

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

WIPRO SEF

YEAR 13

QUARTERLY REPORT
March 2025



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EXECUTIVE SUMMARY

For over a decade, the Wipro Science Education Fellowship (SEF) has provided funding and support to science teachers and school districts across the country. The program has national reach with sites in California, Florida, Massachusetts, Missouri, New Jersey, New York, and Texas serving almost 750,000 total students (approximately 1.5% of US pre-K – 12 students). The original phases of the program focused on developing a cadre of science teacher leaders who lead *from their classrooms*. As the second decade of the program begins a new layer of leadership is being added by engaging more purposefully with school formal district leadership (administration). The goal is to enable district transformation through teacher leadership.

Across the country, our different university sites are presently in Year 3 of the four year Innovation Phase of Wipro SEF. At some sites, there are individual projects, school projects and cross district projects. At other sites, there have been new cohorts of Fellows working on the classic Wipro SEF program while, in others, science teachers are working with math teachers to enhance STEM (science, technology, engineering, math) education.

The program continues to be strong across the country and is facilitating some amazing work by the Fellows and involving many new teachers, thereby expanding the impact of our work.

Keywords: Teacher leadership, collaboration, district transformation, learning communities

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 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. This critical mass of teacher leaders sets the stage for district transformation.

Phase II and Phase III – Innovation Phase

After Fellows complete 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. Through 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 December 15, 2024 through March 31, 2025. We are in the third year of the Innovation Phase (Phase II/Phase III) of the Wipro SEF where all sites are now moving beyond the Foundation Wipro SEF program (Wipro SEF Classic).

The chart below summarizes the activities of this quarter and the activities that took 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 the report, you will find remarkable stories of Wipro Fellows supporting their students as teachers and supporting other teachers as teacher leaders.

Year	CA	FL	MA	MO	NJ	NY	TX
	Stanford University	University of South Florida	University of Massachusetts Boston	University of Missouri	Montclair State University	Mercy College	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 III
2023-2024	Innovation Phase	Innovation Phase	Innovation Phase & Lead Institution	Innovation Phase	Innovation Phase	Innovation Phase	Innovation Phase
2023-2024	Innovation Phase	Innovation Phase	Innovation Phase & Lead Institution	Innovation Phase	Innovation Phase	Innovation Phase	Innovation Phase

Table of Wipro SEF sites

	Cohort 1	Cohort 2	Cohort 3	Past cohorts, teachers new to Wipro SEF, and some administrators
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	
Innovation Phase (Phase II & III)				Activities proposed by individual sites.

Key to yearly activities

BY THE NUMBERS

Foundation Phase (Wipro SEF Classic)

Site (Institution)	Districts	Total Students in Districts	Fellows	Non- Fellow teachers involved (e.g. GPS)	District Science Coordinators	Presentations and Publications
California (Stanford)	5	97,288	60		5	7
Florida (U of South Florida)	3	398,360	45		3	16
Massachusetts (UMass – Boston)	5	73,688	58 – Phase I 17 – Phase II		5	18
Missouri (U of Missouri)	8	34,162	52		13 ¹	8
New Jersey (Montclair State)	5	31,486	60 – Phase I 24 – Phase II 31 – Phase III		5	22
New York (Mercy College)	5	33,580	60 – Phase I 60 – Phase II		5	31
Texas (U North Texas – Dallas)	5	83,160	46 – Phase I 20 – Phase 2 ²		5	28

¹Over four years.

²Plus 5 Non-Fellow teachers for the Walk STEM project.

Current Innovation Phase

Site (Institution)	Projects Submitted	Projects Approved	Alumni Fellow	New Fellows	Non Fellow Teachers involved	District Science Coordinato rs
California (Stanford)	N/A	N/A	16	20		5
Florida (U of South Florida) ³	8	8	8	0	20	3
Massachusetts (UMass – Boston)	8	5	5	0	18	5
Missouri (U of Missouri)	N/A	N/A	4	27		5
New Jersey (Montclair State)	17	17	13	34		7
New York (Mercy College)	7	3	10	12	>100	1
Texas (U North Texas – Dallas)	9	9	13	22	1	5

¹ Plus two district administrators.

² Plus nine district administrators.

³Note that the 8 projects are ones that are currently active. We have had a total of 13 projects approved overall but 2 left since fellows took on leadership roles. Some of our fellows submitted a new project as well. Also, for the non-Fellow Teachers involved, please note again this is for current projects and may include some assistant principals who are technically not teachers but are involved with the project.

UPCOMING MEETINGS AND MILESTONES

National Science Education Leadership Assn (March 26, 2025), Philadelphia, PA

National Science Teaching Association Meeting (March 27-29, 2025),
Philadelphia, PA

End of year conferences:

Missouri – May 3, 2025

Florida – May 17, 2025

New Jersey – May 29, 2025

California – June 7, 2025

Texas – June 13, 2025

EXECUTIVE SUMMARY FOR EACH SITE

Executive Summary Statement - CA

The Wipro Science Education Fellowship (SEF) Innovation Phase at the CA site is positioning itself as a key contributor to district transformation by fostering teacher leadership in science. Central to our mission is addressing persistent inequities in science education, ensuring that all students have access to high-quality, engaging, and equitable science learning experiences. By providing focused professional development, individualized mentoring, and opportunities for cross-site collaboration, the CA site aims to elevate science teaching to meet the high standards of the Next Generation Science Standards (NGSS). This approach empowers teachers to lead district-wide change while transforming instructional practices across multiple levels.

The three components for the CA site include the traditional Wipro Science Education Fellowship Program for teacher leaders, the Wipro School Leaders Program, and individual district team support. For the Wipro SEF Program, professional learning sessions are focused on fostering teacher agency and promoting student-centered practices that align with the Next Generation Science Standards (NGSS) and address district-wide needs. Teachers will also be equipped to provide equitable opportunities in science education for all students that embrace all cultural and linguistic backgrounds. For the Wipro School Leaders Program, this year's emphasis is on supporting instructional coaches to better understand how to practice leadership and elevate the quality of science instruction in their district contexts. For work with district teams, the CA Leadership Team continues to work alongside district coordinators to plan ways to leverage the expertise of Wipro fellows to further their district science goals.

This quarter, the CA site welcomed 20 new Wipro Fellows from five partner districts into Cohort 5 at an Induction Ceremony. Fellows participated in monthly professional learning sessions and worked in their collaborative V-CCLS groups. In mid-January, V-CCLS groups presented their collective learning. The Wipro School Leaders Program welcomed 6 participants made up of instructional coaches and teacher leaders, with many of them being alumni of the Wipro SEF Program and taking on more leadership responsibilities in their districts. To further support district transformation efforts, the School Leaders Program offers professional learning and coaching focused on leadership, coaching, adult learning, and developing strong learning cultures within departments and schools.

In this next quarter, the CA site will continue to provide professional learning, coaching, and supporting districts with their science goals. The Wipro SEF Program will support H-CCLS collaborative group work as well as continue with professional learning focused on high quality science instructional practices. The

Wipro School Leaders Program will continue to dive deeper into problems of practice and how to practice leadership to solve these challenges, and District Coordinators will continue to work alongside the CA Leadership Team to focus on individual district needs.

Executive Summary Statement - FL

The goal of our program is to continue to cultivate leaders in our districts from those individuals with the desire and passion to do more in the classroom. The way we do this is to allow our fellows to focus on innovations that they are passionate about rather than dictating structure and projects to them. The more passionate the fellows are about the projects, the more they will share that fire with others not only in their district but beyond.

We have eight team projects that are either in their first or second year of implementation. The team leaders chose their own projects based off previous Wipro work, selected their own team members, and then implemented that work. Some of these projects involve creating curricula while others focus on technology or promoting stem to various groups. This was the second school semester for three of our teams (though some of our teams are in the first year of a new project).

Community outreach can be argued to promote district wide impact. Our major event during this quarter was participating in the St. Petersburg Science Festival. Members of our leadership team and our fellows ran a booth. The activities were chosen by the fellows and they talked about how it was related to one of the projects (after school organization with rockets). Our new banner was made to highlight Wipro, the University, our College, and our three partnering districts. We converted our in-person event to a virtual one in January, we are in the middle of our meetings and just held a virtual meeting in March. We worked with the fellows to have them help lead the discussion on what they wanted to see in the upcoming March celebration.

Looking forward to the next quarter to our celebration event in May. We will also be working towards recruiting our final cohort of one-year projects as the project will be nearing completion. We are also going to be wrapping up our visits for our various groups.

Executive Summary Statement - MA

The UMass Boston innovation plan includes working with the original five districts as well as beginning Wipro SEF activities with three new districts. Each of the original five districts had a meeting with the Fellows, the District Science Coordinator and Arthur Eisenkraft to discuss district initiatives. The purpose of these meetings is to help define “district transformation” for each district. This requires identifying the gap between the present district situation and the future vision of the district. This leads to a recognition that there are specific changes

that the district may want to implement in science. In turn, we identify strategies that are within the capabilities of the Fellows (i.e. teacher leaders) and the coordinator to implement over the next few years.

The following initiatives are taking place:

Cambridge Public Schools is continuing with V-CCLS teams, led by a Wipro Fellow. They have seven middle and high school teachers focusing on Talk Science as one element of their course of study and either Developing and Using Models, or Analyzing and Interpreting Data, as their second element. The science coordinator is anticipating having elementary teachers join the V-CCLS groups in the spring.

A new project, *Wipro's Science-Literacy Teacher Leadership*, will be led by two UMass Boston professors in collaboration with the Massachusetts (MA) State Department of Elementary and Secondary Education. The study aims to identify and develop innovative facilitation scaffolds to support elementary students' sensemaking when engaged in integrated science-engineering learning. This project attempts to create enhanced integrated and equitable science-engineering learning for all elementary students, including dual language learners by helping teachers reconsider the role of disciplinary language and literacy in their students' sensemaking as they engage in the NGSS practices. The teachers represent three school districts.

Dr. Betsy Clifford, the District Science Coordinator from Braintree Public Schools, will lead the science department in the following work:

- Continued work on articulating how science content and skills progress and align K-12. (Vertical Collaborative Coaching and Learning in Science: V-CCLS for DCI and SEP)
- Collaboration with peers in the math department about skills for chemistry and physics (Math/Science Collaboration)
- V-CCLS related to the Modeling Pedagogy and specifically student whiteboarding, storyline approach related to phenomena, relevancy and real-world application (V-CCLS for Modeling Pedagogy)
- Send a few teachers to external Professional Development Offerings such as the MAST Conference so they can present their work. (Project dissemination and leadership)
- UMass Boston will continue to try to generate interest in the foundation Wipro SEF program of 4 years in three high-needs districts in the Boston area. Unlike the original sites, these new sites and Fellows will not be receiving the generous stipends of the past and will have to come up with other ways to incentivize participation in the program.

Executive Summary Statement - MO

The Missouri Wipro project's goal of teaching math and science in a harmonious manner will contribute to the transforming of the teaching of those subjects in participating districts. We are already seeing collaboration among math and science teachers, development of lessons that borrow from the other subject, discussion about changing the sequences in their curricula and interest in bringing in other teachers from their grade bands. Our Wipro project uses a modified version of the initiatives of Phase I. Fellows participate as teams of 2-4 teachers from three grade bands (K-5, 6-9 and 9-12) from a given district, with at least one math and one science teacher in the team. For cohort 4 and 5, grade 6-12 teachers were recruited for year 1. K-5 teachers were added only in year 2 for cohort 4. For cohort 6 we have changed the grade band mix to recruit all grades, namely, K-12 teachers for both years. In year 1 they collaborate in V-CCLS and H-CCLS teams, anchoring their work in a research article and a math and a science educational practice. In year 2 they focus on creating or modifying four or more lesson plans that integrate math and science content. During this semester (Jan – May 2025) Cohort 6 started working on their H-CCLS segment of year 1. They have chosen their research articles and have scheduled their debriefs. Cohort 5 is continuing their work on lesson plans. We have continued our segment on Physics + math activities, which consists of a 60–75-minute segment where fellows conduct a physics lab and analyze it for the science and math practices used in the lab. Since we use an inquiry and modeling-based curriculum (<https://exploringphysics.com>), it includes questioning strategies, discussion, designing experiments, data analysis to develop scientific formulae and multiple representation – and therefore several math and science practices.

Executive Summary Statement - NJ

The Montclair State University site has made progress through the first half of its Phase III project. The program is contributing to district transformation through the Fellows' self-initiated projects, which extend the reach of the Wipro program to new teachers, new districts, new subjects, and new collaborations. The connections that are made through the program would not be possible without the structure that the Wipro SEF program provides.

The current phase of the project has involved 12 Alumni Fellow working on district-related initiatives and a doctoral student working on publicizing the program. Each of the alumni Fellows has recruited a team of district teachers. Together, these teams are working towards their respective goals as a new cadre of teacher leaders are nurtured.

Executive Summary Statement - NY

“A change is brought about because ordinary people do extraordinary things.”
(Barack Obama)

We have a cadre of educators that may seem “ordinary”, but they are

accomplishing extraordinary things within their classrooms, schools, and districts. These 22 educators are providing STEM experiences in their classrooms and grounding their students in STEM literacy. They are also moving their work beyond their four walls by collaborating with colleagues to share and spread their dedication to STEM.

On January 6, 2025, we had our Wipro Reimagined Cohort 3 Launch. We reflected on our whys and hows. Why did I choose to enter this program? What do I want to accomplish for myself in this project? How do I think I will be changed by this work that I am doing? How do I want this work to inform or transform my students? My classroom? My teaching? How do I anticipate this project impacting the district? How might it lead towards district transformation or district TRANSFORMATION? A major goal of the meeting was to build community between the Fellows, establish plans for success and sustainability, discuss progress, and set goals and expectations for the months ahead. Teams were able to engage in meaningful planning and goal setting with their teacher members and their administrator. They then had the opportunity to share their ideas across teams and districts – the beginning building blocks of cross pollination.

In this quarter our New Rochelle Columbus team presented to their Board of Education. They also hosted a well-attended Coding and Robotics Family Night. New Rochelle's Arcade Challenge Team began lunchtime clubs where their elementary students designed and engineered arcade games supported by high school science students. Our White Plains STEM Spotlight Newsletter created and disseminated the first edition of their [STEM Newsletter](#) (advertised on the landing page of the White Plains Public Schools website -

<https://www.whiteplainspublicschools.org/>). Aimee Ferguson, Fellow from Cohort 2 planned and hosted an informal education event for Westchester educators at the Westchester Children's Museum. Maria Walsh provided a PD session through STANYS (The Science Teachers Association of New York State) called "Building Thinking Classrooms".

Our Fellows have been busy teaching, leading, and transforming their communities. In the next quarter we are looking forward to more exciting events. The Jefferson Wipro Team (Cohort 2) will be presenting to their Board of Education at their principal's invitation. She has expressed her pride in all they have done and are doing through their work as Wipro Reimagined Fellows and wants to celebrate that work at the district level. The Columbus Team members will lead professional development related to their Learning to Code Coding to Learn project for their school's Staff Development Day. This will ensure teachers in the building K-5 will have an opportunity to learn and try implementation in their own classroom. Five of our fellows have had presentation proposals accepted for the NSTA conference in Philadelphia. Three of them will present (March 25th – March 29th.)

At first glance, the transformation happening may seem small. However, a thoughtful reflection on this work provides an understanding of the way our

Fellows are changing personally and professionally and the ways their work is changing their students, their school culture, and their districts. "Transformation is an ongoing process that tends to appear ordinary, when, in fact, something extraordinary is taking place."² Something extraordinary is indeed taking place with our NY Wipro Fellows.

Executive Summary Statement – TX

The Wipro SEF Innovation Phase at UNT Dallas is in its third year. This year too we have funded school projects, collaborative as well as individual projects focused on district transformation through teacher leadership. New science Tekes have been implemented since fall 2024 and most of these projects address the changes made.

In the innovation phase, three types of projects are funded. School projects involve more than 2 fellows working together on a goal that impacts the school/ISD. Collaborative projects are between Fellows in the same school, ISD or different ISDs collaborating on a project of common interest. Individual projects enable Fellows to work on projects they are interested in and still be a part of Wipro and impact students. This year, 2024-2025, we are funding a total of 10 projects, 4 schools, 3 collaborative and 3 individual projects.

This quarter has been extremely busy, especially with ISDs going into Staar test mode which impacts our projects a little as teachers are called in more to stop teaching and do reviews, so their students fare well on these tests. We anticipated this and the fellows have done well in making sure their projects are not impacted too much by the spring Staar testing frenzy! What we did not anticipate was the weather playing havoc with our face-to-face meeting. We had a meeting scheduled for Feb 3rd, we had to cancel the meeting on account of bad weather and again on Feb 17th for the same reason. Our next face to face meeting is on April 7th and so I set up zoom meetings with each project, the participants and the DSC.

https://docs.google.com/document/d/1k-60o2aARd_Dor_cJySvVK4LJ6U--NeJlX9BcDhO-Zo/edit?usp=sharing

All 26 participating fellows and their DSCs attended the 9 individual zoom meetings. I answered all questions they had; we touched base on their project progress. (They are so excited about it). I made sure all stipends were paid in a timely manner, they had the required information regarding their next face to face meeting and deadline about their websites being complete till the month of March, quarterly reports and research informing their projects. Some of them do not have access to the library and I will send them articles that support their research.

The next quarter will be very busy as well. In my previous report, I said the next meeting was on April 15, we got bounced out of the room for an admissions event, so it has been rescheduled for Monday April 7th in Campus Hall. (Space at UNT Dallas is at a Premium and we have to take what we get1) As you know CAST is in

Dallas this November and other than the 9 current projects which we will be submitting, I would like to have other inactive Fellows also present. I have spoken to CAST leadership about this and while they are interested, CAST will be held at the Sheraton Dallas, a smaller space than the Anatole, and they have to make some decisions as to how many sessions they can give us and get back to me.

On April 7th I will be talking to the group regarding their own CAST proposals and will make sure that I work with them to get the proposals submitted and accepted! I will also be talking to the fellows regarding our conference on June 13th. On Friday June 13th, we will also have the 2024-25 Annual conference and meeting at UNT Dallas. It is a one-day conference, and I would love to host presentations from other Wipro sites.

UMASS BOSTON LEAD INSTITUTION



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

Executive Summary Statement

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Cross Site Collaborations

Jan 31 -Feb 2, 2025

Leadership Meeting – Nashville, TN

Goals for the Retreat

Our time together focused on three main objectives:

- **Reflecting on the Past:** Celebrating successes, identifying challenges, and sharing lessons learned.
- **Planning for the Future:** Shaping the vision for a new phase of the project, including priorities for the next proposal to our funder.
- **Exploring New Directions:** Engaging in creative, over-the-top brainstorming to imagine bold possibilities for the future of Wipro SEF.

Retreat Assignments and Agenda

Each university team is invited to prepare two presentations addressing the following:

PRESENTATION 1:

1. Celebrate Successes

- Highlight 1-2 impactful achievements from your work over the past year or during the project's history.
- Include compelling visuals, data, quotes, etc. to illustrate your impact.
- Show how these successes align with the project's overall goal of district transformation through teacher leadership.

2. Reflect on Challenges

- Share 1-2 significant challenges your team has encountered (e.g., teacher engagement, district collaboration).
- Describe strategies you used to address them, what worked, and what didn't.
- Identify unresolved issues that could benefit from group input.

3. Showcase Innovation

- Present any innovative approaches, tools, or methods your team has developed or adopted. Each site has unique features. Here is the chance to highlight them.
- Explain their purpose, impact, and scalability.
- Discuss how other teams might adopt or adapt these innovations.

PRESENTATION 2:

1. Propose Opportunities for Growth

- Suggest 1-2 areas for future focus (i.e. our next grant proposal)
- Provide a rationale and potential benefits to the overall project.
- Identify collaborative opportunities with other universities or districts.

2. Contribute to the Funder Proposal

- Share specific recommendations for the next phase of the project.
- Highlight resource needs (e.g., personnel, materials, funding) to support your ideas.
- Offer to lead or collaborate on specific aspects of the proposal.

