Professional Leave Report Cover Sheet

Name: Rajee Amarasinghe

Department: Mathematics

College: Science & Mathematics

Leave taken: ◉ Sabbatical ○ Difference in Pay ○ Professional Leave without Pay

Time Period: ◉ Fall 2022

○ Spring

○ Academic Year

○ Other

Your report will be sent to your Dean for your PAF and to the Library Archives.

Dr. Rajee Amarasinghe
Department of Mathematics

College of Science and Mathematics

SABBATICAL LEAVE REPORT

For the AY 22-23

(a) & (c) Accomplishments of the leave in relation to the proposed Goals and the objectives that were not accomplished.

1. Conduct an instructor-led study abroad program. This is to take 10-20 students (mostly future mathematics teachers) to Sri Lanka.

The University did not approve this study abroad program due to the prevailing Covid-19 situation in Sri Lanka at that time of the approval (please see attached email). The University recommended that I reapply for the program for Summer 2023. I was discouraged to pursue the proposal for summer 2023 by the Study Abroad coordinator due to the economic conditions in Sri Lanka during that year. I have submitted a similar proposal for a Summer 2024 study abroad program with some modifications and waiting for its approval.

The time during my sabbatical leave allowed me to plan a more useful and better study abroad program that can fit better the needs of participating students. As the conditions in Sri Lanka are back to normal, I hope this proposed study abroad program will become a reality and we can continue to offer the program for years to come.

Although I did not get a chance to take students on a study abroad program, the sabbatical leave allowed me to engage in several activities to accompany students to educational experiences in several places to accomplish my objective:

1. I accompanied two students (Hallie Williams and Miguel Flores) to Washington DC to attend the Annual Noyce Summit on July 17, 2022. This allowed networking opportunities for students across the country (please see attached program agenda).
2. I accompanied 12 students to California Mathematics Council annual meeting held at Monetary, CA
3. I arranged for 4 students to attend the NCTM conference held in Los Angeles, CA
4. I arranged for 4 students to attend CMC central conference held in Bakersfield, CA
5. I accompanied 4 students to attend the Western Regional NOYCE conference held in Sacramento, CA

2. Collaborate with the Department of Mathematics at the University of Colombo and Sri Lanka Technical College (SLTC) to conduct a 4-day STEM Academy for school children in Sri Lanka.

This was supposed to be part of the Study Abroad program where we expected to conduct this 4-day STEM academy. Due to the cancelation of the study abroad program, this activity could not have happened. However, I participated in several activities to establish connections with the University of Colombo and worked with my students on many other scholarly endeavors:

- As a preview to my sabbatical workshop, I served as a guest speaker at the University of Colombo Mathematics *Education in the 21st Century* seminar series, which allowed

me to present to the potential participants of my workshop. The presentation titled *Teaching Mathematics for Understanding – Reaching All Students,* was organized by the Center for Mathematics and Science Education, Faculty of Science, University of Colombo. (please see attached flyer)

- Along with two students (Nichols Kennedy and Quinne Holterman) as my co-presenters I gave a presentation titled *Recruitment Strategies for NOYCE Scholars* at the Western Regional NOYCE conference that was held at Sacramento, California, in February 2023. Organizing applying and planning for these speaking events was done during my sabbatical leave period (please see attached agenda).
- With my colleagues, Dr. Earvin Balderama and Dr. Hubert Ceotti, I gave a presentation titled *Promote Mastery Through Adaptive Learning* at the CAL OER 2022 conference held on August 3-5 (please see attached confirmation).
- I attended Learning Lab 2022 INSPIRE: Advancing Innovation in Higher Education convening held at UCLA Luskin Conference Center October 14-15, 2022
- I attended the California Mathematics Project's conference – *Celebrating the 40-year Journey of Igniting Teachers Leadership Potential* - held in LA September 22-23, 2022 (please see attached agenda).

3. Analyze the data on several different curricula and teaching initiatives taken in the past few years to improve the teaching and learning of mathematics.

Time at the sabbatical leave allowed me to establish different study groups and engage in collecting and analyzing data on different initiatives I have taken in the past few years. Following is the list of such activities I stated during my Sabbatical leave period. I am still engaged and continuing this work.

