



ADVANCING FEW-NEXUS-BASED EDUCATION THROUGH RESEARCH

FINAL SUMMATIVE END-OF-PROJECT REPORT

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OVERVIEW

Since July 2019, the National Collaborative for Research on Food, Energy, and Water Education (NC-FEW)¹ has worked to advance education research and educational programming grounded in the FEW-Nexus.

The five goals driving that work include:

1. Synthesize current education research on educational programming grounded in the FEW-Nexus
2. Identify and promote best practices in education research on educational programming grounded in the FEW-Nexus
3. Foster collaboration among community members representing diverse disciplines, fields, expertise, and institutions
4. Enhance capacity for extramural funding in support of education research on educational programming grounded in the FEW-Nexus
5. Cultivate a community identity among NC-FEW participants

As NC-FEW's external evaluator, the Science Education Resource Center (SERC) at Carleton College has documented and assessed progress along those goals using several data collection strategies and analysis of project artifacts (e.g., meeting notes, program agendas, newsletters and other products), event and listserv registration data, and responses to evaluation surveys. This report summarizes progress in the project's last year and offers some comparative analysis to explore the potential impact of involvement with NC-FEW for participants over time.

MEASURES

In addition to ongoing artifact review, evaluators implemented two new surveys during the 2024-2025 program year.

- ✓ A brief Conference Evaluation Survey ("CES") was distributed to those who attended the in-person conference in March 2025.
- ✓ A Project Conclusion Survey ("PCS") was distributed to all members of the NC-FEW community in the project's final quarter. That survey was a revised version of the Participant Survey ("PS") initially distributed (and reported on) in 2024. The PCS was designed to gather updated insights on the project's impact on participants as well as indication of their ongoing interests.

In addition, the Participant Survey continued to be distributed to all new listserv members via a link in their welcome e-mail.

Results of all three surveys are included throughout the report in the context of the evaluation of progress on project goals. A copy of each survey and summaries of participant responses are provided in the appendices.

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GOALS 1 AND 2: SYNTHESIZING EDUCATION RESEARCH AND PROGRAMMING AND IDENTIFYING AND PROMOTING BEST PRACTICES.

Progress on these two goals was evaluated through the review of project artifacts. Records of webinar schedules and topics, as well as other programming delivered by NC-FEW, provide documentation of the frequency, form, and range of topics addressed in project programming as well as its alignment with the project goals.

During the 2024-2025 program year, NC-FEW delivered two webinars, a workshop at the Earth Educators' Rendezvous, and an in-person conference held in March 2025. Almost 100 participants attended one or more of those events. While there were fewer opportunities offered than in previous years, programming addressed FEW-Nexus content and promoting best practices in alignment with project goals. In one webinar, a speaker shared current research about an important FEW-Nexus topic, the role of plants in clean watersheds and sustainable energy. In the other, several panelists shared best practices through community science data talks designed to introduce K-12 teachers to FEW-Nexus topics.

GOAL 3: FOSTERING TRANSDISCIPLINARY AND INTER-INSTITUTIONAL COLLABORATION

While the evaluation does not include measures that document actual collaboration in research or teaching activities beyond attending NC-FEW program activities, there are several indicators that NC-FEW has provided opportunities for members to engage with a rich network of participants representing a diversity of institutions and disciplines.

REPRESENTATION

At the end of the 2024-2025 project year, the NC-FEW community membership list included 432 members from 92 different institutions and organizations. At least 67 of those members joined or attended their first NC-FEW program activity during the 2024-2025 project year.

Surveys

Among the 13 new respondents to the PS who answered the question in the 2024-2025 project year, 13 different institutions were represented.

The 58 members who responded to the PCS between March and July 2025 reported affiliations with 47 different institutions.

PARTICIPATION

A total of 90 members registered for NC-FEW programming between September 2024 and March 2025. The March conference provided participants opportunities to share their current research and teaching activities and to build connections for future collaboration. The Conference Evaluation Survey (CES) invited participants to indicate how satisfied they were, up to 100%, with a number of aspects of the conference related to collaboration. Among the 27 respondents, the mean satisfaction rating with the opportunity to "Meet new people with shared interests" was 91.5% and they were 85.1% satisfied with

their opportunities to “Establish new research collaborations” on average. Twenty-three of the 25 who responded to the item agreed that they had made “new contacts that could possibly lead to future collaboration.”

Furthermore, both the EER workshop and a final a wrap up session, “Kick-starting collaborations for the next steps of NC-FEW,” held in July 2025, were designed to explore and strategize around potential future collaborative endeavors. In fact, there were seven participants in the wrap up session who have no record of prior involvement in NC-FEW program activities. That indicates an ongoing interest among scholars to expand their knowledge and connections among colleagues in the field even as the current forum for that activity is drawing to a close.

ENGAGEMENT ACROSS INSTITUTION AND DISCIPLINE

Both the PS and the PCS included items designed to document the involvement of members representing academically diverse experiences. The surveys also explored the level of collaboration among NC-FEW participants with others involved in FEW-Nexus-associated research and education activities.

Surveys

Thirty-one members responded to the PS between May 2024 and July 2025. They were invited to share their disciplinary identity and were instructed to “select all that apply.” Given the interdisciplinary nature of FEW-Nexus scholarship, it may be unsurprising that the number of disciplines was greater than the total number of respondents as illustrated in Table 1.

Table 1: Disciplinary Identity of PS Respondents

Discipline	# Participants
Environmental Sciences	9
Social Sciences	7
Agriculture	5
Natural Resources	5
Education	5
Biology	3
Geo/Earth sciences	3
Physics/physical sciences	1
Humanities	1
Other	1

While participants in the PCS were not asked to report their own discipline, respondents to both surveys were asked to identify up to ten people who they collaborate with “the most” on FEW-Nexus education or research activities. The 31 PS respondents who answered the question identified collaborators in 24 different disciplines or sub-disciplines from 24 different institutions. The 52 participants who responded to the same items in the PCS identified collaborators in 54 different disciplines and sub-disciplines from 60 different institutions. While the surveys did not provide an opportunity to indicate

whether those collaborations grew out of NC-FEW program activities, the results do indicate that NC-FEW participants are active collaborators, frequently working across institutions and disciplines.

GOAL 4: ENHANCE CAPACITY TO SECURE EXTRAMURAL FUNDING

The PCS included several items exploring participants’ perceptions of their ability to secure extramural funding. Participant responses are presented in Figure 1.

Self-Rated Ability to Secure Extramural Funding...

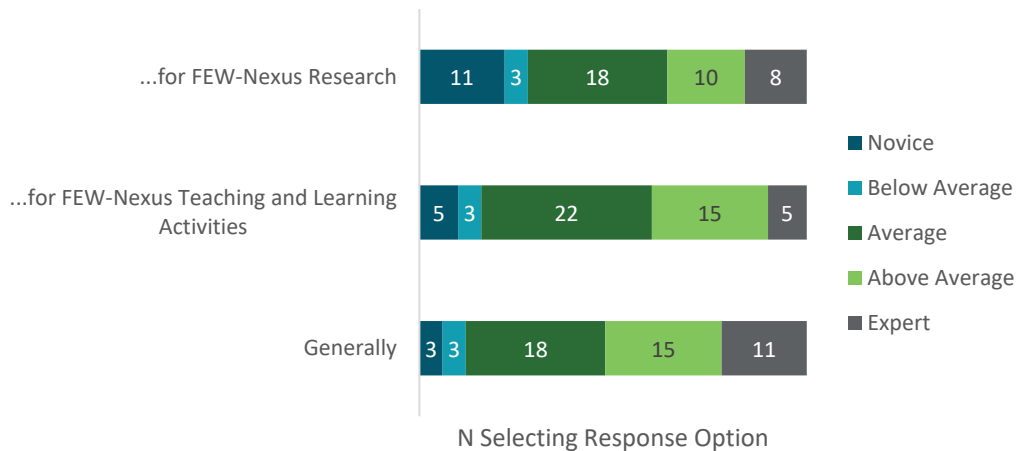


Figure 1: Proposal Writing Skills for Teaching and Research.

Unfortunately, there was no parallel item in the PS so it is not possible to determine whether this represents an improvement in participants' perception of their skills in this area. However, in response to open-ended items asking participants what their goals are for participating in NC-FEW, three cited building grant writing skills, participating in a grant writing team, and improving representation among FEW scholars as a grant writer. In the PCS, participants were asked to recall their original goals for participating and to rate how well those goals were achieved. Those three participants cited similar interests, and several others also noted goals to improve grant writing skills, to learn more about the grant writing process, and to participate in a grant writing team. Asked to rate how well those goals were achieved, respondents specifically citing those interests rated achievement of their goals between 3-5 on a 5-point scale, where 1 = 'Not at all' and 5 = 'A Great Deal.'

GOAL 5: CULTIVATE A COMMUNITY IDENTITY AMONG PARTICIPANTS

The evaluation measures offer several sources of insight to assess how well NC-FEW has progressed on this goal.

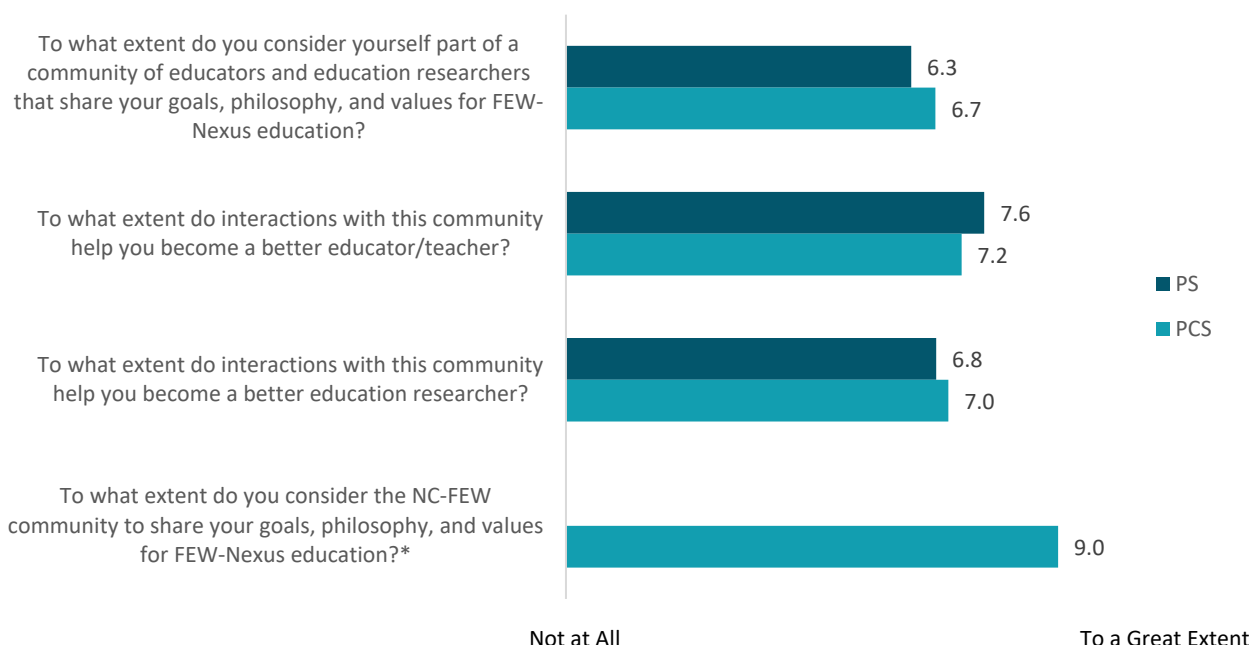
Participants in the PS were asked whether they feel they are part of the NC-FEW community and to what extent they feel engaging with the community helps them to become a better educator and a better education researcher on a 10-point scale, where 1 = 'Not at all' and 10 = 'To a Great Extent.' Those who responded to the PCS were asked those questions as well as whether they saw the NC-FEW community as aligned with their goals, philosophy, and values for FEW-Nexus education. Responses to both surveys are summarized in Figure 2. While the analysis showed no statistically significant associations between responses to the PS and PCS² for this or other items that were included in both

² Due to partial respondent overlap in the two surveys, the data do not comply with assumptions for either independent sample or paired sample t-tests. A non-parametric chi-square was used to determine whether there were statistically significant associations between participant responses to the PS and PCS on like items. No significant associations were found. Importantly, the PS is not a true "pre-test;" new members continued to respond to the survey through July 2025. Thus differences in the PS and PCS do not necessarily indicate change

surveys, trends in the data shed important light on the experiences participants had and the ways in which they report benefitting from their involvement in NC-FEW.