Wipro SEF Leadership Meeting Key Takeaways

Anne Gurnee Consulting, LLC February 7, 2025

The purpose of this document is to share some “top-of-mind” thoughts from the recent leadership retreat in Nashville, Tennessee, January 31-February 2, 2025. It is not a summary of all topics covered, but instead an offering of questions and thoughts to prompt possible future action for project leadership, project teams and/or the evaluator team.

- Ratna Narayan (TX) reflected on her personal growth while working with Wipro SEF, highlighting her development as an event planner. This skill, though new to many IHE teams, is a key requirement of the program.

Questions to consider:

- What is the value of the event planning skills gained by IHE teams?
- How do these skills support other aspects of their professional work?
- If the program expands in future years, how can project leadership provide effective training and support for new IHE teams?
- Dr. Narayan highlighted the value of her Fellows’ CAST presentations over the years. With consistent participation from UNT Dallas presenters, how has their regular involvement and professional contributions influenced and impacted CAST?
- The group discussed the use (or lack of use) of Slack.

Questions to consider:

- Why hasn’t the group actively adopted this communication tool?
- If Slack is the most effective option, how can we promote its use?
- Would additional training help support those less familiar with the platform?
- Monica Taylor (NJ) shared the success of using the problems of practice protocol to facilitate deeper discussions with Fellows. To explore its potential, the leadership team could trial the protocol during a monthly meeting, guided by Dr. Taylor, before implementing it at other sites.
- New Jersey doctoral students have collaborated with Fellows on social network analysis. What insights does this work provide for leadership, researchers, DSCs, and Fellows?

- The Missouri team faces a leadership transition as Linda Godwin and Meera Chandrasekar plan to retire at the end of the current funding in mid-2026. What support is needed to transition leadership to a new team at the University of Missouri? Would a site visit to engage university administrators help reinvigorate support, depending on Wipro's decision on future funding?
- Several sites highlighted "superstars" – Fellows and DSCs who have excelled within Wipro SEF, driving significant growth in their schools, districts, or regions. Would it be beneficial to bring these participants together (virtually or in-person) to:
 - o Share insights on what aspects of the program contributed to their success?
 - o Provide feedback for program improvement?
 - o Celebrate their professional growth and impact?
- As the program grows and diversifies, both individual/group projects and the classic Wipro SEF model are being implemented. Which approach (projects or "Wipro classic") more effectively fosters teacher leadership and district-wide impact?
- There were discussions about the status of future funding from Wipro.

Questions to consider:

- What role should science play in the program? With science education under pressure, should the program expand to include other disciplines? How do Wipro and project leadership view this growth?
- The program's greatest successes often occur with individuals, schools, or districts "ready" for growth and change. Should efforts focus on those ready to engage productively, or should resources continue to support less-ready groups to foster broader inclusion and impact?
- Regarding future program funding, consider the following action items and considerations:
 - o Initiate regular communication with Wipro to stress the need for timely funding decisions.
 - o Add a future funding update to the monthly meeting agenda to keep the team informed and encourage leadership to follow up with Wipro.
 - o Develop two parallel plans: one assuming future funding and one without it.
 - o Engage key IHE partners in discussions with Wipro, both to share responsibilities and prepare them for future leadership roles.

March 26, 2025 – Philadelphia, PA

National Science Education Leadership Association (NSELA) meeting

- 2025 Outstanding Leadership in Science Education (OLISE) Award
The National Science Education Leadership Association (NSELA) is thrilled to announce Dr.

Arthur Eisenkraft as the recipient of the 2025 Outstanding Leadership in Science Education (OLISE) Award. This prestigious honor recognizes individuals who demonstrate exceptional leadership in science education at school, district, regional, national, or international levels. Dr. Eisenkraft will receive a \$1,000 award and plaque during the NSELA Annual Conference in Philadelphia, PA.

Dr. Eisenkraft's acceptance remarks included:

"This award, in no small way, recognizes the value of the projects I have been involved with and the many, many colleagues (and friends) that I have been fortunate enough to collaborate with.

This award underscores the importance of the work we've accomplished as a team and I hope brings visibility to the impact these projects are making at improving science education."

March 27-29, 2025 – Philadelphia, PA

National Science Teaching Association (NSTA) meeting

The following Wipro Fellows and Leaders made presentations based on their Wipro work.

First Name	Last Name	Site	Presentation Title
Arthur	Eisenkraft	MA	Guidance on being a teacher leader without leaving the classroom
Allan	Feldman	FL	Dialogic Collaborative Action Research to Improve Science Teaching and Learning
Tara	McClintick	FL	Science Vocabulary Adventures: Discover, Learn and Play!
David	Rosengrant	FL	Leading from the Classroom: Cheers and challenges of a six year science teacher leadership development program
Susan	Bartol	NJ	Shaping the Direction of School-Based Professional Learning
Larry	Plank	FL	Leading from the Classroom: Cheers and challenges of a six year science teacher leadership development program
Regina	Borriello	NJ	Three Easy Steps to Adding Inquiry to Labs
Meghan	Marrero	NY	You Can't Be Science Literate if You Are Not Ocean Literate: Celebrating 20 Years of Understanding the Ocean's Influence on Us and Our Influence on the Ocean.
Leana	Peltier	NY	Creating a Culture of Community in the Classroom: Celebrating Individuality and Cultivating Equity
Abbey	Gilligan	NY	Teacher Leadership in Action: Transforming Professional Development Through a Teacher-Led Elementary Science Conference
Kris	Grymonpre	MA	NASA PATHS Storytelling Program (With Shirley Tang & Arthur Eisenkraft)

Brooke	Whitworth	other	I have multiple sessions - several as Editor for TST
Victor	Pereira	MA	NSTA Postsecondary Presents: Moving Beyond Lecture - Proven Pedagogy for the 21st Century College Science Classrooms (Speed sharing Session)
Victor	Pereira	MA	Kids in Nutrition: Fostering Long-Term Engagement in Food Sustainability

All the presenters and other Fellows attending the conference shared a festive dinner with informative conversation on Friday evening.

Attendance and Site Visits for Wipro SEF

The end of year conferences at our California, Florida, Missouri, Texas, New Jersey and New York provide an opportunity for cross site visits. We are making plans for Fellows at sites to present at other sites during May and June.

Common Interest Seminars

Book Clubs

Climate Book Club: District Science Coordinators (DSC) and University Personnel completed the first book club where we shared perspectives on, *Not Too Late: Changing the Climate Story from Despair to Possibility*. The monthly meetings provided a forum, led by Wipro DSCs, where we discussed how to best teach climate in our respective schools.

The second book club will begin in May with *The Story of More: How We Got to Climate Change and Where to Go from Here* Paperback – March 3, 2020 by Hope Jahren.

From Amazon:

Hope Jahren is an award-winning scientist, a brilliant writer, a passionate teacher, and one of the seven billion people with whom we share this earth. In *The Story of More*, she illuminates the link between human habits and our imperiled planet. In concise, highly readable chapters, she takes us through the science behind the key inventions—from electric power to large-scale farming to automobiles—that, even as they help us, release greenhouse gases into the atmosphere like never before. She explains the current and projected consequences of global warming—from superstorms to rising sea levels—and the actions that we all can take to fight back. At once an explainer on the mechanisms of global change and a lively, personal narrative given to us in Jahren's inimitable voice, *The Story of More* is "a superb account of the deadly struggle between humanity and what may prove the only life-bearing planet within ten light years" (E. O. Wilson).

New seminar series for DSC on AI – large learning modules

In this proposed 4-session seminar, we look forward to:

- learning about the capabilities of Chat GPT and its potential applications in science education
- explore different approaches for using Chat GPT to enhance student engagement and understanding of scientific
- gain hands-on experience developing Chat GPT-based educational tools
- network with other educators and share best practices for integrating Chat GPT into your teaching practices

The Conference Goals are:

- To support a community of department science coordinators (DSCs)
- Recognize the critical role that DSCs play in their districts and in the Wipro SEF program
- To share experiences and expertise as DSCs in Wipro districts and learn from each other through useful dialogs

Incentives for attendance include:

A \$100 honorarium will be provided for attendance by a DSC at each session attended. (e.g. Three sessions attended = \$300.)

A DSC that leads a workshop will receive an additional \$100.

If any of the workshops require readings, participants will receive the appropriate books.

Based on polling from previous years, these are the dates and times for the seminars. More detail on the content is below.

Session 1: Wednesday, April 9 from 7 PM-9 PM (EST): Assessment and Assignment Generation

Session 2: Tuesday, April 15 from 6 PM – 8 PM (EST): Engagement and Creative Content

Session 3: Thursday, April 24 from 6 PM – 8 PM (EST): Support and Feedback

Session 4: Wednesday, April 30 from 7 PM – 9 PM (EST): Critical Thinking and Problem-solving

Assessment and Assignment Generation:	Engagement and Creative Content:	Support and Feedback:	Critical Thinking and Problem-Solving:
Grade lab reports	Write stories, raps, and poems for student engagement	Act as a tutor and mentor for students, providing study help	Engage students in dialogues to stimulate critical thinking
Create short answer and multiple-choice problems	Create role plays and interactive activities related	Offer proofreading, editing, and language support	Teach algorithmic thinking and questioning strategies

	to content	for teachers and students	
Generate quizzes, exams, and assessments	Make choose-your-own-adventure storybooks	Assist in drafting email communications and writing recommendations	Present conflicting viewpoints and encourage critical analysis
Write open response questions for each standard	Produce songs and quotes related to scientific concepts	Respond to parent emails and write notes to students	Ask ChatGPT to include an error in a solution and have students find them
Provide exemplary responses and feedback on student work	Generate activities and games to stimulate interest	Provide study guides and study help for exams	
Identify common misconceptions and errors in solutions	Encourage students to explore different perspectives and conflicting viewpoints		
Have students find errors in ChatGPT's solutions	Use ChatGPT as a collaborative sounding board for brainstorming ideas (<i>Overlaps with Curriculum Development</i>)		
Create problem missing critical info and ask students what info is needed			

Wipro SEF Newsletter

We produced and disseminated our second Wipro SEF Newsletter. The new format was a collaborative effort of the Leadership Team and coordinated by Natasha Mello (MA). This brief newsletter highlights the latest updates from the Wipro SEF program, along with a few inspiring stories from districts across the country. It offers a glimpse into the extraordinary work being done by teacher leaders and the meaningful impact this initiative is having on students, educators, and communities. The newsletter is found in the appendix to this report.

Wipro Book

The book highlighting our Wipro SEF approach has been published. It can serve as an operations manual for school districts and universities that want to replicate our program.

The following note went to the many Wipro participants who contributed to this publication:

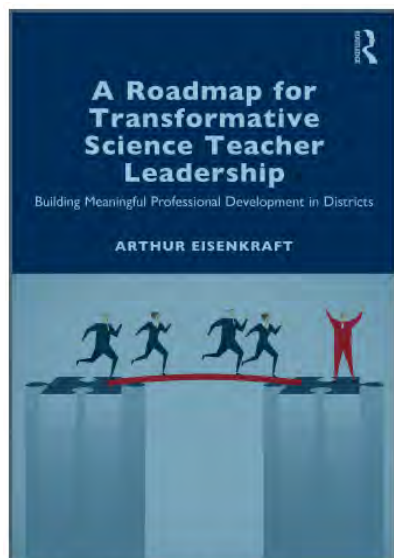
I hope this message finds you well. I am thrilled to share that the book we've been working on together has finally been published! Your contributions, whether quotes that made it to the final print or insights that helped shape the chapters, were invaluable in bringing this project to life.

Each page reflects the collective wisdom and dedication of contributors like you, and it is my sincerest wish that you take pride in what we have accomplished together. As a token of appreciation and to ensure you can hold our shared efforts in your hands, I am sending you a copy of the book.

Thank you once again for your invaluable contribution and for being a part of this journey. I am eager for you to see the finished product and hope it serves as a testament to our collaborative spirit.

Warm regards,

Arthur



Feb 2025: 220pp 13 B/W illustrations
Pb: 978-1-032-79119-7 ~~\$44.99~~ \$35.99
Hb: 978-1-032-79120-3 ~~\$180~~ \$144

For more information visit:
www.routledge.com/9781032791197

A Roadmap for Transformative Science Teacher Leadership

Building Meaningful Professional Development in Districts

Arthur Eisenkraft

This book is a comprehensive guide to an effective Science Education Fellowship (SEF) program. Spanning over ten years and involving hundreds of teachers, district science coordinators, and university faculty, the Wipro SEF program has empowered teachers to become leaders who drive meaningful, sustainable change in their schools and districts without leaving the classroom.

Offering an in-depth look at the SEF program's structure, from its foundation in teacher leadership development to its innovative adaptations across seven universities and 35 school districts; the book presents a roadmap for implementing similar programs in other school districts, targeting teacher retention, teacher development, and fostering student growth. Readers will find detailed explanations of key program components, and the vital roles of district science coordinators and higher education institutions. Through a mix of theoretical insights, practical strategies, and testimonials from program participants, the book provides a comprehensive model for educators, administrators, and university leaders who aspire to replicate or adapt the SEF program in their own contexts.

Ideal for both educators and school administrators, this book will allow you to gain valuable insights into building and sustaining a program that empowers teacher leaders, drives district-wide transformation, and ultimately improves student outcomes in science education.

Wipro Research Initiative update

Professor Brooke Whitworth, Professor Julian Wenner and colleagues are continuing research

regarding teacher leadership and how the Wipro SEF program aligns with current knowledge regarding this field.

SciLeadPro - update

Six DSCs have enrolled in SCILEADPRO to complete a year of professional learning with research and other DSCs from around the country. They attended their first all-day session on August 24, 2024.

- In January they had an 8-hour session on January 4, 2025 where participants considered how to support 3D instruction and assessment. They also looked at analyzing student work and they explored different protocols for doing this with teachers.
- In January and February, participants worked to get a more solid draft of their strategic plan asynchronously and added evaluation components to their plans.
- In February, participants met one on one with facilitators to discuss their strategic plan and any questions or issues that had arisen over the year.
- In February, participants worked through an asynchronous module exploring orientations to coherent curriculum.
- In March, we met on March 3, 2025 to discuss developing and evaluating curriculum and to think about how we can identify hidden curriculum and work to support teachers in thinking about curriculum more deeply.

Monthly Leadership meetings

Meetings of representatives from the seven sites in the Wipro SEF program occur monthly to share best practices, plan strategic initiatives, and share progress. The annotated agendas for the January and February meetings are provided here.



Monthly Meeting Agenda
Tuesday, Jan 21, 2025
11 AM – 1 PM (EDT)

[Join Zoom Meeting](#)
<https://umassboston.zoom.us/j/99914434497>
[Meeting ID: 999 1443 4497](#)
[Passcode: 973499](#)

- 0. [Visit to India cancelled](#)
- 1. Quarterly Report Feedback

Each meeting, two sites can present their reflections on the Annual Evaluation report data.
Mercy and Missouri for November
Montclair and Stanford for December
Florida and UNT Dallas for January

You will have approximately 15 minutes each to discuss and lead a discussion.
The focus can be on:

- a. **Engagement with Evaluation Findings:**
 - a. "What are the key takeaways from the evaluation report that stood out to you?"
 - b. "How have the evaluation results informed your understanding of the project's impact on teacher learning and development?"
- b. **Actions and Follow-up:**
 - a. "Based on the findings, are there any specific areas that require immediate attention or adjustments in the project's approach?"
 - b. "How do you plan to address any challenges or areas of growth highlighted in the evaluation?"
- c. **Sharing Insights with Parallel Programs:**
 - a. "What findings from the evaluation would be most beneficial for other sites running similar parallel programs?"
 - b. "In what ways do you think collaboration across sites can be enhanced based on the insights from this evaluation?"
- d. **Improving Future Evaluations:**
 - a. "What additional information or data would you like to see in future evaluations to better support your decision-making and project improvements?"
 - b. "Are there any aspects of the current evaluation process that could be changed or expanded to provide more useful insights for your team?"

Florida:

David: Discussion of ongoing projects in FL. Team composition, Action research in first year, and then fellows made presentations at local and national conferences.

Key takeaways: Overall the fellows are pleased with the program. Very few participants. All the DSCs agreed that Wipro had positive impact on districts. Continued cultivation of network of like-minded educators was very important.

Teacher Leadership: fellows reported confidence in speaking to groups, comfortable giving and receiving feedback, and prepared to facilitate and lead PD programs in their districts.

Attitudes and Behaviors: Fellows felt that they have a positive impact on their classrooms and schools

All the fellows and DSCs believe that they have an important role to play in district change and teachers can help lead district change

Actions and follow – ups:

Fewer than 75% of fellows agreed or strongly agreed that their work in the project has had positive impacts on their district. Participation challenges: difficult to get previous fellows to apply. Possible put off by the size of our grants, political landscape in FL is a challenge.

David: What does an impact on a district look like?

Allan: Teachers seem to have a problem to get money for their time. They feel intimidated.

Recommendations: Keeping Phase 1 fellows involved. Communicate with District/University leaders. Sustainability outside of grant. Scale of Projects for District change. Provide support for writing articles. Modifying meeting structure: Phase 1 – monthly in-person meetings, phase 2 fall 24/Spring 25” 1-2 in person meetings a semester, 1-2 virtual meeting a semester.

Sharing Insights with Parallel Programs: Topic-centered focus groups across sites, heavy involvement with DSCs.

Improving Future Evaluations: Continued updated upon the status of survey instruments that have been completes will allow for leadership to urge grant participants to complete tasks at a greater rate. Digital snapshot or similar tool to compare response rate, perceptions on similar questions, etc. over time. Am option of additional open-ended items within the survey tool that are co-crafted by site-based leadership.

Arthur: How can we build on what we had last year and encourage collaboration across sites

David: Reports from the field can be included in the newsletter

Texas:

Ratna: Reflection in the Evaluation Report

Phase 3, year 3: includes school projects, collaborative projects, and individual projects.

We focus on the experience of leadership not the bullet points leadership. Most frequent Leadership Behaviors. Least frequent leadership behaviors” working collaboratively with

administrators. Success of Wipro: Continued collaboration with like-minded educators, Improvement in STEM teaching and opportunities, Improvement in teacher leadership, response to change in Science Teks from Fall 2024. Impact. Out of the 10 proposals this year are responding to changes in science curriculum. Suggestions for Improvement: Increased funding, maybe we can set up our own conference. We need to start support for articles writing. Maybe I need to offer a stipend for writing an article. We practice a lot on what is a professional conference.

Sharing Insight with Parallel Programs: Collaborative projects, opportunity for collaboration.

Arthur: A question I have, about percent of participants identifying themselves as leaders. But how has their perception grown as result of Wipro? How their perception has grown and what aspects of the program affected it?

In the spring, we can have a focus group to discuss it. Open-ended round table discussion.

Carmen: Moving forward, can we have a pre-survey to see where they see themselves before starting this program

Arthur: Can you ask your fellows to write an article of how they learn how to present? Next step could be ow to write an article explanation.

Have a monthly meeting to discuss writing progress.

Arthur: It has been a wonderful set of meetings where we discussed the evaluation results. I really appreciate everybody who participated.

2. Newsletter

- Feedback
- Content for 2nd newsletter
 - Reminder: The update has been added on the website [here](#).

Arthur: We can start putting together another newsletter based on the recent report. Any of the fellows mentioned that they were pleased to see this newsletter? How can we make it better to fit their needs?