- I created a poster titled *Developing and Supporting Underrepresented Prospective Teachers' Pedagogical Content Knowledge for Teaching Diverse Students in High Needs Schools* by analyzing the data collected from the NOYCE track 1 program titled "*GotMath*" that I have been directing (PI) for the last 3 years, with support from Dr. Sarah Hough Patterson and Dr. Yaomingxin Lu. This poster was presented by Dr. Lu at the Research in Undergraduate Mathematics Education Conference (RUME) held in Omaha, NA on February 23-25, 2023 (Please see the attached copy of the poster).
- During my tenure as the chair of the mathematics department, with my leadership, the mathematics department created a series of GE-B4 classes to address the needs of EO 1110. These classes are usually called "L" classes. Students in these GE-B4 classes are required to attend 3 hours of these support classes which have several components. With the support of the other mathematics educators and students interested in mathematics education research and the leadership of Ricard Adams who serves as the TA coordinator, I have collected and analyzed the set of data from these classes to measure the effectiveness of these support classes and their activities. We are currently collecting data for this semester.
- During my tenure as the chair of the mathematics department, with my leadership, the mathematics department created recitation lab sessions for several Mathematics classes (Math 6, 75, and 76). With a help of an undergraduate student (as part of her undergraduate student research experience), I started to analyze the data on the effects of lab sessions for Math 6, 75, and 76. This project is ongoing and hoping to look at the effectiveness of these labs in multiple dimensions.
- During my tenure as the chair of the mathematics department, with my leadership, the mathematics department moved from Calculus Readiness Test (CRT) to ALEKS and enrichment and placement tests. I have worked with OIE and others to gather data from

2012 to the present to see the effeteness of ALEKS and CRT placements and student performance in consequent mathematics classes. We have already created two dashboards to gather the data as a longitudinal study and have been analyzing those with the help of another faculty member in the department.

4. Launch the Central Valley Mathematics Teacher Leaders Project (NSF NOYCE track three grant). If not funded, resubmit the proposal.

The program was not funded in 2022. With a new leadership team, I redesigned our proposal and resubmitted it in November 2022. The new proposal has been approved for funding (see attached). This 1.5 million NSF NOYCE track 3 proposal is to develop a group of Master teaching fellows who will be mentored and developed over the next 5 years serving as mathematics education leaders who will guide the others.
I have compiled a list of mathematics teachers who completed Single subject teaching credentials from 2012 and teaching in schools in the San Joaquin Valley. I have contacted these teachers to make them aware of this program and measure their interest. This helped me to create a database with potential participants.

Currently, with the help of my CO-PIs, I am launching this program. We have planned several couples of informational sessions approaching school and district administrations. Also, in the process of sending out the invitations, and planning the summer workshop and activities for the participants.

(d) Anticipated outcomes

- Using the sabbatical leave, I have accomplished my original objectives. Most of $1.5 million NSF grant that will run for the next 5 years, will benefit not only the university and mathematics department but also the mathematics education of the San Joaquin Valley for years to come.
- Students in the mathematics department benefited from attending various network and professional development activities including getting valuable undergraduate research experience and presenting at a conference.
- I am expecting to give a colloquium talk(s) at the department colloquium series once some of this work is done. Also, I anticipate several publications based on the results of the data once it is done. However, I expect this work to continue for many semesters.

Supporting documents:

FRESNO STATE

Rajee Amarasinghe <ramarasi@mail.fresnostate.edu>

Study Abroad - Sri Lanka

1 message

Scott Moore <scottm@csufresno.edu> Wed, Sep 29, 2021 at 9:35 AM
To: ramarasi <ramarasi@csufresno.edu>
Cc: Christopher Meyer <cmeyer@mail.fresnostate.edu>

Good morning, Thisath

I write to you with difficult news. Despite global efforts to roll out COVID vaccines, the safety of international travel remains unacceptably high in many countries.

Provost Fu has declined to accept international travel requests to level 4 countries as defined by the US State Department, which now incorporates CDC assessment of COVID safety. Level 4 is the highest risk category, “do not travel.” CGE will stop planning travel to Level 4 countries, including Sri Lanka. Therefore, Continuing and Global Education will not be accepting your study abroad course proposal this academic year and will not appoint you to additional employment in study abroad this year.

This is the time that CGE would normally be executing travel contracts, and difficult decisions needed to be made to protect our faculty and students and avoid substantial deposit forfeitures. It would be improper (and in many cases contractually impossible) to open/close programs as travel warnings fluctuate. Repopulation of study abroad must ensure the safety of our personnel and it would not be ethical for CGE to promote, enroll and charge students for a study abroad program that we believe to be unsafe.

Please know that your proposal to lead students abroad is deeply valued. If you wish to “roll-over” your trip proposal from Summer 2022 to Summer 2023, please let Rishad Gandhi (rgandhi@mail.fresnostate.edu) know immediately and we will apply for IRA funding next fiscal year on your behalf without you needing to submit further paperwork.

Apologies that this is not going to work out this year. I know your application required hard work and I most sincerely look forward to a time in the future when we are able to send Fresno State students abroad with less than our currently heightened concern for their safety.

