservice teachers and also add an application aspect to it to see how much they actually understood about the purpose of the WalkSTEM tour.

The original plan had us converting the pics and audio to video in English and Spanish and with the DSCs testing it out at their own schools. This did not get done and the team will make a decision as to how they should proceed and the cost. Dr. Narayan has a lot of bilingual students and having audio in Spanish would be well worth it. Stay tuned for future steps!

**End of the year Conference**

At UNT Dallas, they did not host a Wipro Specific conference in 2022. For the last 2 years Wipro @ UNT Dallas has collaborated with our partnering districts DeSoto, Irving, Cedar Hill, Lancaster and Grand Prairie and StemScopes and Region 10 to host a collaborative online free Professional development conference for teachers of the Metropolis. Anyone doing a Wipro project is required to present at this conference. This year Duncanville ISD also joined us.

Given things happening at the districts with the changes occurring and the lack of time to prepare for it, Dr. Narayan did think of calling it off, but with a concerted effort, the team pulled it off and she is glad for that.


On both days, sessions were held on the hour between 9 am – 3 pm (6 sessions a day with 3-4 concurrently held sessions each hour, a total of 43 sessions over the 2-day period. All the Phase 2 presenters presented sessions at this conference. 14 Wipro Fellows facilitated all the sessions.

All teachers attending each session received a certificate of attendance they could use for PD credit. All presenters are receiving a certificate of appreciation for presenting at the conference.
https://nam04.safelinks.protection.outlook.com/?url=https%3A%2F%2Fbit.ly%2FSWDallasCollaborativeConference2022&data=05%7C01%7CRatna.Narayan%40untdallas.edu%7Cd0911f73b61345f7558908da3f3ad385%7C70de199207c6480fa318a1afcba03983%7C0%7C0%7C637891819138910318%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=%2Be2IPqQhM%2BLa0W9vYVX6QjJnBQjfyJkGfOZHSByNGag%3D&reserved=0

**Conference Reflections**

Dr. Narayan cancelled only 1 session because the presenter didn't show up. There were no other hitches other than that. She felt the conference was very professionally run; everyone was kept in the loop with timely informational emails. The intense heat caused blackouts in certain areas of Dallas, but the electricity was restored quickly.

- From Dr. Narayan, "It amazes me that we are able to work collaboratively and put together a free PD conference like this. It is well worth the effort."
- The change for the nest year is that the conference will be face to face and that will bring up several issues of timing, space, and cost, all these will be tackled and solved.
- One thing that also needs to be worked on is strengthening the collaboration and having a wide variety of presenters from several districts. Districts can send their teachers to attend the conference, but to be counted on as part of the collaboration they must have more than 1 teacher present at the conference.

**Presentations**

- Dr. Narayan is satisfied with the variety of presentations and the topics covered. She liked that the outgoing President of STAT offered a session about presenting at CAST and also a hour long Project wild workshop we have not offered before in addition to the STEMScopes and region 10 presentations.
- June 13th sessions:

  https://drive.google.com/file/d/1NJu3o5tVJeYb5Gn65w0lMbUwhNwIrKjB/view
- June 14th sessions:

  https://drive.google.com/file/d/1PVLcn81Usiqw4atjE4ZtBt6TXO63Pmxq/view

**Invited Guests- DSC's, Principals, etc.**

- The conference team invited all the DSCs (they were also presenting). As it was a weekday and summer school in progress several principals could not attend!
- They had a total of close to 100 attendees over 2 days. While this is less than what it was last year, Dr. Narayan is satisfied with the attendance with their time constraints.

**Conference logistics (Scheduling, Brochure)**

- The conference team circulated a save the date and a call for proposals in May using social media and the districts communications.
- Dr. Narayan, "I asked several people who I wanted to present to do so, and they did, and it makes me happy."
- Presenters signed up through a google form in which they were asked for their preferred dates and times of presentation, Kristina Petty from Lancaster ISD arranged them date wise, and the schedule was shared with the presenters and the schedule finalized.
- Michael Giallorenzo talked to Plan Hero (the platform that was used) and finalized that, all the presentations day wise were uploaded and checked.
- The registration link and QR code were circulated on a flyer, Dr. Narayan sent a message with the conference schedule to all the Wipro Fellows asking for facilitator volunteers for the sessions, 14 fellows volunteered.
- Presenters, facilitators, and attendees were sent regular updates as to where they would find zoom links and what was expected of them.
- Michael and Dr. Narayan were online all day both days to deal with problems if they arose and those that did were minor.
- All attendees filled out an evaluation for each session they attended and received a certification of attendance with PD credit for each session they attended.