3. Cross-site conferences and updates

- Climate initiatives
 - o Climate V-CCLS
 - o 4 teams (MO-2; MA -1; CA -1)
 - o Meeting in February
- Climate Book Club: Not Too Late
 - o Third and last meeting
 - o Next steps
- Brooke Whitworth Leadership Institute - update
 - o 5 are enrolled
 - o Arthur: Seems to be working well
- Cross-site interest groups – plans for Spring
 - o ELL workshop– Preetha? Ratna?
 - o Gardening – Lisa (CA)
 - o Climate
 - o Others?
- Conferences
 - o NSTA – Philadelphia (March 27-29)
 - o Conference proposal accepted including Wipro SEF
 - o Attendees and lunch: <https://bit.ly/WiproNSTA2025>
 - o **Arthur:** These meetings work really well and help fellows to learn more about the program.
 - o AAAS – Boston (Feb 13 – 16)

- o People attending. Please let me know with the hopes we can get together

4. Site Visits?

- New Jersey
Emily: We are doing ½ day retreat for fellows. We are doing introductory activities, then leading a session and also we have fellows bring a problem of practice to solve and discuss during the retreat. They will be presenting their problems of practice and getting feedback on them. Our doctoral students are doing another piece on social networking. We got great participation.
- Florida – St Pete Festival

5. Leadership Retreat

- Nashville Jan 31-Feb 2
- Reimbursements: It is totally up to the subs. If they want to incur the reimbursements and then we can issue amendments to increase their overall totals, we can absolutely do that. If the individual wants to pay the travel expenses and get reimburse from here, that's also fine. It is a little more work making sure that they are registered in the UMass system and waiting to be reimbursed. We will try our best to get the reimbursements process in a timely manner.
- Agenda review and comments/additions/changes?

Arthur: Looking forward to this retreat. Hopefully we'll figure out some of the questions about supporting Wipro program.

Anne: Information about mid-year survey. It needs to be submitted by 1/28.

Goals for the Retreat

Our time together will focus on three main objectives:

Reflecting on the Past: Celebrating successes, identifying challenges, and sharing lessons learned.

Planning for the Future: Shaping the vision for a new phase of the project, including priorities for the next proposal to our funder.

Exploring New Directions: Engaging in creative, over-the-top brainstorming to imagine bold possibilities for the future of Wipro SEF.

Retreat Assignments and Agenda

To make our discussions as productive as possible, each university team is invited to prepare two presentations addressing the following:

PRESENTATION 1:

1. Celebrate Successes

Highlight 1-2 impactful achievements from your work over the past year or during the project's history.

Include compelling visuals, data, quotes, etc. to illustrate your impact.

Show how these successes align with the project's overall goal of district transformation through teacher leadership.

2. Reflect on Challenges

Share 1-2 significant challenges your team has encountered (e.g., teacher engagement, district

collaboration).

Describe strategies you used to address them, what worked, and what didn't.

Identify unresolved issues that could benefit from group input.

3. Showcase Innovation

Present any innovative approaches, tools, or methods your team has developed or adopted. Each site has unique features. Here is the chance to highlight them.

Explain their purpose, impact, and scalability.

Discuss how other teams might adopt or adapt these innovations.

PRESENTATION 2:

1. Propose Opportunities for Growth

Suggest 1-2 areas for future focus (i.e. our next grant proposal)

Provide a rationale and potential benefits to the overall project.

Identify collaborative opportunities with other universities or districts.

2. Contribute to the Funder Proposal

Share specific recommendations for the next phase of the project.

Highlight resource needs (e.g., personnel, materials, funding) to support your ideas.

Offer to lead or collaborate on specific aspects of the proposal.

Each of the two presentations should be about 20 minutes, followed by 10 minutes for Q&A/discussion.

Tentative Agenda (reminder: Nashville is on Central Time)

Hotel: Hyatt House Nashville/Downtown

535 Rep. John Lewis Way S Nashville TN 37203

312-750-1234

Friday

5 PM – 7 PM: Introductions, Welcome, Agenda

7:15 PM: Dinner at Ella's by Christian Petroni

Saturday

7 AM – 8:00 AM: Breakfast

8:00 AM – 10:00 AM: Presentation 1 by NJ, TX, MO

10 – 10:30 AM: Break

10:30 – 12:30: Presentation 1 by FL, CA, NY

12:30 – 2: Lunch (Arnold's country kitchen)

2 – 3:30: Presentation 2 by NJ, TX, MO

3:30 – 4: Break

4 – 5:30: Presentation 2 by FL, CA, NY

7:15 PM: Dinner at 1 Kitchen (710 Demonbreun Street)

Sunday

7 AM – 8 AM: Breakfast

8 – 10 AM: Exploring New Directions

10 – 10:30 Break (Check out of hotel)

10:30 – 12: Action Plan

6. Plans and Updates from sites

7. Book update – addresses similar to sweatshirts

STANFORD UNIVERSITY - CSET
SYLVIA CARDENAS
520 GALVEZ MALL, STE 531
STANFORD, CA 94305

COLETTE KILLIAN
PRISM/MONTCLAIR ST UNIV
1515 BROAD STREET, 2ND FL
BLOOMFIELD, NJ 07003

AMANDA GUNNING
828 S BROADWAY
SUITE 104
TARRYTOWN, NY 10591

DAVID ROSENGRANT
USF ST. PETERSBURG
140 7 TH AVE S
HELLER HALL 207
STANFORD, CA 94305

MEERA CHANDRASEKHAR
701 SCOLLEGE AVE
DEPT OF PHYSICS & ASTR
UNIV OF MO
COLUMBIA, MO 65211

RATNA NARAYAN
7300 UNIVERSITY HILLS BLVD,
DAL 1, 201N
UNIV OF N TX
DALLAS, TX 75241

8. SWEATSHIRT Update; SWEATSHIRT ORDERS: <https://forms.gle/HVUULCcnaYmR17Bw5>

Moumita	Biswas	California
Laura	DuMont	California
Allison	Lee	California

Sebastian	Arango	New York
Zach	Biondo	New York
Erik	Brillon	New York
Kathy	Coyne	New York
Kathy	Coyne	New York
Samantha	Eisenberg	New York
Kimberly	Fleming	New York
Sandra	Galano	New York
Susannah	Genty-waksberg	New York
Antoinette	Koehler	New York
Melissa	Landau	New York
Shemika	McClellan	New York
Mike	McGowen	New York
Emily	Schneeberg	New York
Susan	Siegel	New York
Anny	Vanegas	New York
David	Webb	New York

9. Other items

10. Outstanding Leadership in Science Education Award by NSELA – thank you.

Arthur: I'm thankful for your support letters. I feel that this is in part a recognition of Wipro and they'll put it on their website. It will help them take pride in their efforts.

My note to Wipro:

I am excited to share some wonderful news with you—I have been honored with the Outstanding Leadership in Science Education Award by the National Science Education Leadership Association (NSELA). While this is a personal recognition, I want you to know that this award celebrates the incredible work that Wipro SEF has done and continues to do in science education.

Our collaboration over the years has been one of the most fulfilling aspects of my career. The initiatives we have worked on together have created meaningful change and inspired educators and students alike. This award underscores the importance of the work we've accomplished as a team, and I hope it brings added visibility to the impact Wipro is making in the field.

Thank you for being such an essential part of this journey. I look forward to continuing our partnership and building on this momentum.



Monthly Meeting Agenda
Tuesday, Feb 18, 2025
11 AM – 1 PM (EDT)

[Join Zoom Meeting](#)

<https://umassboston.zoom.us/j/99914434497>

[Meeting ID: 999 1443 4497](#)

[Passcode: 973499](#)

1. Leadership Retreat – Nashville

Goals for the Retreat

Reflecting on the Past: Celebrating successes, identifying challenges, and sharing lessons learned.

Planning for the Future: Shaping the vision for a new phase of the project, including priorities for the next proposal to our funder.

Exploring New Directions: Engaging in creative, over-the-top brainstorming to imagine bold possibilities for the future of Wipro SEF.

Arthur: AAAS meeting was interesting. I was hoping to hear some solutions to the problems relating to grants, etc. There were some strong voices but not too many.

Arthur: Everyone liked Nashville. I learned so much and the community is wonderful. There were some surprising responses to the options of moving forward if money no object what you would do. It came through strong. We talked about cross site interactions and what we can learn from that. Having guest presenters making back and forth between sites. Maybe have these presentations throughout the year? Maybe we can figure out how to introduce Wipro SEF, maybe use the book as a help. I have ppts from the meeting. Where should we post it? On the slack?

I'm trying to figure out visa situation. Different situations, if we have new money, we need to figure out what to do next and if not then we'll need to know how to wrap up this program. The book is out with all your contributions. You should be getting your copies shortly. We all had a great time at the retreat. Please, provide some reflections.

Carmen: I thought it was a great fellowship. We were looking at things that were already done and built on them. What stood out to me is to have continuous workshops on leadership with administration (idea came from NJ). I walked away feeling refreshed. It was a great time to discuss new ideas together.

Ratna: I agree with you. Friendships are really awesome. We are so diverse, and it makes it enriching.

Anne: I really liked the conversation about what you would do in the future if money were not a limitation. We were sort of dreaming about the next steps. It was great to hear from everyone what they would do.

Linda: I recall some conversations about doing things that don't cost money. At our level we can keep things going regardless of what is happening in politics.

Preetha: I agree with everyone. We were united by our diversity. We come from different universities but there are some similarities to how we approach leadership and diversity. We can continue our good work. How we can leverage from our experiences.

- a. Sharing the incredible highlights
- b. Posting the ppts
- c. Next steps
 - a. Present funding ends June 2026
 - b. Two divergent paths and timelines – more funding vs end of funding
 - c. Different initiatives require different deadlines
 - a. New universities to implement in Fall 2026 would require an award by Oct 2025
 - b. Present Universities: Wipro Classic
 - a. Same districts
 - b. New districts
 - d. Other countries

2. Newsletter - #2

a. Feedback

Arthur: We want to build a community. We want the people who see this newsletter to be Included in the community and feel enriched, they can learn something. Let's keep it in mind. Newsletter is limited in size. We should keep all the sites in the newsletter instead of doing several versions. I think we need to change title; it is Wipro SEF program. We'll make it a little more focused. Any comments?

Anne: I have a question about the logo and the title. We'll need to change logo or update the title.

Preetha: I like Community Matters title.

Ratna: It is an important theme. I think it should be a heading in every newsletter.

Carmen: Is this a theme throughout. Community Matters.

Meera: Every period you'll have things that fit under this broad title.

Need to change margins (0.5 inch). Use Adobe InDesign to set up a template?

Larry and Anne: Use Canva. (free version).

Anne: I think about the picture (cropping them and enlarging people). I like the idea of Community

Highlights. You want to have highlights on the first page.

Arthur: Sharing and learning from other sites. Should the from page have all the logos of the universities? All the universities work together with the same goal.

Colette: Every site has to be represented somehow and the work needs to be highlighted.

Meera: What is the visual draw that would attract them in the first place.

Arthur: Maybe we should have a general page that would tell districts who is involved.

Meera: Thank you for your work on this newsletter.

3. Plans and Updates from sites

Carmen: One of our Wipro reimagine groups had an opportunity to present to the board and they had their students showcase how they learn to code their robots. The board was really impressed. Then we had a parent night for K-3 students to learn about robotics. They'll have another event. They had about 20 mins to present. The students were at the center of the show.

Meera: We had our first meeting. It went well. They settled in their new groups. We had a physical activity that became part of the meetings. Teachers wanted to learn about gravity, and we asked them to write what kinds of misconceptions students have about gravity. We also asked them about how useful such activities are for them. Next meeting will be online. We are having difficulty finding a day for the May conference.

Arthur: Did you ask them to have Friday off. Is it possible?

Linda: It is not easy.

Ratna: We are trying to figure out our end of the year meeting. Currently I'm meeting with individual groups via zoom. We are going to start getting ready for the next conference. I'm asking teachers to present their own project and their group project as well.

Larry: I have a question about NSELA that we can discuss later. Last weekend FL held a science festival. Primarily elementary schools and some middle schools. It is an outdoor event. It is a big event. Wipro had a space as part of the University, and we saw lots of people. We had a guest speaker who is affiliated with NASA. On the Tampa campus we had a teacher PD.

Allan: Worked with students during the event. When we met before the festival, we as a group wanted to help fellows to write. I met with one of the fellows. We are going to submit at least one article to the Science teacher.

Colette: We had our retreat. Teachers were able to get support to take Friday off. Our doctorate students did some work with them on leadership. One of our teachers will be presenting at NSTA. We will have our meeting on May 29. Everything is working well.

4. Cross-site conferences and updates

We are working on it.

a. Climate initiatives

a. Climate V-CCLS

a. 4 teams (MO-2; MA -1; CA -1)

b. Meeting in February

b. Climate Book Club: Hope Jahren: The Story of More: How We Got to Climate Change and **Where to Go from Here**

a. Need a DSC to take the lead

c. Brooke Whitworth Leadership Institute - update

a. 5 are enrolled

d. Cross-site interest groups – plans for Spring

a. ELL workshop– Preetha? Ratna?

b. Gardening – Lisa (CA)

c. Climate

d. Others?

e. Conferences

a. NSTA – Philadelphia (March 27-29)

a. Conference proposal accepted including Wipro SEF

- b. Attendees and lunch: <https://bit.ly/WiproNSTA2025>
- f. DSC – what do they need/want?
- 5. Site Visits – end of year conferences
 - a. Opportunities for cross-site visits (CA 6/7. Are you ready from other teachers to present?)
 - b. Budgeting for this Need to figure it out.
- 6. Book update (It is available)
- 7. SWEATSHIRT Update
- 8. Surveys

Anne: I have the surveys and I’m compiling them now and hoping to have a summary soon (Feb and March). We had a good response. We have a few situations where we couldn’t get a response from a district. But generally good feedback.

Cambridge Public Schools update

Both groups have finished their vertical debriefs and next week we are meeting to (a) make first steps at what we'll be delivering at our March PD, and (b) kickoff horizontal groups. Our meeting is on Wednesday, virtually.

We're being given a full 45 minutes to run PD with our 6-12 science educators in March - which is super exciting. Both vertical groups used the science talk primer in our course of study, so I'm excited to see what kind of PD we'll develop.

My vertical group wants to continue using the primer as their article in the horizontal group - especially since the 6-8 teachers have the same group of students they want to continue developing that skill and using the feedback/learnings from this first go-around to try more. So that's really awesome. I think it's a great idea.

The other thing I was thinking about is sustainability after our 3-year grant. I haven't talked to Addy or Deena yet (was literally thinking about it on my bike ride home), but I really great model that this might allow is to have one research article and one science practice that grounds our work for the entire year. If admin chose the course of study, they can still get "say" in the direction we're going, but then we could maybe spend our department meetings all doing debriefs. It would give every year a really intentional focus and a department-wide direction.

We have ~6 department meetings each year so we could have 1 "kickoff" centering focus meeting, 4 debriefs, and 1 "what are our takeaways".

I think it could be really powerful and focus on our practice and not just theoretical "things we should do." The place I'm not sure about is that I know there are often top-down directives.

Science-Literacy Teacher Leadership Program

Project Report March 2025

Timeline based description of activities completed (September 2024- February 2025)

- **Teacher Induction**

A welcome and introduction meet held on UMB campus on September 14, 2024, from 9:00 am to 3:00 pm. The meeting was attended by our first cohort of 5 teachers, two PIs, Prof Lisa Gonsalves (Department of C&I, chair), and DESE science coordinator Casandra Gonzalez.

Session objective: Help teacher identify a problem of practice and introduce the concept of a facilitation scaffold as means to address the problem.

Brief description: In this session, we worked together to introduce the concept of a problem of practice as the starting point of our responsive professional development. Using an example, we first unpacked the concept, and next introduced and discussed a potential facilitation scaffold to address the problem. Each teacher was required to come up with a yearlong plan where they would individually identify a problem of practice, design, test and revise a scaffold during this academic year.



SLTL Teacher induction

Follow up monthly meetings

- Entire group teacher meeting.
Meeting 1: November 13, 2024. All fellows (five) shared with the group their problem of practice and the scaffold they are planning on, and their implementation and data collection plan. Each teacher shared and also shared challenges, or if any questions they had.
Meeting 2: February 2025. Fellows met and each had brought their first data set – evidence of teacher facilitation and student work/engagement when scaffold was used in classroom. We conducted a share-out, followed by teacher reflection, and discussions on either tweaking the designed scaffold, or collecting more data.
- Individual teacher meetings with both PIs.
In December 2024, and January 2025 both PIs met with each teacher fellow individually, to discuss the scaffold design and implementation.
- Classroom visits and other check-ins done with Tej as required and requested by fellows.

Conference Presentations

- We presented work at two conferences this year.
- A dynamic facilitation scaffold to integrate instruction across Science and ELA: An approach to support student sensemaking. Tej Dalvi and Pat Paugh. NSTA, New Orleans, November 2024
- What does language have to do with it? Collaboration and integration of ELA and Science/Engineering in Preservice Coursework. Pat Paugh, Tej Dalvi, Jack MacLarnon (teacher fellow), Victor Joyner (teacher fellow). NCTE, Boston, November 2024.



NCTE,
Boston 2024

Scaffold development work.

We have three teacher fellows working on developing the below listed scaffolds

- Investment/ Activator Scaffold: Jack McLarnon.
- Facilitation scaffolds developed as exciting hooks for student engagement, while prompting them to wonder and ask questions. These are primarily developed and implemented in grades 3-5, for use in ELA classrooms, to engage students in science reading texts with the goal of engaging in learning by meaning making (or sensemaking in science)
- Notetaking Scaffold: Jihan Mehideen.
- Facilitation scaffold to help students engage in notetaking to engage in reasoning. These are primarily developed and implemented in grade 5 inclusion classrooms, in science. The goal is to help students seek meaning in writing and documentation in ways that help them engage with the science content. This scaffold accepts multimodal student expressions, that evolve with time and their understanding of the concept.
- Reasoning Scaffold: Christa Iwanoski.
- Facilitation scaffold to engage students in mechanistic reasoning (like causal mechanisms) when engaged in design tasks. This includes specific talk moves, prompts, and questions used to guide student engagement in reasoning, specifically when engaged in design tasks. These are primarily developed and implemented in grade 3-5 STEM classrooms.

So far, all the three mentioned have completed one round of implementation, data collection and reflection and revision.

- One of our teacher fellow, Bailey Morse had to change classrooms in November. The teacher also runs an afterschool science club. Currently the teacher is focusing on comparing student engagement and dynamics in small group science tasks (hands-on tasks) across formal classrooms and informal settings as science clubs. The goal is to find spaces and conditions that lead to student engagement in reasoning and identify causes behind those. The teacher intends to find supporting conditions for all students to engage in doing science when working in small groups. Currently the teacher is collecting data.



Authors: Dr. Preetha K Menon; Dr. Tammy Moriarty

Executive Summary Statement

The Wipro Science Education Fellowship (SEF) Innovation Phase at the CA site is positioning itself as a key contributor to district transformation by fostering teacher leadership in science. Central to our mission is addressing persistent inequities in science education, ensuring that all students have access to high-quality, engaging, and equitable science learning experiences. By providing focused professional development, individualized mentoring, and opportunities for cross-site collaboration, the CA site aims to elevate science teaching to meet the high standards of the Next Generation Science Standards (NGSS). This approach empowers teachers to lead district-wide change while transforming instructional practices across multiple levels.

The three components for the CA site include the traditional Wipro Science Education Fellowship Program for teacher leaders, the Wipro School Leaders Program, and individual district team support. For the Wipro SEF Program, professional learning sessions are focused on fostering teacher agency and promoting student-centered practices that align with the Next Generation Science Standards (NGSS) and address district-wide needs. Teachers will also be equipped to provide equitable opportunities in science education for all students that embrace all cultural and linguistic backgrounds. For the Wipro School Leaders Program, this year's emphasis is on supporting instructional coaches to better understand how to practice leadership and elevate the quality of science instruction in their district contexts. For work with district teams, the CA Leadership Team continues to work alongside district coordinators to plan ways to leverage the expertise of Wipro fellows to further their district science goals.

This quarter, the CA site welcomed 20 new Wipro Fellows from five partner districts into Cohort 5 at an Induction Ceremony. Fellows participated in monthly professional learning sessions and worked in their collaborative V-CCLS groups. In mid-January, V-CCLS groups presented their collective learning. The Wipro School Leaders Program welcomed 6 participants made up of instructional coaches and teacher leaders, with many of them being alumni of the Wipro SEF Program and taking on more leadership responsibilities in their districts. To further support district transformation efforts, the School Leaders Program offers professional learning and coaching focused on leadership, coaching, adult learning, and developing strong learning cultures within departments and schools.