Kind regards,

Scott

Scott D. Moore, Ph.D.

Professor & Dean

California State University, Fresno
Division of Continuing and Global Education
5005 North Maple Avenue, M/S ED76
Fresno, California 93740-8025
Phone: 559.278.0333 / Fax: 559.278.0395

Web: www.FresnoState.edu/cge

September 23, 2022 6:00-9:00PM @ Embassy Suites LAX N

California Mathematics Project

40th Anniversary Celebration!

Celebrating the 40-year journey of igniting teachers' leadership potential

PROGRAM

Math Activities/Slide Show

Welcome

Dinner

Introductions

Site Presentations

History of CMP

Keynote: Expanding our Imaginations

Dr. Francis Su, Benediktsson-Karwa Professor of Mathematics at Harvey Mudd College and author of the book Mathematics for Human Flourishing.

Closing

CALIFORNIA mathematics PROJECT CMP

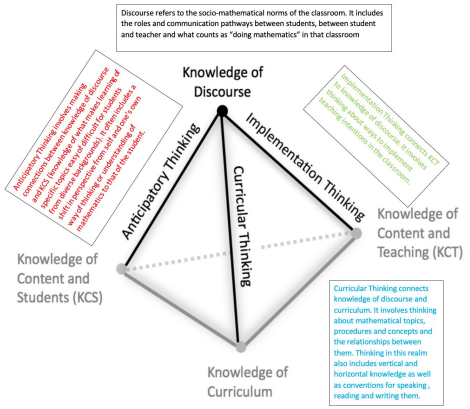
Developing and Supporting Underrepresented Prospective Teachers' Pedagogical Content Knowledge for Teaching Diverse Students in High Needs Schools

Yao Lu, Rajee Amarasinghe, Sarah Hough
California State University, Fresno

Introduction

Having an experienced, well-prepared teacher makes a difference to student outcomes (Cardichon, et al., 2020) and retaining teachers in high-needs schools is even more challenging. In particular, teachers of students in high needs schools need to transform content knowledge into a form appropriate for the diverse interests and abilities of students by drawing on culturally and linguistically appropriate instructional strategies and by building supportive and productive classroom practices. This study, set in the context of a Noyce-funded mentoring program where participants are underrepresented and talented integrated mathematics credential majors, addresses how prospective teachers can be concurrently supported in a rigorous mathematics program as they develop the deep pedagogical knowing so necessary for teaching students in high needs settings.

Framework for Pedagogical Content knowledge



Methods

A mixed methods sequential case study design (Creswell & Plano Clarke, 2018) was used. Participants are five Noyce scholars who have graduated from the program and transitioned to teaching in high-needs schools. We use: Longitudinal evaluation data collected during sophomore and senior years in the GotMATH program sources:

- Beginning teacher assessment data (TAD)
- Open-ended interview transcripts
- Responses to closed and open-ended questionnaires
- Reflections from teaching and learning seminars.

Integrated Mathematics Teaching Credential

Year 1	Year 2	Year 3	Year 4
Calculus II and III, Transition to proof, Physics I	Differential equations, Linear algebra, Math problem solving , Social context of teaching and learning	Intro statistics,Principles of algebra, Real analysis, Capstone math for teaching, computer programming	Student teaching seminars, Secondary math methods, Adolescent development & learning, Teaching English learners, Math literacy and communication, Differentiated instruction.
		1st Noyce Year	2nd Noyce Year

Individual Content Mentoring

Early Field experiences (eg. Math circles, tutor, grading)

Student teaching experience

Instructional Assistant

Noyce Teaching and Learning Seminars

Conference attendance

The mathematics integrated credential program gives students opportunities to complete a B.S. in mathematics and a secondary teaching credential in four years. The **Got MATH scholarship and mentoring program** supports high achieving, diverse students in the program who are committed to teaching in high needs schools.

GotMATH provides individual and group content mentoring. Early field experiences allow mathematical and pedagogical knowledge to develop simulataneously and Noyce Teaching and Learning seminars given by university and school based mathematics educators model math specific PCK appropriate for underrepresented students in high needs schools.