**Cohorts 1, 2 and 3 Involvement**

That is always the intention. Dr. Narayan keeps in touch with all her fellows via text and phone. She has found this is the most effective way and when she talks to them, she can find out what is going on with them and how to motivate and help them. Having said that, some are resistant ☹ because they are overwhelmed. She does have plans for a few of them to be involved with Phase 3 starting Sept 2022. The idea is to get Wipro Fellows who have not participated in phase 2.

## Phase III

### Project Summary:

The proposal consists of three projects each year of the 4 year grant, targeting different groups of science educators: a) The School Projects, focused on one school per district per year, vertically or horizontally collaborative; b) The District Science Coordinator collaborative project where each DSC and an ISD teacher partner work together with other DSCs and their teacher partners; and c) the Collaborative /Mini-grants led by Wipro fellows, collaborating with Wipro and non-Wipro teachers within or between schools and district.

| Wipro @ UNT Dallas Proposed Phase 3 Components per year | | | | |
|---|---|---|---|---|
| **Irving ISD** | **Cedar Hill ISD** | **Grand Prairie ISD** | **Lancaster ISD** | **DeSoto ISD** |
| **School Project** Vertically or Horizontally Collaborative | **School Project** Vertically or Horizontally Collaborative | **School Project** Vertically or Horizontally Collaborative | **School Project** Vertically or Horizontally Collaborative | **School Project** Vertically or Horizontally Collaborative |
| | | | | |
| **Collaborative Project for the District Science Coordinators of the five Partnering Districts** | | | | |
| | | | | |
| **Collaborative Mini grants for Wipro Fellows and their collaborators (Wipro / Non-Wipro Fellows** | | | | |

All three projects will be offered each year of the four-year program

Total: Direct costs per year (22-23) = $158,719$, 4 years (22-26) = $634,876

### Tentative Calendar of events

There is overlap in summer in completing the previous years' projects and work on Aug 31st and recruiting and getting the next year's participants ready to start on Sept 1st.

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| Summer 2022 (June, July, August 2022) * | • CAST proposals for CAST 2022 due on June 20th, 2022<br>• Disseminate information regarding the different projects for year 1, Phase 3, proposal templates, the stipends, expectations, and timelines for the project.<br>• Hold information meetings on zoom / in person to answer questions regarding the project |

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| | ● Schedule meetings (in person, via zoom or phone) with Fellows who did not participate in Phase 2/ previous year and talk to them about their ideas for Phase 3 projects.<br>● Help participants with their proposals which includes providing a template, reading through their draft, suggesting changes, providing feedback, sending the corrected version to my proposal review committee, communicating any changes to be made to the participants, ensuring all changes are made to the proposal as suggested by the review committee.<br>● Sending approval letters to the participants and their administration with detailed expectations, timeline, and stipend information<br>● Approving materials lists, ensuring the approved material is ordered and sent to participants<br>● Ensuring all documentation needed to pay the stipends are collected and submitted and that stipend PO information for both installments are submitted and approved. |
| Fall 2022 and spring 2023 | ● Approving materials lists, ensuring the approved material is ordered and sent to participants<br>● Ensuring all documentation needed to pay the stipends are collected and submitted and that stipend PO information for both installments are submitted and approved.<br>● Attend the Wipro Meeting in Boston Sept 9-11, 2022<br>● All participants will meet at UNT Dallas three times during the year (September, December, March), dinner will be provided. Participants will share their progress, speakers, if possible, will be invited. (These will be evening meetings and dinner will be provided. I am waiting to receive notification regarding availability of dates and rooms to schedule these)<br>● CAST is Nov 10-12, 2023, in Dallas, all Phase 2 participants are required to submit a proposal and Dr. Narayan is also submitting a few proposals involving Wipro fellows who want to participate<br>● All participants will be encouraged to wrap up their data collection by April 30. |
| Summer 2023 (June, July, August 2023) | ● Participants are required to present their projects at the Conference for the Advancement of Science teachers (CAST, November), proposals due in May-June and the Collaborative |