In this next quarter, the CA site will continue to provide professional learning, coaching, and supporting districts with their science goals. The Wipro SEF Program will support H-CCLS collaborative group work as well as continue with professional learning focused on high quality science instructional practices. The Wipro School Leaders Program will continue to dive deeper into problems of practice and how to practice leadership to solve these challenges, and District Coordinators will continue to work alongside the CA Leadership Team to focus on individual district needs.

Summary of Current Project(s) and Goals

The CA site continues to offer the traditional Wipro SEF Program to science teacher leaders across five districts, aiming to further excellence in science teaching and learning. One of the goals for Cohort 5 fellows is to build a strong foundational understanding of science teaching and learning. To this end, professional learning sessions focused on exploring the intersections of the 5E science instructional model and the NGSS standards. Additionally, fellows examined strategies for developing coherent conceptual flows and storylines in science units. The CA site has also started to set a foundation that promotes equity in science classrooms. Fellows were introduced to an equity and social justice framework developed by CSET and reflected on their personal educational journeys and the role they would like to play in their students' journeys.

The CA site continues to offer the Wipro School Leaders Program and expand its reach to include not only principals and assistant principals but also instructional coaches and teacher leaders (Wipro alumni) who provide science professional learning to others. This program is designed to build strong instructional leadership capacity and foster cohesive district teams that align with the goals of the Wipro SEF Program. Strengthening capacity at all levels of the system—classroom teacher, school leader, and district—can drive transformational changes, address persistent inequities in science education, and promote systemic improvements at both site and district levels.

The CA site continues to collaborate with district teams to enhance their collective capacity to advance effective science teaching and learning, address the diverse needs of their students, and support science teachers in maintaining rigor in their classrooms. These efforts include meeting regularly with District Coordinators to plan and strategize how to leverage the expertise of Wipro fellows in their districts.

Progress and Highlights

Professional Learning Sessions for Wipro Fellows

The CA site facilitates monthly professional learning sessions for Cohort 5 Wipro fellows. Four professional learning sessions have been held since the beginning of the school year (two in-person sessions and two virtual sessions) with the following focus:

- a) Next Generation Science Standards (NGSS): What does this look like in practice?
- b) Equity & Social Justice: Who are we serving?
- c) Leadership: What does it mean to be a teacher leader?

V-CCLS Work

Six V-CCLS groups with three to four teachers per group presented their learning on January 11, 2025. The V-CCLS work focused on one science Disciplinary Core Idea (DCI) and one course of study of their choice. Fellows shared their reflections and learnings from their time together and described how they applied the research articles they chose to ground their collaborative work. They shared handouts or brochures that highlighted key takeaways from their V-CCLS work. Please see below for artifacts from the V-CCLS presentations.

WELCOME AND MINDFULNESS	
9:00-10:00 am	Group Prep Time (breakouts)
10:00-10:15 am	Quick Break & Instructions
10:15-10:45 am	Group 1- Jen, Kaitlyn, Allison, Dion
10:45-11:15 am	Group 5 - Nicole, Marcy & Francesca
11:15-11:45 am	Group 4 - Amy, Michael & Moumita
12:00-12:40 pm	LUNCH
12:40-1:10 pm	Group 6 - Abbie, Lisa, Laura N. & Martha
1:10-1:40 pm	Group 3 - Brittney, Tracey & Brian
1:45-2:15 pm	Group 2 - Madison, Laura D. & Tess
2:15-2:25 pm	Debrief
2:25-2:30 pm	Closing & Announcements

Group 1 Presentation ([Link](#)) and Handouts ([Link](#))

Jen Yee, 3rd Grade, Mountain View Whisman School District

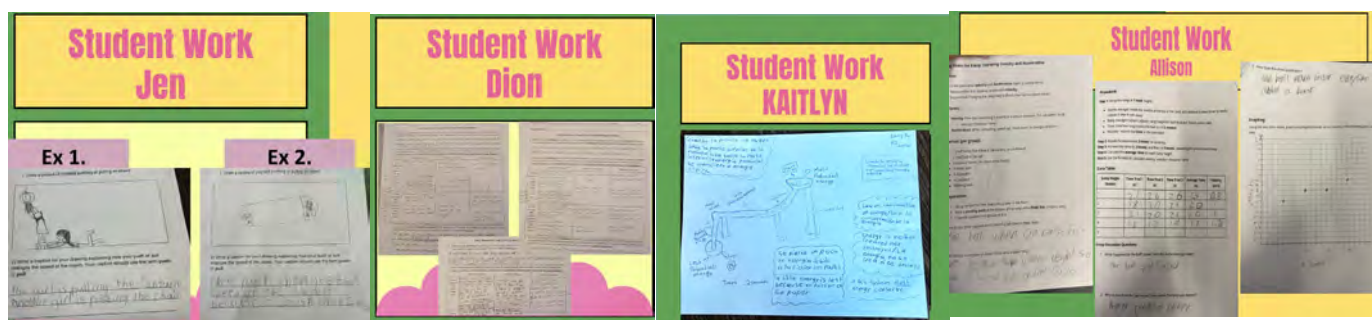
Dion DeLa Cruz, 11th-12th Grade Physics & Astronomy, Campbell Union High School District

Kaitlyn Kraybill-Voth, 8th grade Newcomer Science + Math/Gardening Elective, San Francisco Unified

Allison Lee, 8th Grade Science, Mountain View Whisman School District

Course of study: to develop frameworks for multilingual learners (MLLs) to access core curriculum.

Content Focus: Physical Science, PS3.
Conservation of energy and energy transfer



Group 2 Presentation ([Link](#)) and Brochure ([Link](#))

Maddy Gallagher: 2nd grade, Mountain View Whisman Unit & Lesson: Cycles of Nature, Life Cycle of a Plant

Laura DuMont: 3rd - 5th Math TOSA, Moreland Unit & Lesson: Multi-Step Word Problems involving multi-digit multiplication

Tess Carlson: 11th & 12th Advanced Bio, San Francisco Unified Unit & Lesson: Evolution of Antibiotic Resistance

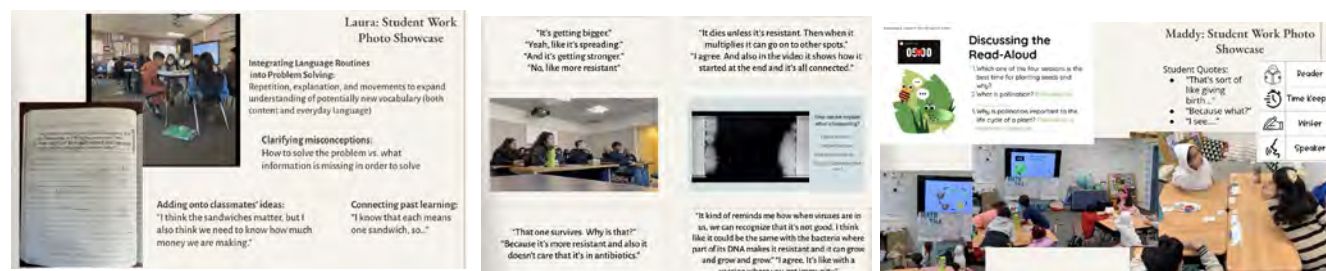
Course of Study: Create equitable opportunities for student discourse in science, particularly for multilingual learners and newcomers, through creative expression of STEM learning (e.g., notebooks, diagrams, written explanations).

Content Focus: Life Science, LS2 Ecosystems: Interactions, Energy, & Dynamics

Research Article: Summary of Article

Classroom Discourse: The language of teaching and learning (Cazden, C. D.)

- teacher-student interactions shape the learning environment and influence knowledge construction
- importance of discussions in fostering critical thinking and collaborative learning, highlighting how teacher-led dialogue can scaffold student understanding while also encouraging student participation and voice
- effective classroom discourse balances authority with open-ended questioning to create opportunities for meaningful conversations and deeper learning



Group 3 Presentation ([Link](#)) and Brochure ([Link](#))

Brian Finley: 9th - 10th Grade, San Francisco Unified

Brittney Geer: K-2nd Gen. Ed. Mountain View Whisman

Tracy Ananmalay: Gr. 4-5 Gen. Ed. San José Unified

Course of Study: How can hands-on assessments inform instructional practice and demonstrate student learning?

Content Focus: Life Science: LS2. A , Interdependent relationships in ecosystems

Research

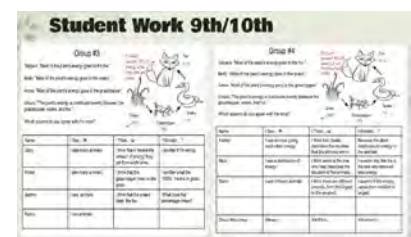
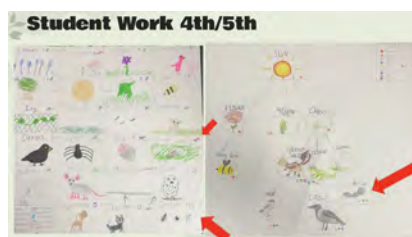
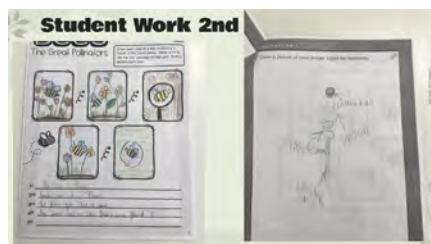
"Science skills can be measured reliably by [deliberately] categorizing items on subskill and step level."

"Such measures ... can also provide teachers with diagnostic information to adapt their instructions and foster the learning process of their students."

"PAs can be embedded in science lessons as part of instruction material."

Findings in Vertical VCCLS Group

Brittney	Tracey	Brian
- Classroom management strategies work for all ages of students and can impact the quality of a lesson! - It was fun to see the progression of how students begin small, looking at a few examples of how plants/animals depend on each other, then as they get older, the concept becomes more broad and they focus on energy transfer through entire ecosystems. - Vocabulary is crucial at early levels, as they expand and add more complex ideas as the students get older.	- Explicit instruction around scientific diagrams yields good results. - For ELLs, vocabulary instruction plays similar importance as it does for primary students. - Performance tasks can be embedded into instruction using hands-on material or technology.	- Visuals play a crucial role in supporting English Language Learners (ELLs). - Incorporating images, diagrams, and visual organizers helps students connect concepts. - Encouraging verbal repetition of words, such as having everyone say "consumer" together, strengthens pronunciation and understanding.



Group 4 Presentation ([Link](#)) and Brochure ([Link](#))

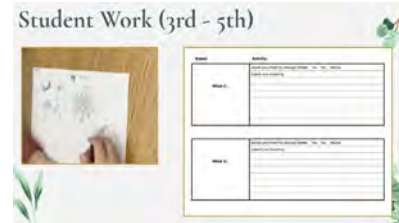
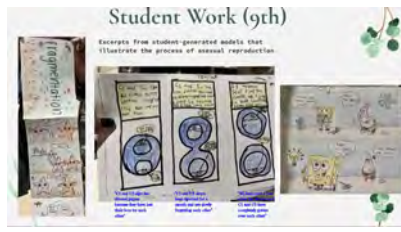
Moumita Biswas: 9th - 12th Biology; AP Environmental Science, San José Unified

Michael Rollins: 3rd - 5th Steam, Mountain View/Whisman

Amy Chiu-Sakamoto: 1st - Cantonese Immersion, San Francisco Unified

Course of Study: Encouraging students to take ownership and control of their learning through the use of teacher and peer feedback. (Developing independent learners).

Content Focus: LS1.B Growth and Development of Organisms



Group 5 Presentation ([Link](#)) and Brochure ([Link](#))

Marcy Johnson: 5th grade, San Francisco Unified

Nicole Data: K-5 STEAM, Mountain View/Whisman

Francesca Briones: Biology & Community Health, San Francisco Unified

Course of Study: Developing effective instruction to support English Language Learners in science content

Content Focus:

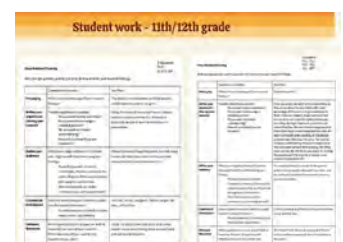
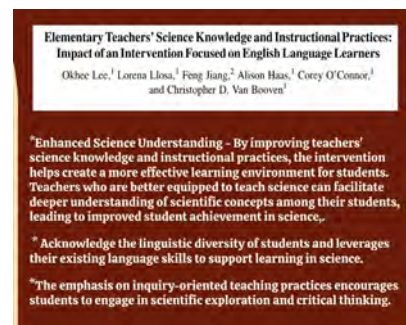
ESS3.C: Human Impacts on Earth Systems Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments.

LS4.D: Humans depend on the living world for the resources and other benefits provided by biodiversity. But human activity also has adverse impacts on biodiversity through overpopulation, overexploitation, habitat destruction, pollution, introduction of invasive species, and climate change.

Group 6 Presentation ([Link](#)) and Brochure ([Link](#))

Laura Nichols: 11-12th, HS Science/Math, Downtown High School, San Francisco Unified

Lisa Carrell: 7th Grade Math/Science, Moreland District



Martha Perez Murillo: Biotechnology I/II/ResearchWallenberg HS, San Francisco Unified

Abbie Meyer: 3rd Grade, Theuerkauf Elementary School, Mountain View Whisman

Content Focus: Human Impacts/ Climate/Earth's Systems/ Genetic Engineering

Course of Study: Incorporating talk routines and explicit structures will lead to deeper student analysis, connection and understanding.

Research Article

Wells, S. & O'Connor, L. (2012). The science process. Cambridge, MA: TERC.

- Emphasizes the **importance of dialogue** in science education for enhancing understanding and engagement.
- Illustrates **strategies for facilitating collaborative discussions** among students.
- Encourages **inquiry-based questioning** and evidence-based reasoning in scientific discourse.
- Promotes **critical thinking** and analysis of scientific concepts.
- Highlights the **teacher's role in guiding discussions** and creating a supportive learning environment.
- Models scientific practices to **help students communicate effectively** about science.
- Advocates for a dialogic approach to teaching that prioritizes **communication as essential to learning**.

Student Work

Abbie's Elementary PBL Class

Constructive Feedback, Inquiry, Dialogue

Why This is A Problem

Students used the talk moves to guide their discussions to give one another compliments and next steps for their work throughout the unit.

Student Work

Lisa's 7th grade Science

Students jigsaw read an article on The Great Garbage Patch.

- Each student read a designated paragraph and wrote bullet point summaries of their assigned paragraphs.
- Students then participated in a Talk Moves discussion on the various paragraphs.
- Students discussed how they can synthesize information from each of the paragraphs within the central box and presented these points to the whole class.

Student Work

Laura's HS Earth Science

Explanatory models created following the group discussion.

Partner talk led students to make deeper connections between the concepts we have studied and human impact.

Focus: Incorporating talk routines and explicit structures will lead to deeper student analysis, connection and understanding.

They explicitly practiced talk moves including:

- Active listening
- Adding on
- Asking for clarification
- Agreeing/disagreeing
- Reasoning

Equitable Discourse Formats:

- Inquiry
- Evidence Presentation
- Active Listening
- Critical Analysis
- Collaborative Problem Solving
- Constructive Feedback
- Synthesis of Concepts

Talk Moves

Adding on: "I would like to build on what..."

Reasoning: "I agree because..."

Asking for clarification: "What is that because..."

Agreeing/disagreeing: "I would like to say..."

Active listening: "So you're saying..."

Adding on: "This and my adding..."

Asking for clarification: "What is that because..."

Agreeing/disagreeing: "I would like to say..."

Course of Study: Talk Moves (student discourse)

Incorporating talk routines and explicit structures will lead to deeper student analysis, connection and understanding.

Abbie	Lisa	Martha	Laura
Throughout the unit, students exchanged ideas and provided constructive work using talk moves.	Ongoing participation in equitable academic discussions incorporating:	Focused conversations leading to deep conceptual understanding should incorporate:	Incorporated and built up a partner talk routine.
Students engaged in different forms of discussions, including whole class, groups, and partner discussions.	Inquiry Evidence Presentation Active Listening Critical Analysis Collaborative Problem Solving Constructive Feedback Synthesis of Concepts	-Belief that students can explain ideas -Norms respecting differing thoughts -Academic purposes -Understanding of content -Framing questions -Guided talk formats -Strategic talk moves	Explicitly practiced skills: - Listening - Adding on - Questioning - Making connections
They explicitly practiced talk moves including: - Active listening - Adding on - Asking for clarification - Agreeing/disagreeing			

Feedback from V-CCLS presentations

Below is a summary of the feedback received from Wipro Fellows, based on the following prompts:

1. How did it feel to present your learning to others?
2. What did you gain from other groups' presentations?
3. Describe your overall V-CCLS Experience.

How did it feel to present your learning to others?

- Many participants felt nervous or intimidated initially but found the experience rewarding

and empowering.

- Presenting helped synthesize and clarify their learning.
- Participants felt supported by the cohort community.
- The experience was affirming and allowed for connection with other educators.

What did you gain from other groups' presentations?

- New teaching strategies and "teacher moves" to implement in their classrooms.
- Inspiration for vertical alignment and big-picture thinking.
- Understanding common challenges across grade levels and content areas.
- Tools for collective inquiry and best practices.

Describe your overall V-CCLS Experience:

- Participants found it valuable for continuous learning and reflection on teaching practices.
- It fostered collaboration and connection with educators across grade levels and subjects.
- The experience exceeded expectations and was seen as a privilege.
- It helped participants evolve as teachers and reignited the reflective mindset from their teaching programs.

Overall, the V-CCLS experience was viewed positively, promoting professional growth, collaboration, and the exchange of valuable teaching strategies across different educational contexts.

Wipro School Leaders Program

This past quarter, the professional learning session for Wipro School Leaders focused on understanding authority and power dynamics within a school system as well as stages of team development. Participants applied these ideas, as well as past leadership learnings, to a case study highlighting the dynamics of a group of teachers within a science department. Wipro School Leader participants have also been engaging in coaching calls to discuss individual needs and receive 1:1 support.

Plan for the Next Two Quarters

Date	People	Activity
Wipro SEF Program		
Mar 22, 2025	Wipro Fellows	Full Day- Monthly Professional Learning Session (in person)
April 24, 2025	Wipro Fellows	2 hour Monthly Professional Learning Session (virtual)
May 17, 2025	Wipro Fellows	Full Day- Monthly Professional Learning Session (in person)
June 7, 2025	Wipro Fellows	Full Day- End of year Conference with H-CCLS presentations
Coaching sessions with	Wipro Fellows + Stanford Coaches	Ongoing coaching with Stanford Wipro Team

all Fellows (across the school year)		
Wipro School Leaders Program		
Mar 20, 2025	SLP Participants	2-hour professional learning session (in-person)
April 17th, 2025	SLP Participants	2-hour professional learning session (in-person)
Coaching sessions with all Participants (across the school year)	SLP Participants + Tammy	Five 45-minute individual coaching sessions throughout the school year
District Work		
Nov 14, 2024 Jan 23, 2025 Mar 13, 2025 May 8, 2025	Tammy + Preetha	District Coordinator meetings with district representatives from the five districts, SFUSD, SJUSD, Moreland, MVWSD, and Campbell HSD
Quarterly	Tammy + Diane Aaronson (SJUSD District Coordinator)	Tammy meets with Diane to strategize and plan how to continue to leverage the expertise of Wipro fellows in the San Jose Unified School District.
April 18, 2025	Lisa Ernst (Cohort 4), Tammy and Preetha	Lisa Ernst sought guidance and feedback on preparing for the Commissioners' presentation, particularly on designing sustainable funding models for the initiatives she led.

Vignettes

Ron Hamby

Science Instructional Coach

San Jose Unified School District

I first learned about the Wipro Fellowship from the NGSS advisory committee in my district. I thought, “Wow! Here is a chance to work with others about a topic I’m passionate about: science education.” This year, I was given a chance to participate in the Wipro School Leaders Program. Once again, I got an experience that enhanced my teaching practice and, more importantly, my ability to help teachers improve their practice.



Throughout the fellowship program, I was constantly challenged by my way of thinking about science education, how to conduct educational research, and how my teaching affected my students.