Category	Code	Example of instance	Lorry	Jacob	Nathan	Bella	Nadine
Creating a meaningful context for instruction	KCS	Using a jeopardy game context for math exam review.	X	X			
	KCT	Group work with small white boards/game format.	X	X	X	X	X
Helping students produce discourse	Anticipatory Thinking	Asking questions to promote focus on math problem solving, strategies and argument.	X	X	X	X	X
	Implemntation thinking Using sentence frames and/or sentence starters to support mathematical oral and written discourse.	Student answers to strategic questions were scaffolded with sentence frames to help them justify their reasoning about a problem.	X	X	X	X	X
	KCT Word walls	Teacher creates written strategy bank as they are discussed in groups (for later use)			X	X	
	Using multiple modes for language (speaking, listening, reading, writing)	White boards/notebooks/ posters/exit tickets verbally expressing solutions to near peers and whole group/using visual aids	X		X	X	X
Making input comprehensible	Making input comprehensible	Vocabulary and/or syntax support		X	X	X	X
	Implementation thinking	Implementation thinking Using visuals, drawings, gestures, or realia		X	X		X
Organizing instruction	Anticipatory thinking Knowledge of content and teaching Strategically placing students in small groups based on needs	Group members are given responsibilities for ensuring all students understand how to solve the equations, so students with stronger understanding are instructed how to give helpful hints and explain their thinking.	X	X		X	X
	Anticipatory thinking	Monitoring student work during small group work to select groups to present.	X			X	
	Socio mathematical norm	Students self-select level of difficulty of problem type and progress upward.		X	X	X	X
	KCS	Working in teacher led small groups for extra instruction			X	X	X

Table 1. Mathematical Literacy Strategies to Engage in Mathematics Discourse Used by Noyce Beginning Teachers.

Results and Discussion

Participant average scores on the Beginning Teacher Assessment were higher than campus averages and our analysis of their TAD evidenced the ways that participants used anticipatory and implementation thinking as they drew from their strong mathematical backgrounds with and understanding of students and teachings to provide opportunities for their students to participate in mathematical discourse. In particular students in scholar classrooms were given opportunities to construct viable arguments and critique the arguments of others (MP3), use appropriate tools strategically (MP5), make sense of problems and persevere in solving them (MP1), look for and make use of structure (MP7) and/or make use of repeated reasoning (MP8) while learning important content standards.

Themes from our stage II analyses show that students in the mentoring program:

1. Valued multiple opportunities during Noyce seminars to experience and reflect on practices and strategies learned during credential courses within the specific context of teaching mathematics.
2. Learned about pedagogical issues specific to students living in poverty from experienced teachers working in local high-needs schools through the Noyce seminars.
3. Gained knowledge of students and content as well as knowledge of content and pedagogy from concurrent opportunities to work as instructional assistants on campus and tutors in elementary settings while themselves learning higher level mathematics content in major coursework (offered through Noyce)

Conclusions

Our result shows that participant average scores on the Beginning Teacher Assessment were higher than campus averages and that the Noyce mentoring program increases retention of integrated mathematics credential students in the major.

- In addition, thematic analysis of their TAD lessons and interviews evidenced the ways in which Noyce activities supported them as they integrated understanding of student characteristics and learning context, of mathematics specific pedagogy with their strong mathematical knowledge acquired in the Integrated Mathematics Credential Program.

While an integrated Math Credential program is well positioned to foster in prospective teachers' connections between subject matter expertise and pedagogical competence our results suggest that the additional opportunities offered in the Noyce mentoring program are critical in order to develop the types of pedagogical content knowledge necessary to teach in high-needs schools.

Contact

Yaomingxin Lu
California State University, Fresno
yaomingxinlu@csufresno.edu

References

Cardichon, J., Darling-Hammond, L., Yang, M., Scott, C., Shields & Burn, D. (2020). *Inequitable opportunities to learning: Student access to certified and experienced teachers*. Palo Alto, CA: Learning Policy Institute.
Carpi, A., Ronan, D.M., Falconer, H.M., Boyd, H.H. lents, N.H. (2011). Development and implementation of targeted STEM retention strategies at a Hispanic-serving institution. Journal of Hispanic Higher Education 12(3): 280-299.
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Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational researcher*, *15*(2), 4-14. DOI: 10.2307/1175860
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Suárez, M. I., & Wright, K. B. (2019). Investigating School Climate and School Leadership Factors that Impact Secondary STEM Teacher Retention. Journal for STEM Education Research, 2(1), 55-74.
Thiry, H., Weston, T. J., Harper, R. P., Holland, D. G., Koch, A. K., & Drake, B. M. (2019). Talking About Leaving Revisited: Persistence, Relocation, and Loss in Undergraduate STEM Education. Springer Nature.

Dear Rajee Amarasinghe,

Thank you for submitting your proposal to the 2022 Cal OER Conference. We are pleased to inform you that your presentation, Promote Mastery Through Adaptive Learning, has been ACCEPTED.

Your presentation title, self-selected format, presentation description, date, and time can be found below.

Please CONFIRM your intent to participate AS SOON AS POSSIBLE and no later than FRIDAY, JULY 8 by clicking on the "REVIEW REQUEST" button BELOW. A separate window will open where this same message will appear and you will click either the "DECLINE" or "ACCEPT" button at the bottom of the message.