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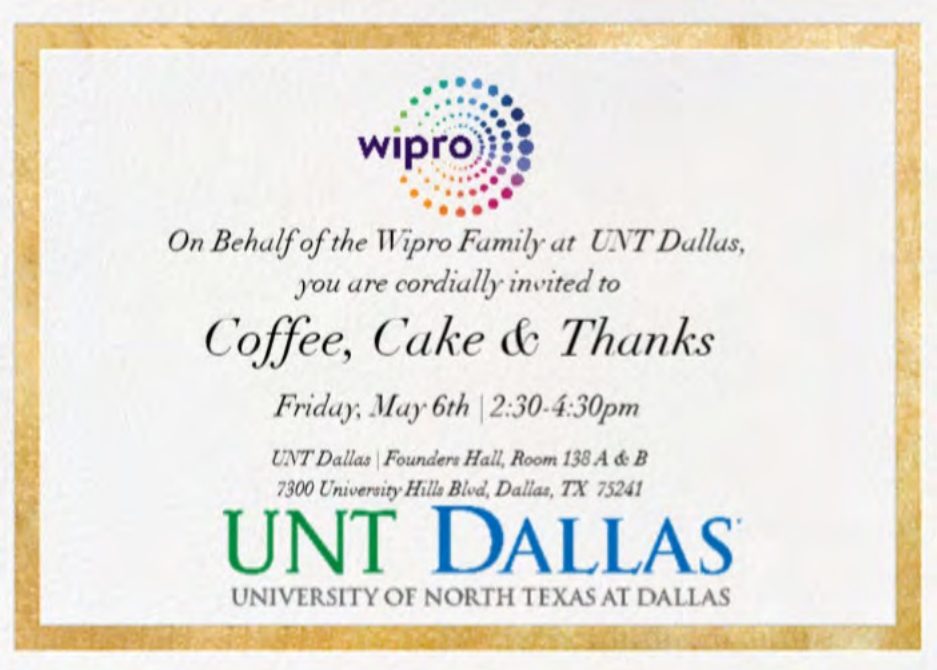
| | Southwest Conference, June. Dr. Narayan will provide feedback with regards to the conference proposals.<br>● The Collaborative Southwest Conference hosted by Wipro@UNTD in collaboration with the 5 participating districts, Duncanville ISD, Region 10 and STEMScopes will be held in June.<br>● Organize the Wipro annual dinner and meeting<br>● Attend and Organize presentations at CAST<br>● Collect Quarterly reports from participants and organize them into the Wipro Quarterly reports in June, September, December, and March<br>● Keep in touch with the fellows and keep the morale up<br>● **Repeat items under * for year 2, phase 3 projects** |

1. **Site News**
    a. **Coffee, Cake, and Thanks from Wipro@UNT Dallas**




From Dr. Narayan, "The Wipro grant at UNT Dallas is in its 5th year, and I am happy to announce, we have received the Wipro Phase 3 grant for 2022-2026. You have been an integral part of the success of all the Wipro @ UNT Dallas endeavors and The Wipro Family @UNT Dallas would like to thank YOU for all the hard work, patience, support, and good cheer you extended to us. "

Dr. Narayan hosted this event on May 6th, 2022, at UNT Dallas. Invitees included the Provost and President, and several personnel from their offices, from IT, HR, Police and Parking, Cafeteria, Registrar's office, Grants, Facilities, Library, Pcard and Purchasing and accounts payable to name a few.
We gave a few individuals plaques and cards for others. We had coffee, cake and also a popsicle truck. For those individuals who were not able to attend the event, Toni and Dr. Narayan delivered a bag of friendship soup to their desks the subsequent week. I was very pleased to host the event and was happy Dr. Eisenkraft was able to attend as well.
https://www.flickr.com/photos/187611547@N04/albums/72177720298776741/page1
Most of the pictures on page 1 of this album were taken at the Coffee, Cake, and Thanks from Wipro@UNT Dallas event.

## Attending the ISD School Board meetings

### Grand Prairie ISD:

Dr. Narayan attended the GPISD School board meeting on April 14th, 2022, and presented a plaque to the GPISD district, and individual plaques to the DSC Ms. Eileen Little and to each of the Wipro fellows. She also presented thank you cards to the Superintendent, Dr. Herron, Ms. Tamara Majors and Dr. Mandi Nelson. It was nice as Dr. Narayan was able to call each Wipro fellow to the front and present them with their plaque. I invited them to participate in Wipro Phase 3


### Lancaster ISD:

Dr. Narayan attended the GPISD School board meeting on April 26th, 2022. She presented a plaque to the Lancaster district, and individual plaques to the DSC Ms. Faith Milika and to each of the Wipro fellows. She also presented a thank you card to the Superintendent. It was nice as she was able to call each Wipro fellow to the front and present them with their plaque. She invited them to participate in Wipro Phase 3

**Irving ISD**

Dr. Narayan attended the Irving ISD school board meeting on June 20th. She was allowed 5 minutes to present and presented a plaque to Irving ISD school district and one to the DSC Mr. Chris Dazer. She also presented thank you cards to the Superintendent, Dr. Gorena and Ms. Peggy Mainord. She asked the attending Wipro Fellows to stand in their places and be recognized by the board. She was glad she had the opportunity of presenting the Wipro Fellows their individual plaques at the Wipro dinner earlier. I do not have pictures for this as yet. 5 of the Wipro Fellows were in attendance and I was able to call them up and take a photograph with the board.

**DeSoto ISD and Cedar Hill ISDs:**

Despite repeated request Dr. Narayan has not received any responses to requests to attend their school board meetings.

**Other participating District news:**

**DeSoto ISD:**

DeSoto ISD has finally appointed a new Superintendent, the third this year. Dr. Narayan has been sending the administration emails and the interim superintendent attended the Wipro dinner, however she has gotten no responses for a meeting from them.

She needs a) a date to attend their school board meeting and b) a new District Science Coordinator to be assigned as Ms. Moore retired.

**Irving ISD**

Irving ISD has decided not to be involved with Wipro Phase 3 projects at a District level and sent me an email regarding the same that Dr. Narayan shared with Dr. Eisenkraft. She spoke to them, and they let her know that do not have an issue with their teachers participating in Phase 3 projects, there is a lot of reorganization going on in the district and they don't want to be involved at the district level. This means that they will not have a District Science Coordinator to work with Dr. Narayan or their fellows for Phase 3. There are several teachers from Irving ISD involved in Phase 2 and interested in participating in phase 3 which is a good thing.

A summary of the evaluation report follows.

ANNE GURNEE
CONSULTING, LLC

# Wipro Science Education Fellowship
# Evaluation Update
## April 2022

### Tasks this Month

- Completed and submitted Leadership Conference report on April 25, 2022.
- Checked all Fellows' contacts lists with IHE leadership in CA, FL, MO and TX in preparation for sending the Year-end and Follow-up surveys.
- Completed and began administration of both the Year-end Survey for Fellows and DSCs in CA, FL and MO and the Follow-up Survey for Fellows in TX. (Surveys will close on May 10, 2022.)
- Participated in monthly leadership meeting on April 27, 2022.
- Continued plans for year-end evaluation activities and final report.

### What's Next?

During the month of May, AGC will be working on the following:

- Completing the administration of the Year-end and Follow-up Surveys.
- Begin select interviews with Fellows (CA, FL & MO), district leaders and IHE leaders.
- Begin analysis of survey data and drafting of final report.
- Assisting with planning for future evaluation and research in next phase of funding.
- Participating in scheduled call(s) with IHE leadership.

ANNE GURNEE
CONSULTING, LLC

# Wipro Science Education Fellowship
# Evaluation Update
## May 2022

### Tasks this Month

- Completed administration of 3 year-end surveys:
  - Fellows Year-end Survey – for final cohorts in CA, FL and MO
  - DSC Year-end Survey – for CA, FL and MO
  - Fellows' Follow-up Survey – for TX
- Arranged and began year-end interviews with district administrators in CA, FL and MO and with select Fellows in CA, FL and MO.
- Began data analysis in preparation for the final report.
- Participated in monthly leadership meeting on May 18, 2022.
- Continued to make plans with project leadership for next phase including research and evaluation.

### What's Next?

During the month of June, AGC will be working on the following:

- Completing the interviews of District Administrators and Fellows in CA, FL and MO and of IHE leads from CA, FL, MO and TX.
- Continuing analysis of survey & interview data and drafting of final report.
- Assisting with planning for future evaluation and research in next phase of funding.
- Participating in scheduled call(s) with IHE leadership.

ANNE GURNEE
CONSULTING, LLC

# Wipro Science Education Fellowship

## Evaluation Update

June 2022

### Tasks this Month

- Completed interviews of District Administrators and Fellows in CA, FL and MO and of IHE leads from CA, Fl, MO and TX.
- Continued analysis of survey and interview data and began drafting final report.
- Continued to assist with planning for future evaluation and research in next phase of funding including preparing for evaluation/research meeting in Atlanta at the end of August.

### What's Next?

During the month of July, AGC will be working on the following:

- Continuing analysis of survey & interview data and drafting of final report.
- Assisting with planning for future evaluation and research in next phase of funding.
- Participating in any scheduled call(s) with IHE leadership.