During the VCCL, my team and I looked through research on students' ability to argue from evidence. Through our discussions about our research and videos of our teaching practice, we aligned our thinking about our students' abilities with our research to create new strategies to help our students become more successful. During HCCL, I learned more about computational thinking. I became much more comfortable with using this crosscutting concept in my classroom as my group helped me understand what this concept is and how it could be used. Combined with getting to see all the work from other research teams in the cohort, I left the experience rejuvenated and ready to take my teaching to the next level, bring these new practices to my science team, and start to build personal learning communities at my school.

When it was brought to my attention that Wipro had created a Leadership Program I jumped at the opportunity. One of the reasons is that Wipro Fellowship was beyond helpful in my growth as a science educator professional. Secondly, this year, I started a new position as a site instructional coach and knew that this program would be invaluable to me in my new role, as the Fellowship program gave me the courage to apply for the position. Needless to say, my time in the Wipro Leadership Program has been nothing short of incredible. We consistently work on topics that directly affect our ability to help our teachers grow in their practices. We’ve discussed everything from how to create engaging PD to how to approach best staff/admin relationships and how to build personal learning communities both in departments and schoolwide. Through personal coaching with my coach, Tammy Moriarty, I have gained invaluable insights in how to help better struggling teachers and how to create learning goals and plans to help me define where I want to go as an instructional coach. In what may be the best part, after each meeting and coaching session, I feel refreshed, more capable, and ready to take on my challenges as a coach. Overall, I could never thank the Stanford Wipro staff enough for all they have given me in my growth as a science educator and instructional coach.

Zoe Sharp
Instructional Coach
Mountain View Whisman School District

I've always loved being in the classroom—teaching, connecting with students, and creating those “aha!” moments. Stepping into the role of an instructional coach at Amy Imai Elementary has been just as rewarding, giving me the chance to support incredible TK-5th grade teachers in making learning engaging, accessible, and meaningful. As education continues to evolve, so do the challenges teachers face. I wanted to grow in my ability to support them through these shifts in a way that's not just reactive, but truly transformative, and supports student outcomes. That's what led me to the Wipro School Leaders Program!



Through the Program, I've deepened my understanding of adult learning and what it means to coach for lasting change. I've learned how to use case studies to drive teacher reflection, how to facilitate transformative learning experiences, and how to create space for real growth—not just quick fixes. A huge part of this growth has been the guidance from my Wipro coordinator, Tammy. Her reflective questions and tangible strategies have helped me refine my coaching and work more effectively with my administrator to ensure our instructional shifts directly impact student outcomes.

One of the most powerful aspects of this experience has been the shared learning within my school community. With our science teachers and my administrator participating in Wipro, we've built a cohesive conversation around STEM education. This shared foundation has strengthened our alignment and given us a common language for supporting inquiry-based learning, equity in instruction, and student engagement in science and math.

Wipro has reinforced that coaching isn't just about providing resources—it's about empowering teachers, fostering meaningful reflection, and aligning efforts across a school to create lasting impact. This program has given me the tools, community, and perspective to do that more effectively, and I'm excited to continue supporting my teachers in a way that's intentional, meaningful, and student-centered.

Calendar

Thursday, September 5	5:00 PM - 7:00 PM	Induction Ceremony in-person
Saturday, September 21	9:00 AM - 2:30 PM	PL Session in-person
Thursday, October 17	4:30 PM - 6:00 PM	PL Session virtual
Thursday, November 21	4:30 PM - 6:00 PM	PL Session virtual
Saturday, December 14	9:00 AM - 2:30 PM	PL Session in-person
Saturday, January 11	9:00 AM - 2:30 PM	PL Session in-person
Thursday, February 27	4:30 PM - 6:00 PM	PL Session virtual
Saturday, March 22	9:00 AM - 2:30 PM	PL Session in-person
Thursday, April 24	4:30 PM - 6:00 PM	PL Session virtual
Saturday, May 17	9:00 AM - 2:30 PM	PL Session in-person
Saturday, June 7	9:00 AM - 2:30 PM	End of Year Conference in-person

Newsletter

The CA team has sent out the Wipro newsletter to all past and present Wipro fellows, District Coordinators, past and present Wipro School Leaders Program participants, principals, and Superintendents. We will follow up with our DSC's in our next meeting for feedback on the newsletter.

FLORIDA – UNIVERSITY OF SOUTH FLORIDA



Author: David Rosengrant, Allan Feldman, and Larry Plank

Executive Summary

The goal of our program is to continue to cultivate leaders in our districts from those individuals with the desire and passion to do more in the classroom. The way we do this is to allow our fellows to focus on innovations that they are passionate about rather than dictating structure and projects to them. The more passionate the fellows are about the projects, the more they will share that fire with others not only in their district but beyond.

We have eight team projects that are either in their first or second year of implementation. The team leaders chose their own projects based off previous Wipro work, selected their own team members, and then implemented that work. Some of these projects involve creating curricula while others focus on technology or promoting stem to various groups. This was the second school semester for three of our teams (though some of our teams are in the first year of a new project).

Community outreach can be argued to promote district wide impact. Our major event during this quarter was participating in the St. Petersburg Science Festival. Members of our leadership team and our fellows ran a booth. The activities were chosen by the fellows and they talked about how it was related to one of the projects (after school organization with rockets). Our new banner was made to highlight Wipro, the University, our College, and our three partnering districts. We converted our in-person event to a virtual one in January, we are in the middle of our meetings and just held a virtual meeting in March. We worked with the fellows to have them help lead the discussion on what they wanted to see in the upcoming March celebration.

Looking forward to the next quarter to our celebration event in May. We will also be working

towards recruiting our final cohort of one-year projects as the project will be nearing completion. We are also going to be wrapping up our visits for our various groups.

Summary of Current Project(s) and Goals

Our groups have been continuing their projects and we have been supporting them however possible. Some of the groups are getting closer to completion while others are starting to ramp up their research agendas. This is a summary of the 8 projects we have:

Title: Storyline: How to use scientific narratives purposefully in science education.

This project delves into research on science instruction in high school biology, focusing on enhancing scientific literacy across diverse content areas. The approach centers on utilizing storylines—narrative-driven methods that interweave scientific content and practices into a cohesive and engaging learning experience. This project is led by Nicole Holman, Phase 1 Fellow.

Title: Working Across Grade Levels to Improve Grades 3-5 Science Teaching

This two-year project brings together grades 3-5 teachers in a V-CCLS to improve the teaching of science at their school. The team is led by Tara McClintick, Phase 1 Fellow. The team will work together to establish a science progression for the three grades, identify appropriate curriculum materials, and implement them.

Title: Flipped classroom in advanced courses in Hillsborough County High Schools

This project is an extension of Bhagyashree Kulkarni's Phase 1 GPS project which is two separate but related projects. The team implements a flipped classroom strategy by using available videos or videos made by the teachers.

Title: Creating new teacher confidence

Chelsey Swats (phase 1 Fellow) leads this project whose goal is to create more class time for classroom activities, which will facilitate learning and use traditional homework time for notes/lectures. We are all working in different content areas, so many of us are utilizing different modes of note taking strategies for content knowledge. The training will help new teachers learn of these strategies we are using in and out of the classroom.

Title: Pasco Teacher Leader/Coach Elementary Science PLC

Lora Darby is leading this project. This project focuses on designing a scope and sequence, professional learning plan and collaborative structure for a two-year Elementary Science Teacher Leader PLC for seven east side Pasco County Elementary schools experiencing high turnover. Part of the PLC will be an interactive book study using either Ambitious Science or Students Constructing Explanations in Science paired with our district's coaching manual Getting Better Faster.

Title: Gifted but 'Off Track': Serving the Gifted Students of a Title 1 High School Team

Jacqueline Bromley, Phase I Fellow, leads this project. It is establishing an after-school club to support gifted students who have been designated either 'at-risk' or 'off track' according to Early Warning Intervention data. To mitigate potentially unsuccessful outcomes, they propose that they identify and invite Gifted students to join a newly formed club that will be known as 'Above Deck'. The purpose of this club will be to support the unique social, emotional, and cognitive needs of this

unique group of underserved students.

Title: VR in the Chemistry Classroom: Enhancing students' learning experience

Ileana Luna is leading this technology enhancement project which will focus on developing the curriculum for the Chemistry classroom that will integrate the use of Virtual Reality (VR) for labs, simulation, and other hands-on activities.

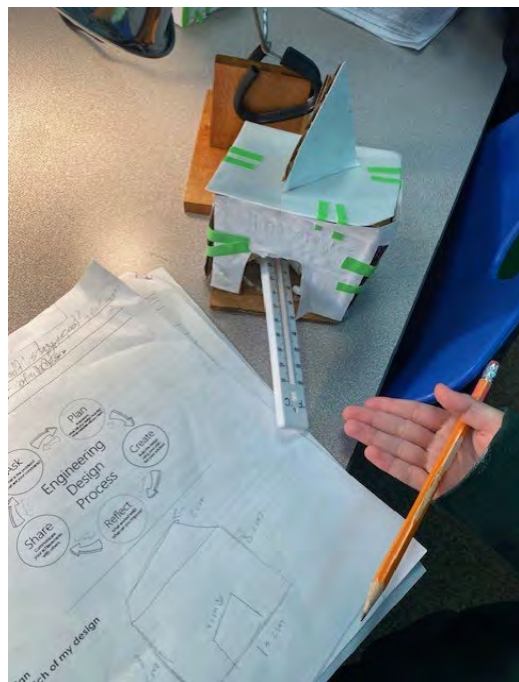
We are going to highlight one of these projects and provide a little more detail about them as requested.

Title: Problem Based Learning in Science

Dawn Avolt is leading this project which is an extension of her GPS project from Phase 1. The goal is to implement problem-based learning into a 4th grade environment so that students can better understand their science content. Elementary schools are currently provided curriculum from the district but it is lacking in different areas (vocabulary being one of them).

To give further details, they have planned and implemented four different PBLs (1 in earth science and 3 in physical science) and they have expanded into 5th grade with 2 PBL units. The students presented their projects to the School Advisory committee and explained what they have learned by completing them. One of their biggest challenges is still time, still feeling some lingering effects of the hurricanes from the fall and multiple extra pull outs take a toll on being to enact some of the units. To overcome this, they are looking for ways to modify the PBL units without risking quality. For example, they worked on implementing a take home PBL unit. One of the biggest things they want to share is that student feedback has been very positive. They love using the format and they get very excited when a new project is introduced.

The picture below shows a fourth-grade unit on insulators where they had to create a doghouse to keep their puppy cool using a variety of materials as insulation.



Progress and Highlights

During the past quarter, the USF/Tampa Bay Wipro Science Education Fellowship leadership team and fellows have enjoyed a return to normalcy from after the impacts of the prior quarter's disruptive storms. We held leadership and DSC meetings each month, as scheduled, along with virtual meetings for fellows in late January and March. The January meeting was originally planned to be in-person; however, it conflicted with Tampa's largest cultural event, Gasparilla, which resulted in several road closings and other obstructions around the area.

In addition to the meetings above, individualized team meetings of the fellows, some of their team members and leadership (USF and DSCs) have continued. These meetings have been extraordinarily valuable and present opportunities for the DSCs to not only mentor fellows from their districts but also provide the DSCs with valuable information across individualized projects from their districts. In turn, these DSC/fellow team meetings serve as data and/or ideation that district-level decision makers can consider. Along with our regular meetings, these meetings provide value of voice within districts leading to an increase of impact district wide.

A highlight of the past quarter for several fellows and certainly our local leadership was the St. Petersburg Science Festival, held Friday and Saturday, February 7th and 8th. Over the two days, Wipro fellows and USF leadership engaged school groups (Friday) and the general public (Saturday) alike with science and STEM-based activities. Thousands of visitors attended the event, which was held upon the USF St. Petersburg campus and neighboring areas within the city's waterfront. Khadijah Jones a member of Nicole Holman's project team, also assisted with USF's annual Darwin Days event on the Tampa campus over the same weekend, which featured a student day on Friday and teacher workshop on Saturday, featuring guest speaker Dr. Fathi Karouia, a NASA engineer and scientist.

These pictures were all taken at the St. Petersburg Science Festival in which Wipro hosted a table for both Friday (School Sneak Peak Day) and Saturday (General Public Day).





Several fellows, DSCs and university faculty/staff plan to attend and, in many cases, present at the National Science Teaching Association conference in March. Plans are also being developed for fellows to present in the fall at the Florida Association of Science Supervisors and Florida Association of Science Teachers joint meetings, as well as the National Science Teaching Association conference in Minneapolis in November. In many cases, Wipro leadership and DSC have supported fellows in preparing the presentation of their work for NSTA in Philadelphia and are assisting with the ideation of proposals for the fall 2025 events. Our year-end event to celebrate fellows and their teams is scheduled for May 17th, location TBD. During the most recent meetings with fellows, they expressed an interest in including special guests, such as parents and significant others at the event.

Plan for the Next Two Quarters

Date	People	Activity
March	NSTA attendees	Several folks from the project will be attending the conference (NSTA) to share their work on the project, thus providing an impact that extends beyond their district.
April	All	This is when we will be finishing our “us to them” visits. A member of the leadership team will be attending the fellows meeting with their teams on their individual projects.
May 17th	All + guests	This is our celebration event which includes presentations from all of our leadership. We will be inviting district folks and allowing the teams to invite whoever they want from the district.
BiWeekly	USF Team	Planning and Project Management Meetings.
Monthly	USF & DSCs	Planning and Project Meetings. These meetings ensure discussions and oversight among all stakeholders for our grant, which in and of itself increases district wide impact.
May/ Summer	All + Phase 1	We will work on recruiting the final cohort which would be only one-year projects depending on funding.

Vignettes

Khadijah Gaskins-Jones **District Resource Teacher (DRT) for 9-12 Science,** **Hillsborough County Public Schools**

I began my career as an educator almost twenty years ago in Newport News, Virginia as a classroom teacher. There I held several leadership roles- including Freshman Transition Lead Teacher, Youth Development Lead Teacher, and Science Department Head. My family and I relocated to Tampa, Florida in 2014. I continued my educational career in Tampa as a Science Teacher at Howard W. Blake High School. After eight years in the classroom and serving in multiple leadership roles, I transitioned out of the classroom in 2022 as a HCPS 9-12 Science Instructional Coach. In 2023, I was promoted to my current position of 9-12 Science DRT.



My passion for supporting teachers was ignited during my second year as a science teacher. I was asked to take on the role of the Freshman Transition Lead Teacher and immediately realized that there was little to no support for me (as a second-year teacher) in that role. Since this experience, I've worked tirelessly to support, mentor, and lead other teachers in whatever capacity I could.

Supporting WIPRO Fellows has allowed me to support teachers in, yet another, capacity and has afforded me opportunities with state and national organizations such as FASS, FAST, NSTA, and NSELA. First attending, then engaging with these organizations, have lead to a recent national opportunity for me. In January, I was elected to the NSELA Board as the Region C Director. I'm honored to serve on a national board, but I'm most enthusiastic about how this will lead to additional support and leadership opportunities for our teachers. I'm grateful for the opportunity to support our WIPRO Fellows, and I look forward to the continued collaboration to support them and our HCPS students.

Tara McClintick and her Team

This vignette about my group Wipro project that is in its second year. My group members are Madison Ford (first grade teacher), Floyd Howze (5th grade teacher), Austin Pearson (3rd grade teacher), Nichole LeGrant (Assistant Principal) and the PI is myself, Tara McClintick (K-5 Science Instructional Coach). Austin and Madison are new group members this school year, while it is the second year for Floyd, Nichole and me. I appreciate having our assistant principal on our group because it truly shows our school administration cares about science teaching and learning and fully supports our work.

My project changed some from my original proposal but still hit on some of the original key points. At first, my goal was to meet with my group bi-weekly to look at standards in grades 3-5 and identify what prerequisite knowledge students needed before coming to a new grade and where they needed to go with that knowledge. While we didn't do that specifically each time, in our grade level planning, PLC's and staff meetings we did stress the importance of teaching science and foundational standards for many topics were brought to the forefront.

One thing I mentioned in my original proposal was looking at vocabulary in the different Big Ideas that students need to know. We did this and came up with many ways to incorporate this vocabulary schoolwide and within individual classrooms. Some examples of this include schoolwide science word of the week, partnering students in buddy classrooms to do activities based on common vocabulary in multiple grade levels and incorporating more science read alouds into the classroom to reinforce vocabulary.

This school year, our group has really made an effort to collaborate with our music, art and P.E. teachers on incorporating science into their classrooms as well. At the beginning of this school year, they were all given a timeline of standards for each grade level. The art and music teachers have attended a few of our meetings and we are collaborating with them to plan our STEAM night this year. In 4th grade, when we were teaching the sound and energy standards, the music teacher taught some of the key concepts in her room with instruments and technology and students were able to see the connection of what they were learning in their general classroom and art classroom. A big focus of our winter concert this year with the younger grade levels was on science. They sang songs about Earth, stars and the art teacher also incorporate art about Earth Space science.

The student experiences that have been planned this year have really helped to solidify some of this vocabulary too, especially in our garden we have at school. This curriculum is made by a community partner based on our standards and our fourth graders are currently going once a week to the garden and learning about some of the life science standards with their experiences out there. We have also done several field trips, squid dissection among other things to engage students in ways with the science they would otherwise not normally have. Floyd Howze and I also did a mini professional learning at school where we gave several strategies for teachers to incorporate vocabulary in the different stages of learning it.

We have been getting into classrooms over the last year and a half and the teachers in all grade



levels are going in and observing their peers. Teachers are so confined to their own classrooms and grade level, they hardly get the opportunity to get out of their four walls and see what is going on throughout the school. Afterwards, we debrief on what we saw as a strategy or an activity and something they wanted to try out in their classroom. We have several more peer observations set up after spring break. Learning from the teachers in your building is such a simple, yet powerful thing. It's really finding the time and coverage to make it work.

Finally, I really wanted to work on building teacher leaders in science within our school. Floyd Howze has now presented with me a few times at a school level and at a district level. Our team members have spoken at PLC's and staff meetings about our work. In addition, for the last two years, our group has planned and carried out 2 STEM days during the day and one in the evening. We are currently working on planning our STEAM night for this year, which we are very excited about and looking forward to a large crowd and an evening of discovery and learning.

Calendar

The calendar is provided above for our spring semester. Not much will be happening over the summer, but we will be reviewing applications for one-year projects with our current funds. If you want to visit in the spring the May 17th Celebration Event is the only possibility.

Newsletter

We sent the newsletter out to our DSCs so that they could forward this on to their supervisors. We asked them for the physical mailing address so we could do that as well. Even if they get it twice, it will allow for multiple touch points.

MISSOURI- UNIVERSITY OF MISSOURI



Author: Meera Chandrasekhar and Linda Godwin

Executive Summary Statement

The Missouri Wipro project's goal of teaching math and science in a harmonious manner will contribute to the transforming of the teaching of those subjects in participating districts. We are already seeing collaboration among math and science teachers, development of lessons that borrow from the other subject, discussion about changing the sequences in their curricula and interest in bringing in other teachers from their grade bands.

Our Wipro project uses a modified version of the initiatives of Phase I. Fellows participate as teams of 2-4 teachers from three grade bands (K-5, 6-9 and 9-12) from a given district, with at least one math and one science teacher in the team. For cohort 4 and 5, grade 6-12 teachers were recruited for year 1. K-5 teachers were added only in year 2 for cohort 4. For cohort 6 we have changed the grade band mix to recruit all grades, namely, K-12 teachers for both years. In year 1 they collaborate in V-CCLS and H-CCLS teams, anchoring their work in a research article and a math and a science educational practice. In year 2 they focus on creating or modifying four or more lesson plans that integrate math and science content.

During this semester (Jan – May 2025) Cohort 6 started working on their H-CCLS segment of year 1. They have chosen their research articles and have scheduled their debriefs. Cohort 5 is continuing their work on lesson plans. We have continued our segment on Physics + math activities, which consists of a 60–75-minute segment where fellows conduct a physics lab and analyze it for the

science and math practices used in the lab. Since we use an inquiry and modeling-based curriculum (<https://exploringphysics.com>), it includes questioning strategies, discussion, designing experiments, data analysis to develop scientific formulae and multiple representation – and therefore several math and science practices.