If you need to make corrections to your submission, please send an email to info@caloer.org no later than July 8, 2022.

In addition, it is critical that you and your co-presenters REGISTER as soon as possible at https://www.caloer.org/registration.

We look forward to your presentation at this virtual event on August 3 - 5, 2022.

See you in August,
The Cal OER Organizing Committee

View Request

Row 6

Presentation Title	Promote Mastery Through Adaptive Learning
Presentation Description:	This presentation will describe the adaptive learning tool we have been developing for students to learn college algebra and pre-calculus. The presentation will include how this learning tool integrates OER resources and a simple knowledge map to create a mastery learning path for students.
Presentation Format	Classic Presentation (45 minutes; 30 min presentation with 15 min Q & A time)
Date	WEDNESDAY, AUGUST 3
Time	1:00 - 1:45

Centre for Mathematics and Science Education
Faculty of Science, University of Colombo

FREE WEBINAR

Mathematics Education in the 21st Century

A Seminar Series by Mathematics Educationists in USA, Canada and Hong Kong

DAY 1 - February 19, 2022 at 10 am

Introduction to Technology-rich Mathematics Pedagogies: Theories and Implications on Practice

Dr. Oi-Lam Ng, Assistant Professor, Department of Curriculum and Instruction, The Chinese University of Hong Kong

DAY 2 - February 26, 2022 at 10 am

Teaching Mathematics for Understanding - Reaching All Students

Dr. Rajee Amarasinghe, Professor and Chair, Department of Mathematics, California State University, Fresno, USA

DAY 3 - March 5, 2022 at 10 am

Tacit Mathematical Knowledge in Teaching: Perspectives and Examples

Dr. Rina Zazkis, Professor, Faculty of Education, Simon Fraser University, Canada, and Canada Research Chair in STEM Teaching and Learning

DAY 4 - March 12, 2022 at 9 am

Nurturing Computational Thinkers through Mathematics Education: Moving towards a Just and Equitable Society

Dr. Mina Sedaghat Jou, Assistant Professor of STEM Education,College of Liberal Arts & Science, Alfred University, NY, USA

REGISTER!

https://forms.gle/FYWAJaXFKP1FK762A

https://science.cmb.ac.lk/cms

2022 Noyce Summit

Event Schedule

Mon, Jul 18, 2022

1:30 PM

Registration Open
1:30 PM - 9:00 PM, Jul 18
Regency Ballroom Pre-Function Area

Poster Set-Up for Poster Session 1
1:30 PM - 7:30 PM, Jul 18
Regency Foyer, Columbia Foyer, and Columbia A/B

2:00 PM

New Awardee Orientation
2:00 PM - 3:30 PM, Jul 18
Regency Ballroom

3:30 PM

Scholar and Fellow Resource Fair
3:30 PM - 5:30 PM, Jul 18
Thornton Salon A-C

Scholar/Fell…

Start the Summit by meeting other pre-service and practicing teachers from across the US. Hear about new resources and programs from teacher professional organizations. Get a copy of an award winning science book, recognized for the AAAS/Subaru Prize for Excellence. Have fun, make friends.

4:00 PM

Town Hall with NSF Program Officers
4:00 PM - 5:30 PM, Jul 18
Regency Ballroom

6:00 PM

Welcome Remarks from NSF and AAAS
6:00 PM - 6:30 PM, Jul 18
Regency Ballroom

Speakers

Karen Marrongelle
Chief Operating Officer
National Science Foundation

Sudip Parikh
Chief Executive Officer and Executive Publisher, Science Journals
American Association for the Advancement of Science

Travis York
Director of Inclusive STEM Ecosystems for Equity & Diversity
American Association for the Advancement of Science (AAAS)

6:30 PM

Plenary 1: Advancing Equity in Teacher Development for a New Generation of Educators: Lessons from the Handbook of Research on Teachers of Color and Indigenous Teachers
6:30 PM - 7:30 PM, Jul 18
Regency Ballroom

The session will address equity in teacher development to include: a discussion of triumphs, lessons learned, and how to overcome obstacles in the pursuit of equity. Dr. Gist will frame this session in regards to her recent publication, “Handbook of Research on Teachers of Color and Indigenous Teachers” and extensive research experience, which includes the creation of the National Center for Research on Educator Diversity.

