



NSF Robert Noyce
Scholarship Program:
Master Teaching Fellowships
(MTF) Track

**NSF Noyce Master Teaching Fellows
Gathering and Luncheon**

Friday, October 18
12:00 – 2:00 PM

Gallatin High School, A288

**Rural and American Indian
School Educators as Science,
Technology, Engineering, and
Mathematics Leaders
(RAISE STEM Leaders)**
(NSF Award No. 2345186)

<https://www.montana.edu/smrc/noyce/>





NSF Noyce Master Teaching Fellows Gathering and Luncheon Agenda



12:00 PM – 12:10 PM Welcome and Opening Remarks

- Introduction of attendees

12:10 PM – 12:30 PM Lunch is Served

- Time for informal networking while enjoying the meal

12:30 PM – 1:15 PM Noyce Fellows Orientation

- Lunch continues during orientation
- Q&A session

1:15 PM – 1:40 PM Short Exercise Before Exit

1:40 PM – 1:45 PM Photo Time



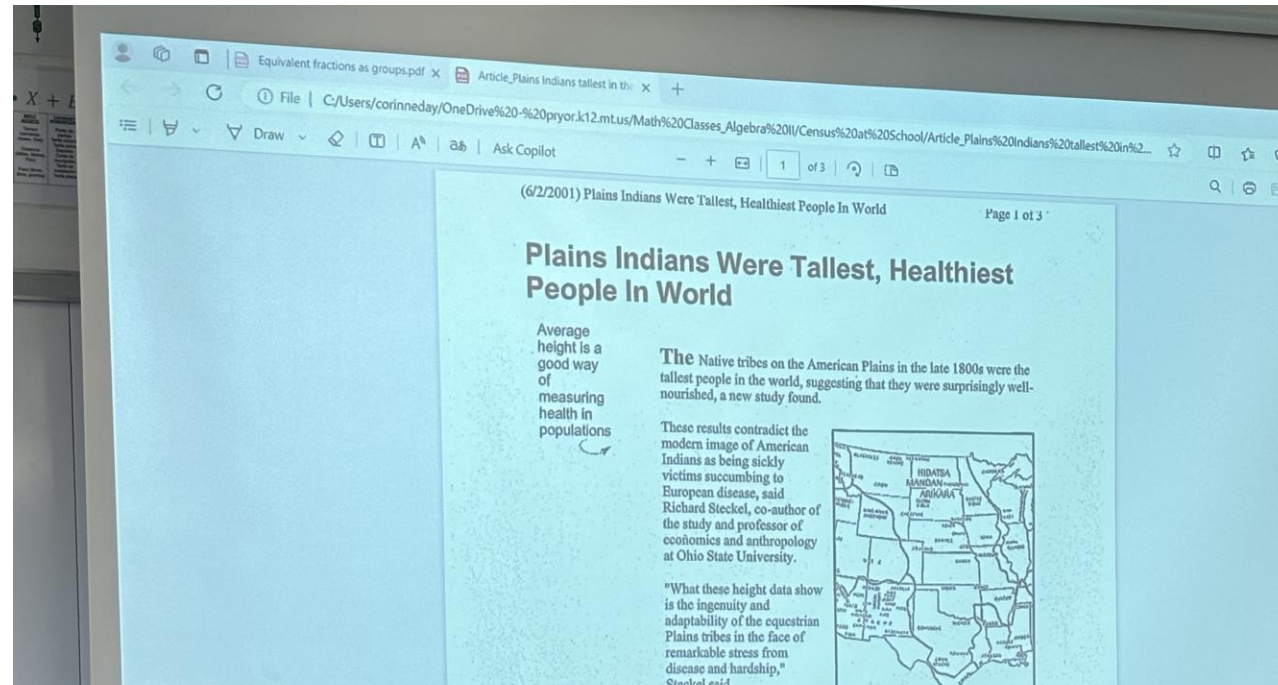
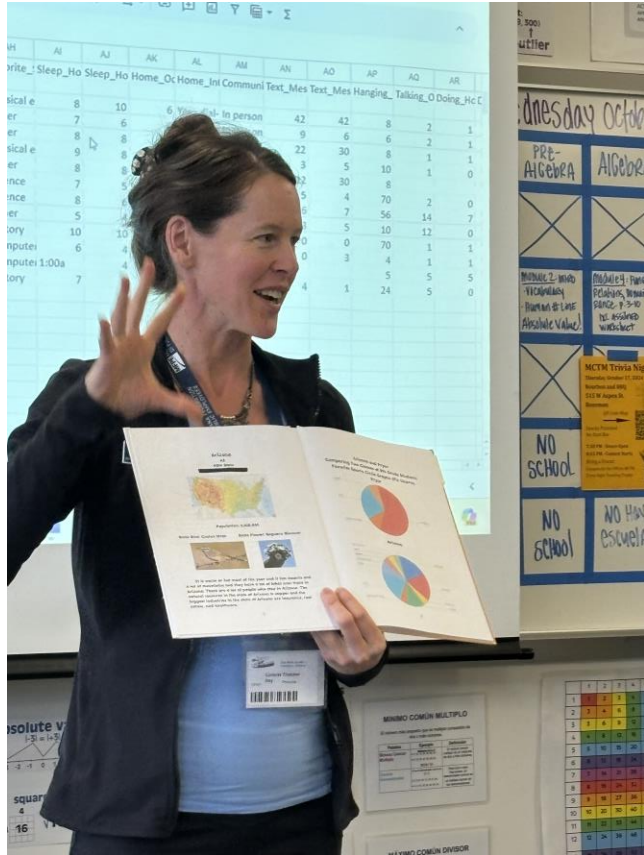
Funds of Knowledge & Leadership Competence: Dr. Corinne Thatcher Day (Pryor Math Teacher, MCTM Board Member)

MFPE Session:

Using Census at School to Make Data Come Alive

Time: Thursday, October 17, 2:00 PM - 3:00 PM

Location: A279



Leadership Competence:

Connor Mulvaney (Polson Computer Science Teacher)

MFPE Session #1:

Classroom Structure for Responsible Student Usage of AI

Time: Thursday, October 17 Time: 1:00 PM - 2:00 PM

Location: A385

MFPE Session #2:

Session: Classroom Structure for Responsible Student Usage of AI

Time: Friday, October 18 Time: 10:00 AM - 11:00 AM

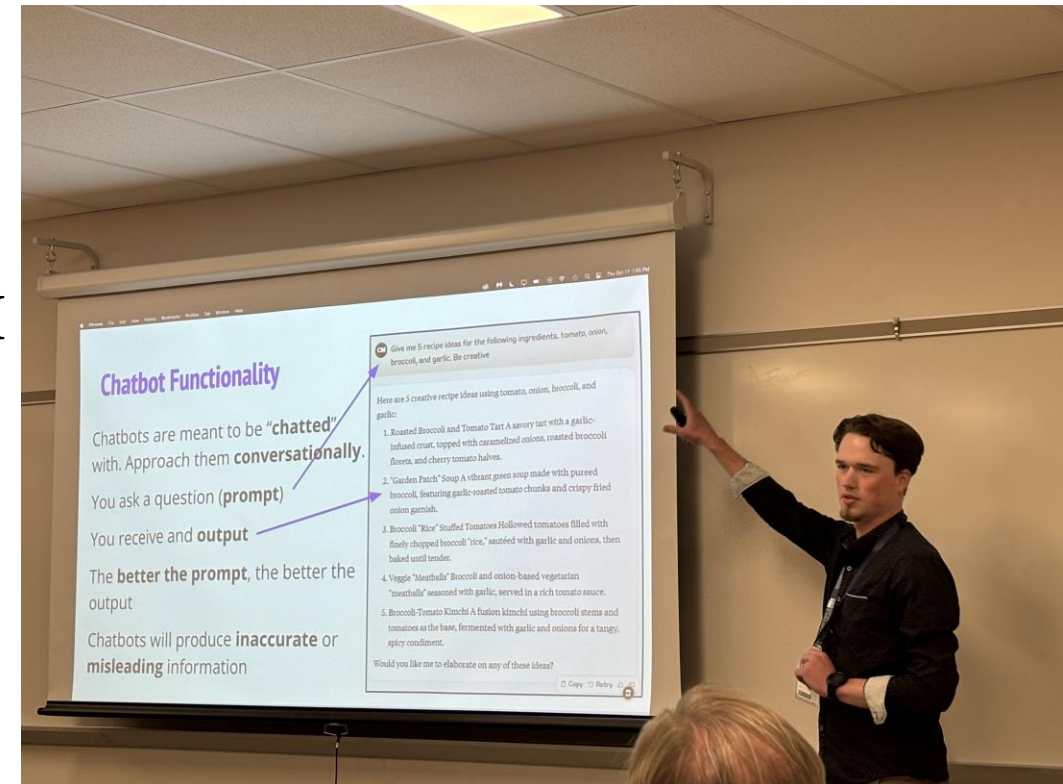
Location: A304

MFPE Session #3:

Key Considerations for District AI Policy

Date: Friday, October 18 Time: 4:00 PM - 5:00 PM

Location: A304



Funds of Knowledge & Leadership Competence:

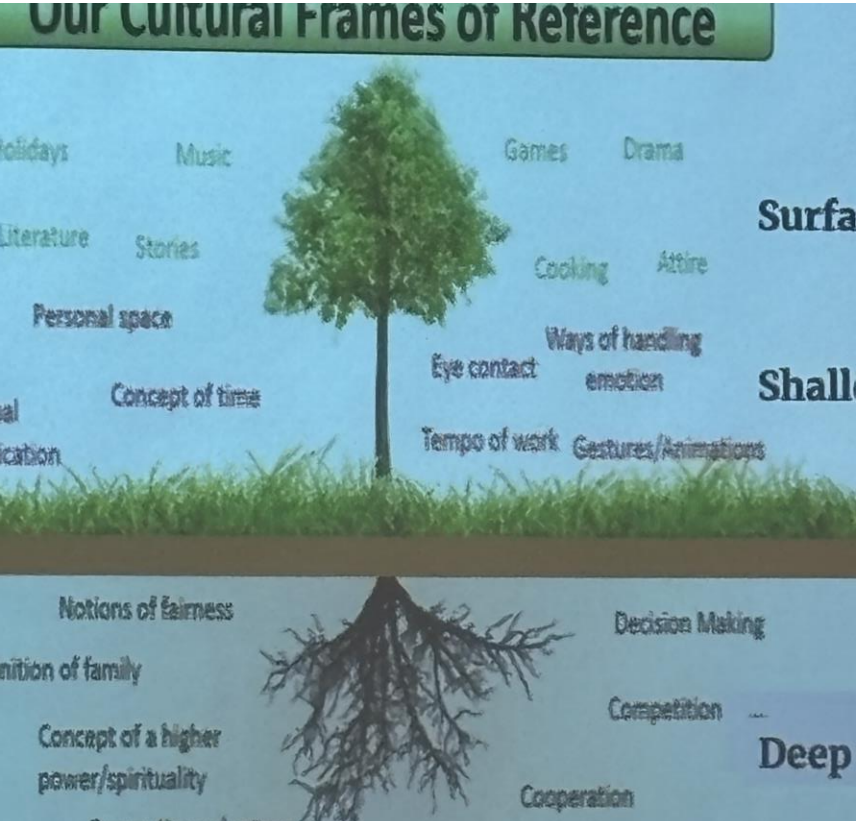
Kari Hinkle (Cut Bank Science Teacher)

MFPE Session:

Clean Energy Inspired Classroom Challenge

Time: **Friday, October 18, 9:00 AM - 10:00 AM**

Location: **A245**





Three Primary Goals/Objectives



1. Facilitate MTFs' integration of funds of knowledge and culturally responsive and sustaining pedagogy into STEM curriculum and instruction.
2. Empower MTFs to lead the design and facilitation of both formal and informal STEM activities within their schools and communities.
3. Enhance MTFs' leadership competence in STEM education.



Robert Noyce Scholarship Program: **Master Teaching Fellowship Track**



“The term “fellowship” means funds awarded: ...in the NSF Master Teaching Fellowships Track to a STEM teacher (in which case the funds are also referred to as a salary supplement).” (p.7)

Source: Robert Noyce Teacher Scholarship Program Solicitation at <https://nsf-gov-resources.nsf.gov/solicitations/pubs/2023/nsf23586/nsf23586.pdf?VersionId=tIBklnkklYPxzBOh.UhQ7u.NFHXYFBh>



Robert Noyce Scholarship Program: Master Teaching Fellowship Track



“MTFs with elementary certification or licensure should teach mathematics and/or science for at least 50% of their classroom teaching responsibilities” (p. 15)

Source: Robert Noyce Teacher Scholarship Program Solicitation at <https://nsf-gov-resources.nsf.gov/solicitations/pubs/2023/nsf23586/nsf23586.pdf?VersionId=tIBklnkklYPxzBOh.UhQ7u.NFHXYFBh>

Note. MSU Noyce MTF program will verify the status of your course teaching responsibilities every year during your fellowship period.



Amount and Duration of Salary Supplements (Track 3: MTF)

“...While participating in the program and teaching in a high-need LEA, MTFs must receive a salary supplement of \$10,000 or more per year for each year of the five-year teaching commitment period (for those possessing a master’s degree) or each of the four-year teaching commitment (for those possessing only a bachelor's degree) after earning the master's degree.” (p.15)

Source: Robert Noyce Teacher Scholarship Program Solicitation at <https://nsf-gov-resources.nsf.gov/solicitations/pubs/2023/nsf23586/nsf23586.pdf?VersionId=tIBklnkklYPxzBOh.UhQ7u.NFHXYFBh>

MSU Cohort 1 Noyce Master Teaching Fellows: Fellows possess a master’s degree

MSU Cohort 2 Noyce Master Teaching Fellows: Fellows only possess a bachelor’s degree



MSU Noyce Cohort 2 Fellows: MTFs who do not start the Noyce program with a master's degree



“...must be enrolled in and complete an education or STEM master’s degree program during their first year of participation. ..., MTFs must complete the master’s degree in **their first year of the MTF program** and a maximum of one year cost of attendance support (counted as the salary supplement for year one) may be offered only in the final year of the master’s degree program.” (p. 15)

NOTE: For Track 3 projects, “one year” may include **up to 14 months** in order to allow for two summers as part of the master's degree program. MTFs may not begin receiving the other four years of salary supplements until the master’s degree has been completed.”

Source: Robert Noyce Teacher Scholarship Program Solicitation at <https://nsf-gov-resources.nsf.gov/solicitations/pubs/2023/nsf23586/nsf23586.pdf?VersionId=tIBklnkklYPxzBOh.UhQ7u.NFHXYFBh>



MSU Noyce MTF Budget



Total Awarded Budget: \$2,999,688

Total Awarded Budget for Participants: \$2,017,856

F. PARTICIPANT SUPPORT COSTS			
1. STIPENDS	\$	1,618,500	
2. TRAVEL		230,450	
3. SUBSISTENCE		0	
4. OTHER		168,875	
TOTAL NUMBER OF PARTICIPANTS	(156)	TOTAL PARTICIPANT COSTS	2,017,825

Participants	5-Year Fellowship Term	F. 1. Stipends (Value: \$60K)
Cohort 1 Fellows	1/1/2025 – 12/31/2029	\$60K (\$12K per year up to 5 years)
Cohort 2 Fellows	5/16/2025 – 5/15/2030	14-month tuition + \$48K (\$12K per year up to 4 years)

Projected Agreement Signing Date: October 2024

Reminder: A recommendation letter, including consent for this agreement from your school principal or superintendent, is required.



Projected Noyce Paycheck/Stipend Calendar



Cohort	Semester	2024	2025	2026	2027	2028	2029	2030
1 (\$60K: \$12K per yr. up to 5 yrs.)	Spring		\$4K (Jan.)	\$4K (May)	\$4K (May)	\$4K (May)	\$4K (May)	
	Summer		\$4K (Aug.)	\$4K (Aug.)	\$4K (Aug.)	\$4K (Aug.)	\$4K (Aug.)	
	Fall		\$4K (Dec.)	\$4K (Dec.)	\$4K (Dec.)	\$4K (Dec.)	\$4K (Dec.)	
2 (\$60K: Tuition +\$12K per yr. up to 4 yrs.)	Spring		Bonus tuition 2	Tuition 3	\$4K (May)	\$4K (May)	\$4K (May)	\$4K (May)
	Summer		Tuition 1 +\$?	Tuition 4+\$? \$4K (Aug.)	\$4K (Aug.)	\$4K (Aug.)	\$4K (Aug.)	
	Fall	Bonus tuition 1	Tuition 2	\$4K (Dec.)	\$4K (Dec.)	\$4K (Dec.)	\$4K (Dec.)	

NOTE:

1. The MSU Noyce program will try to process your paycheck/stipend by the end of the scheduled month. However, it could take you one or two more months to receive it.
2. The term “fellowship” means funds awarded ...in the NSF Master Teaching Fellowships Track to a STEM teacher (in which case the funds are also referred to as a salary supplement)(p.8).



Recipient Obligations



An institution receiving a grant under Track 1: S&S, Track 2: TF, or Track 3: MTF agrees to:

1. ensure that Noyce recipients accept the terms of the scholarship, stipend, or fellowship and that recipients provide annual certification of employment and updated contact information;
2. supply to NSF relevant statistical and demographic data on Noyce recipients
3. cooperate with NSF third-party project monitoring that will require annual data collection; and
4. monitor, track, and report on the compliance of Noyce recipients with their teaching service commitments.
5. collect and report data on recipients' persistence as classroom teachers beyond their service commitments; the reporting requirement may extend for up to 12 years following the end date of the award and submission of the final project report.



Recipient Obligations



“...the recipient will be required to repay all or a portion of the scholarship, stipend, or fellowship, if the recipient:

1. fails to maintain an acceptable level of academic standing in the program in which the individual is enrolled;
2. is dismissed from the program or institution for disciplinary reasons;
3. withdraws from the institution or program before completion of program requirements;
4. declares that the teaching service commitment will not be fulfilled; or
5. fails to fulfill the teaching service commitment.

If such circumstances occur before the completion of one year of the teaching service commitment under any track, the total amount of scholarship, stipend, or fellowship received by the individual must be repaid.

If the circumstance occurs after the completion of one year of the teaching service commitment, the amount to be repaid will be as follows:

Track 3: MTF - one-half of the total amount of salary supplements received, including fellowship support in year one for MTFs without master's degrees.”



Cash Repayment Obligation

The following description could be included in the MSU agreement projected to be signed in October for a Cohort 2 fellow:

“The full remaining balance of the Scholarship Loan and Stipend will become immediately due and payable in accordance with the terms of the Promissory Note and this Agreement, if the Fellow:

- (1) fails to successfully complete the degree requirements of the Master Science in Science Program in the University’s College of Letters and Science; or
- (2) resigns or is terminated from employment by the School District.”



MSU Noyce Meeting Calendar: Part 1 (Tentative)



Date	Time	Format	Organizer	Activity
10/6/24 (W)	4:00 pm	Online	MSU Noyce	Check In/Networking
12/4/24 (W)	4:00 om	Online	MSU Noyce	Check In/Networking
1/22/25 (W)	4:00 pm	Online	MSU Noyce	Networking & PD
2/19/25 (W)	4:00 pm	Online	MSU Noyce	Networking & PD
3/19/25 (W)	4:00 pm	Online	MSU Noyce	Networking & PD
4/23/25 (W)	4:00 pm	Online	MSU Noyce	Networking & PD
5/21/25 (W)	4:00 pm	Online	MSU Noyce	Networking & PD
9/3/25 (W)	4:00 pm	Online	MSU Noyce	Networking & PD
10/1/25 (W)	4:00 pm	Online	MSU Noyce	Networking & PD
11/5 /25 (W)	4:00 pm	Online	MSU Noyce	Networking & PD
12/3/25 (W)	4:00 pm	Online	MSU Noyce	Networking & PD

All fellows are expected to attend monthly meetings, and a **short reflection** may be collected during or after the meeting.



MSU Noyce Meeting Calendar: Part 2



Expectation	Professional Development Meeting	Date	Duration	Location
A joint meeting mandatory for ALL fellows	Montana STEM Summer Institute (SSI)	7/28 (M) –7/30 (W)	2.5 days	Bozeman
	Annual STEM Leadership Academy (MSU Noyce Team)	7/30 (W) – 8/1 (F)	2.5days	Bozeman
Select at least one (Subject to Change)	OPI Summer Institute	June (TBA)	4 days	Bozeman
	MFPE Educator’s Conference	October (TBA)	2 days	?
Optional but recommended	Montana STEM Summit	April 3	1 day	Helena
	Mcubed (MCTM)	August (TBA)	2 days	Butte
			

Note. **Three** state or national professional development meetings per year are expected, with two being in-person and including part or all of the peer fellows. In 2025, the official start year of the Noyce fellowships, the minimum requirement for Cohort 1 fellows is to attend **two** in-state meetings. For Cohort 2 fellows in the MSSE program, the requirement is to attend the joint Montana STEM Summer Institute (SSI) and the Annual STEM Leadership Academy.



What other evidences may MSU Noyce MTF program collect and measure?

1. Lead a STEM extracurricular activity (e.g., FIRST Robotics Competition, Science Fair, Science Olympiad, MathCounts, community STEM day)
2. Increase STEM achievement scores for All Students
3. Develop and implement a culturally responsive STEM curriculum
4. Provide a STEM PD workshop (e.g., SSI, MFPE, MCubed speaker, OPI Learning Hub leader)
- 5....



Q & A

1. Can we save costs by Noyce staff visiting participant locations/areas?

The Noyce program team's travel budget is limited. The project team may only visit your school district once every two years.

2. Are Noyce participants responsible for ravel expenses?

MSU's Noyce program will support fellows for attending the joint meeting of STEM Summer Institute Annual STEM Leadership Academy from summer 2025 to summer 2029.

MSU's Noyce program may not be able to support other PD travel expenses. Fellows may need to use their Noyce stipends to cover additional travel.

3. Can Zoom meetings be used to take the place of in-person visits?

No.

4. Is Noyce responsible for expenses on course credits?

Noyce program only pays tuition or credit hours and fee for fellows in the MSSE program

5. ...



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What fee is budgeted in the category of F.4. OTHER?

1. Additional leadership compensation: Example: A fellow hosts/organizes a regional/monthly meeting.

2. Additional materials and supplies: lab equipment/materials and cost for MathCounts.

3. . Additional PD cost: Tuition for 2024-2025 MSSE students.



IRB Human Subjects

- Please help Dr. Fenqjen Luo, the PI of the MSU Noyce MTF program, facilitate the IRB protocol application for Tribal IRBs.
- Please add Dr. Luo to your IRB applications for the research (e.g., your action research in MSSE coursework) sponsored by this grant program.

Project Title	Protocol #	Expired	Institution
Rural and American Indian School Educators as Science, Technology, Engineering, and Mathematics Leaders (RAISE STEM Leaders)	2023-1265-EXEMPT	12/22/2028	MSU
Building Capacity to Develop STEM Teacher Leaders in Montana Rural and American Indian Schools	2023-11-Luo 2022-418-EXEMPT	5/26/2024 11/2/2027	Salish Kootenai College MSU

Short Exercise Before Exit: How to connect students' funds of knowledge with their academic performance?

Connections:

- **Noyce Project Goal 1:**

Facilitate MTFs' integration of **funds of knowledge** and culturally responsive and sustaining pedagogy into STEM curriculum and instruction.

- **MFPE Session:**

Resilience of Native American Students in Mathematics

Rachel Chaphalkar, Beth Lask, Ke Wu (Noyce Advisor, UM Math Education Professor), Meredith Hecker

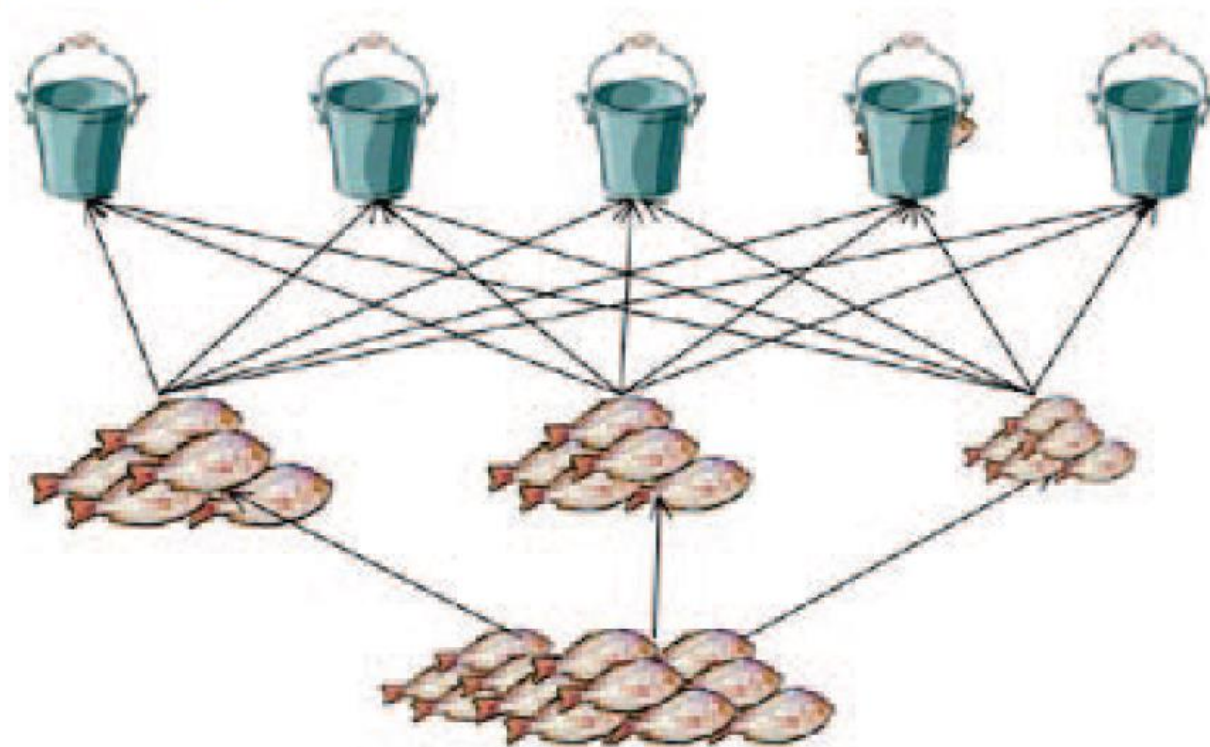
Time: Friday, October 18, 2024, 2:00 PM - 3:00 PM

Location: A279

Short Exercise Before Exit: How to connect students' funds of knowledge with their academic performance?

- **Funds of knowledge: A story of Fair Sharing in Australia** (Ewing, 2012):

Figure 1: A fair share



Short Exercise Before Exit: How to connect students' funds of knowledge with their academic performance?

- **Funds of knowledge: A story of Fair Sharing in an Australia Island**

In a study on an Indigenous community in Australia. In this study, Ewing (2012) shared insights from parents regarding their mathematical funds of knowledge, highlighting how sorting, sharing, and partitioning fish emerged as mathematical processes in their daily lives. The specific example of distributing fish and checking how many each bucket received can be connected to the school mathematics concept of fair sharing, known as “equal groups—group size unknown,” in the Common Core State Standards for Mathematics (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010). **Although funds of knowledge are connected to school mathematics in this case, how can they be effectively used to improve students' learning in school mathematics?**

Short Exercise Before Exit

We are curious about your thoughts on this topic....

1. How do you think we can positively connect the funds of knowledge students bring from home to enhance their performance in school mathematics?
2. Have you noticed any effective strategies in your classroom that help bridge this connection?"