In the next quarter Cohort 5 and 6 fellows will complete their year's work. The annual conference has been scheduled for May 3, 2025, when they will present their work.

Summary of Current Project(s) and Goals

The initial general goals of our Innovative Phase Wipro project were:

- To expand the teacher network
- Provide new opportunities for leadership
- Focus on collaboration among science and math teachers in middle and high school. This initial goal was later amended to include elementary teachers.

To implement these goals, middle and high school teachers (and later elementary teachers) from local and surrounding districts would 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 approximately 15 teachers each were to be recruited, with each teacher participating for two years (referred to as Cohorts 4-6).

The focus of addressing the challenges of teaching science and math in a harmonious manner at the middle and high school grade levels was chosen for Phase 2 as this collaboration between math and science teachers is essential to the implementation of a successful science curriculum.

Specific Goals:

- Goal 1: Math and science teachers will collaborate to choose mathematical practices and determine methods to harmonize the practices in math vs science courses in middle and high school.
- Goal 2: Fellows will create lessons/units that include harmonized mathematical practices for use in math and science courses.
- Goal 3: The project will disseminate these lessons via a repository that is available to all Wipro fellows and teachers outside the Wipro project. This repository may be in the form of a website.

Selected/Highlighted Projects

Stephanie Worthen, one of our Cohort 6 fellows, is currently in her third-year teaching Physical Science, Biology and ACT Prep classes at Helias Catholic High School in Jefferson City, Missouri. She has extensive teaching experience at other schools and in different grade levels in areas of science but now is teaching high school level physics for the first time. In both her Physical Science and ACT Prep classes there is significant emphasis on students' ability to analyze data when provided either in data tables or graphs. To meet this challenge, she is implementing new initiatives focusing on data analysis, which include more graphing, an activity emphasized this year in our Wipro activities. Stephanie is now incorporating these data analysis activities into her daily lessons. This year, she has used several new lab experiments that require students to collect data and analyze their results. She is also redesigning several of her previous lab experiments so that her students have a more significant role in their experimental design. Improving data analysis in her classrooms is an on-going effort that we will hear more about in the second year of her Wipro cohort.



1. Stephanie Worthen

Progress and Highlights

During this semester Cohort 6 started on their H-CCLS work. The H-CCLS teams were set up by elementary, middle and high-school grade bands. One of the high-school teachers, Stephanie Coyle from Columbia Public schools dropped out of the program since she plans to leave the district at the end of the school year. This left 6 elementary, 4 middle and 5 high school teachers in the respective H-CCLS teams. The Couse of Study (COS) they have chosen is listed below.

Team and Team members	COS Research Article	COS Science and Math Practices
Elementary School: Amy Bartlett, Logan Durk, Kayla Eads, Desiree Pezley, Megan Kulage, Gwen Imhoff	<i>Student performances on the science processes of recording data, analyzing data, drawing conclusions, and providing evidence.</i> Germann, P.J., & Aram, R.J. (1996). Journal of Research in Science Teaching, 33(7), 573–798.	S4: Analyze and Interpret Data M4: Model with Mathematics
Middle School: Anne Stacy, Amanda Wolfe, Lauren Dyer, Kyle Chrisman	<i>Recognizing, supporting, and improving student perseverance in mathematical problem-solving: The role of conceptual thinking scaffolds.</i> DiNapoli, J., & Miller, E. K. (2022). Journal of Mathematical Behavior, 66, Article 100965. https://doi.org/10.1016/j.jmathb.2022.100965	S4: Analyzing and interpreting data M1: Make sense of problems and persevere in solving them;
High School: Hannah Nandor, Maria Backes, Leslie Verslues, Collin Mayhan, Stephanie Worthen	<i>The improvement of 10th grade students' mathematical communication skills through learning ellipse topics.</i> Tong, D. H., Uyen, B. P., & Van Anh Quoc, N. (2021). Heliyon, 7(11). https://doi.org/10.1016/j.heliyon.2021.e08282	S8: Obtain, evaluate, and communicate information. M4: Models with mathematics

During the January meeting the teams selected the math and science practices they wished to focus on and began the search for an appropriate research article. By the February meeting teams had chosen an article and got it approved by the faculty. During the March meeting teams made presentations of their research articles. These presentations were about the best we have heard over the years. All groups discussed their article in a succinct fashion, described why the article was appropriate for them, and then each teacher described how they plan to apply the content of the article in their lesson, and how it would impact their math/science classroom for the duration of their chosen lesson as well as how they plan to use the learning long-term. Examples are given below.

Elementary School Team: Connections to their classroom lessons were discussed in detail, as shown in the slide. The research article pointed out that while students successfully completed the discussions and labs, they struggled with providing evidence for their (correct) conclusions. Fellows discussed this difficulty as well and want to work on how to help scaffold students to connect evidence to conclusions.

Classroom Connections



3rd Grade Math

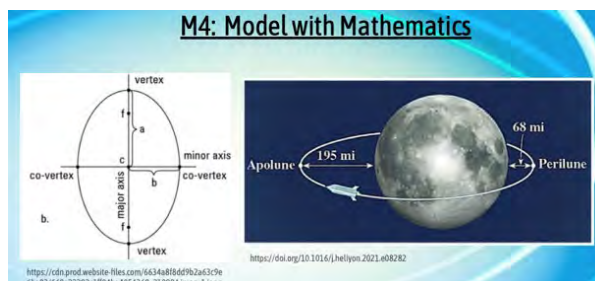
- Creating bar graphs
- Compare data
- Interpreting graphs

3rd Grade Science

- Follow through experimental design
- Compare data
- Coming up with hypotheses
- Construct argument based on evidence
- Gather and evaluate evidence

2. *Fellows from the Elementary H-CCLS team discuss connections between their research article and classroom practices*

Middle School, quote from Kyle Chrisman: I plan on focusing on the scaffolding aspect of building student perseverance. We are approaching MAP testing and need to spend more time working on DOK 2 and 3 problems. I want to introduce them to MAP-like questions and scaffold the problem-solving process. I will focus on allowing the students to struggle as they work their way through challenging problems.



3. *Leslie Versleus using planetary motion data to have students obtain the equation of an ellipse.*

Focus on Graphing:

During their V-CCLS presentations in December Cohorts 5 and 6 teams referred to students' difficulties with graphing. In January they conducted a discussion about ideas to increase student exposure to graphing, and the parameters that would make it workable in their schools. Here is a summary of the parameters they discussed:

Frequency: 5 mins a day (elementary), 1-4 times a month (middle school), weekly (high school)

Types of graphing activities: create/generate graph, use first-hand or second-hand data, analyze graph, use existing graph, varieties of graphs, incorporate in authentic manner in math, science, other core subjects, connection between graphical and mathematical representations (for common relationships-direct, inverse, quadratic, exponential, sine).

Types of set-up: group activity, whiteboard, worksheets, poster on classroom wall.

Resources: [NYT What's Going on in This Graph?](#), [Turner's Graph of the Week](#), Teachers Pay Teachers ([K-1](#), [K-4 bar graphs](#), [3-5](#), [6-12 Biology](#)). Obtain feedback from freshman college classes about graphical and data representations used. Have Wipro staff help obtain or identify resources.

Expansion beyond current cohorts: Involve non-Wipro teachers, RTI/Advisory classes, spread out over grade bands, consistent vocabulary across subjects and grades.

Going beyond graphs: Data in table form, varied data sources, use spreadsheets (high school).

District support: Time, help from principals and district admin, vertical integration in district

For this semester we have asked them to use these ideas as a thread in their H-CCLS work, so they get a feel for how this focus might go down in their classes. If they feel the idea impacts their instruction, in Year 2 we would like them to take a more consistent approach in including graphs in their lesson plans. We would also like to have them incorporate other features listed above, one of which might be to involve non-Wipro teachers.

Physics+ math activities this semester have focused on accelerated motion, gravity and scaffolding of graphing into the content (Cohorts 5 and 6 work together). Continuing the discussions during our previous activities in November, January's activities focused on accelerated motion, specifically on relating graphically to mathematical representations. The activity focused on using the area under a velocity-time graph to figure out the displacement of an object for both uniform and accelerated motion. Techniques for varied grade bands, such as using the definition of area of a rectangles and triangles, counting "boxes" in a graph, and using the graph for deriving the formula for displacement were addressed.

February's activities on gravity were tied to teacher feedback we had requested on common misconceptions on gravity among students. We used these misconceptions as an entry to discuss acceleration due to gravity. Recalling discussions during the fall, we used motion diagrams of a falling object and an object thrown upward to generate position, velocity and acceleration vs. time graphs. This was followed by a discussion of the difference between acceleration due to gravity vs. the force of gravity and the source of some student misconceptions.

During the meeting in March, Linda Godwin talked about Newton's law of gravity, motion in space, free fall, and the various aspects of life in space that are affected by the lack of gravity due to a free fall orbit. She emphasized that the force of gravity that students measure in lab experiments is the same force that keeps the space station moving in orbit, planets orbiting the Sun, and even controls the life cycle of stars.

In April the physics + math activity on density will be presented by Cohort 5 teachers. When we started these activities in August, we asked for feedback from the fellows about the topics they wanted us to address. Density was one of these topics and we chose to have the Hallsville C5 team make the presentation.

Writing Vignettes

In February we decided to change our method of collecting vignettes from targeted requests prior to each quarterly report deadline to a short/simple (and hopefully almost painless) writing assignment to all Cohort 6 fellows prior to our March meeting. We allocated time in the March 13 agenda for each group to discuss what they wrote with their team members. One of our reasons for doing this

was to have a relatively easy assignment to do some writing and to provide a time where their questions could readily be answered. We now have a collection of completed vignettes with only a few still in draft form. This gives us an opportunity to compare impressions on the impact of Wipro and activities across the cohort.

Meeting with DCs

In February we had a zoom meeting with Andrew Kinslow and Melissa Fike, the DCs from Columbia Public Schools. They discussed how some of the C4 fellows have been doing mini-presentations and volunteering for PD sessions. They remarked that collaboration between math and science teachers among Wipro fellows and non-Wipro teachers with close subject connections to them has been increasing. Fellows are also more willing to value and share their work. Andrew and Melissa were interested in the January discussion about increasing student exposure to graphing. They would like to see more technology used for graphing, particularly through the DESMOS program available across K-12 in their district. They particularly appreciate that Wipro gives teachers an avenue to collaborate across grades and subject areas, and they see this among Cohort 1-6 fellows.

We are currently in the process of setting up zoom meetings with DCs from the other districts.

Plan for the Next Two Quarters

Date	People	Activity
April 17, 2025	C5, C6	C6: Lesson Plan structure, May Conference prep C5: Lesson plan collaboration, May Conference prep C5& C6: Physics + math activities: Density
May 3, 2025	C5 and C6, DCs, Past Fellows	May Wipro Conference Presentations
August 2025	C6, DCs	C6 Intro to year 2

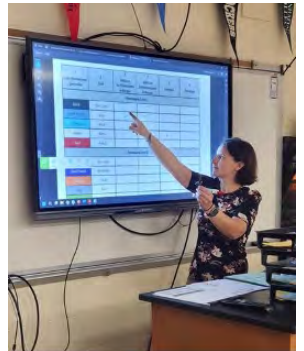
Vignettes

Amanda Wolfe, 8th grade science teacher at Oakland Middle School.

This is her 9th year teaching science at the secondary level. She has taught 6th and 8th grade science in Columbia for three years, following six years teaching in a 7-12 high school in Minnesota. Currently her primary teaching units are astronomy and Earth's place in the universe, plate tectonics and Earth history, and genes and heredity.

Amanda feels the Wipro program activities have improved understanding of the relationships between math and science practices in her classroom. Collaborating with her Wipro group members at various grade levels has inspired conversations about how they can support foundational skills that students of all ages can benefit from. For example, her team members discussed how an experiment of heat transfer used with 5th grade students could be adapted to fit into middle school science and upper-level math and science courses.

Much of her focus with Wipro has been on developing students' perseverance in problem-solving. Amanda has developed lessons and resources to better support her students' ability to identify prior knowledge and apply this to new situations, such as using graphic organizers to help students organize their related prior understanding of a topic, similar to a KWL chart. Another strategy she has learned is to have students list the steps they use to solve a problem to increase their metacognition during problem solving.

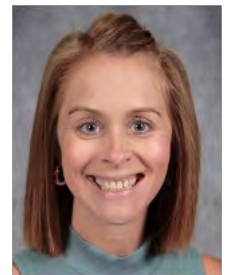


4 Amanda Wolfe in her classroom

Kayla Eads, elementary school. Hallsville Intermediate School.

As an elementary teacher, she covers all subjects, and with the help of her amazing colleague and Wipro fellow, Amy Bartlett, has been able to find absolute joy in teaching science this year, without the headaches and apprehension experienced in the past.

This is Kayla's second Wipro cohort, and she feels she has experienced tremendous growth in her professional life. The years spent within this program have taught her the value of working with those both outside of her own area of expertise, 5th grade, but also outside of her school. For her, the Wipro program has had an impact on working with educators with varying degrees, years of experience, and ages. Working within V-CCLS groups, showed that lessons can be similar across grade levels, but the degree of difficulty or complexity of the task just needs to be varied. While working in our H-CCLS groups, she learned the true power of collaboration. Seeing how other schools establish various curriculums, or how other teachers wrote their own demonstrated how capable and NECESSARY we all are to our schools and how that aids in our continued growth in this profession.



5. Kayla Eads

During her time in two different Wipro cohorts, she has incorporated teacher talk moves, various modeling techniques, purposeful and hands-on morning work options, the use of first-hand and second-hand data, and graphing and analyzing within her 5th grade science classroom. Kayla credits the Wipro program for "forcing" her to grow professionally through collaborating with others, leading professional development, and for giving her the courage and drive to improve her daily instruction. She feels her confidence level has soared and is now excited to not only teach science each day, but to collaborate with her team about ideas, and strive to make her science classroom engage each and every day!



6. Two students in Kayla Eads' class.

Kayla received her Master's in Elementary Education from the University of Missouri in 2009 and recently received her Educational Specialist Degree from William Woods University. In her free time, she enjoys reading, going on adventures with her husband and four daughters, and watching any and all sports, cheering for the St. Louis Cardinals, the Missouri Tigers, and the Kansas City Chiefs!

Calendar

Date		People	Activity
April 17, 2025	C5, C6		C6: Lesson Plan structure, May Conference prep C5: Lesson plan collaboration, May Conference prep C5& C6: Physics + math activities: Density
May 3, 2025	C5 and C6, DCs, Past Fellows		May Wipro Conference Presentations
August 2025	C6, DCs		C6 Intro to year 2

Newsletter

The first Wipro newsletter was sent out to Cohort 1-6 fellows (~70 fellows still active in their districts), 10 DCs and 13 principals. We have not received any responses. The second newsletter has just been sent out.

NEW JERSEY MONTCLAIR STATE UNIVERSITY



Author: Mika Munakata, Monica Taylor, Emily Klein, Colette Killian

Executive Summary Statement

The Montclair State University site has made progress through the first half of its Phase III project. The program is contributing to district transformation through the Fellows' self-initiated projects, which extend the reach of the Wipro program to new teachers, new districts, new subjects, and new collaborations. The connections that are made through the program would not be possible without the structure that the Wipro SEF program provides.

The current phase of the project has involved 12 Alumni Fellow working on district-related initiatives and a doctoral student working on publicizing the program. Each of the alumni Fellows has recruited a team of district teachers. Together, these teams are working towards their respective goals as a new cadre of teacher leaders are nurtured.

Summary of Current Project(s) and Goals

On January 24, 2025, the MSU group came together for a Renew, Refresh, Re-Energize Retreat. It took place from 1-6pm, with a light dinner provided. Of the 47 active Fellows, 43 attended:

11 of 13 Alumni Fellows

15 of 17 of NEW fellows

12 of 12 of experienced new fellows

5 of 5 of experienced new fellows who are now leaders

The overall agenda is below, with the full agenda attached. The PowerPoint presentation is also attached:

- 1–1:20 What is Wipro SEF?
- 1:20–2:00 Who is Wipro SEF?
- 2-3:40 Engage in Problems of Practice discussions
- 3:40–4:00 Break
- 4:00–5:00 Leveraging your Social Networks
- 5:00–6:00 Dinner and mentor check-ins
- A bit before 6:00–announcements and hang out (optional)

The day started with a brief history of MSU's involvement with Wipro SEF. As part of this overview, Alumni and experienced Fellows were asked questions by the new Fellows through a speed-dating activity. The tables were turned halfway through the activity, with the Alumni Fellows asking the new Fellows questions related to their goals for their participation in Wipro.

The day continued with focused discussions about problems of practice stemming from the Wipro team leaders' experiences. These problems of practice were collected before the retreat and groups with similar issues were grouped together for discussion.



2024/2025 NJ Fellows at the January 2025 retreat

Selected/Highlighted Projects

Below are the projects the Fellows are undertaking in Year 1 of their participation.

Mazurek	Kearny	Thousand Pounds for Garden Grounds
Kleiner	Clifton	Connecting students, parents and teachers to explore authentic STEM activities
Carlo	Clifton	Arts Integration and S.T.E.A.M. Club
Scrivens	Paramus	Tiger Tinkering Tank (our mascot is the tiger)
Bartol	Montclair	Getting S___ Done
Trabona	Hawthorne	Building Bridges - Diversifying Social Networking Presence to Support Teacher Feedback
Cappello	Bloomfield	The effect of math metacognitive problem-solving practices on critical thinking and problem-solving in the science classroom
Cann	Pascack Valley	Integration of boardgames into the science curriculum
Mahfouz	Paramus	Paramus Does Phenomena
Borriello	Clifton	Making Environmental Science Relevant for Students
Rodriguez	Kearny	LMS Culture Club
Hester-Fearon	Kearny	LMS - charging forward with eSTEM and ELLs to make lasting school community connections
Hogel	Clifton	In Our Science Era
Serino	Kearny	STEAM Full Ahead in understanding climate change @ LMS
Griffith	Plainfield	Creating vertically aligned K-12 Science Assessments
Tchalabi	Kearny	Garden Expansion Project
Graziano	Pascack Valley	Increasing 3-Dimensional Teaching Practices by Supporting Teacher-Leaders

Progress and Highlights

The research team had a proposal accepted for a paper session at AERA 2025:

“Mapping Their Terrain: Using Social Network Analysis to Support Feminist Teacher Leadership and Promote Educational Renewal.”

The team is also working on revisions to an article for submission to International *Journal of Teacher Leadership*: Self-Created Social Network Maps: A Tool to Advance Professional Development of Science Teacher Leadership.

Additionally, we are revising the 2024 AERA paper that was presented in order to submit it to *Studying Teacher Education*.

Plan for the Next Two Quarters

Date	People	Activity
5/29/25	All Fellows	Culminating Activity

Vignettes

Betty Rodriguez and Miguel Marques, Kearny, NJ, ELA & Math, 8th grade

Meeting District's Goal of Bringing Awareness to Various South American Cultures

The goals of this project are to bring a diverse group of students together to research (habitat, diet)(SCIENCE), write game instructions/objective and playing cards(ELA), for the various areas of South America, gather data (MATH), design the gameboard, playing and challenge cards, (ELA,MATH, ART), attend Fusion360 3D training (TECHNOLOGY), and visit Turtle Back Zoo to compare the differences in animals researched from South America to animals at the zoo(Ex: monkey, penguin). Students are noticing the connections among the disciplines, diversity within the animals, and bringing awareness to the rest of the student population. They are excited to learn 3D printing and using the newly acquired printers. Staff is excited as well, looking forward to seeing the end result and playing the game. As leaders of this project, Miguel and I, being on the same academic team, discuss progress on a weekly basis. We meet with the students weekly, to ensure understanding of the task and meeting deadlines. In addition, we meet with the other Wipro members (Pat Hester-Fearon and Kim Serino) in our school to share the roadblocks, if any, cooperative learning, and how to continue to bring awareness to the students, staff, and community members. Ideas are constantly bounced off by each other, enhancing each member's projects.

The Montclair Wipro Team has also been amazing, demonstrating excellent leadership skills by providing us with the needed supplies, opportunities to meet and discuss roadblocks, constructive feedback, and much needed experience and resources. Thank you.



Clyde Griffith, Science, K-12, Plainfield School District

The Wipro Fellows representing Plainfield School District are making great strides in enhancing science instruction through vertically aligned unit assessments. Our goal is to ensure seamless progression of learning from one grade level to the next, fostering deeper understanding and retention of scientific concepts.

A key component of our work has been piloting OpenSciEd assessments. OpenSciEd provides high-quality, phenomena-based instructional materials that engage students in authentic scientific inquiry. By implementing these assessments, our team has observed significant benefits, including: 1. Increased student engagement through real-world problem-solving 2. Stronger conceptual understanding by making science more interactive and inquiry-driven 3. Alignment with NGSS standards, ensuring students are developing critical thinking and reasoning skills. In addition to classroom implementation, one of our team members serves on the Middle School Advisory Board for NJSLA-S assessments, contributing valuable insights to state-level science assessment development. Collaborating with other state stakeholders allows us to bring a broader perspective back to our district, enriching our approach to teaching and assessment.

By working together—both within our district and with educators across the state—we are shaping a more cohesive and effective science curriculum that prepares our students for future success. As we continue this journey, we remain committed to refining our approach, leveraging innovative resources like OpenSciEd, and advocating for high-quality science education in collaboration with the WIPRO fellowship.



Calendar of Events

Culminating event: Thursday, May 29 4:30p-7p, 1515 Broad Street



Author: Carmen King

Executive Summary Statement

“A change is brought about because ordinary people do extraordinary things.” (Barack Obama)

We have a cadre of educators that may seem “ordinary”, but they are accomplishing extraordinary things within their classrooms, schools, and districts. These 22 educators are providing STEM experiences in their classrooms and grounding their students in STEM literacy. They are also moving their work beyond their four walls by collaborating with colleagues to share and spread their dedication to STEM.

On January 6, 2025, we had our Wipro Reimagined Cohort 3 Launch. We reflected on our whys and hows. Why did I choose to enter this program? What do I want to accomplish for myself in this project? How do I think I will be changed by this work that I am doing? How do I want this work to inform or transform my students? My classroom? My teaching? How do I anticipate this project impacting the district? How might it lead towards district transformation or district TRANSFORMATION? A major goal of the meeting was to build community between the Fellows, establish plans for success and sustainability, discuss progress, and set goals and expectations for the months ahead. Teams were able to engage in meaningful planning and goal setting with their teacher members and their administrator. They then had the opportunity to share their ideas across teams and districts – the beginning building blocks of cross pollination.

In this quarter our New Rochelle Columbus team presented to their Board of Education. They also hosted a well-attended Coding and Robotics Family Night. New Rochelle’s Arcade Challenge Team

began lunchtime clubs where their elementary students designed and engineered arcade games supported by high school science students. Our White Plains STEM Spotlight Newsletter created and disseminated the first edition of their [STEM Newsletter](https://www.whiteplainspublicschools.org/) (advertised on the landing page of the White Plains Public Schools website - <https://www.whiteplainspublicschools.org/>). Aimee Ferguson, Fellow from Cohort 2 planned and hosted an informal education event for Westchester educators at the Westchester Children's Museum. Maria Walsh provided a PD session through STANYS (The Science Teachers Association of New York State) called "Building Thinking Classrooms". Our Fellows have been busy teaching, leading, and transforming their communities.

In the next quarter we are looking forward to more exciting events. The Jefferson Wipro Team (Cohort 2) will be presenting to their Board of Education at their principal's invitation. She has expressed her pride in all they have done and are doing through their work as Wipro Reimagined Fellows and wants to celebrate that work at the district level. The Columbus Team members will lead professional development related to their Learning to Code Coding to Learn project for their school's Staff Development Day. This will ensure teachers in the building K-5 will have an opportunity to learn and try implementation in their own classroom. Five of our fellows have had presentation proposals accepted for the NSTA conference in Philadelphia. Three of them will present (March 25th – March 29th.)

At first glance, the transformation happening may seem small. However, a thoughtful reflection on this work provides an understanding of the way our Fellows are changing personally and professionally and the ways their work is changing their students, their school culture, and their districts. "Transformation is an ongoing process that tends to appear ordinary, when, in fact, something extraordinary is taking place."² Something extraordinary is indeed taking place with our NY Wipro Fellows.

Summary of Current Project(s) and Goals

In this quarter all the participants (educators and administrators) of Wipro Reimagined Cohort 3 are fully engaged in implementing their' projects.

DISTRICT	TEACHERS	PROJECT TITLE/DESCRIPTION
New Rochelle	Antoinette Koehler, Anny Vanegas (Wipro Consultant), David Webb, Susan Siegel Erik Brillon Emily Schneeberg Sebastian Arango Sebastian Zamora- Giraldo Shemika McClellan (withdrew) Michael McGowen	<u>CODING TO LEARN-LEARNING THROUGH CODING: BUILDING COGNITIVE SKILLS USING ROBOTS AND CODING</u> Integrating robots into general and special education classes fosters critical thinking skills and supports student abilities, benefiting both general and special education students. The hands-on project using a variety of age-appropriate robots will allow students to complete coding tasks that encourage creative solutions. It will build students' computer science and digital literacy skills, specifically the sub- concepts of digital use and computational thinking from grades K-5. Students will develop critical thinking skills when building codes for classroom projects. The project will expand the accessibility of coding and exploration of robots to students in Special Education classes and primary grades.

New Rochelle's Coding to Learn Learning to Code Project January 2025 – March 2025

The Coding to Learn team (CTL) and their students showcased their Wipro Reimagined project during the school-based Board of Education Meeting (February 11, 2025.) They invited their students to teach the Board Members what they were learning. The Board was impressed with the knowledge, skills, and confidence the students demonstrated. CTL also hosted the first of two Robotics Family Nights (February 13, 2025.) Over two hundred adults and students attended the event! CTL was most surprised by the level of interest in their project shown by the community and are hoping that this family night will lead to more engagement in school events in the future. It is looking promising as the sign-up for the second Robotics Family Night (April 11, 2025) is robust.



Learning to Code a Dash Robot



CTL hosts its first Coding and Robotics Family Night

White Plains	Mike Nangle Aldwin Martinez Jordan Garcia Kim Fleming Damien King Susannah Genty-Waksberg Jakki Forbes-Machado	<u>STEM SPOTLIGHT NEWLETTER</u> The STEM newsletter is designed to highlight the exciting world of Science, Technology, Engineering, and Mathematics within the WPCSD community. Each issue will feature a diverse range of STEM-related activities, projects, and achievements from students at all grade levels. The newsletter will highlight the outstanding work of students, teachers, and staff in all STEM disciplines across WPCSD and celebrate successes, breakthroughs, and innovative projects. It will foster a passion for STEM by sharing engaging stories, profiles, and resources and providing valuable information about STEM-related topics, news, and events for students, teachers, and parents. To promote STEM equity and inclusion it will highlight the contributions of diverse individuals to STEM and share resources and initiatives that support equity and inclusion in STEM education. It aims to bridge the gap between schools and the community by featuring local STEM initiatives, partnerships, and events. The hope is to encourage collaboration and engagement between students, teachers, parents, and the broader community.
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White Plain's STEM Spotlight Newsletter Project January 2025 – March 2025

The STEM Spotlight Newsletter team (SSN) was thrilled to launch the fall edition of their newsletter. In it they share some of the amazing STEM happening across the schools in the White Plains City School District. The newsletter highlights captivating experiments from the elementary classrooms to cutting-edge projects at the high school level. SSN's hope is to showcase the ingenuity of the district's students and teachers and engage the entire White Plains community by shining a spotlight on the incredible achievements of the students and the exciting [STEM careers of some alumni](#). The newsletter has sections for each school level, a section for teacher tips, the STEM director's corner, and upcoming events. One of the highlights of the project is the provision of "Try it at Home" activities that the whole family can enjoy. More than sixty families have already signed up for "Try it at Home" materials. The newsletter has been well received so far, and SSN is already working on the spring edition.



Welcome to the WPCSD STEM Spotlight Newsletter!

Hello STEM enthusiasts! Get ready to explore the exciting world of Science, Technology, Engineering, and Math in our very first district-wide STEM Newsletter! This fall has been buzzing with innovation and discovery, and we're thrilled to share some of the amazing STEM happenings from across our schools. From captivating experiments in our elementary classrooms to cutting-edge projects at the high school level, get ready to be inspired by the ingenuity of our students.

Inside, you'll find spotlights on incredible achievements in our Elementary, Middle, and High Schools, a glimpse into the exciting careers of some of our STEM alumni, and a fun "Try it at Home" activity that the whole family can enjoy!

Want to get your hands on some STEM fun? Register through the link in the "Try it at Home" section to receive a **FREE STEM kit** to take home! And don't forget to snap some pictures or videos of your STEM adventures – you might just see them featured in our Spring edition!

STEM Spotlight Newsletter Introduction

Student Spotlight

Leila Tomlin - A Force for STEM and Community

Meet Leila Tomlin, a senior at White Plains High School, who embodies the spirit of STEM and community service. With a remarkable GPA, she's a true inspiration!

- **STEM Leadership:** Founder of Girls4Tech and President of Junior Engineering Technical Society (JETS).
- **Community Impact:** President of Key Club, Community Service Liaison for NHS, and founder of the Debate Club, along with extensive volunteer work.



Leila's dedication to service is evident through her involvement with numerous organizations, including the Pink Lady Box Project, My Sister's Place, The Ronald McDonald House, and Lifeline Humanitarian Organization. She has also secured 2 \$10,000 grants for her Elementary school, and her high school, and went on a Mission trip to Serbia and raised 30,000 dollars for a new playground.

Want to learn more about Leila's inspiring journey? Read the full interview and dive deeper into her incredible achievements!

STEM Spotlight Newsletter - Student Spotlight

New Rochelle	Kathleen Coyne Samantha Eisenberg Sandra Galano Melissa Landau Zachariah Biondo	<u>ARCADE CHALLENGE</u> Students will step into the exciting world of arcade games while exploring essential scientific concepts and engineering fundamentals. Over several months, they will design and build arcade games, from classic shooters to innovative new ideas, using engaging STEAM materials and problem-solving skills. Through this experiential process, students will deepen their understanding of energy conversion, motion, and design principles while collaborating with peers and mentors from higher grade levels. Participating students will engage in lessons and hands-on activities to develop their understanding of key science concepts. Students will design and create arcade games that convert energy and/or use the effects of force on the motion of an object; use the iterative process to test and refine their arcade games; explain to others the engineering design process that they engaged in; collaborate and work across grade levels and schools within the district to align with district wide STEAM goals.
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New Rochelle's STEM Arcade Challenge Project January 2025 – March 2025

New Rochelle's Arcade Challenge team (AC) began their Webster Arcade Club. Students learned about the club through an assembly program. 3rd-5th grade students had their first meeting with New Rochelle HS students on February 13th. There was a high level of student enthusiasm about engineering their own games. They were excited to participate. In fact, so many students showed interest that Fellows had to institute a lottery system for student selection. Recycled materials are being used for the arcade builds. There have been 2 sessions with New Rochelle's high school students who have volunteered to serve as a science and engineering support team. They have been instrumental in helping students follow their plan, work on building their game, and trouble shoot any problems that arise as they design and build. The elementary students get excited when the high school students are slated to come, and the high school students have served as good engineering role models.



3rd, 4th, & 5th graders brainstorm the potential materials they could use to design and engineer their own arcade game.



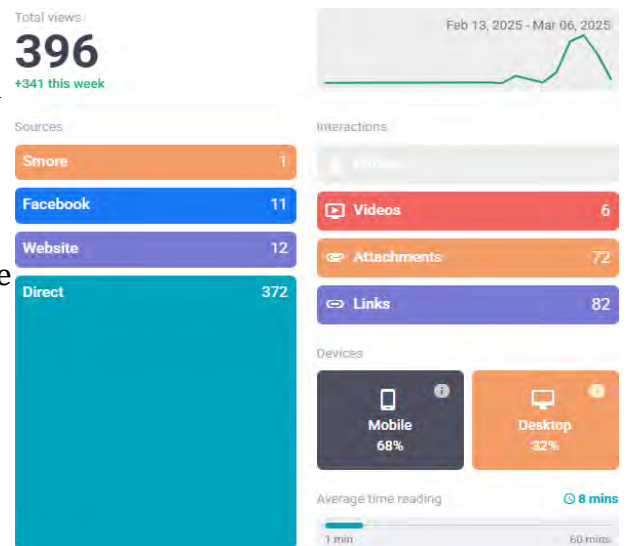
New Rochelle High School students support Webster Elementary students with their arcade builds.

Plan for the Next Two Quarters

Date	People	Activity
3/18/2025	Coding to Learn (CTL)	Superintendent's Conference Day – CTL will provide coding and robotics professional development workshops for school staff K-5
3/25-3/29	Wipro SEF, Wipro Reimagined Cohort 2, and former Tarrytown DC	NSTA Philly Presentations Abbey Gilligan & Leana Peltier - Teacher Leadership in Action: Transforming Professional Development Through a Teacher-Led Elementary Science Conference (Poster Presentation) <i>Thursday, March 27, 2025 @ 12:00 PM, Exhibit Hall</i> Leana Peltier - Creating a Culture of Community in the Classroom: Celebrating Individuality and Cultivating Equity (Hands-on Workshop) <i>Saturday, March 29, 2025 @ 11:40 AM, Room 123</i>
4/3/2025	Jefferson Wipro Team Cohort 2	Presentation to the Board of ongoing activities related to Wipro Reimagined projects.
4/8/2025	Aimee Ferguson Wipro SEF, Reimagined, and New Rochelle DC	Cornell Lab of Ornithology will be hosting an interactive webinar just for Wipro Fellows nationwide! The topic will be: Helping the Earth through Participatory Science.
4/10/2025	CTL	Second Coding and Robotics Family Night
5/1/2025	Wipro Reimagined Cohort 3	Virtual Whole Group Gathering – Reflection and Next Steps Night
TBD 5/19-5/23	Arcade Challenge	Webster's Annual STEAMposium - students will get to try out the arcade games that have been built. Club members will also teach younger students how to make simple versions of some of their games.

Vignettes

Mike Nangle, Fellow and member of the STEM Spotlight Newsletter team said the following: The fall edition of our [STEM Spotlight Newsletter](#) “far exceeded expectations! Shows what is possible when you have a team of stellar professionals working together for a common goal! The newsletter has been well received by our STEM directors as well as Dr. Hand (Assistant Superintendent of Curriculum and Instruction for the White Plains City School District). We just got word from her that she gave it approval to be put on the district website under "Announcements" and it will be sent out via K12 alerts today! In addition, we've had it "out there" for about a week through different avenues and it already has almost 400 views! See attached image for the Smore Analytics overview. I expect these numbers will jump up over the weekend! Also, 60 people have registered for a STEM Kit already! (The deadline is Sunday 3/16.)”



STEM Spotlight Newsletter Smore Analytics Overview – Smore is a newsletter builder made for educators.

Dr. David Jacob, Director of Math, Science, Engineering and CTE 7-12 White Plains City School District commented on the STEM Spotlight Newsletter. “This is a



Elementary School Spotlight: Church Street kindergarteners investigated the impact of the sun on various surfaces then created a structure to protect an ice cube from the sun.

great way to raise the visibility of STEM education and not in the abstract but with concrete examples and GREAT photos of students in action. This team did a great job of putting together an engaging and colorful community engagement tool that shows off the best of what is happening throughout the district.”



Girls4Tech is a club at Eastview Middle School. It partners with Mastercard in Purchase, NY to expose female students to STEM and STEM careers. This year they are learning JavaScript.

Aimee Ferguson, Current New Rochelle DC, Wipro SEF and Reimagined Fellow continues to exercise teacher leadership and spur district transformation with her persistent pursuit of opportunities to help educators grow. This quarter in her DC role Aimee has arranged, facilitated, and/or supported:

- an educator science event at the Westchester Children's Museum.
- Maria Walsh's, STANYS event: Building Thinking Classrooms.
- The Cornell Lab of Ornithology interactive webinar exclusively for Wipro Fellows nationwide



Aimee Ferguson New Rochelle, NY DC

Calendar

Date/Time	Place	Activity
3/18/2025 (Across the entire school day)	Columbus Elementary School, New Rochelle, NY	Superintendent's Conference Day – CTL will provide coding and robotics professional development workshops for school staff K-5
4/3/2025 7:00 PM	Jefferson Elementary School, New Rochelle, NY	Presentation to the Board of ongoing activities related to Wipro Reimagined projects.
4/8/2025 7:00 PM	Virtual/Zoom	Cornell Lab of Ornithology will be hosting an interactive webinar just for Wipro Fellows nationwide! The topic will be: Helping the Earth through Participatory Science.
4/10/2025 5:00 PM	Columbus Elementary School, New Rochelle, NY	Coding and Robotics Family Night II
TBD 5/19-5/23	Arcade Challenge	Webster's Annual STEAMposium - students will get to try out the arcade games that have been built. Club members will also teach younger students how to make simple versions of some of their games.



Author: Dr. Ratna Narayan

Executive Summary Statement

The Wipro SEF Innovation Phase at UNT Dallas is in its third year. This year too we have funded school projects, collaborative as well as individual projects focused on district transformation through teacher leadership. New science Tekes have been implemented since fall 2024 and most of these projects address the changes made.

In the innovation phase, three types of projects are funded. School projects involve more than 2 fellows working together on a goal that impacts the school/ ISD. Collaborative projects are between Fellows in the same school, ISD or different ISDs collaborating on a project of common interest. Individual projects enable Fellows to work on projects they are interested in and still be a part of Wipro and impact students. This year, 2024-2025, I am funding a total of 10 projects, 4 schools, 3 collaborative and 3 individual projects.

This quarter has been extremely busy, especially with ISDs going into Staar test mode which impacts our projects a little as teachers are called in more to stop teaching and do reviews, so their students fare well on these tests. We anticipated this and the fellows have done well in making sure their projects are not impacted too much by the spring Staar testing frenzy! What I did not anticipate was the weather playing havoc with our face-to-face meeting. We had a meeting scheduled for Feb 3rd, we had to cancel the meeting on account of bad weather and again on Feb 17th for the same reason. Our next face to face meeting is on April 7th and so I set up zoom meetings with each project, the participants and the DSC.

https://docs.google.com/document/d/1k-60o2aARd_Dor_cJySvVK4LJ6U--NeJIX9BcDhO-Zo/edit?usp=sharing

All 26 participating fellows and their DSCs attended the 9 individual zoom meetings. I answered all the questions they had; we touched base on their project progress. (They are so excited about it). I made sure all stipends were paid in a timely manner, they had the required information regarding their next face to face meeting and deadline about their websites being complete till the month of March, quarterly reports and research informing their projects. Some of them do not have access to the library and I will send them articles that support their research.

The next quarter will be very busy as well. In my previous report, I said the next meeting was on April 15, we got bounced out of the room for an admissions event, so it has been rescheduled for Monday April 7th in Campus Hall. (Space at UNT Dallas is at a Premium and we have to take what we get1) As you know CAST is in Dallas this November and other than the 9 current projects which we will be submitting, I would like to have other inactive Fellows also present. I have spoken to CAST leadership about this and while they are interested, CAST will be held at the Sheraton Dallas, a smaller space than the Anatole, and they have to make some decisions as to how many sessions they can give us and get back to me.

On April 7th I will be talking to the group regarding their own CAST proposals and will make sure that I work with them to get the proposals submitted and accepted! I will also be talking to the fellows regarding our conference on June 13th. On Friday June 13th, we will also have the 2024-25 Annual conference and meeting at UNT Dallas. It is a one-day conference, and I would love to host presentations from other Wipro sites.

Summary of Current Project(s) and Goals

A	School Projects		
1	Effects of Collins Writing in Science: Cedar Hill ISD The goal of the project is to improve 5th grade, 8th grade Science and Biology STAAR (State of Texas Assessment of Academic Readiness)/(EOC)End Of Course scores across Cedar Hill Independent School District. Collins Writing: CHISD District Initiative We might lose one of our fellows due to illness.	1 DSC 7 alums Third year of funding	2 elementary 2 middle 1 high school
2	From Concrete to Abstract Science: Grand Prairie ISD They are combining the development of English and Spanish language speakers with STEM (Science, Technology, Engineering, Math) through the Grand Prairie ISD Dual Language Program. An English speaker is paired with a Spanish speaker to help acquire and facilitate dual language acquisition through a science project-based curriculum. Focus on: STEM, TEA's STEM framework, dual language vocabulary acquisition, leadership, science and engineering practices	4 alums 2 new Second year of funding	6 teachers paired up at Ellen Ochoa
3	STEM Sensation: 3D Toys for the Senses: Irving ISD This project aims to engage 3rd grade students in designing and creating a 3D printed game that can be	1 DSC 2 alums 1 new	Stipes Elementary

	enjoyed by someone with a disability. Through this project, students will learn about accessibility, 3D modeling, and the process of designing and printing 3D objects. The game will focus on tactile elements that allow children with various types of disabilities to play and enjoy the experience. Focus: STEM, 3D Modelling, designing, printing, fostering empathy and STEM, science and engineering practices		
4	STEAMing Year Round: A LISD Elementary Initiative: Lancaster ISD This proposal aims to establish STEAM events/experiences for Pre-K through 5th grade students, families of 3 Lancaster ISD elementary schools and foster a culture of family and community engagement that enriches all students through hands-on STEAM experiences. Focus: TEA's STEM Framework Domain 5.5 STEM family engagement events/experiences hosted by the district/campus.	1 alum 2 new	Pleasant Run, Rosa Parks, West Main, and Belt Line Elementary
B.	Collaborative projects		
1	STEM Explorations for Gifted Minds: A Framework for Innovation and Excellence: Lancaster ISD We will focus on creating interdisciplinary, project-based learning activities that integrate science, technology, engineering, and math based on grade level content for grades 3-5. By providing these project - based learning activities, students will explore real-world experiences and connect them back to the classroom content. Our project will incorporate robotics, coding, engineering design, and inquiry-based activities that can prepare students for future STEM careers. Focus: his proposal aims to implement the TEA STEM framework in the Gifted and Talented (GT) classroom for students in grades 3rd through 5th.	1 alum 1 new	Pleasant Run, West main elementary
2	Building Blocks of Discovery: K-2 STEM adventures DeSoto ISD This proposal outlines an exciting initiative to engage K-2 students in the world of STEM through three interactive projects: designed to spark curiosity and foster a love for learning while introducing fundamental concepts in physics, engineering, and design thinking. Focus: TEA STEM Framework, scientific and engineering practices, hands-on science	1 DSC 2 alums 1 new	Cockrell Hill elementary, DeSoto
3	Extending writing through design challenges: Lancaster ISD This project aims to engage 3rd and 6th grade students in science content by utilizing the 5E model with specific attention being given to Engineering Design Challenges	1 DSC 2 alums	3rd graders at Pleasant Run Elementary 6th graders in George

	during the elaboration stage. During this project, we will utilize Science and Engineering Practices and Engineering Design Challenges connect learning to real-world problems. Students will be expected to reflect on their learning of the content after the conclusion of the Design Challenges using short constructed response questions. Focus: articulate science content learned through writing, engineering design challenges, science and engineering practices		Washington Carver 6 th grade center
C	Individual Projects		
1	Personalized learning through AI: a new approach to differentiation in science: Brittney Preston, Lancaster ISD This proposal aims to integrate artificial intelligence (AI) into 3rd - 5th grade science classrooms to enhance differentiated instruction through leveled choice boards that will be used during small group/ intervention times in the science classroom. The subjects of the study will be four 3rd - 5th science teachers and twenty-four students total. There will be 6 students chosen by the teacher to collect data based on learning levels high, medium, and low. The goal is to collect data from pre/post exams created by district curriculum to see the effectiveness of the activities with students. Focus: integrating AI into elementary school science, LISD places a high value on equity in education, and AI-based differentiation can ensure that all students, regardless of background or ability, can access quality science instruction.		Pleasant Run Elementary
2	Mixed Reality and Aquaponics: Using immersive Technology in the classroom, Marquita Muhammad, Lancaster ISD In this project four classes of 7th and 8th grade students and the STEM and Applied Engineering teachers from Elsie Robertson will collaborate on a sustainable PBL project using 3D technology. Students will use the Z-space platform to bring learning to life through immersive experiences and hands on through the aquaponics system. Focus: As a STEM school with limited resources, the project provides students with hands and minds on simulations providing virtual and authentic collaborations of aquaponics systems and technology	1 alum	Elsie Robertson middle school
3	Using the Engineering Design Process to Increase Student Engagement in Physics, Robert Matthews, Lancaster ISD		Lancaster ISD STEM High School

	As a physics teacher, I will use Science and Engineering Practices specifically and Engineering Design Challenge for each of my units in order to increase student engagement and learning gains related to physics content knowledge. Focus: This project will engage students in hands-on learning and real-world application to solve problems and challenges. The proposal also supports district goals of increasing STEM education and creating pathways for students to pursue advanced learning in the field of science.		
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Selected/Highlighted Projects

The projects I am highlighting are the following:

STEAMing Year Round: A LISD Elementary Initiative: Lancaster ISD

This proposal aims to establish STEAM events/experiences for Pre-K through 5th grade students, families of 3 Lancaster ISD elementary schools and foster a culture of family and community engagement that enriches all students through hands-on STEAM experiences.

Focus: TEA's STEM Framework Domain 5.5 STEM family engagement events/experiences hosted by the district/campus.

The project involves 1 alum, Monica Hatley, and 2 new Wipro Fellows Latrice Cooks and Ladonna Brown. This initiative will address TEA's STEM Framework Domain 5.5 STEM family engagement events/experiences hosted by the district/campus. This proposal aims to establish STEAM events/experiences for Pre-K through 5th grade students, families of students at Pleasant Run, Rosa Parks, West Main, and Belt Line Elementary in Lancaster ISD. Through this project they want to expose their students, staff, parents, and community to all of the elements of STEAM. It is their hope that we help them by giving them hands-on experiences, STEAM rotations, and community technology leaders to show them what it looks like in their community to work in a STEAM field.

I highlighted this project in Dec, but there are additional developments worth mentioning. Wipro Fellows have developed a partnership with Starbucks opposite the school that provides coffee and hot chocolate for the STEM/STEAM events. In return the Fellows and the principal have been invited to the dedication of the Starbucks and will be helping to design some kid friendly activities for that event where the mayor will also be present. The Fellows are also trying to collaborate with a local news channel WFAA, Channel 8. They had a zoom meeting with the community outreach director and sent him material regarding their big event coming up STEMFEST in May. The documentation also highlights the role Wipro@UNT Dallas plays in the project, and they have been told the station will do a story on the event and get community partners to attend. They need volunteers for STEMFEST, and I am going to ask some of my undergraduates to volunteer.

I would also like to provide an update for Cedar Hill's School project: Effects of Collins Writing in Science: Cedar Hill ISD. The goal of the project is to improve 5th grade, 8th grade Science and Biology STAAR (State of Texas Assessment of Academic Readiness)/(EOC)End Of Course scores across Cedar Hill Independent School District.

After reviewing last year's STAAR SCR data we were surprised to see the amount of growth our scholars made with their writing in science compared to the state of Texas. Our 5th-grade scholars answered 50% of the SCR questions correctly, compared to the state average of 18%. Our 8th-grade scholars answered 38% of the SCR questions correctly, compared to the state average of 15%. Our biology scholars answered 43% of the SCR questions correctly, compared to the state average of 20%. We are pleased that our efforts with our project have been working and show that our scholars outscored the state by more than double. We are excited to see how we will continue to grow as we continue our efforts.

Progress and Highlights

Here are reports from my teams with pictures.

A. School Projects

1. Effects of Collins Writing in Science: Cedar Hill ISD
https://docs.google.com/document/d/1q2MZcBncFDNbYDJ9a1G_8jezNqeBhXLw3F5m_p0-PgQ/edit?usp=sharing
2. From Concrete to Abstract Science: Grand Prairie ISD
https://docs.google.com/document/d/1he1Z3cj_JGdo_poTdSNdCtHH04ZV1RsvM1Z-XIfYAvs/edit?usp=sharing
3. STEM Sensation: 3D Toys for the Senses: Irving ISD
https://docs.google.com/document/d/1FDpZw5_1AROKniHOKnBXA9NFPJtxsn1E888064i0DPY/edit?usp=sharing
4. STEAMing Year Round: A LISD Elementary Initiative: Lancaster ISD
<https://docs.google.com/document/d/1OxEkhaaEXBRORi6S04-HwtY4xChGXyUr9PvrRkq5hnA/edit?usp=sharing>

B. Collaborative Projects:

1. STEM Explorations for Gifted Minds: A Framework for Innovation and Excellence: Lancaster ISD
https://docs.google.com/document/d/1E1PyPVfPECEywAqg6K_phg5B0ciynHBenGzEnK4y0/edit?usp=sharing
2. Building Blocks of Discovery: K-2 STEM adventures DeSoto ISD
<https://docs.google.com/document/d/18QvKT8LjM8XlUcKFLrJsA9pw5lapc0nlexeHnyeaMIQ/edit?usp=sharing>
3. Extending writing through design challenges: Lancaster ISD
<https://docs.google.com/document/d/1VX37gtjPQ2VdQZOZYBiuRdDUqTjIw87udmTBQU2jhq8/edit?usp=sharing>

C. Individual Projects

1. Personalized learning through AI: a new approach to differentiation in science: Brittney Preston, Lancaster ISD
https://docs.google.com/document/d/1QHb29vr7EV_EoJGzOgHPeJ2xVyqIQK7aem6ZlUCtq3E/edit?usp=sharing

2. Mixed Reality and Aquaponics: Using immersive Technology in the classroom, Marquita Muhammad, Lancaster ISD
https://docs.google.com/document/d/1XS8qZmC2A92xroPhh9pIV9RyCHArLe1_c8EAXjIRn1I/edit?usp=sharing
3. Using the Engineering Design Process to Increase Student Engagement in Physics, Robert Matthews, Lancaster ISD
<https://docs.google.com/document/d/1BUVxdmm3GLWx7KyC-MVCsxTFECjHg-a5T5er-0Y0cv0/edit?usp=sharing>

Plan for the Next Two Quarters

Wipro Annual Meeting and Conference, June 13th

I have already booked the rooms; we have 9 presentations plus additional ones from other Wipro sites. I have booked 138A/B for the whole group meeting, breakfast, lunch, Keynote. I have 3 classrooms booked on the third floor for sessions. Each session will be 30 minutes, 20 minutes for presentation and 8-10 minutes for hot and cold feedback which will be orally provided by 5-6 assigned attendees at the feedback table. The rest of the attendees will provide written feedback that will go directly on the conference website to the presenters. There will be a break between sessions, coffee, juice and snacks will be available in the hallway / refreshment room on the same floor. As per Dr. Eisenkraft's guidance, we will have 2 or 3 concurrent sessions, (he will also let us know about the Keynote speaker). Invitees will include inactive fellows superintendents, principals and faculty and other interested parties.

Vignettes

Raisha Allen, District Science Coordinator, DeSoto ISD

Raisha Allen is a proud graduate of Baylor University (2011) with a Bachelor of Science in Education with a concentration in Health Science Studies. She later went to Meharry Medical College to obtain her Master of Science in Public Health (2014). At Meharry Medical College she focused her research on Primary Care professionals serving in disadvantaged communities. She worked for the Centers for Disease Control and Prevention and the Dallas County Health Department for 2 years and then found her calling in teaching. Being a graduate of DeSoto High School, she wanted to come back and give back to the community that gave so much to her. She began her teaching journey in 2015 working at DeSoto East Middle School.



While at East, she taught 6th through 8th grade Science and Medical Science courses. She taught in a STEM academy, introducing students to real-world problems and 21st century skills. In addition to serving as a model science instructor, she has also worked with the DeSoto ISD Science Department where she has served for three years as a secondary curriculum writer. She also obtained her master's in education with a concentration in Curriculum and Instruction in 4-8th Science from University of North Texas at Dallas (2018).

Raisha Allen has been in education for 8 years. She was a WIPRO Fellow in cohort 2 at UNT Dallas focusing her research on concept mapping and argument and argumentation in the science classroom. Her work ethic and experience has allowed her to be promoted to DeSoto's K-12 Science Instructional Facilitator and the District's Science Coordinator with WIPRO. She is excited about this new journey and ready to impact student engagement in the Science Classroom. She is also a Doctoral student at Baylor.

Calendar

Date/Time	Place	Activity
April 7 th 5:30 pm- 8:30 pm	Campus Hall	Face to face monthly meeting, CAST proposal workshop
June 13 th 8 am-4 pm	FH 138 AB	Wipro Annual Conference and meeting Face to face

Please also provide possible dates for Anne and me to make a site visit (e.g. visits to schools.)

Can you visit during fall? Early Feb is better, now almost all schools are in STAAR frenzy!

Newsletter

I sent the recent newsletter to all superintendents, principals etc. Not received any confirmation it was read. I will resend on Monday.

NEWSLETTER



March 2025

Community Matters

Welcome to the Wipro Science Education Fellowship (Wipro SEF) Community Matters Newsletter. We are excited to share updates on the remarkable contributions of our fellows to STEM education. Our program has supported science teachers and districts for over a decade, benefiting nearly 750,000 students. Our partnering universities include: UMass Boston, Stanford University, University of Missouri, University of South Florida, Montclair State University, Mercy University, and UNT Dallas.

IN THE NEWS

A Roadmap for Transformative Science Teacher Leadership: Building Meaningful Professional Development in Districts by Dr. Arthur Eisenkraft is now available!



Building a Learning Community requires sustained efforts in fostering connections and mutual learning among participants. These efforts vary from small group activities to large-scale nationwide events. This issue highlights two recent events where Wipro fellows from different sites showcased their work and connected with STEM education peers: The Annual K-12 STEM Educators Conference, hosted by Mercy University Center for STEM Education in New York, and The Conference for the Advancement of Science Teaching, that took place in San Antonio, Texas.

Here is what our fellows are saying about the value of collaborating with peers:

"The facilitation and support are just incredible. This still seems to be the place where I feel supported and a place where I can clearly see people's enthusiasm in the work they do. I feel respected here."

"I really enjoy the camaraderie of the other participants and the learning that we do as a group."

"I really appreciate how they create a trusting, open, collaborative atmosphere where all voices are respected and honored without anxieties. The climate is very professional and open. No intimidation at all."



Acknowledgements

We want to thank Wipro, our corporate sponsor, for their continued support of science education efforts as well as the teachers, district science coordinators and university faculty who improve student learning daily.

Community Building Events



K-12 STEM EDUCATORS CONFERENCE, MERCY UNIVERSITY CENTER FOR STEM EDUCATION.

As part of cross-site collaboration, Wipro Fellows from San Francisco (Lisa Ernst, Laura Spanier, Kendrick Chow) and Florida (Nicole Holman) presented their project work. Dr. Arthur Eisenkraft delivered the keynote speech titled, "Building Teacher Leadership Capacity." In this photo, Dr. Arthur Eisenkraft speaking to Dr. Amanda Gunning and Anny Vanegas, a Wipro Reimagined Fellow and teacher at Columbus Elementary in New Rochelle.

WiproSEF@UNT Dallas at CAST 2024

This event took place in San Antonio, Texas. Over twenty fellows from our UNT Texas site presented to 5,000 attendees.



UNT Dallas helped prepare my presentation through an in-person pre-presentation and feedback, which was beneficial and provided an opportunity to run through the presentation and feel more confident in the work. (Shelby Allen)



Presenting at CAST strengthened my confidence as an educator and reinforced my ability to lead within my district. The support from WiproSEF@UNT Dallas was instrumental, and I truly appreciated the resources and feedback provided throughout the process. (Patricia Lee working in a team with Crystal Trejo and Jennifer Melton)



Wipro's support for my presentations at CAST has amplified both my personal and professional growth as a teacher/leader. Through financial support, educational tools, collaborative opportunities, Wipro has enriched my experience as a teacher by teaching me to present with confidence and display innovative practices in science education. (Marsha Bolden)

PLEASE VISIT OUR WEBSITE: <https://wiprostemprogram.com/>

Reflections from Wipro SEF Fellows



NEW JERSEY: MONTCLAIR STATE UNIVERSITY

FRANCES CARLO, THIRD GRADE TEACHER, CLIFTON SCHOOL DISTRICT.

By integrating art with science, technology, engineering, and math through hands-on investigations, we will meet the district's plans that support the NCSS and the National Arts Standards. Our students will be better prepared to collaborate, communicate, think critically, and solve problems. The Arts Integration and S.T.E.A.M. Club project aims to provide students with opportunities to apply the scientific method and engage in the creative process as they participate in arts-integrated learning activities that help them to express their understanding of science through art.

NEW YORK: MERCY UNIVERSITY

GIORDANO GARCIA, ALDWIN MARTINEZ, MICHAEL NANGLE, AND DAMIEN KING (WHITE PLAINS CITY SCHOOL DISTRICT WIPRO SCIENCE EDUCATION FELLOWSHIP).

Our team presented at the Mercy Center for STEM Education K-12 STEM Educator Conference. The annual Tiger Tech Boat Battle was a thrilling and educational competition designed for students from grades 5 through 12. This district-wide initiative aimed to harness the creativity and problem-solving skills of young minds through fun and interactive challenge: building and racing toy boats.



TEXAS: UNT DALLAS

CARLEE JACKSON, SCIENCE LEAD, CEDAR HILL ISD

I am incredibly thankful for being part of the WIPRO program. This opportunity has been a transformative journey, offering me invaluable experiences and personal growth. Looking back on these past years, I am filled with gratitude for the mentors, peers, and experiences that have made this journey so enriching. The knowledge and skills I have gained during my time with WIPRO continue to inspire me to follow greater academic and professional endeavors.

CALIFORNIA: STANFORD UNIVERSITY

KENDRICK CHOW, HIGH SCHOOL TEACHER, RUTH ASAWA SCHOOL OF THE ARTS, SAN FRANCISCO UNIFIED SCHOOL DISTRICT.

Throughout Wipro, I felt that remaining in education was the best choice for me, despite colleagues who have left the field, school leadership and district leadership rockiness, and starting off with a slump in enthusiasm. I'm glad to have met so many inspiring teachers who helped me rediscover the joys of teaching, and I'm thankful Wipro gave me the space to meet them.



FLORIDA: UNIVERSITY OF SOUTH FLORIDA

DAWN AVOLT, ELEMENTARY SCHOOL MATH AND SCIENCE TEACHER, CURLEW CREEK ELEMENTARY SCHOOL IN PINELLAS COUNTY.

My experiences as part of Phase I helped me understand more about myself as a teacher. I learned a lot by speaking with teachers from different grade levels, schools, and districts. After every meeting, I felt inspired by the other teachers and had new ideas I wanted to try in my own classroom. I learned that I am a better teacher when I have a community of other life-long learners to share with. By sharing these experiences with my school administrators and colleagues, I was able to convince many of them to join me for Phase 2 of the project. I'm looking forward to continuing to build my community of learners and teachers during this next phase.

MISSOURI: UNIVERSITY OF MISSOURI

KELLI ANTHERS IS AN EIGHTH-GRADE MATH TEACHER AT HALLSVILLE MIDDLE SCHOOL IN HALLSVILLE, MISSOURI.

Together with her Wipro teammate, she presented at the Wipro conference at Stanford University in June 2024, discussing a cross-curricular activity they created for their eighth-grade math and science classes. Students collected data on force and motion in science class and then used functions to model relationships between the data in math class. Attending the conference was an amazing experience that helped to network and bring a lot of ideas to the 2024-2025 school year.



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Monthly Evaluation Updates