For information on purchasing the handbook, click here: https://www.aera.net/Publications/-Online-Store/Books-Publications/BKctl/ViewDetails/SKU/AERWHRTCI

Speaker

Conra Gist
Associate Professor of Teaching & Teacher Education
University of Houston

7:30 PM

Poster Session 1 and Opening Dinner

7:30 PM - 9:00 PM, Jul 18

Regency Foyer, Columbia Foyer, and Columbia A/B

To view the list of posters in the app, please go back to the home page of the app. Under "Additional Resources" click the box that says "Posters". In the "Posters" tab, you will be able to sort posters by day or track and see the poster board number.

Tue, Jul 19, 2022

7:30 AM

Registration Open

7:30 AM - 6:00 PM, Jul 19

Regency Ballroom Pre-Function Area

Poster Set-Up for Poster Session 2

7:30 AM - 2:30 PM, Jul 19

Regency Foyer, Columbia Foyer, and Columbia A/B

Breakfast and Discussion Tables

7:30 AM - 8:45 AM, Jul 19

Regency Ballroom

The breakfast disscussion tables will be an opportunity to connect with other PIs and project personnel or to connect with pre- and in-service teachers. There will be discussion tables to discuss mentoring, tables to talk about specific Noyce tracks, and tables for Scholars and Fellows.

Below are discussion questions for PIs and project personnel to get the conversation going:

1. What does Noyce PI mentorship look like to you?
2. What areas could you benefit from professional development as a Noyce PI?
3. To what extent would you benefit from regular conversations with other Noyce PIs?
4. To what extent would you welcome being part of a small cluster of Noyce PIs who are providing mutual support and advice for one another?
5. What professional development could best support you in developing professionally in your role as a Noyce PI?
6. What types of support would most benefit you at this stage of your professional growth as PI of a Noyce award?
7. How can K-12 schools and postsecondary institutions provide greater awareness of STEM teacher career options and pathways for students?
8. Where are there time-tested examples of successful interventions at the K-12 levels that have increased the participation and success of women, underrepresented minorities, persons with disabilities, and veterans in STEM teaching?
9. What are the content areas that demand more significant focus for preparing the STEM workforce of the future?
10. How can NSF and other agencies further support teacher skills development, curriculum development, and STEM teacher professional development?
11. How can stakeholders better support STEM teachers being able to remain current both in their particular fields of study and in broader, multidisciplinary areas?

8:45 AM

Plenary 2: Penny Noyce and Voices from the Field

8:45 AM - 10:30 AM, Jul 19

Scholar/Fell…

This session will begin with opening remarks from Penored Noyce and move into the "Voices from the Field" panel. This panel conversation with 6 new teachers—alumni of Noyce programs across the US—has charmed and engaged Summit participants since 2009. The new educators share successes, challenges, and tips for making it through the day, month, or year in the classroom.

Speakers

Penny Noyce

Camela Brown
Middle School Science Teacher
Bloomfield Schools, Bloomfield, NM

Jose D. Garcia-Villar Earth Science Teacher at Mott Haven Village Preparatory High School in the South Bronx, New Y

Dario Gudino
Secondary Mathematics Teacher
Omaha Public Schools

Dacia Morris
Secondary Mathematics Teacher
University of Houston (teachHouston)

Ashley Mezzano (she/her)
Science Teacher
Duval County Public Schools

Jedd Tougas
Secondary Science Teacher
Ronan High School, Ronan School District No 30

10:45 AM

Concurrent Workshop Session 1

10:45 AM - 12:00 PM, Jul 19

15 Subsessions

Math Magic: Engaging the Community and Classroom in Recreational Mathematics and Magic
10:45 AM - 12:00 PM, Jul 19
Columbia C

Supporting Statewide, Networked Improvement of Mathematics Teaching: Tools from the M3T Project
10:45 AM - 12:00 PM, Jul 19
Yosemite

Using Real World Data Driven Instruction and Technology to Increase Student Engagement
10:45 AM - 12:00 PM, Jul 19
Congressional A

Supporting Noyce Scholars in Culturally Responsive Endeavors through a Teacher Interest Group
10:45 AM - 12:00 PM, Jul 19
Capitol A

20 Years in the Making: Sharing Track 4 Results on STEM Teacher Workforce
10:45 AM - 12:00 PM, Jul 19
Glacier

Integrate Computer Science Practices Across All STEM Fields: Hands On, Minds On!
10:45 AM - 12:00 PM, Jul 19
Capitol B

A STEM Induction Collaborative: Teacher Inquiry to Critically Examine Instructional Practices
10:45 AM - 12:00 PM, Jul 19
Grand Teton

Supporting productive struggle in math: What every new teacher needs to know
10:45 AM - 12:00 PM, Jul 19
Congressional B

Pandemic!- An Interdisciplinary Unit for Middle School
10:45 AM - 12:00 PM, Jul 19
Bryce