For instance, respondents to the PCS felt strongly that the NC-FEW community shares their goals, philosophy, and values for FEW-Nexus education. Responses to both surveys indicate that participants feel they are members of a community of like-minded educators somewhat or fairly well. While it is not possible to make a causal inference, that strong sense of alignment with NC-FEW is an important finding consistent with project goals. Participants did not report a significantly *stronger* sense on average that their skills as either an educator or as an education researcher were impacted by their engagement with NC-FEW as the project drew to a close than they had when they responded to the Participant Survey. However, in the PS about the same number reported that their skills as an educator and as a researcher were positively impacted. In the PCS, a larger number reported positive impacts on their skills as an educator.

Sense of Community and Impact Among NC-FEW Participants



*This item was added to the PCS survey at the suggestion of the Leadership Team's evaluation liaison. There is no parallel item in the PS.

Figure 2: Experience and Impact of Community in NC-FEW.

Next, respondents to both surveys were asked a series of questions exploring the ways in which members engage with one another around their teaching/education activities and around educational research, although some of those items were not included in the PCS to reduce time and effort for survey respondents. Mean responses by survey and item are summarized in Figure 3. Note that items on this scale were negatively worded but recoded for presentation, so higher values indicate greater levels

over time let alone pre-/post-program impacts on participants resulting from program activities. In that light, it is important to review trends in the data to explore where respondents conveyed useful and important insights about their experiences with the project and its impacts on their skills, networks, and careers.

In what ways do you interact with a community of educators and education researchers...

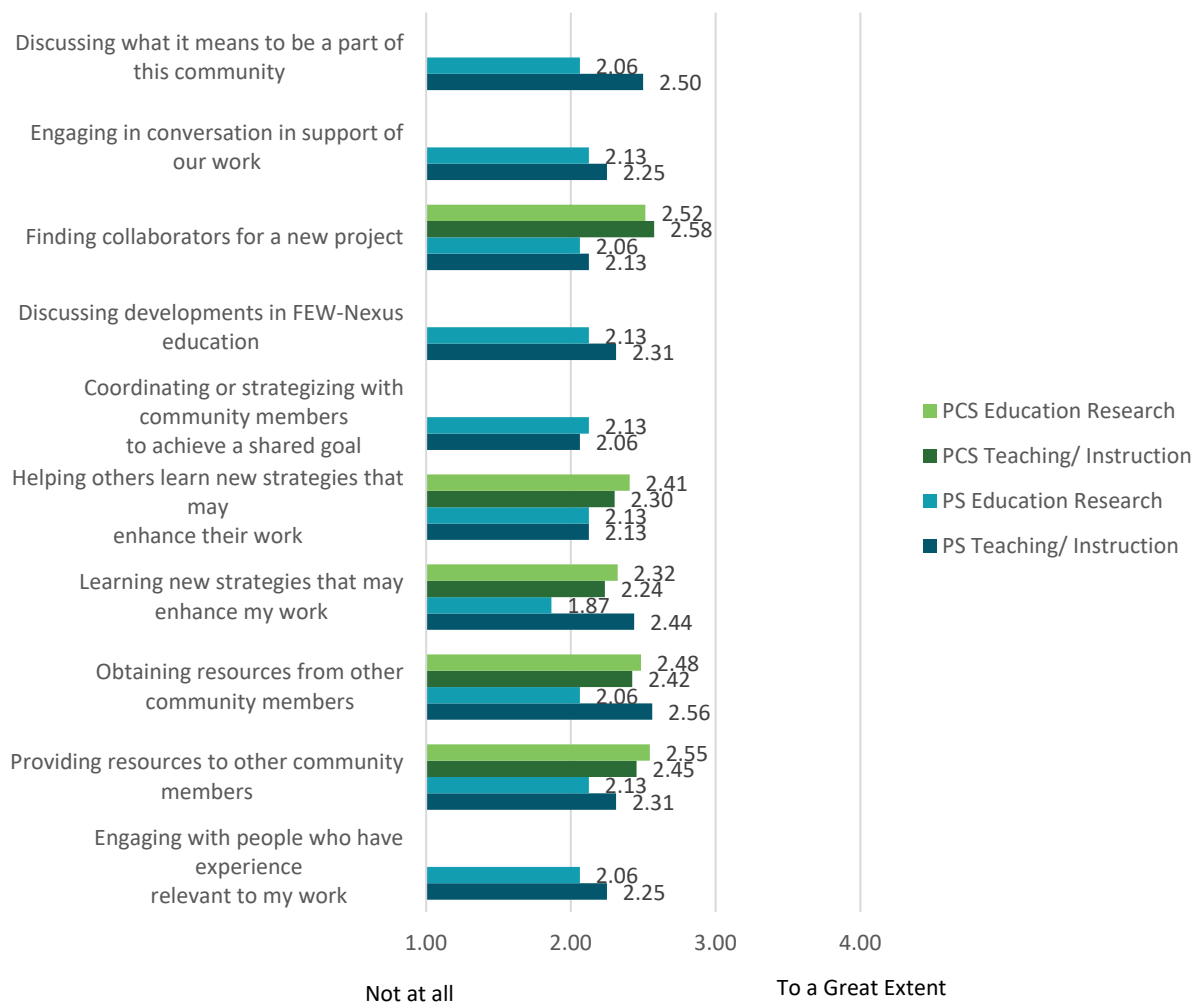


Figure 3: Forms of Engagement with the NC-FEW Community.

of engagement. Interestingly, among PS respondents, there are notable differences between the Education Research versus Teaching/Instruction contexts, while there are much smaller differences among PCS responses, and those differences are reversed. In fact, PS responses in the Education Research Context are fairly consistent with the PCS responses in both contexts. Overall, the most consistently high levels of engagement were reported by PS respondents in the context of Teaching/Instruction. Given the interest in collaborative research and other endeavors, it is interesting that participants generally report less mutually supportive exchanges during research focused activities.

IMPACT OF NC-FEW ENGAGEMENT

So what has the impact of that engagement and opportunity to build connections among other FEW-Nexus engaged colleagues been? While the evaluation provides limited opportunity to establish causal relationships, it does provide ample evidence that participants did, indeed, benefit from the

engagement in ways that hold promise to further their own interests and careers which, in light of the nature of their research and scholarly pursuits, could contribute to important impacts more broadly.

BUILDING SKILLS AT THE MARCH CONFERENCE

In particular, the March 2025 conference provided opportunities for NC-FEW participants to gather together, share their own research, learn from one another, and initiate future collaborations. The success of the conference in establishing relationships and providing a foundation for collaboration was described previously. In fact, half of the participants who responded to the CES had never attended an NC-FEW activity or event previously. Nineteen of the respondents indicated that, as a result of the conference, they “will engage in FEW-Nexus-based education in the future.” Another 7 indicated that it was “more likely,” while only one reported that it had no impact on their likelihood of pursuing FEW-Nexus-based education.

The conference offered a range of activities, giving participants numerous ways to engage with and learn from one another. Respondents reported that they had attended a broad range of activities as reflected in Table 2.

Table 2: Conference Activities Attended

Activities Attended	N
Lightning talks	25
Poster session	27
Break out discussions on funding opportunities	25
Working group sessions	20

Twenty-two reported that they shared their own work during the conference, representing an essential opportunity to hear constructive critique from supportive colleagues, which may inform further development of their endeavors. Of those, 72% indicated that they found the feedback they received “Very” or “Extremely” useful and 28% found it “Slightly” or “Moderately” useful. No one reported that they found the feedback provided “Not at all” useful. Some of this may have been made possible by the engaged learning climate established during the conference. Participant ratings of several aspects characterizing that climate are presented in Figure 4.

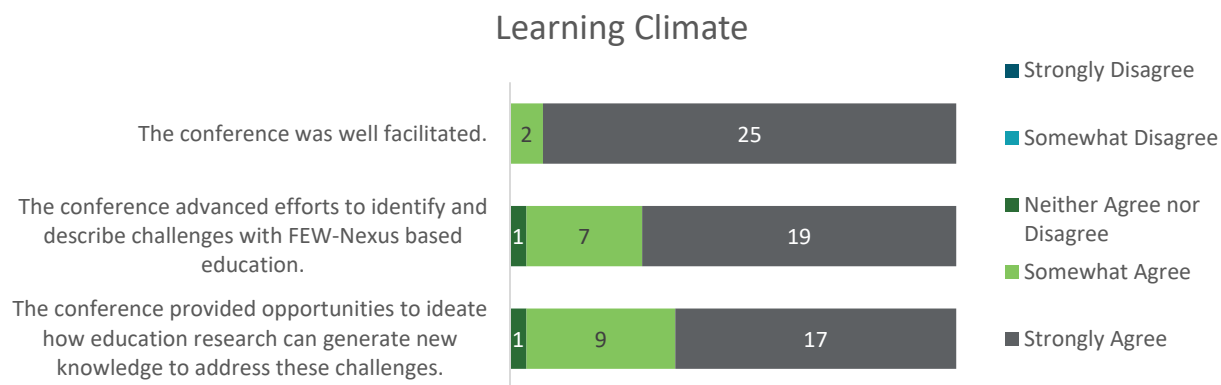


Figure 4: The Conference's Learning Climate.

As a result, 21 of the 27 respondents indicated that they were ‘Extremely Satisfied’ with the conference, while another 6 reported that they were ‘Very Satisfied.’ The mean overall rating on a 5-point scale was 4.8.

GENERAL SKILLS SELF-ASSESSMENTS

Respondents to both surveys were asked to rate their own skills in a number of areas related to Teaching/Instruction and to Education Research, both generally and specific to FEW-Nexus activities, on a scale of 1-5, where 1 = “Novice” and 5 = “Expert.” Mean responses are summarized in Figure 5. This scale was negatively worded but recoded in analysis so higher scores correspond with stronger self-rated skills. Mean ratings among participants of their own skills were better than ‘average’ across all

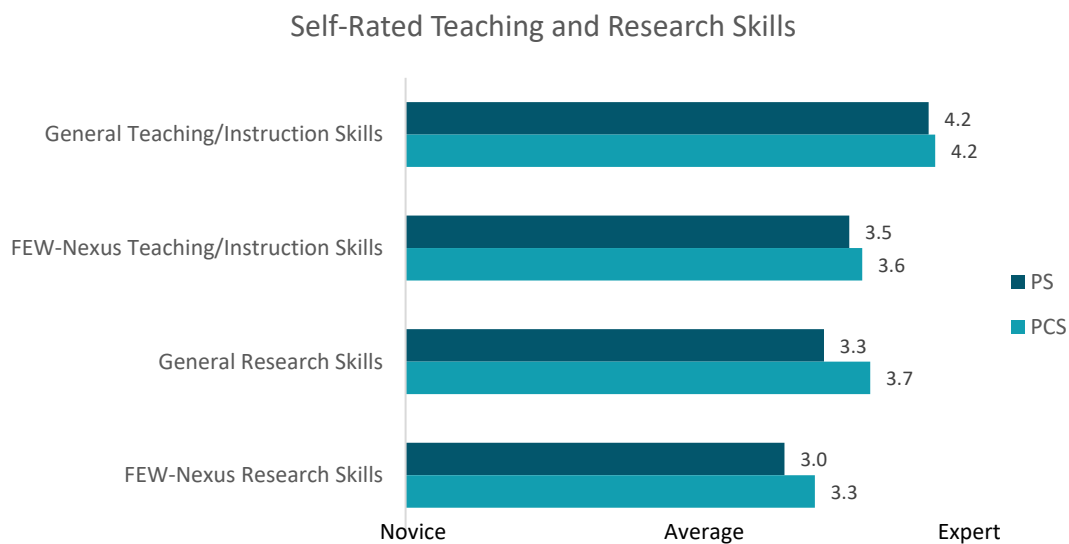


Figure 5: Self-Rated Teaching and Research Skills.

items in both surveys. PCS respondents rated their skills slightly higher than did PS respondents on all skills addressed in both surveys. Participants’ rated their ‘general’ skills more highly than their FEW-Nexus specific skills in both surveys, illustrating the importance of continued opportunities to hone these skills to continue to strengthen FEW-Nexus scholarship.

POTENTIAL CONNECTIONS

To explore the evidence of any association between engagement with NC-FEW and participant skills, correlational analysis was conducted to determine whether there is a linear relationship between participation in NC-FEW activities (derived from project artifacts documenting registration and attendance) and self-assessed teaching and research skills, as reported in the final Project Conclusion Survey. For the purpose of this analysis, new variables were constructed based on self-reported skills in the PCS. The mean of each participant’s self-assessment ratings associated with general teaching skills, for example, became their General Teaching Skills score. The same process was used to develop FEW-Nexus Teaching Skills, General Research Skills, and FEW-Nexus Research Skills scores. The evaluator hypothesized that the number of NC-FEW events attended would be positively correlated with participant self-assessments (e.g. those who attended most often would have had more opportunities to build skills in these areas) while recognizing, of course, that frequent attendees may also be people who

are apt to pursue other professional development opportunities or those who perceive themselves as most in need of further development so, as always, no causal attribution can be made.