Promoting and Supporting Students' Productive Struggle during Rich Math Tasks
10:45 AM - 12:00 PM, Jul 19
Lexington

A Place-Based Professional Development Model to Transition Noyce Scholars into School Communities
10:45 AM - 12:00 PM, Jul 19
Yellowstone

Place-Based Science for Social Justice Learning
10:45 AM - 12:00 PM, Jul 19
Everglades

Framing and Capturing Pre-Service Teacher Learning
10:45 AM - 12:00 PM, Jul 19
Regency D

Cultivating Partnerships that Expand our Vision for Noyce Scholars
10:45 AM - 12:00 PM, Jul 19
Congressional C/D

NSF Listening Session with Regional Meeting Grants
10:45 AM - 12:00 PM, Jul 19
Sequoia

12:30 PM

Plenary Session 3 & Lunch: The Role of Race in STEM Teaching and Pedagogy

12:30 PM - 2:00 PM, Jul 19

Regency Ballroom

Dr. Jay Wamsted has taught math at Benjamin E. Mays High School in southwest Atlanta for over fifteen years. He writes about race and racism, specifically focusing on white teachers. More of his writing can be found at Harvard Educational Review, The Bitter Southerner, and Education Post. In addition, his 2017 TEDx talk, "Eating the Elephant: Ending Racism & the Magic of Trust" can be found on the TEDx YouTube channel.

Speaker

Jay Wamsted
8th Grade Math Teacher
Cobb County Schools, Georgia

2:30 PM

Poster Session 2

2:30 PM - 3:30 PM, Jul 19

Regency Foyer, Columbia Foyer, and Columbia A/B

To view the list of posters in the app, please go back to the home page of the app. Under "Additional Resources" click the box that says "Posters". In the "Posters" tab, you will be able to sort posters by day or track and see the poster board number.

3:45 PM

Concurrent Workshop Session 2

3:45 PM - 4:30 PM, Jul 19

11 Subsessions

Teaching Simulations: A Low-Risk Experience with a High Return Investment in Pre-Service Teachers
3:45 PM - 4:30 PM, Jul 19
Yellowstone

Lessons Learned: Best Practices in NSF Noyce Program Initiation and Implementation
3:45 PM - 4:30 PM, Jul 19
Congressional B

Retention of STEM Educators in Rural Southwest Colorado
3:45 PM - 4:30 PM, Jul 19
Congressional C/D

Successful Recruiting in Collaboration with Community College Partners in Rural Area
3:45 PM - 4:30 PM, Jul 19
Lexington

Developing Pre-Service Teacher Leaders
3:45 PM - 4:30 PM, Jul 19
Capitol A

Creating a Community of Practice to Prepare Noyce Scholars to Become Trauma-sensitive STEM Teachers
3:45 PM - 4:30 PM, Jul 19
Capitol B

Preparing Teachers to Teach and Thrive in Rural Places
3:45 PM - 4:30 PM, Jul 19
Columbia C

Using Evaluation to Inform, Sustain, and Improve your Noyce Project
3:45 PM - 4:30 PM, Jul 19
Regency D

NSF Listening Session with In-Service Teachers
3:45 PM - 4:30 PM, Jul 19
Congressional A

Teaching: The Best Kept Secret!
3:45 PM - 4:30 PM, Jul 19
Everglades

Preparing Culturally Sustaining Elementary STEM Teachers
3:45 PM - 4:30 PM, Jul 19
Grand Teton

Wed, Jul 20, 2022

8:00 AM

Breakfast and Discussion Tables

8:00 AM - 9:00 AM, Jul 20
Regency Ballroom

The breakfast disscussion tables will be an opportunity to connect with other PIs and project personnel or to connect with pre- and in-service teachers. There will be discussion tables to discuss mentoring, tables to talk about specific Noyce tracks, and tables for Scholars and Fellows.

Below are discussion questions for PIs and project personnel to get the conversation going:

1. What does Noyce PI mentorship look like to you?
2. What areas could you benefit from professional development as a Noyce PI?
3. To what extent would you benefit from regular conversations with other Noyce PIs?
4. To what extent would you welcome being part of a small cluster of Noyce PIs who are providing mutual support and advice for one another?
5. What professional development could best support you in developing professionally in your role as a Noyce PI?
6. What types of support would most benefit you at this stage of your professional growth as PI of a Noyce award?
7. How can K-12 schools and postsecondary institutions provide greater awareness of STEM teacher career options and pathways for students?
8. Where are there time-tested examples of successful interventions at the K-12 levels that have increased the participation and success of women, underrepresented minorities, persons with disabilities, and veterans in STEM teaching?
9. What are the content areas that demand more significant focus for preparing the STEM workforce of the future?
10. How can NSF and other agencies further support teacher skills development, curriculum development, and STEM teacher professional development?
11. How can stakeholders better support STEM teachers being able to remain current both in their particular fields of study and in broader, multidisciplinary areas?