Statistically significant correlations were observed between the *number of virtual NC-FEW events* attended and both General Research Skills ($r = .56, p = .008$) and Few-Nexus Research Skills ($r = .45, p = .04$). The *total number of NC-FEW events* was also statistically significantly correlated with General Research Skills scores ($r = .49, p = .02$).

A final test to determine whether attendance at NC-FEW events was associated with increased academic productivity in terms of publications and presentations did not reveal a statistically significant relationship. However, those would be lagging indicators and, given that many participants in the conference and wrap up session indicated that they were still meeting new people and initiating potential collaborations at those events, it may be the case that such outputs will be forthcoming as a result of NC-FEW's programming.

CONCLUSION

In summary, while there is not always direct data available to speak to each of the project goals in full, there is good evidence from the evaluation that NC-FEW has made important progress on each of the project goals. The project has established a community with members who strongly believe that the network reflects their values and priorities for FEW-Nexus education and research. Enough so that new members were still joining the network as of its very last scheduled activity.

Participants report that they have grown their network of collaborators, increased academic productivity, and benefitted from opportunities to hone their skills as both teacher/educators and as researchers. Moreover, a number report having had opportunities to participate in grant writing teams and propose new projects. Finally, those who participated most frequently in NC-FEW programming also rated their general and FEW-Nexus research skills as stronger than those who attended fewer events. While, given the nature of the data collected, these findings cannot be conclusively attributed to engagement with NC-FEW. However, the preponderance of the evidence suggests that the project has had a positive impact on the field and its members.

In short, NC-FEW has demonstrated the importance of such a network to provide opportunities for scholars and their partners to continue to build the relationships, knowledge, and skills that will be essential for the field and beyond.

APPENDIX 1: PARTICIPANT SURVEY AND DATA SUMMARY

An exported copy of the Qualtrics Participant Survey is provided in this appendix. The number of participants selecting each response option is reported in green or, where appropriate, a summary of data including minimum, maximum, and mean response is reported. Consistent with confidentiality assurances provided under IRB regulations, items requesting identifying data are not included. Project team members with IRB authorization have access to the full data set in shared secure project file storage.

Full text responses to open-ended items appear at the end of the appendix although “nothing” and “N/A” responses with no further elaboration are excluded. Note that some responses to open-ended items may include information that could be identifying, but in light of the fact that project leadership are IRB-approved to have access to evaluation data, they are included verbatim. That data should be reviewed and, perhaps, further anonymized in the event that section of the report is shared beyond authorized project team members.

NC-FEW Participant Survey 2024 and Data Summary³

Start of Block: Consent

Purpose: You are invited to participate in this survey because you are professional involved and/or interested in education and education research grounded in the FEW-Nexus who has joined or expressed interest in participating in NC-FEW. This survey is being conducted as part of the external evaluation of NC-FEW by the evaluation team at Carleton College's Science Education Resource Center (SERC). The data collected will provide a basis for understanding and describing NC-FEW's participants and to help the NC-FEW leadership make decisions and develop programming that will serve the needs and interests of its members.

Procedures: Members of NC-FEW and participants in its programming will be invited to participate in the membership survey. The survey will be completed online in Qualtrics and should take about 30 minutes to complete. The information you provide will be used for two purposes:

- to provide a baseline for the evaluation and guidance on member needs and interests to inform program development and decision making.
- for administrative purposes.

For instance, any new contact information provided will be added to a listserv for communications about NC-FEW activities. You will be eligible to participate in these activities and may be eligible for travel funds to attend one or more NC-FEW invited conferences.

Benefits: There is the potential that the information you submit will help cater NC-FEW more directly to your needs, as well as those of other participants, thus enhancing your experience as a participant.

Risks and/or Discomforts: Risks associated with this survey are minimal and should not exceed those encountered in your daily life.

Confidentiality: Your responses will be available to both the evaluation team and NC-FEW project personnel. Data will be aggregated for use in evaluation reporting and publications. No individually identifying information will be included in any reporting, publications, or disseminated information about the project.

Opportunity to Ask Questions: You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study by contacting the external

³ Full text responses to open-ended items are included at the end of this summary.

evaluator or principal investigator(s). Their contact information is provided below.

Freedom to Withdraw: Participation in this project is voluntary. You can refuse to participate or withdraw at any time without harming your relationship with NC-FEW, the evaluators, or the researchers, or being penalized in any other way resulting in loss of benefits to which you are otherwise entitled.

If you have questions about this survey or run into any technical problems while responding, please contact Kerry Vachta, our evaluator at Carleton College's Science Education Resource Center at kerryv@carleton.edu or 507-222-4209.

For questions about NC-FEW or the purpose of this survey for the organization and how your information will be used, please contact the project PI, Hannah Scherer, at hscherer@vt.edu

I have read the information provided above and consent to participate in the survey.

☐ Yes 28

☐ No (If you do not consent, please click the circle next to 'No' before closing your browser. Thank you for your time!)

Skip To: End of Survey If I have read the information provided above and consent to participate in the survey. = 2

End of Block: Consent

Start of Block: Perspective

What is your name?

☐ First _____

☐ Last _____



Email address:

In which educational context(s) do you most closely work and/or most strongly affiliate (please select all that apply)?

- ☐ Undergraduate education 18
- ☐ Graduate education 10
- ☐ K-12 teacher education/professional development 3
- ☐ Postsecondary faculty development 2
- ☐ Elementary (grades K-5 students (e.g., curriculum, instruction, assessment in formal classroom settings) 0
- ☐ Middle school (grades 6-8 students (e.g., curriculum, instruction, assessment in formal classroom settings) 0
- ☐ High school/secondary (grades 9-12 students (e.g., curriculum, instruction, assessment in formal classroom settings) 1
- ☐ Youth-focused informal/non-formal/public (e.g., museums, afterschool programs, extension, etc.) 6
- ☐ Adult-focused informal/non-formal/public (e.g., museums, afterschool programs, extension, etc.) 5



How many years have you been in your current position?

Minimum reported	1.5
Maximum reported	40
Mean	12.75

How did you first hear about the National Collaborative for Research on Food, Energy, and Water Education (NC-FEW)?

- ☐ A colleague who is already a member of NC-FEW. If so, please share name and institution if known: 5
 - ☐ An advertisement or announcement from a professional organization (e.g., geoscience society, education association) 9
 - ☐ A presentation or workshop about NC-FEW 4
 - ☐ A search engine (e.g., Google) 1
 - ☐ Social media (e.g., X - formerly Twitter, Facebook) 0
 - ☐ Other (Please specify) 3 _____
-

Tell us more about your goals regarding your involvement in the NC-FEW community.

- ☐ Why do you/do you want to participate in NC-FEW? 22

- ☐ How do you anticipate benefiting from participation? 22

- ☐ How do you hope to contribute to the community? 22

End of Block: Perspective

Start of Block: Professional Activities

How would you characterize your abilities with **teaching/instruction**?⁴

	1 (Expert)	2 (Above Average)	3 (Average)	4 (Below Average)	5 (Novice)	Mean
General						
Articulating goals for student learning	7	7	3	0	0	1.76
Identifying and using relevant curricular resources	8	8	2	0	0	1.67
Planning for instruction	9	7	1	1	0	1.67
Identifying and implementing meaningful, student-centered instructional strategies	6	10	1	1	0	1.83
Explaining concepts to students	9	8	0	1	0	1.61
Supporting students' use of evidence to formulate claims about phenomena	6	10	1	1	0	1.83
Helping students connect classroom learning to their daily lives and experiences	14	2	2	0	0	1.33
Designing and using formative assessments of student learning	5	8	4	1	0	2.06
Using evidence of students' thinking (e.g., from formative assessment) to guide instruction	7	7	3	1	0	1.89
Designing and using summative assessments of student learning	5	5	6	2	0	2.28
Providing constructive feedback to students on their learning	5	6	6	1	0	2.17
FEW Specific						
Articulating goals for student learning	3	7	4	1	1	2.38
Identifying and using relevant curricular resources	1	7	6	2	0	2.56
Planning for instruction	1	8	4	2	1	2.63
Identifying and implementing meaningful, student-centered instructional strategies	1	9	3	2	1	2.56
Explaining concepts to students	3	8	3	2	0	2.25
Supporting students' use of evidence to formulate claims about phenomena	1	8	5	2	0	2.50
Helping students connect classroom learning to their daily lives and experiences	8	4	3	1	0	1.81
Designing and using formative assessments of student learning	2	7	4	2	1	2.56
Using evidence of students' thinking (e.g., from formative assessment) to guide instruction	1	8	4	2	1	2.63
Designing and using summative assessments of student learning	2	5	4	3	1	2.73

⁴ This item was presented as a side-by-side grid along with the following question. In the interest of space, the data is summarized in lieu of the original question format.

Providing constructive feedback to students on their learning	2	6	5	2	0	2.47
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How would you characterize your abilities with **education research**?

	1 (Expert)	2 (Above Average)	3 (Average)	4 (Below Average)	5 (Novice)	Mean
General						
Articulating effective research questions	1	4	12	1	0	2.72
Using existing literature to frame and discuss findings from your research	3	4	9	2	0	2.56
Selecting effective research designs	1	8	5	3	1	2.72
Identifying and/or creating instruments that align with constructs and research questions	2	5	7	3	1	2.78
Gathering/collecting appropriate data	3	6	6	2	1	2.56
Using quantitative methods for data analysis	4	3	7	2	2	2.72
Using qualitative methods for data analysis	2	4	8	2	2	2.89
Using mixed methods for data analysis	2	7	4	3	2	2.78
Interpreting and synthesizing findings from data analysis	3	7	6	0	2	2.50
Disseminating your research (presentations, publications, etc.)	4	6	4	3	1	2.50
Using your empirical findings to identify areas for future research	3	6	5	4	0	2.56
FEW Specific						
Articulating effective research questions	1	1	12	2	0	2.94
Using existing literature to frame and discuss findings from your research	1	3	8	4	0	2.94
Selecting effective research designs	1	5	5	2	3	3.06
Identifying and/or creating instruments that align with constructs and research questions	1	3	7	2	3	3.19
Gathering/collecting appropriate data	1	5	6	2	2	2.94
Using quantitative methods for data analysis	3	2	5	2	3	3.00
Using qualitative methods for data analysis	2	2	7	2	3	3.13
Using mixed methods for data analysis	2	3	5	3	3	3.13

Interpreting and synthesizing findings from data analysis	2	5	6	1	2	2.75
Disseminating your research (presentations, publications, etc.)	3	3	6	3	1	2.75
Using your empirical findings to identify areas for future research	2	5	3	4	2	2.94

Please provide a brief overview of your FEW-Nexus-based education endeavors. How do you design and deliver educational programming grounded in the FEW-Nexus?

Please provide a brief overview of your FEW-Nexus-based education research endeavors. How do you design and conduct education research on FEW-Nexus-based educational programming?

How do you disseminate your work?

	Dissemination			
	In general		Specifically for FEW-Nexus-Based Education	
Approximately how many <u>presentations</u> about your work have you given in the past two years at professional meetings, on campus, or at other venues?	Minimum	0	Minimum	0
	Maximum	20	Maximum	4
	Mean	5.82	Mean	1.00
Approximately how many <u>publications</u> about your work have you published in the past two years (journal articles, chapters, technical reports, etc.)?	Minimum	0	Minimum	0
	Maximum	13	Maximum	4
	Mean	3.00	Mean	0.87

End of Block: Professional Activities

Start of Block: Participant Information

Thinking about your experience, please respond to each of the following items on a scale from 1 to 10 where 1 = "Not at all" and 10 = "To a great extent."

	1 2 3 4 5 6 7 8 9 10
	
To what extent do you consider yourself part of a community of educators and education researchers that share your goals, philosophy, and values for FEW-Nexus education?	Minimum 3 Maximum 10 Mean 6.29
To what extent do interactions with this community help you become a better educator/teacher?	Minimum 2 Maximum 10 Mean 7.63
To what extent do interactions with this community help you become a better education researcher?	Minimum 2 Maximum 10 Mean 6.75

Display this question:

If Thinking about your experience, please respond to each of the following items on a scale from 1 t... [1] > 0
 Or Thinking about your experience, please respond to each of the following items on a scale from 1 t... [2] > 0
 Or Thinking about your experience, please respond to each of the following items on a scale from 1 t... [3] > 0

In what ways do you interact with a community of educators and education researchers that share your goals, philosophy, and values for FEW-Nexus education?

	For Teaching/Instruction					For Education Research				
	1 (To a Great Extent)	2 (To Some Extent)	3 (Only a Little)	4 (Not at All)	Mean	1 (To a Great Extent)	2 (To Some Extent)	3 (Only a Little)	4 (Not at All)	Mean
Engaging with people who have experience relevant to my work	9	5	2	0	1.56	4	4	7	1	2.31
Providing resources to other community members	9	4	3	0	1.63	3	4	6	3	2.56
Obtaining resources from other community members	11	2	3	0	1.50	4	4	7	1	2.31
Learning new strategies that may enhance my work	10	3	3	0	1.56	3	6	5	1	2.27
Helping others learn new strategies that may enhance their work	8	6	2	0	1.63	4	4	6	2	2.38
Coordinating or strategizing with community members to achieve a shared goal	7	6	3	0	1.75	4	3	8	1	2.38
Discussing developments in FEW-Nexus education	7	3	5	1	2.00	4	4	6	2	2.38
Finding collaborators for a new project	7	5	4	0	1.81	5	5	5	1	2.13
Engaging in conversation in support of our work	8	4	4	0	1.75	5	4	6	1	2.19
Discussing what it means to be a part of this community	7	2	4	3	2.19	3	4	7	2	2.5

Who are individuals with whom you collaborate/interact the most on your FEW-Nexus-based education and education research endeavors? This includes individuals at your own institution or other institutions. Please list up to 10. (Please note, we are asking this in order to help identify whether participating in NC-FEW influences the development of participants' professional networks. No identifiable information you submit will be shared publicly.

	FEW-Nexus Education Collaborators			
	First name	Last Name	Institutional Affiliation	Discipline
Collaborator #1 (Space provided for up to 10 collaborators)				

Please provide your institutional affiliation:

Departmental Affiliation:

Which of the following best describes your current position/professional role (please select all that apply)?

- | | |
|---|---|
| ☐ Professor | 3 |
| ☐ Associate Professor | 5 |
| ☐ Assistant Professor | 1 |
| ☐ Instructor/Lecturer/Adjunct/Visiting faculty | 3 |
| ☐ Extension Specialist | 0 |
| ☐ Extension Agent | 0 |
| ☐ Postdoc | 1 |
| ☐ Graduate Student | 2 |
| ☐ Staff | 0 |
| ☐ Informal/non-formal educator (non-university-based) | 2 |
| ☐ K-12 teacher | 0 |
| ☐ Researcher (non-university-based) | 1 |
| ☐ Administrator (department chair, associate dean, etc.) | 1 |
| ☐ Other (please specify) | 3 |

Which of the following best characterize your disciplinary identity (please select all that apply)?

☐	Biology	3
☐	Chemistry	0
☐	Geo/Earth sciences	3
☐	Physics/physical sciences	1
☐	Environmental Sciences	9
☐	Other natural science	0
☐	Engineering	0
☐	Mathematics	0
☐	Computer science/technology	0
☐	Agriculture	5
☐	Natural Resources	5
☐	Education	5
☐	Social Sciences	7
☐	Humanities	1
☐	Other (please specify):	1

What is the highest degree level that you have completed?

- ☐ Bachelors 0
- ☐ Masters 4
- ☐ Doctorate 12



In what year did you earn your highest degree?

Earliest 1974

Most Recent 2023

Mean 2006

End of Block: Participant Information

RESPONSES TO PARTICIPANT SURVEY OPEN-ENDED ITEMS

Question:
Tell us more about your goals regarding your involvement in the NC-FEW community. - Why do you/do you want to participate in NC-FEW?
Verbatim Responses ⁵
connect and collaborate with our FEW nexus people
Create collaborations / Learn from others
For the network; for the opportunity to work collaboratively on FEW topics; and to ensure that the voice of community colleges are included in this dialogue.
I am a water-energy-food nexus scholar. I prioritize water quality though, not food production.
I am interested in sharing curriculum resources and practices for supporting k-8 learns in both informal and formal classroom environments
I am interested in teaching FEW topics
I had been involved with a FEW nexus briefly in the Detroit metro area a few years back but workload had prohibited continuing in these (then) in-person activities
I teach intro-level primarily non-major geoscience courses at a 2YC that serves both urban and rural areas, and am working to integrate more systems thinking as well as participatory science and applications to everyday life into my courses. The FEW nexus seems like one way to do this that is meaningful and connects with everyone.
I want to be colleagues who work on the interface of teaching and research on the topic and add value to the discussions on the topic
improving my teaching and being part of collaborative projects
It's important to advance education on the subject
Learn about resources and teaching practices for undergraduates in this field
Learning about teaching the FEW nexus is pertinent to my teaching environmental science courses.
Literature review, writing, etc.
Mission and goals closely align with my organization's
Most just keep up on some of the newsletters
Networking for collaborative grant opportunities.
networking with other academics with similar interests
Systems thinking is important to facing today's challenges
The importance of treating complex problems from an integrative perspective rather than singular disciplines.
To help broaden public acceptance
To understand and learn diverse range of ways in which science education, community engagement, and FEW topics intersect science-policy-society interface, and how a multidisciplinary approach can help in advancing sustainability and sustainability education.

⁵ Responses to open-ended items are presented in alphabetical order in the interest of confidentiality which could be compromised if responses could more easily be linked with one another across items.

Question:

Tell us more about your goals regarding your involvement in the NC-FEW community. - How do you anticipate benefiting from participation?

Verbatim Responses

Be able to incorporate some new ideas into my teaching

Become part of a grant writing team.

better teaching, being part of a network, publications

By learning from others, and co-creating teaching strategies

Collaboration and learning about the various programs others are engaged in

collaborations, publications, funds

Collaborations, Research, Teaching and outreach opportunities

Continue to hone my skills as community based

Definitely want to catch up!

Extend & deepen my MA in Whole Systems design and personal studies with Fritjof Capra, Humberto Maturana, Joanna Macy

Finding more support for teaching with a systems approach

From participation, I hope to increase my understanding and application toolkit with regard to science education, community engagement, and FEW topics to advance sustainability.

From the network; learning more about different approaches to FEW teaching; and opportunities for interdisciplinary and interinstitutional work.

I am interested in collaborating on curriculum resources and practices for supporting k-8 learners in both informal and formal classroom environments

I hope I can learn about ideas and strategies for adapting/adopting/creating and implementing curriculum as well as assessing impacts on participants.

I want to learn various FEW nexus teaching strategies from peers.

Keeping informed about wider activities around FEW

Knowing how other FEWs projects are progressing

Learn ways to effectively teach in this NC FEW space

Publication, collaborative funding, learning

sharing knowledge

stronger connections to others in the field

Question:

Tell us more about your goals regarding your involvement in the NC-FEW community. - How do you hope to contribute to the community?

Verbatim Responses

As a Spanish-English bilingual and bicultural community development and grantsmanship leader, bring more diversity to the FEW Nexus community

Bring my experience working with community partners on all of these issues as well as with my teaching and research in areas that overlap.

Bring my skills of data analysis, and social science research methods to the team.

Contribute to writings with other members, give a webinar, perhaps.

Developing more opportunities for interdisciplinary work and possibly building best practices for teaching about FEW based on what we are learning about from the research.

Dissemination of information via stakeholder workshops and symposium

Don't know

expertise from my own context

Hope I can offer some insight from the perspective of our undergrad education in urban agriculture and sustainability

Hoping I can report back on what I'm doing and potentially provide an example of what can be done at the 2YC level.

I am interested in capacity development, collaborating on and cultivating partnerships to support k-12 students and educators across the themes of FEW and climate resilience

I bring knowledge and experience with system dynamics, which is the underpinning of FEW analysis

I have done a webinar and also had paper discussions and would further add to the collaborative

Possibly with exchange of instructional practices

publications, collaborations

Same as above, as well as my research experience in FEWs

Share learning and teaching experiences

sharing knowledge

Sharing my ideas of applying the FEW nexus to teaching environmental justice.

Support dissemination, network coordination

Through participation, I hope to contribute to the community by bringing in non-academic stakeholder perspectives on FEW topics at science-policy-society interface.

through research that speaks to other research within the community

Question:

Please provide a brief overview of your FEW-Nexus-based education endeavors. How do you design and deliver educational programming grounded in the FEW-Nexus?

Verbatim Responses:

Directing a national curricular reform network that uses community challenges and problems (many grounded in Food, Energy, Water) to frame STEM curriculum in all disciplines.

I apply the concept of the FEW nexus in every topic I teach in environmental science. I rely on the FEW nexus to demonstrate the interconnectedness and interdependencies between food, energy, and water systems in daily life. I provide learning activities that promote a holistic understanding of these critical resources and how they influence each other, as well as the sustainable management of them, including inequities.

I don't think I can answer this...this is why I want to be part of the nexus...my pedagogical lingo is pretty limited....I use a lot of active learning, problem-solving, team-based activities that revolve around the general theme of food/agriculture and their health and environmental impacts for good and for bad....through my undergrad courses in organic farming (7 cr/annually), permaculture (4 cr), and food systems (4 cr annually). we also have significant community engagement component for most of these classes.

I founded EarthNest Institute to give form and expression to our mission of "Nurturing meaningful cultural change through explorations in Nature, Science, Spirit, and Systems Thinking." Our seasonal retreats, counseling, public speaking events, and grad student mentorship are grounded in my MA studies in Whole Systems Design at Antioch University Seattle and inspired by post grad Gaia studies at Schumacher College with Fritjof Capra, Brian Goodwin, Satish Kumar, and Stephan Harding. Our work is infused with my personal studies on climate change with Ross Gelbspan; on autopoiesis and life sciences with Humberto Maturana; on mutual causality in Buddhism and general systems theory with Joanna Macy; and on a summer intensive on "Remaining Human" with Pille Bunnell and leading systems theorists. Blessed with a lifelong practice of Vipassana "Mindfulness" meditation, I find myself now, at the age of 86, seeking a way to leave an educational legacy of sustainability and wellbeing. First I must immerse myself in the educational programming that is grounded in the FEW-Nexus. Admitting my status as "novice" in formal FEW-Nexus instruction, I nonetheless continue my work and community outreach, demonstrating off-grid sustainable solar living for more than 30 years. I have introduced CSU Extension Office's portable STEM laboratory and teaching staff to the remote and isolated, 56% Hispanic K-12 public schools in the six-county region of Colorado's San Luis Valley. I frequently give talks on climate change at the local museum and our community center and I created Tierra Nueva Language and Learning Center, providing linguistically informed instruction to migrant farm worker speakers of Spanish and the Mayan language of Q'anjob'al. My hope is to suggest and perhaps overcome what might be an elitist academic and think-tank concentration of FEW-Nexus knowledge, gaining a better understanding of this field for myself and hopefully finding ways to distill and relate its lessons, if that is possible, to a critically uninformed and needy American population. I will attend the Carleton webinar on February 25 and I hope to be accepted to attend the Global FEWture Alliance conference on April 23 and 24. As a senior roaming intellectual woman fascinated with our shared human journey, I hope to be accepted, at least briefly, into your hallowed halls of knowledge. I've brought \$14 Million in state and federal funding to our local communities, and I'm hoping to turn my focus, before I leave this plane, to an enduring legacy from our very quiet EarthNest Institute.

I have some training in education research but no degrees and no peer-reviewed publications, but am an adept consumer and adapter of educational programming appropriate for my context (2YC geoscience). I do not currently design or deliver educational programming grounded in the FEW nexus.

I teach courses in the FEW-Nexus related to sustainable cooking and food science content, specifically related to conceptual physics topics. I also teach a course on the physical principles of energy and sustainability which also has significant FEW-Nexus overlap. Both of these classes are general education courses to help improve science literacy.

I teach in a sustainability major that contains classes in watersheds, ethics, and food systems.

I use FEW in K-12 professional development and in undergraduate general education courses in geography, earth and environmental topics, and in upper division courses in soil genesis and hydrogeology.

I work to bring both social and natural science perspectives into the classroom. I teach across programs like water resources. I teach environmental sociology and social and natural systems of the US-Mexico Borderlands. I am also part of an SSTEM scholarship team.

I've less experience of designing education materials. I've working experience of implementing already existing education materials on FEW topics as a practitioner and non-academic stakeholder.

Nothing yet, as we are a very small school. But I often teach GIS and Env. Problem Solving with FEW-Nexus examples

The FEW nexus is integral to the non-majors environmental biology class I teach. So there is the delivery of content about food, water and energy and I also have the students engage in lab assignments, field trips, and civic action projects related to the food, water and energy as well as the FEW nexus as a whole.

Question:

Please provide a brief overview of your FEW-Nexus-based education research endeavors. How do you design and conduct education research on FEW-Nexus-based educational programming?

Verbatim Responses:

Currently working on an SSTEM water resource leaders research project on the relationship between mentors and mentees.

Currently, I am not doing any formal FEW nexus based educational research.

Haven't done that, except informally.

I am not currently conducting FEW-Nexus based education research but would love to find a collaborator to help develop research questions and procedures to collect data on the work I am doing with my food and cooking-related FEW-Nexus education.

I am not involved in FEW nexus related research at this time.

I do not currently do any research due to teaching overload

I have not yet done formal FEW-Nexus research, other than as I have described above. With anticipation that this door might open to me, I hope to extend my cross cultural and multilingual academic explorations and perhaps contribute to the excellent work of your learned FEW-Nexus community.

I've no experience in FEW Nexus education research.

None to date

none.

So far I have been involved with the undergrad research group looking at sustainability education in the FEW nexus

Question:

Please provide your institutional affiliation:

Verbatim Responses:

Appalachian State University

Arizona State University

College of DuPage

Delta College

Goshen College

Iowa Lakeside Laboratory- University of Iowa

Lone Star College - Kingwood

National Center for Science and Civic
Engagement

none - retired

Northern Arizona University

Oakland University

Ohio State University

Texas A&M University-San Antonio

University of Utah

Question:

Departmental Affiliation:

Verbatim Responses:

Biological Sciences

Educational Psychology

Environmental Science

Environmental Studies

Global Institute of Sustainability & Innovation

Iowa Lakeside Laboratory

Physics and Astronomy

School of Earth and Sustainability

School of Environment and Natural Resources

Science & Math/Geology

Sociology and Communication

STEM - Biology

Sustainability

APPENDIX 2: SUMMARY AND VISUALIZATIONS OF CONFERENCE EVALUATION SURVEY RESPONSES

While conference evaluation results are integrated throughout the summary report to describe how the event contributed to the achievement of NC-FEW project goals, a stand-alone summary is provided here to facilitate review of event-specific responses. A copy of the Conference Evaluation Survey tool, reporting the n selecting each response option, is provided following the data summary and visualizations. Full text responses to open-ended items appear at the end of the appendix although “nothing” and “N/A” responses with no further elaboration are excluded.

Which activities did you attend during the conference?

A horizontal bar chart with a white background. The y-axis lists four activities: 'Lightning talks', 'Poster session', 'Break out discussions on funding opportunities', and 'Working group sessions'. The x-axis is labeled 'N Selecting Response' at the bottom right. Each activity has a corresponding dark teal bar. The values for each bar are: Lightning talks (25), Poster session (27), Break out discussions on funding opportunities (25), and Working group sessions (20). The bars are ordered from top to bottom as they appear in the chart.

Activity	N Selecting Response
Lightning talks	25
Poster session	27
Break out discussions on funding opportunities	25
Working group sessions	20

They were then asked to rate their satisfaction with a number of opportunities the conference was intended to provide. Mean satisfaction ratings of each opportunity are presented in Figure 2.

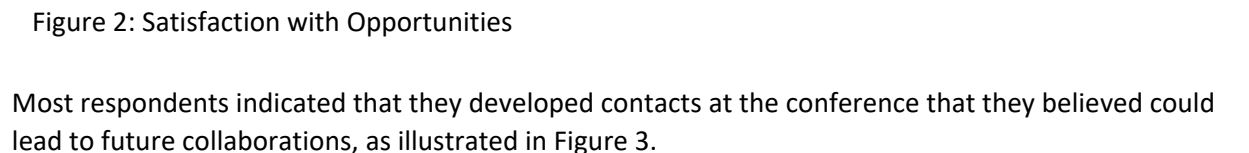




Figure 3: Satisfaction with Opportunities

Participants were asked whether or not they shared their work formally as part of the conference. Just over 81% indicated that they did, as illustrated in Figure 4.

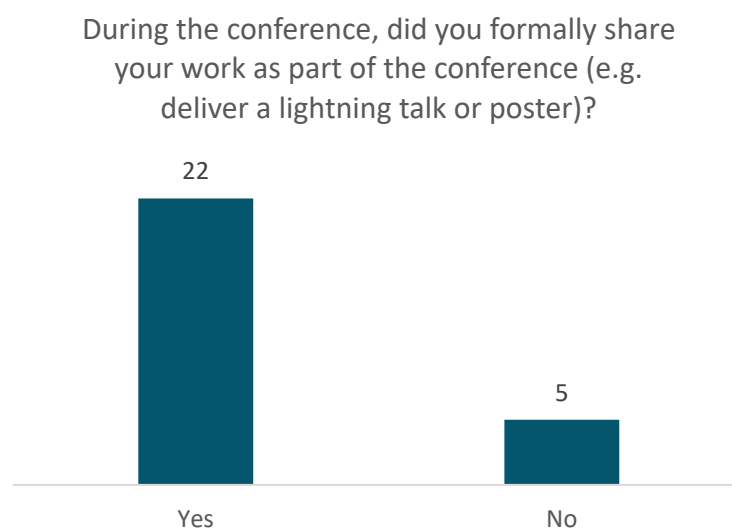


Figure 4: Formally Presented at Conference

Those who indicated that they had formally shared their work were asked how useful they perceived feedback they received to be. Those responses are summarized in Figure 5.

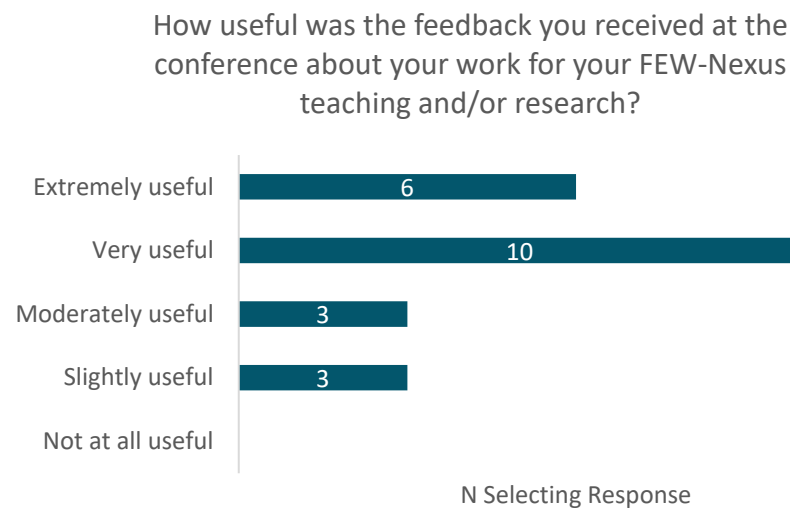


Figure 5: Usefulness of Feedback

Asked how strongly they agreed or disagreed with a number of statements related to conference facilitation and the opportunities provided through their engagement in the conference, almost all agreed or strongly agreed with each item, indicating positive experiences, as shown in Figure 6.

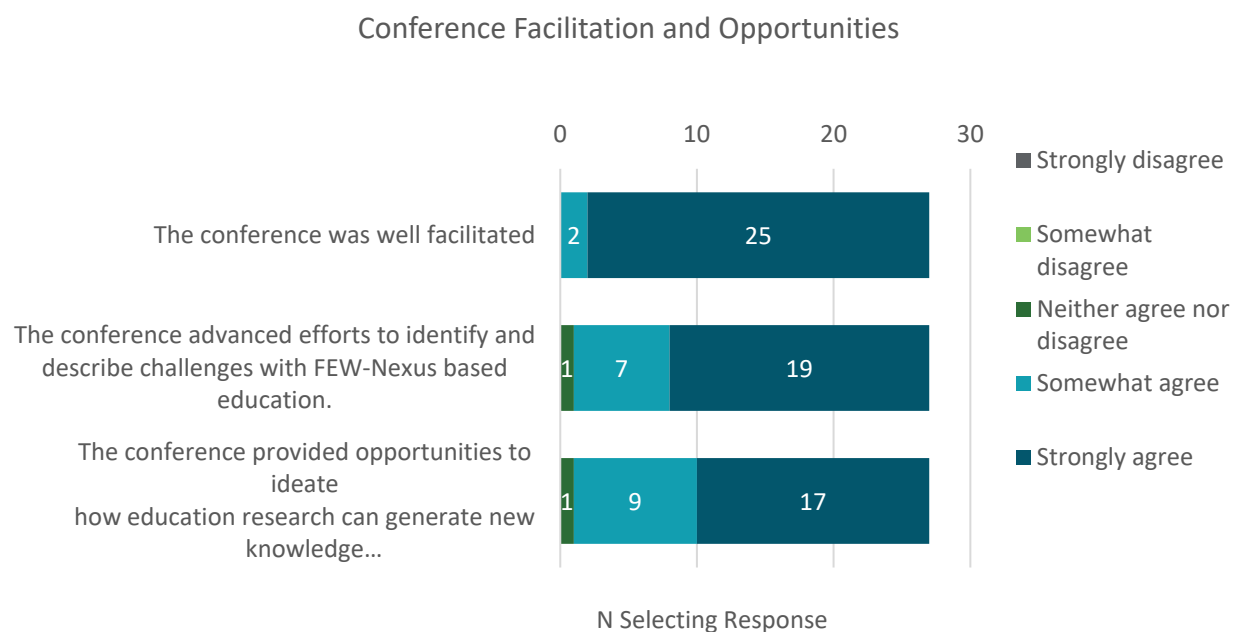


Figure 6: Rating Facilitation and Opportunities

It follows, then, that the majority of respondents indicated that they were Extremely Satisfied with the conference overall in response to the final question as presented in Figure 7.

Overall Satisfaction with the Conference

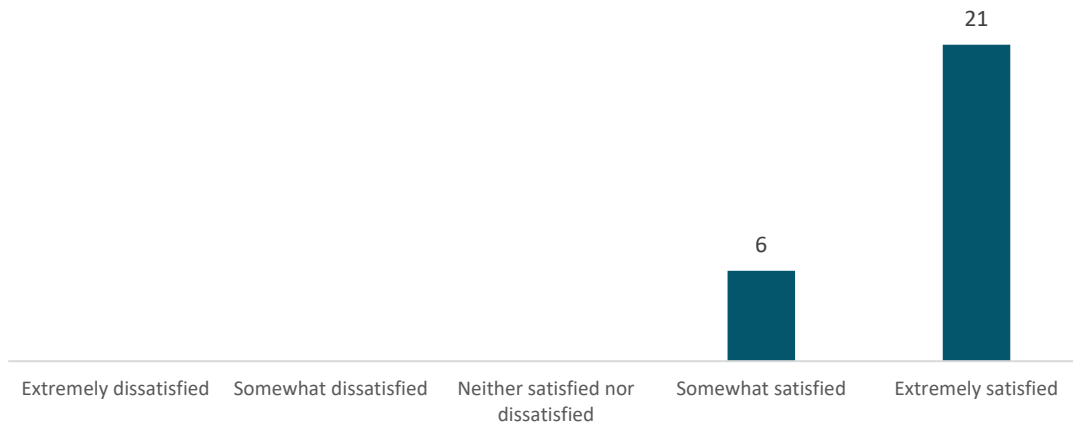


Figure 7: Overall Conference Satisfaction

NC-FEW March 2025 Conference Evaluation⁶

Start of Block: Default Question Block

Welcome to the 2025 NC-FEW Conference Evaluation!

Please reflect on this conference and let us know what worked and what needs improvement. Your input is valuable to us as we plan future events and consider next steps for the NC-FEW community. Your responses to this survey will be kept confidential. You will be asked to provide your name to affirm your consent to participate. This will improve our ability to evaluate the program by allowing us to link information about your workshop experience to your responses to other evaluation instruments. The evaluator will remove your name from the survey results before sharing any data with the project team or for any other purposes.

If you have questions about this survey, the NC-FEW evaluation, or run into any technical problems while responding, please contact Dr. Kerry E Vachta, our evaluator at Carleton College's Science Education Resource Center at kerryv@carleton.edu or 507-222-4209.

For questions about NC-FEW or the purpose of this survey for the organization and how your information will be used, please contact the project PI, Hannah Scherer, at hscherer@vt.edu. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), contact the Institutional Review Board for Research with Human Subjects at Carleton College, c/o Office of the Associate Provost, Carleton College, One North college Street, Northfield MN, 55057; telephone (507) 222-4301.

I have read the information provided above and consent to participate in the survey.

☐ Yes 27

☐ No (If you do not consent, please click the circle next to 'No' before closing your browser. Thank you for your time!)

Skip To: End of Survey If I have read the information provided above and consent to participate in the survey. = 2

⁶ Full text responses to open-ended items are provided at the end of this summary.

Please enter your name and e-mail address. Your response here will constitute your signature affirming your informed consent to participate in the survey.

☐ Full Name _____

☐ E-mail address _____



Please enter today's date in mm/dd/yyyy format:



Email address:

End of Block: Default Question Block

Start of Block: Block 1

Which activities did you attend during the conference?

- ☐ Lightning talks 25
 - ☐ Poster session 27
 - ☐ Break out discussions on funding opportunities 25
 - ☐ Working group sessions 20
-

How satisfied were you with the opportunities to do each of the following:

	Extremely Dissat	Somewhat Dissat	Neither sat nor dissat.	Somewhat Satisfied	Very Satisfied							
	0	10	20	30	40	50	60	70	80	90	100	Mean
Meet new people with shared interests												91.50
Be introduced to new ideas												88.41
Establish new research collaborations												85.11
Learn about research that can inform/improve my teaching												87.37
Identify research questions informed by teaching												79.65

Over the course of the conference, did you make new contacts that could possibly lead to future collaboration?

☐ Yes 23

☐ No 3

During the conference, did you formally share your work as part of the conference (e.g. deliver a lightning talk or poster?)

☐ Yes 22

☐ No 5

Display this question:

If During the conference, did you formally share your work as part of the conference (e.g. deliver a...

How useful was the feedback you received at the conference about your work for your FEW-Nexus teaching and/or research?

- ☐ Not at all useful 0
- ☐ Slightly useful 3
- ☐ Moderately useful 3
- ☐ Very useful 10
- ☐ Extremely useful 6

End of Block: Block 1

Start of Block: Block 2

What aspect(s) of the conference were most valuable for you and why?

What aspect(s) of the conference were least valuable for you and why?

Please rate the extent to which you agree or disagree with each of the following statements.

The conference was well facilitated.

- ☐ Strongly disagree 0
- ☐ Somewhat disagree 0
- ☐ Neither agree nor disagree 0
- ☐ Somewhat agree 2
- ☐ Strongly agree 25

The conference advanced efforts to identify and describe challenges with FEW-Nexus based education.

- ☐ Strongly disagree 0
 - ☐ Somewhat disagree 0
 - ☐ Neither agree nor disagree 1
 - ☐ Somewhat agree 7
 - ☐ Strongly agree 19
-

The conference provided opportunities to ideate how education research can generate new knowledge to address these challenges.

- ☐ Strongly disagree 0
 - ☐ Somewhat disagree 0
 - ☐ Neither agree nor disagree 1
 - ☐ Somewhat agree 9
 - ☐ Strongly agree 17
-

How has the conference impacted the likelihood that you will engage in FEW-Nexus-based education in the future?

- ☐ Far less likely 0
 - ☐ Somewhat less likely 0
 - ☐ No impact either way 1
 - ☐ Somewhat more likely 7
 - ☐ Far more likely 19
-

Prior to the conference, have you participated in any NC-FEW activities or events?

☐ Yes 14

☐ No 13

Overall, how satisfied were you with the conference?

☐ Extremely dissatisfied 0

☐ Somewhat dissatisfied 0

☐ Neither satisfied nor dissatisfied 0

☐ Somewhat satisfied 6

☐ Extremely satisfied 21

Please provide any additional feedback about the conference you would like to share with us in the space below.

End of Block: Block 2

RESPONSES TO CONFERENCE EVALUATION SURVEY OPEN-ENDED ITEMS

Question:
What aspect(s) of the conference were most valuable for you and why?
Verbatim Responses: ⁷
Breakout sessions
Connecting and exchanging ideas with other colleagues; its valuable to find new potential collaborators who can add value to projects.
Connections
discussion about funding
expanding my network with AG communications folks.
Getting to meet new potential collaborators, especially those from other disciplines. There were people there who I would never cross paths with because we don't attend the same conferences or publish in the same journals
I loved talking with other pedagogues! As someone who teaches, but is not formally trained in teaching, as so many people at the conference were, I felt like most people I connected with had really concrete things to share about teaching and that I now have curriculum to use in the classroom and resources to find that can improve what it is I do.
I thoroughly enjoyed every aspect of the conference. I really appreciate the hard work and thoughtfulness that went into organizing this wonderful opportunity, particularly given the deep uncertainty in the funding landscape at the moment. I really enjoyed the lightning talks, and opportunities for both structured and unstructured discussion throughout.
Lightning talks and poster presentations, becuae i got exposed to new research that has been doing by different faculty and graduate students.
Meet new people
Meeting and collaboration opportunities throughout.
Meeting people working on FEW education.
Near my location, funding, calling it an "invited" conference
Networking and learning of different projects and initiatives at other universities. Also, learning more about the FEW Nexus as it relates to secondary school education.
One of the most valuable aspects of the NC-FEW conference was the opportunity to engage with a diverse community of scholars and educators who are deeply committed to advancing systems thinking and socio-environmental education. The sessions provided not only rich theoretical insights but also practical strategies for integrating systems-based approaches into teaching and research. I particularly appreciated the collaborative and interdisciplinary nature of the discussions, which helped me see new connections between my own work and broader efforts in the field. Additionally, receiving feedback and exchanging ideas with others at various career stages was both intellectually stimulating and personally encouraging.
Opportunities to collaborate on work continuing after the meeting - joining paper groups
'--oral presentations --breakout sessions --discussions over meals The small community aspect led to generative conversations. Conference was well-structured and well-organized.

⁷ Responses to open-ended items are presented in alphabetical order in the interest of confidentiality which could be compromised if responses could more easily be linked with one another across items.

Poster presentation , find the fit question.
Presenting my research and gaining feedback from others
Sharing ideas and meeting in working groups to share ideas and discuss topics. I enjoyed the time for discussing posters.
the grant writing opportunity session and the networking part of the conference.
The interdisciplinary nature of the conference allowed me to think outside of the box and expand the possibilities and bounds of my work. I have never experienced such an interdisciplinary space that was related to my work. I also thought the grant writing support workshops were excellent.
The lighting talk and postal presentation, because I was able to share my work and learn about other people's work.
The networking for collaborations.
The opportunity to collaborate and discuss ideas located in the FEW nexus framework.
The opportunity yo share My research interest

Question:
What aspect(s) of the conference were least valuable for you and why?
Verbatim Responses:
All good
Day 2 break out sessions because i am not yet a faculty member and the subjects were pertaining to faculty. This is not a bad thing.
everything was valuable.
I guess the grantwriting things, not because they aren't useful (they are!) but given the current landscape of funding, it was hard to get really excited about that part.
I think the conference can include logistics regarding tea break and lunch to avoid. Or provide water atleast
I would have loved for a collaboration session to be integrated early Friday morning because I think we were all exhausted Thursday afternoon
Least Valuable are... Less time for break out sessions, i felt like we could allocated more time. For instance, evaluation planning cant be done within 45 minutes, it could have been a longer session as i more interested in learning evaluation.
None. All the sessions were valuable to me.
Nothing was invaluable.
Participatent workshop, sometimes I think it writes the target audience may be better.
some sessions were generic and too broad. heard a lot about FEW being important, but not necessarily the work or research by the PIs in this group. The FEW 'education' was the theme; would have liked to know more about FEW topics as well.
Talks could be shorter so more time could be spend conversing and collaborating
Talks with lots of words on the screen were less useful than talks that streamed more fluidly from the presenters.
The break out sessions on the topic of environmental justice felt like it did not have a goal.
The breakout sessions on Day 2
The conversations about research were interesting but there are not as relevant to me except in terms of how research translates to practice. Would like more conversations about that.
The topical and grant sessions were less valuable. Likely to be because of the career stage that I am in. It was interesting to hear colleagues describe and facilitate topics and skills that I teach.
This invited format, targeting researchers with shared/overlapping research and teaching interests was very generative. I cannot identify aspects that were least valuable.
Ways of Knowing

Question:

Please provide any additional feedback about the conference you would like to share with us in the space below.

Verbatim Responses:

Amazing experience. Would love a graduate student networking session next time potentially?

Everything is good

Excellent planning and presentations that were grouped by thoughtful ideas and allowed for discussion afterwards

Having the posters printed here was really good.

How to maintain the few network

I appreciate the diversity of perspectives of participants. Building open structure to have time for colleagues to identify collaborative ideas is key. Thanks for all the efforts in planning the conference.

I hope I can add value to the research work and the collaborators will show an active interest in expanding their networks.

I love the size of this conference and the room available for networking! All of the organizers executed the conference well. They kept us on time and on focus. This conference was a bright light in what seems like dark times for our teaching and research (funding shifts). I want to thank the organizers for their clarity and well-executed ideas!

I would have loved to see maybe a little more on conceptual development of the FEW nexus (current articulations, gaps, areas for future work) but this was a tremendously valuable experience. Thank you all so much!!!

It was a great conference and had a lot of chance to connect with others and learn a lot. Thank you for the great opportunity,

More time together in the future. Maybe "speed dating" or ways for people to rearrange themselves?

My feed back will be that the NC-FEW senior folks/colleagues aspire to nurture and emerging researchers (graduate student) who has interest in driving the FEW nexus. Overall it was a great experience that i had through out the conference, the coordination was top-notch.

None

Thank you all, for everything you do!

Thank you for all the work that was done to bring this group together. It was a meaningful experience.

Thanks

Thanks for sharing food allergies with campus cafe. The food was delicious and also made finding allergy-friendly food less of a worry.

The opportunity to spend time in conversation and build collaborations was very helpful.

APPENDIX 3: PROJECT CONCLUSION SURVEY AND DATA SUMMARY

An exported copy of the Qualtrics Project Conclusion Survey is provided in this appendix. The number of participants selecting each response option is reported in green or, where appropriate, a summary of data including minimum, maximum, and mean response is reported. Consistent with confidentiality assurances provided under IRB regulations, items requesting identifying data are not included. Project team members with IRB authorization have access to the full data set in shared secure project file storage.

Full text responses to open-ended items appear at the end of the appendix although “nothing” and “N/A” responses with no further elaboration are excluded. Note that some responses to open-ended items may include information that could be identifying, but in light of the fact that project leadership are IRB-approved to have access to evaluation data, they are included verbatim. That data should be reviewed and, perhaps, further anonymized in the event that section of the report is shared beyond authorized project team members.



Welcome to the NC-FEW Project Conclusion Survey⁸

Purpose: You are invited to participate in this survey because you have joined NC-FEW and/or participated in NC-FEW programming. This survey is being conducted as part of the external evaluation of NC-FEW by the evaluation team at Carleton College's Science Education Resource Center (SERC). The data collected will provide documentation of NC-FEWs activities and their impact for participants.

Procedures: Members of NC-FEW and participants in its programming are invited to participate in the Project Conclusion Survey. The survey should take about 30 minutes to complete. The information you provide will be used to compare against baseline data collected via the previous Membership Survey to document:

changes in member needs and interests over time,

opportunities for collaboration presented by engagement in NC-FEW, and

success in contributing to the development of FEW- Nexus scholarship and teaching.

Benefits: There is the potential that the information you submit can be used to identify opportunities for a next effort to support FEW-Nexus scholars and educators like yourself.

Risks and/or Discomforts: Risks associated with this survey are minimal and should not exceed those encountered in your daily life.

Confidentiality: Your responses will be available to both the evaluation team and NC-FEW project personnel. Data will be aggregated for use in evaluation reporting and publications. No individually identifying information will be included in any reporting, publications, or disseminated information about the project.

Opportunity to Ask Questions: You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study by contacting the external evaluator or principal investigator (s). Their contact information is provided below.

Freedom to Withdraw: Participation in this project is voluntary. You can decline to participate, skip any item you would prefer not to answer, or withdraw at any time without harming your relationship with NC-FEW, the evaluators, or the researchers, or being penalized in any other way resulting in loss of benefits to which you are otherwise entitled.

⁸ Full text responses to open-ended items are included at the end of this summary.

If you have questions about this survey, the NC-FEW evaluation, or run into any technical problems while responding, please contact Kerry Vachta, our evaluator at Carleton College's Science Education Resource Center at kerryv@carleton.edu or 507-222-4209.

For questions about NC-FEW or the purpose of this survey for the organization and how your information will be used, please contact the project PI, Hannah Scherer, at hscherer@vt.edu

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), contact the Institutional Review Board for Research with Human Subjects at Carleton College, c/o Office of the Associate Provost, Carleton College, One North college Street, Northfield MN, 55057; telephone (507) 222-4301.

I have read the information provided above and consent to participate in the survey.

- ☐ Yes ⁸⁷
- ☐ No (If you do not consent, please click the circle next to 'No' before closing your browser. Thank you for your time!) ⁴

Please enter your name and e-mail address. This constitutes your "signature" on this consent form.

Name

E-mail address

Original Goals

Thinking back to when you joined the NC-FEW community, please tell us about your goals regarding your involvement in the NC-FEW community.

Why did you want to participate in NC-FEW?

How did you anticipate benefiting from participation?

How did you hope to contribute to the community?

What other goal(s) did you have for participating in NC-FEW?

Reviewing the goals you listed above, to what extent has each been achieved through your involvement with NC- FEW?

	Not at all	A little	Somewhat	A lot	A great deal
Your original goals for joining and beginning to participate in the NC-FEW community.	3	1	14	19	24
The ways you hoped to benefit from your involvement with NC-FEW.	3	5	14	17	22
The ways you hoped to contribute to the NC-FEW community.	7	5	13	21	15
Any other goals you had for participating in NC-FEW.	5	3	18	22	11

How would you characterize your abilities with **teaching/instruction**?⁹

	1 (Expert)	2 (Above Average)	3 (Average)	4 (Below Average)	5 (Novice)	Mean
General						
Articulating goals for student learning	25	23	9	0	0	1.72
Identifying and using relevant curricular resources	25	22	10	0	0	1.74
Planning for instruction	29	21	7	0	0	1.61
Identifying and implementing meaningful, student-centered instructional strategies	27	21	9	0	0	1.68
Explaining concepts to students	24	27	6	0	0	1.68
Supporting students' use of evidence to formulate claims about phenomena	19	29	9	0	0	1.82
Helping students connect classroom learning to their daily lives and experiences	29	23	5	0	0	1.58
Designing and using formative assessments of student learning	17	23	14	3	0	2.05
Using evidence of students' thinking (e.g., from formative assessment) to guide instruction	19	20	17	1	0	2.00
Designing and using summative assessments of student learning	14	26	15	2	0	2.09
Providing constructive feedback to students on their learning	20	24	11	2	0	1.91
Writing proposals/securing funding for education program activities	11	16	22	3	0	2.50
FEW Specific						
Articulating goals for student learning	6	28	19	2	1	2.36
Identifying and using relevant curricular resources	7	25	21	2	1	2.34
Planning for instruction	7	28	19	1	1	2.30
Identifying and implementing meaningful, student-centered instructional strategies	10	27	15	2	2	2.27
Explaining concepts to students	7	29	17	1	2	2.32
Supporting students' use of evidence to formulate claims about phenomena	7	28	16	4	1	2.36
Helping students connect classroom learning to their daily lives and experiences	15	25	12	3	1	2.11
Designing and using formative assessments of student learning	6	22	22	4	2	2.54
Using evidence of students' thinking (e.g., from formative assessment) to guide instruction	6	24	23	1	2	2.45

⁹ This item was presented as a side-by-side grid along with the following question. In the interest of space, the data is summarized in lieu of the original question format.

FEW Specific Teaching/Instruction Abilities (cont'd)	1 (Expert)	2 (Above Average)	3 (Average)	4 (Below Average)	5 (Novice)	Mean
Designing and using summative assessments of student learning	4	24	22	4	2	2.57
Providing constructive feedback to students on their learning	8	27	18	2	1	2.30
Writing proposals/securing funding for education program activities	5	16	26	4	5	2.79

How would you characterize your abilities with **education research**?

	1 (Expert)	2 (Above Average)	3 (Average)	4 (Below Average)	5 (Novice)	Mean
General						
Articulating effective research questions	10	26	16	2	2	2.29
Using existing literature to frame and discuss findings from your research	12	27	13	3	1	2.18
Selecting effective research designs	9	23	17	3	4	2.46
Identifying and/or creating instruments that align with constructs and research questions	11	23	14	3	5	2.43
Gathering/collecting appropriate data	14	25	11	3	3	2.21
Using quantitative methods for data analysis	9	23	12	8	4	2.55
Using qualitative methods for data analysis	10	23	13	7	3	2.46
Using mixed methods for data analysis	7	20	18	6	4	2.64
Interpreting and synthesizing findings from data analysis	15	26	8	3	4	2.20
Disseminating your research (presentations, publications, etc.)	18	18	14	4	2	2.18
Using your empirical findings to identify areas for future research	13	21	18	1	3	2.29
Writing proposals/securing funding for education research	10	13	21	6	6	2.73
FEW Specific						
Articulating effective research questions	5	20	19	5	6	2.76
Using existing literature to frame and discuss findings from your research	6	22	17	3	7	2.69
Selecting effective research designs	7	13	23	3	9	2.89
Identifying and/or creating instruments that align with constructs and research questions	7	15	21	3	9	2.85
Gathering/collecting appropriate data	11	12	20	3	9	2.76
Using quantitative methods for data analysis	7	19	13	8	8	2.84
Using qualitative methods for data analysis	9	18	14	7	7	2.73
Using mixed methods for data analysis	7	15	19	4	10	2.91
Interpreting and synthesizing findings from data analysis	11	22	10	3	9	2.58

FEW Specific Research Abilities (cont'd)	1 (Expert)	2 (Above Average)	3 (Average)	4 (Below Average)	5 (Novice)	Mean
Disseminating your research (presentations, publications, etc.)	12	15	17	5	6	2.60
Using your empirical findings to identify areas for future research	9	14	20	3	9	2.80
Writing proposals/securing funding for education research	8	11	20	4	12	3.02

Thinking about your experience, please respond to each of the following items on a scale from 1 to 10 where 1 = "Not at all" and 10 = "To a great extent."

1 2 3 4 5 6 7 8 9 10



To what extent do you consider the NC-FEW community to share your goals, philosophy, and values for FEW-Nexus education	Minimum	3
	Maximum	10
	Mean	8.72
To what extent do you consider yourself part of the NC-FEW community?	Minimum	1
	Maximum	10
	Mean	6.61
To what extent do you believe interactions with the NC-FEW community have helped you become a better educator/teacher?	Minimum	1
	Maximum	10
	Mean	7.09
To what extent do you believe interactions with the NC-FEW community have helped you become a better education researcher?	Minimum	1
	Maximum	10
	Mean	6.51

In what ways have you interacted with members of the NC-FEW community?

	For Teaching/Instruction					For Education Research				
	1 (To a Great Extent)	2 (To Some Extent)	3 (Only a Little)	4 (Not at All)	Mean	1 (To a Great Extent)	2 (To Some Extent)	3 (Only a Little)	4 (Not at All)	Mean
Providing resources to other community members	6	23	12	13	2.59	8	13	16	16	2.75
Obtaining resources from other community members	5	26	16	7	2.46	5	20	20	8	2.58
Learning new strategies that may enhance my work	10	26	13	6	2.27	11	19	16	8	2.39
Helping others learn new strategies that may enhance their work	7	21	18	8	2.50	7	17	17	11	2.62
Finding collaborators for a new project	9	15	16	14	2.65	9	16	14	14	2.62

Who are individuals with whom you collaborate/interact the most on your FEW-Nexus-based education and education research endeavors? This includes individuals at your own institution or other institutions. Please list up to 10. (Please note, we are asking this in order to help identify whether participating in NC-FEW influences the development of participants' professional networks. No identifiable information you submit will be shared publicly.)

	FEW-Nexus Education Collaborators			
	First name	Last Name	Institutional Affiliation	Discipline
Collaborator #1 (Space provided for up to 10 collaborators)				

Participant Background

The last section of the survey includes questions about your professional background and affiliation that will help us understand who has been involved in and served by the NC-FEW project.

In which educational context(s) do you most closely work and/or most strongly affiliate (please select all that apply)?

- ☐ Undergraduate education 38
- ☐ Graduate education 23
- ☐ K-12 teacher education/professional development 16
- ☐ Postsecondary faculty development 7
- ☐ Elementary (grades K-5) students (e.g., curriculum, instruction, assessment) in formal classroom settings 2
- ☐ Middle school (grades 6-8) students (e.g., curriculum, instruction, assessment) in formal classroom settings 6
- ☐ High school/secondary (grades 9-12) students (e.g., curriculum, instruction, assessment) in formal classroom settings 7
- ☐ Youth-focused informal/ non-formal/ public (e.g., museums, afterschool programs, extension, etc.) 13
- ☐ Adult-focused informal/ non-formal/ public (e.g., museums, afterschool programs, extension, etc.) 11
- ☐ Does not apply/Prefer not to respond 0

Please provide your institutional affiliation: _____

Department affiliation: _____

Which of the following best describes your current position/professional role (please select all that apply)?

☐ Professor	15
☐ Associate Professor	17
☐ Assistant Professor	4
☐ Instructor/Lecturer/Adjunct/Visiting faculty	6
☐ Extension Specialist	1
☐ Extension Agent	1
☐ Postdoc	0
☐ Graduate Student	10
☐ Staff	1
☐ Informal/non-formal educator (non-university-based)	2
☐ K-12 teacher	0
☐ Researcher (non-university-based)	0
☐ Administrator (department chair, associate dean, etc.)	3
☐ Other (please specify)	3
☐ Does not apply/Prefer not to respond	2

How many years have you been in your current position?

RESPONSES TO PROJECT CONCLUSION SURVEY OPEN-ENDED ITEMS

Question:
Thinking back to when you joined the NC-FEW community, please tell us about your goals regarding your involvement in the NC-FEW community. - Why did you want to participate in NC-FEW?
Verbatim Responses: ¹⁰
advance in reserch opportunities
Because I enrolled a project related to FEW Nexus.
Because I have research projects related to the food-energy-water nexus
Because this topic is important to my teaching.
Broaden my network for pedagogical reasons
Build a network of collaborators.
Create civic engagement, diversify understanding, engage wirh environmental justice leaders, bring an elder's perspective to current perceptions of reality.
Expanding my knowledge on FEW nexus
FEW topics come up in my teaching regularly. thinking about them more strategically will help.
Graduate student oppportunity to make extra money - I did not formally think about NC-FEW prior to being offered the position.
I am advising a grad student interested in FEW education research
I am interested in the topic.
I am interested in thinking more about how teachers and students can investigate the complexity of FEW issues.
I am part of UMD's Global FEWture Alliance - looking to network with more FEW teachers and researchers.
I am working on the WEF-Nexus framework with application in environmental education programs.
I do research in this area (science education)
I joined the NC-FEW community because of my strong interest in systems thinking and its application in science education. During my master's studies, I conducted a thesis project analyzing middle school science curricula and textbooks in terms of systems thinking characteristics and skills. NC-FEW's focus on the Food-Energy-Water Nexus and complex systems closely aligned with my academic background and interests.
I participated because it gave me a platform where to share my contributions
I personally have research on FEW education
I saw that it aligned very well with my interest in systems thinking, geography, and geology/natural resources"my teaching load.
I teach FEW concepts in my college-level environmental science teaching.
I teach systems thinking in several earth science/geology classes and the FEW model is applicable.
I want to amplify myself in networking, exachanging and collobaration in insights, ideas, policy papers, research projects and funding
I wanted to connect with individuals outside of my discipline who study water, energy, and food-related research problems.
I wanted to connect with instructors who might be interested in the teaching materials I'm developing for a funded project.

¹⁰ Responses to open-ended items are presented in alphabetical order in the interest of confidentiality which could be compromised if responses could more easily be linked with one another across items.

I wanted to expand and improve on my teaching skills. I was also very interested in gaining a more comprehensive understanding of how to apply the 4DEE method of curriculum development to my program.
I wanted to learn about it and potentially use material for one of my classes
I wanted to participate in NC-FEW (National Collaborative for Food, Energy, and Water Education) because it aligns deeply with my commitment to interdisciplinary collaboration and equity-focused education in food systems.
I wanted to participate in NC-FEW because I knew that the feedback that I would receive from both mentors and fellow participants would improve my teaching in an unfamiliar teaching space.
I wanted to participate in the NC-FEW conference because its mission closely aligns with my values as an educator and researcher. My work with Community Science Data Talks (CSDT) centers on helping students and teachers engage meaningfully with local, real-world data “ particularly around environmental justice and community well-being. NC-FEW offers a space where interdisciplinary, justice-oriented conversations are prioritized, and I was drawn to the opportunity to be in community with others thinking across food, energy, and water systems through educational research.
I was active in this field of research, a graduate student, and was happy to be involved, if only on the periphery.
I was invited by scholars I admired and wanted to focus my research around NC-FEW foci
Interest
Interest in the topic
Interest in topics and relevant to my career
Interested in intersectional sustainability challenges food, energy, & water specifically.
Learn more about science education at the intersection of food, energy, and water
Learning more regarding critical zone.
Networking
New area of thinking about my research and relevant for students
Not sure
Professional interest
The FEW nexus has long been a scholarly interest of mine.
The FEW nexus was always something that interested me. At that time, I was a fresh off the first year of my PhD and was interested to learn more about it particularly as an educator in training.
The mission was interesting
The work aligns with my teaching goals, and I was interested in moving into the research space on the topic.
The work relates to my own research and I also wanted to engage with the NC-FEW community
This is the only conference that focuses on connecting Food Energy Water together
To be a part of a grant team.
To be able to collaborate with other around FEW issues.
To better understand how to address local climate issue with students
To expand my network; develop relationships with new colleagues; collaborate on projects; enhance my knowledge of FEW
To further understanding and comprehension of FEWs nexus among students and the general public,
To get an update on FEW research and implementation
To learn about integrating FEW into the courses I teach. Be part of a community engaged with this work.

To learn more about FEW and share my skills and knowledge too.
to learn more about FEWS activities
To learn more about teaching within the FEW Nexus and to find collaborators with similar interests.
To learn more about the FEW Nexus and how to use this framework in my teaching.
To meet and engage with colleagues interested in this topic.
Very closely aligned with NCSCE mission. Many mutual participants.

Question:
Thinking back to when you joined the NC-FEW community, please tell us about your goals regarding your involvement in the NC-FEW community. - How did you anticipate benefiting from participation?
Verbatim Responses:
access to resources
Apart from networking, I was very interested in the knowledge-sharing aspect of the workshop.
Attending Annual Meeting
Awareness about recent tools and methods and possible collaboration
become part of a professional community of learners who are also educators; professional collaboration
By the information in the web site
collaborating and learning from/with others
Collaborations and being part of a community
Collaborations, learning about curricular innovations, and models, meeting people
Connect my graduate student to other experts in her field
Coordination and dissemination.
Engagement with experts in the field.
Expanded network of researchers
Financially, mentorship and community building
find new collaboration for research , develop quantitative models, expand professional impacts
Finding my place in this critical conversation
First, I have keen interest to learn and collaborate; then, I am confidently present myself to wider scholarly network platform.
Grow in my professional knowledge, skills, network, relationships, and collaborations
Growing my network
Having access to up to date literature on the topic, information about webinars and research opportunities
I anticipate in benefiting by enhancing my network
I anticipated benefiting from the survey by gaining insight into how my experiences and perspectives align with broader trends in food, energy, and water (FEW) education.
I anticipated learning more and meeting more people that are also navigating the FEW nexus
I anticipated that being part of NC-FEW would help me deepen my understanding of interdisciplinary systems, especially through exposure to diverse perspectives on holistic and complex problem-solving. I also hoped to learn more about integrating systems thinking into science education in ways that are meaningful for both teaching and learning.
I anticipated that NC-FEW would offer a unique opportunity to learn from others working at the intersection of environmental systems, community engagement, and education. I was eager to receive feedback on my CSDT work “ especially on how to better position students as sense-makers and advocates using localized data. I also hoped to build relationships and explore potential collaborations with scholars and educators engaged in similar efforts.
I benefited significantly by having the time to revise and expand upon a course project I had assigned in the past, this time with the feedback of participants, mentors, and time. By using the 4DEE

framework I could see where previous iterations of the assignment lacked in communicating certain dimensions, in my case, ecology.
I expected to make some valuable connections and also be able to report this as outreach to my sponsor.
I hoped to learn from FEW and 4DEE experts. I was also excited about connecting with other environmental science and ecology professor/professionals that wanted to work on their 4DEE pedagogy.
I learned many research and researchers.
I met people across multiple disciplines who are interested in this work
I thought the working groups and seminars would be interesting
I was hoping to meet folks from interdisciplinary environmental programs, and learn from/with them
I was looking for peer input on my FEW teaching strategies.
I wasn't sure, but primarily learning about research.
I would keep abreast of advances in the community.
improve network relations
Keeping up on research & activities in this space
Learn about other examples for applying FEW in teaching mostly.
Learn of research teams, topics, and funding opportunities related to food, energy and water. I wanted to network with others.
learning
Learning about community and resources.
Learning and connections
Learning more about grant writing and learning more about an important environmental education topic.
Learning more about the FEW nexus and thinking with others about ways to engage with students around these topics.
Learning more FEW related scientific knowledge that benefits to community development
Learning new pedagogical strategies and sharing my own.
Meet more people across the country who teach FEW
Meeting people, collaborating and developing curricular ideas
My research is collaborative and I am always looking for more connections
Networking
New Learning
One of the first things I did was work on a collaborative grant proposal—it didn't end up moving forward but there was a lot of potential for further possibilities.
Previous wef Nexus work
Research, publications, new teaching materials, making research relevant to students
Results may be interesting
That I make connections with other practitioners to share best practices and also researchers to learn how to translate research to practice.
Through participating in conferences, workshops, meetings and scientific writings. Passionate, understanding and diligence helped hugely.
To gain knowledge, best practices and connections within the community.
To get ideas for classroom teaching and have an opportunity to collaborate with those who are investigating ways to teach about the FEW Nexus.

To meet and collaborate with others.

Working with a team on a grant.

Question:

Thinking back to when you joined the NC-FEW community, please tell us about your goals regarding your involvement in the NC-FEW community. - How did you hope to contribute to the community?

Verbatim Responses:

I enjoy sharing my research experiences at academic events and in papers. I can also collaborate on research proposals.

Add expertise to projects

Advance FEW education

Announce our symposium, webinars, and other activities

As a listener and as a participate in an NSF funded grant and at the recent 2025 conference.

being a collaborator to shape visions for NC-FEW education K-12

By providing feedback during/after the EER sessions

Co-author on my graduate students research reports

Collaborate and engage with people working on similar areas

Collaborating in Interdisciplinary research project

Collaboration with FEW researchers and presenting significant findings from my research

Collaborative opportunities

Continue to learn about different contributors and grow my network, learn about environmental aspects of FEW and how I can improve my life personally to help the planet

contributing with work in tribal communities

Co-work with communities and appreciative of diversity and knowledge embedded in individuals.

didn't have expectations

Expand awareness to Spanish speaking communities and provide grant writing

For the time being, passively observing.

I expected that the materials would be of interest to people in the community and that they would be interested both in using the materials and learning about how they were made.

I had the opportunity of sharing my teaching strategies with the benefit of receiving feedback from my peers.

I have a lot of projects and funding and was hoping to support others seeking funding and wanting to collaborate. I am very interested in helping early career academics in this space

I hope to collaborate with the other scholars who are like minded to deep dive further research

I hope to contribute by share the work I do and incorporating others work into the building of tools to support learners around local FEW issues.

I hoped to contribute by sharing insights from my curriculum analysis on how systems thinking is (or is not) represented in middle school science education. I also aimed to engage in discussions that connect educational research with the broader goals of fostering systems literacy through FEW-related content.

I hoped to contribute by sharing my CSDT project, which engages students in analyzing local well-water quality data within a rural agricultural community. Through this work, I aimed to model how community science can be integrated into classroom instruction in ways that promote data literacy, student agency, and advocacy. I wanted to offer practical insights into how teachers can position students as question-askers, analysts, and public communicators, while also raising critical questions about who is most impacted by environmental issues “and how educational spaces can respond.

I hoped to contribute from my own background in education research

I hoped to contribute to the community by sharing insights from my work at the intersection of food systems, equity, and community-based education.
I hoped to share the work I have been doing in the K-12 space and grow the edges of that work with other folks in the community
I only attended on conference, but I wanted to be able to disseminate findings about my Ag Issues course and how students are learning systems thinking.
I shared how early care and education is involved in agricultural literacy and local food distribution in the United States. We usually focus our research on K-12 and higher education, so we have expanded our research to a population that is understudied and usually shows interest in learning about food, nutrition, and agricultural production.
I wanted to contribute from my background, K 12 background, to the others' experience.
I wanted to have a chance to share what I had been doing with FEW and 4DEE already and provide ideas and insights I had gained over the years to other folks.
I was not really allowed to, I signed up for several working groups but was told my background did not match what they wanted
In terms of contributing to the FEW, I tried to provide timely and detailed feedback and contribute to our synchronous sessions. Having made my exercise publicly available on QUBES, I hope that it proves as a useful starting point for a wide ranging group of educators and that they can repurpose the material to serve the circumstances at hand.
My experience in introducing systems thinking, tools, and models to undergraduates.
Not interested at my current capacity, but with new funding or initiatives this is a useful network.
Not much, I fear. I have attended one workshop and I try to keep up with the newsletter but the PhD years as they progressed have felt overwhelming so far.
Not sure.
Offer what I've learned and show that it's fairly quick and easy to bring in a tool kit of basic systems tools that students may be able to apply beyond a specific class/course.
Opinions
Participation in NC_FEW events/groups/committees.
professional collaboration and sharing my disciplinary background and research area
Provide my research skills and ideas.
Providing materials and access to students
Providing my expertise as a geologist and educational psychologist.
Raise awareness of NC-FEW in the NCSCE networks.
same as above
Share resources when needed.
Sharing knowledge; collaborative projects; potential grant proposals and publications
Sharing my own work in this area, collaboration on projects
support with quantitative and qualitative analysis
Supporting them with research collaboration
That I could share my approach to teaching the FEW Nexus with other practitioners and collaborate on curriculum design based on best practices.
The way I am planning to contribute is looking opportunities and invitation at NC-FEW.
through my experience teaching FEW concepts and as an environmental social scientist, to possibly collect/analyze data
Through the results of my research projects in Colombia

To continue sharing my ideas
To share my ideas and the work I have done in the FEW Nexus.
To share my perspective and experience in teaching nexus concepts.
To share the work I have been engaged with connected to this topic.
To some extent within my boundary

Question:

Thinking back to when you joined the NC-FEW community, please tell us about your goals regarding your involvement in the NC-FEW community. - What other goal(s) did you have for participating in NC-FEW?

Verbatim Responses:

Advance Interdisciplinary Knowledge, Build a Professional Network,, Improve Teaching and Curriculum Design, Engage in Research and Scholarship, and Contribute to Societal Impact

Another goal was to build connections with scholars who are also exploring systems-based approaches in education, and to collaboratively develop strategies for promoting holistic understanding among students. I was also interested in exploring potential collaborations and sharing methodologies related to curriculum analysis and instructional design.

applied multidisciplinary research

Attend webinars and other presentations.

Build community.

Career growth develop, deepen understanding of FEW and its application and gain knowledge that strengthens teaching and learning

Collaboration and networking

Collaboration mainly

Communicate research findings

Connections and shared community

Continue to understand the FEWS-Nexus learning space, and the potential ways the concept could be leveraged for better instruction and research opportunities

Developing a professional network

Developing my research agenda.

Engaging with other colleagues from different disciplines helps me grow professionally

Find cooperation.

Following specific people in the community & the work across levels

How bring into formal and informal education spaces at the HSI 2YC where I am faculty.

I aimed to explore opportunities for future collaboration, especially around co-creating inclusive, systems-based approaches to food, energy, and water education.

I have a dream to be an impactful NC-FEW member/Fellow.

I thought there would be an opportunity to further collaborations

I want to bring NC-FEW to S. Colo water leaders

I wanted to connect with other researchers and practioners in the FEW space and to learn how to better engage students in systems thinking

I wanted to have conversations after the listserv and conference. I have connected with others via email and meetings and then delivered an online presentation to college students.

I wanted to make FEW the theme on my environmental science courses.

I was hoping to use the knowledge gleaned from this network to think about my research question.

Iâ€™m interested in learning more about how others are supporting teacher learning in relation to FEW systems and community science, and how different contexts approach cross-sector collaboration. I also see this conference as a space to explore how my research â€” particularly around discourse, spatial justice, and student reasoning â€” can contribute to broader systemic conversations about equity, sustainability, and the role of education in community transformation.

identify specific topics and create a plan to meet and discuss

Learn more about how others approach teaching FEW and doing research on FEW education
Learn more about what others are doing.
learn new skills
Learning how to assess ways that using the FEW nexus engages students to learn course content and relevance
Lending support to issue focused STEM learning.
Maybe to meet some potential collaborators and like-minded individuals!
Meet like-minded folks – people interested in thinking about thinking, thinking about teaching.
Networking
Networking
networking and partnerships with other faculty doing similar work.
networking and sharing
Networking, job seeking
Nothing well defined. I was on the periphery, as I was busy with other things.
Publication promotion
Recruit new students to our program
Research collaboration
Stay professionally current on interdisciplinary work
summer salary ;)
To learn more about the nexus
to make friends and have fun
To meet new people that I can potentially collaborate with and write a grant.
To work with researchers to learn how to translate research to practice.
Understand how FEW can be integrated into policies