9:15 AM

Concurrent Workshop Session 3

9:15 AM - 9:45 AM, Jul 20

7 Subsessions

Content-Focused Coaching Moves
9:15 AM - 9:45 AM, Jul 20
Congressional B

Noyce Track 1 Partnership-Upper Iowa University (UIU) and Northeast Iowa Community
9:15 AM - 9:45 AM, Jul 20
Columbia C

Recruiting and Preparing Teachers to Address Challenging Environmental Topics
9:15 AM - 9:45 AM, Jul 20
Congressional A

Affirming Learning Walks: Teacher Leaders Supporting Teachers
9:15 AM - 9:45 AM, Jul 20
Congressional C/D

Developing Preservice Teachers Knowledge of Nature of Science and Social Justice
9:15 AM - 9:45 AM, Jul 20
Capitol B

The Positive Role of Contradictions on Classroom Practices
9:15 AM - 9:45 AM, Jul 20
Regency D

Training Preservice Mathematics Teachers in Pedagogy to Foster a Growth Mindset
9:15 AM - 9:45 AM, Jul 20
Lexington

10:00 AM

Concurrent Workshop Session 4

10:00 AM - 10:45 AM, Jul 20

7 Subsessions

Qualitative Research Design and Collection for Noyce Projects in Rural Areas
10:00 AM - 10:45 AM, Jul 20
Regency D

Talking About Track 4
10:00 AM - 10:45 AM, Jul 20
Lexington

Classroom Management Supporting Inquiry in the STEM Classroom through CRP and Community
10:00 AM - 10:45 AM, Jul 20
Capitol A

Developing Leaders in Science Teaching through a Transformative Induction Model
10:00 AM - 10:45 AM, Jul 20
Congressional A

Sustainable Lessons Learned from COVID: Utilizing Asynchronous Video-Based Reflections for Building STEM Teacher Identity
10:00 AM - 10:45 AM, Jul 20
Congressional B

Middle School Science as a Context for Leadership Development Among STEM Teachers in Michigan
10:00 AM - 10:45 AM, Jul 20
Congressional C/D

Using Formative Mathematics Assessments to Influence Instructional Change at Scale
10:00 AM - 10:45 AM, Jul 20
Columbia C

11:00 AM

Plenary 4: Reflections on the Past, Present, and Future of the Noyce Program

11:00 AM - 12:30 PM, Jul 20
Regency Ballroom

This session will include the synthesis of the Noyce summit through the eyes of two living legends that have been part of the Noyce community, Dr. Shirley Malcom (AAAS) and Dr. Kathleen Bergin (NSF). We hope this session will inspire you to be innovative in the implementation of your current Noyce grant, and create new ideas for future work.

Speakers

Shirley Malcom
Senior Advisor and Director, SEA Change
AAAS

Kathleen Bergin
NSF

Rosalyn Hobson Hargraves
Division Director
National Science Foundation

FRESNO STATE

Rajee Amarasinghe <ramarasi@mail.fresnostate.edu>

NSF Award Notice for Award ID 2243225 - Amendment ID 000

1 message

aturner@nsf.gov <aturner@nsf.gov> Tue, Mar 28, 2023 at 5:58 AM
To: orsp@csufresno.edu
Cc: cajohnso@nsf.gov, carolb@csufresno.edu, cmdavis@nsf.gov, cukwuani@nsf.gov, dkizer@nsf.gov, dmarshal@nsf.gov, jhill@nsf.gov, jtellis@nsf.gov, labarnes@nsf.gov, meverett@nsf.gov, mjugan@nsf.gov, ramarasi@csufresno.edu, thardin@nsf.gov, ttracy@nsf.gov, yaomingxinlu@csufresno.edu

NATIONAL SCIENCE FOUNDATION

Award Notice

Award Number (FAIN): 2243225

Managing Division Abbreviation: DUE **Amendment Number:** 000

RECIPIENT INFORMATION

Recipient (Legal Business Name): CALIFORNIA STATE UNIVERSITY FRESNO FOUNDATION
Recipient Address: 4910 N CHESTNUT AVE FRESNO, CA 93726-1852
Official Recipient Email Address: orsp@csufresno.edu
Unique Entity Identifier (UEI): CJSRSPWTJUH7

AMENDMENT INFORMATION

Amendment Type: New Project
Amendment Date: 03/28/2023
Amendment Number: 000
Proposal Number: 2243225
Amendment Description: