

ASTC Connect: Expanding Roles for Youth in Informal Learning Environments

Evaluation Memo

Institute for Learning Innovation

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Introduction

Higher education institutions are more frequently turning to online learning in order to maximize impact, provide greater flexibility, increase access, and educate a broader audience. According to the *2011 Sloan Survey of Online Learning*, nearly 6.1 million students enrolled in online classes during the fall of 2010; a 10 percent increase over the number reported the previous year.¹ Educational online resources are expanding beyond delivering courses to providing venues in which members of professional communities of practice meet to exchange problems, ideas, and questions.

With tighter budgets and a higher demand for advanced learning opportunities, online professional development has rapidly come into widespread use within the past few years. Institutions and professional organizations incorporate collaborative platforms such as discussion boards, forums, or wikis, thereby encouraging and facilitating interaction, widening access, and bringing a broader scope to learning communities.

As a means to provide professional development to a wide audience of ISE professionals, the National Center for Interactive Learning (NCIL) at the Space Science Institute (SSI) developed The *Expanding Roles for Youth in Informal Learning Environments* ASTC Connect session. The forum discussion was held online from September 21-27, 2011 and was moderated by Sasha Palmquist and Wendy Hancock. Contributors—those who had previous experience or expertise—were asked to participate and share experiences with the group. The collective group of moderators and contributors is referred to throughout this report as “facilitators.”

Description of Discussion Forum

The forum discussion developed as a way to address one of the aims of the Asteroids project: to reach out to the broader field of informal science educators to increase science communication skills, practices, and resources. The topic for the discussion was chosen based on the Asteroid Team’s previous experience in creating programs with youth through the Student Asteroid Team (SAT) program, where the team spent two years working with youth to create exhibit components for an upcoming traveling

¹ Babson Survey Research Group and Quahog Research Group, LLC (2011). *Going the Distance: Online Education in the United States, 2011*. Retrieved December 1, 2011, from <http://www.onlinelearningsurvey.com/reports/goingthedistance.pdf>

exhibit: *Great Balls of Fire: Comets, Asteroids, and Meteors*. The ASTC Connect platform was selected for this professional development outreach activity because it was an easy to access interface for a broad sample of ISE professionals who might benefit from this opportunity. In addition, there was no monetary cost associated with participation in this professional development activity.

ASTC Connect is a closed community, meaning that those who wanted to participate in the forum were required to sign up on the ASTC Connect website and request participation in the group. Only those who had registered could participate or have access to the posts.

Each weekday of the forum began a new youth-based discussion thread posted by the session moderator. The following were the four discussion topics introduced each day of the session:

- Defining current youth roles in informal science experiences--Programs for youth, by youth, or with youth?
- Describing goals of youth programs--Implications for youth and adults engaged in these experiences.
- Measuring impact--What are current methods capturing?
- Getting the word out--How do we disseminate findings more broadly?

A total of 25 resources were posted to the forum over the seven days of active discussion. Resources included PDFs and web links to articles, multimedia (videos created by youth-centered programs), conference presentations, reports, and websites related to the discussion and posted session moderators.

Evaluation Questions

The evaluation sought to address the following questions:

- Who participated in the ASTC Connect discussion forum?
- In what ways did participants choose to participate in the discussion forum?
- What was the perceived impact of the discussion forum for participants?
- How did ISE professionals learn how to enhance exhibit and program development using youth advisors?
- How did ISE professionals develop science communication skills, practices, and resources through participation in the ASTC Connect session?

Methods

A web-based questionnaire hosted by Qualtrics was used to gather data from participants who took part in the discussion forum. The online questionnaire consisted of 13 close-ended questions and 5 open-ended questions designed to answer the evaluation questions. The questionnaire was sent out via email to each of the participants beginning October 3, 2011, and was open to participants for three weeks with weekly reminders to participate.

Researchers followed the discussion threads in real time, and introduced themselves and their role in the project to the entire group as a way to maintain transparency and highlight that the forum would be evaluated. Researchers also conducted a thematic analysis of the discussion threads to identify themes

that aligned with the program’s intended outcomes. Two key themes emerged from this analysis: science communication skills, practices, and resources as well as exhibit and program development using youth advisors.

Findings

In total, 110 people participated in the *Expanding Roles for Youth in Informal Learning Experiences ASTC Connect* forum, 8 of which were facilitators. The forum included 99 postings from both participants and facilitators. A third (32%, n=37) of the total participants responded to the online questionnaire.

Over half of the respondents (58%, n=21) identified as educators, 42% (n=15) as evaluators, and 22% (n=8) as researchers. One third (30%, n=11) of the respondents identified with more than one category.

Table 1. Which of the following areas describe your role in the field? (n=36)*

	n	Percent
Education	21	58%
Evaluation	15	42%
Research	8	22%
Exhibits	7	19%
Volunteer Management	4	11%
Other	2	6%
Administration	1	3%

*Multiple responses allowed. Percents equal more than 100%.

The majority of respondents (62%) indicated that they were first-timers to an online discussion forum. A little over a third (37%, n=13) had previously participated in an online discussion or forum. Of those who had previously participated in such a forum, nearly three-quarters (69%, n=9) had participated in another ASTC Connect session, with the CAISE Forum having been attended the most—with 6 participants indicating that they had attended the CAISE Forum.

Table 2. Previous Participation in Other Sessions

	n	Percent
Previous Participation in an Online Discussion or Forum (n=34)		
Yes	13	37%
No	21	62%
Previous Participation in an ASTC Connect Activity (n=13)*		
Yes	9	69%
No	4	31%

* Of those who had indicated previous participation in an online discussion or forum.

Participation in the Session

The evaluation sought to understand the range of participation in the session. About half (47%, n=17) of the respondents to the questionnaire indicated that they had contributed at least one post, which is representative of the actual posts contributed to the forum (Table 3).

Table 3. Contributions to the ASTC Connect session

	Online Questionnaire (n=36)		Actual Posts (N=110)	
	n	Percent	Total N	Total Percent
Contributed at least one post	17	47%	54	49%
Did not contribute at all	19	53%	56	51%

When examining posts from the forum, about half of the 99 total posts (53%, n=52) were introductions and included the individual’s name and which discussion topic seemed most interesting. Many introductions also included place of employment as well as job title, and some included a description of why their work related to the forum topics. Both participants as well as those helping to chair the session were active in posting throughout the forum with 65% of the posts coming from the participants, and 35% of the posts coming from the facilitators.

Table 4. Description of Actual Posts (Total # of Posts=99)

	Count	Percent
Type of Post		
Introductory Post	52	53%
Topic Discussion Post	47	47%
Who posted		
Participant	64	65%
Facilitator	35	35%

When asked how they heard about the forum, half of the participants (50%, n=18) indicated they learned about the forum through a colleague and 44% (n=16) heard about the session from the ASTC Listserv (See Table 5). A handful became aware of the forum through the ASTC Website (11%, n=4). Other responses included “AFGU listerv” and “received an invitation email.”

Table 5. How did you hear about the forum? (n=36)

	n	Percent
Colleague	18	50%
ASTC Listserv	16	44%
ASTC Website	4	11%
Space Science Institute Listserv	0	0%
Other	2	6%

*Multiple responses allowed. Percents may add up to more than 100%.

The majority of participants accessed the forum primarily through email with each individual post (72%, n=26), and only 11% (n=4) accessed the discussion primarily directly from the ASTC Connect website (Table 6). In order to determine participant motivation, respondents were asked to identify their primary motivation for participating in the ASTC Connect session. Respondents indicated that they were motivated to participate in the forum as a professional development opportunity, as an opportunity to reflect on the ideas and perspectives of others, and because the topic relates to their work (Table 7).

Table 6. How Participants Accessed the Discussion (n=36)

	n	Percent
Emails with each individual post	26	72%
Daily digest email (a condensed version sent out at the end of each day)	6	17%
ASTC Connect website	4	11%

Table 7. Primary Motivation for Participation (n=36)

	n	Percent
Professional development opportunity	12	33%
Opportunity to reflect on the ideas and perspectives of others	10	28%
The topic relates to my work	8	22%
Personally interested in the topic	3	8%
Opportunity to articulate ideas on a topic and receive feedback	2	6%
Networking opportunity	1	3%

Respondents to the questionnaire were asked about their overall participation in the forum and given the following choices: “followed most of the discussion,” “followed some of the discussion,” and “followed little to none of the discussion.” Over half of the participants indicated that they “followed some of the discussion” (58%, n=21) and a third of the participants indicated that they “followed most of the discussion” (33%, n=12). Only 8% (n=3) followed little to none of the discussion. Table 9 shows the reported level of participation for those respondents who did not contribute a single post to the forum. The majority of participants who did not contribute a post to the forum reported following some or most of the discussion, which indicated that while participants did not actively post, they did remain engaged with the session.

Table 8. Reported Overall Participation in the Forum (n=36)

	n	Percent
Followed most of the discussion	12	33%
Followed some of the discussion	21	58%
Followed little to none of the discussion	3	8%

Table 9. Reported Participation in Forum by those who did not contribute (n=19)

	n	Percent
Followed most of the discussion	5	26%
Followed some of the discussion	11	58%
Followed little to none of the discussion	3	16%

Those who indicated following “some of the discussion” or “little to none of the discussion” were asked an additional question to determine the reason that most affected their participation in the forum. Overwhelmingly, the participants chose “time constraints” (98%, n=23) as their main reason. The one person who indicated “other” stated that they joined the forum late, and thus were only able to follow part of the discussion.

Table 10. Reason for Following Some or Little of the Discussion (n=24)

	n	Percent
Time constraints	23	96%
Only followed things that pertained to my interests	0	0%
Technical difficulties	0	0%
I had different expectations for the forum	0	0%
Other	1	4%

Participants reported a range of contributions to the session. Of those who reported contributing to the forum, nearly half participated in active dialogue with other participants (43%, n=6) as well as shared their expertise with the group (43%, n=6). A third reported posing questions to the group (36%, n=5). Most of the participants who selected “other” described contributing an introductory post.

Table 11. How did you contribute to the ASTC Connect session? (n=14)*

	n	Percent
Participated in active dialogue with other participants	6	43%
Shared my expertise with the group	6	43%
Posed questions to the group	5	36%
Shared related resources with the group	2	14%
Other	6	43%

*Multiple responses allowed. Percents may add up to more than 100%.

What did Participants Gain?

On average, participants in the session reported increased interest in all four of the discussion topics following the session. Participants were asked to rate their interest in the main discussion threads of the forum on a scale from 1-7 where 1=Not Interested at all and 7=Extremely Interested. Participants rated their interest in the topic about “Measuring Impact” the highest both before and after the forum. This pattern suggested that participants have continued interest in best practices for how to document and communicate the impacts of youth programs. The topic “Describing goals” received the highest change score. This finding indicated that the discussion had produced increased interest in articulating outcomes for both youth and adult staff engaged in these kinds of programs.

Table 12. Interest in Topics Before and After the Forum

	Before			After			Difference
	n	Mean	Std. Dev.	n	Mean	Std. Dev.	
Measuring impact--What are current methods capturing?	35	5.51	1.44	35	5.83	1.20	+0.32
Describing goals of youth programs--Implications for youth and adults engaged in these experiences.	35	5.20	1.28	35	5.74	1.07	+0.54
Defining current youth roles in informal science experiences--Programs for youth, by youth, or with youth?	35	5.20	1.41	35	5.54	1.07	+0.34
Getting the word out--How do we disseminate findings more broadly?	34	4.35	1.50	35	4.80	1.28	+0.45

Of those who responded to the question, “What do you feel you gained as a result of participating in the session?” nearly all reported feeling that they gained an opportunity to learn from others in the field and to understand the “breadth of knowledge” related to the topic. One participant, like many others, reported gaining, *“A better sense of what else is going on in the field and the issues that resonate across multiple projects.”* Another participant stated, *“Hearing the perspectives of a few others who are thinking about similar issues; the chance to reflect on my own practice and thoughts on the field.”*

Several participants commented specifically about gaining new perspectives on youth programming with one participant stating, *“I learned about some very interesting STEM projects for youth. I also appreciated hearing about the range of goals and youth roles people have considered in their programming.”* Another reported feeling that she came away with new ideas about how to frame youth programs at her institution by saying, *“I found myself challenged to consider multiple ways in which my work and the whole of my center could embrace youth as more than mere consumers (of programs, volunteer opportunities, etc) and engage youth in producing the work of the center.”*

Exhibit and Program Development Using Youth Advisors

The second day of the forum launched discussion threads about utilizing youth advisors in exhibits and programming that revolved around relationships, roles, communication, youth ownership, and expectations. The prompt for this discussion was posted as follows:

There are many ways that youth programs can be categorized. One way, is to group them into bins that reflect youth roles. I've suggested three labels for us to think about: FOR youth, BY youth, and WITH youth.

Do your experiences with youth programs fit into these bins? What additional categories might we need to create?

In response to this prompt, participants shared examples from their own programs, and asked questions of others about their experiences. Many brought up challenges of working with youth, and discussed the importance of having clear roles and expectations in place. One segment of the discussion focused on whether “responsibilities define the relationship” or whether “relationships define responsibilities” when working with youth. Others wrote about how youth programming sometimes fit into all three categories of for youth, by youth, or with youth, with one participant stating, *“We should consider the opportunity to develop programs that include all three categories (FOR, BY and WITH youth).”*

This discussion resonated with many participants and emerged in response to multiple evaluation questions. For example, when asked how participants might use the information from the forum in their own work, many of the respondents felt that they were introduced to new ideas or that their existing concepts and approaches about working with youth were reinforced. In particular, these responses focused on the importance of creating programs not only for youth, but also with youth. One participant commented that, *“The idea of seeing youth as co-creators and how that might be developed is one of the main things I gained.”* Another commented that the forum helped her to gain skills to talk about the importance of youth engagement in her own work, *“I am better prepared to articulate the enhancement to be added to a project when youth participate as workers as well as when they are visitors.”*

Science Communication Skills, Practices, and Resources

The *Expanding Roles for Youth in Informal Learning Environments* ASTC Connect session aimed to develop ISE professionals’ science communication skills, practices, and resources. Analysis of discussion threads indicated that participants engaged in several conversations that touched on science communication skills, practices, and resources throughout the session. During one of the days of the session much of the discussion revolved around assessment, evaluation, and measuring learning within youth programs. Participants shared the challenges of relying on certain methods, as well as understanding which audiences to focus on when conducting evaluation. In referencing the methods used in a particular program, one facilitator shared:

We often use questionnaires (with lots of open-ended questions) to gather data to measure whether the participants have developed new content knowledge in astronomy or new image processing skills. Then we compare these data to the results of the questionnaires used to measure their perception of having acquired new content knowledge or skills. Both are meaningful impacts that a program may want to achieve. Though outcomes of the two questionnaires can be very different and even in contradiction, by evaluating them together we can learn a lot about what’s working or not in a program.

Participants also discussed which audiences provide the most reliable results. One participant posed the question:

So, I am wondering: Who do we talk to when measuring impact? The youth participants (of course) but when? and how often? In the article “Connecting Youth to High-Resource Adults” the authors suggest also collecting feedback from the visitors that youth interact with as was suggested earlier in this forum. Or perhaps we should also talk to the families who while not directly present can observe many of the effects of the program outside of the museum setting.

To which the moderator responded:

Thank you for pointing out the challenges in identifying which data sources to include in evaluation activities. In my experience, choosing who to talk with is most often determined by the core questions that the evaluation / research is trying to address.

This example shows that participants felt comfortable communicating with others about scientific practice and asking questions to the group. One feature of the discussion that may have encouraged questions from participants was the response time. Facilitators were active and available to answer questions throughout the session and participants did not hesitate to share their experiences.

Out of the 25 resources provided, most participants reported accessing 1 to 3 of the available resources (Table 13). A few reported not accessing any of the resources, and a few reported accessing 4 to 6 of the resources. No one reported utilizing 7 or more resources. When asked which resources were most helpful, the answers varied for each person, but included the video of a young man about his participation in a program, past evaluations, and articles on best practices. One participant suggested finding a way to “automatically post other articles that we’ve found, or create a group for continued article sharing.” A couple participants noted that they had saved all of the resources and that they planned to look back through them at a later time.

Table 13. How Many Resources did you Access? (n=35)

	n	Percent
None	6	17%
1-3 resources	23	66%
4-6 resources	6	17%
7+	0	0%

Throughout much of the forum, participants referred back to available resources posted by the moderator, and also provided links or references to additional resources to add to the discussion. At times, participants had discussions related to the literature base and clarified, referenced, and linked to resources known within the field.

As an example, one participant made a reference to the literature suggesting that high school may be too late for students to be introduced to STEM topics. A contributor cited the paper and clarified some of the arguments. In response to the contributor, the first participant said,

Thanks for urging us all to re-examine the literature base! I went to my files and found that indeed the citation I was thinking of was Tai, Liu, Maltese, and Fan, 2006. I'll re-read it and look up the 2008 study too. And I completely agree that we need to be broad in our definition of what is a STEM-based academic track/career. It's not just about the PhDs.

When asked which resource mentioned in the forum was most applicable to their work, several participants mentioned the youth video from the MIT YAA program, where a 17 year old student reflects on a video made of himself as a 14-year-old when he had first enrolled in the program. One participant said, “There was a video interview of a participant in the MIT youth program which was very powerful. The video provided us with a focal point during the discussion, and has also proved to be good food for thought in general. I have twice now found myself thinking about it or describing it to colleagues (particularly his change in perspective about what he wants to do with himself).” Others mentioned that they felt that the mix of both research articles as well as examples of what others were doing was most

helpful, with one person stating, “I liked that it was a combination of research articles and also examples of what people are doing at their sites.” A few mentioned that they have saved all of the resources, and will review them at another time with one individual stating, “I have put all the resources into a file for future reading. This just happened to be a busy few weeks.” One person felt that the participant introductions were the most valuable resources.

Suggestions for Improvement

About half of the participants had suggestions for improvement. Most of the suggestions related to feeling overwhelmed by the amount of information or emails that were produced through the session or feeling like there wasn’t enough time to digest all of the information that was presented.

“I wish I had cleared more off my calendar so I could have participated more. There was so much information in such a short time that I felt I was not able to keep up with the conversation.”

“More time may be needed for a dispersed, asynchronous forum like this to really generate discussion. A clear setting of the expected commitment for participation and involvement from the outset may also be important.”

“I live in Alaska, which is 4 hours behind the east coast. By the time I got to work, most people were done with discussions for the day. In the future it might make sense to have an east coast and a west coast discussion. I would arrive to work with 60 emails and I know by the time I responded, most people were off work and either read it the next day or ignored the posting.”

A few who commented praised the organization of the session, as well as the ease of following the threads of discussion.

“It was well organized and easy to follow even for those who were not able to participate much during the interactive portions.”

“I think the forum had a good organization and flow as well as a good scope for five days.”

Discussion and Recommendations

The *Expanding Roles for Youth in Informal Learning Experiences ASTC Connect* forum evaluation was designed to investigate five main questions. The following discussion highlights the main findings from each of the evaluation questions.

Who participated in the ASTC Connect session?

- The session succeeded in reaching the target audience of informal science education professionals. The majority of participants self-identified as either educators or evaluators.
- Advertising for this session through listservs (ASTC, AFGU, VSA, CAISE) and websites was an effective method to reach the intended audience. However, given that most of the respondents heard about the session through a colleague, word of mouth was also critical to the relatively large enrollment in this discussion. Future advertising could utilize additional professional social media platforms (Facebook, Twitter, LinkedIn).

In what ways did participants choose to participate in the ASTC Connect session?

- Overall, both those who posted to the session and those who did not post reported following the discussion on some level, which shows that while participants may not actively post, they may still be engaged in reading and following the discussion. Future professional development opportunities using a similar platform should consider providing alternative ways to engage in the conversation for those who do not post comments or questions. These mechanisms for participation might include embedded polls that could spark discussion based on an aggregate of responses or comment tagging.
- While the participants contributed the majority of the discussion posts, the facilitators played a large role in guiding the conversation throughout the session and provided their expertise when other participants posed questions and concerns to the group. As such, the facilitators acted as “experts” to the group and helped to shape meaningful discussion among participants.
- Time constraints posed the largest barrier for participation. While the majority reported following *some* of the discussion, few followed *all* of the discussion. As most of the participants received each post individually by email, the quantity was overwhelming at times, especially during popular topics. In addition, the long length of posts contributed by some participants to the discussion left others feeling intimidated by the amount of information. Establishing group norms about expectations for the volume of emails, the digest options for the discussion, and the length of posts may help to address some of the concerns related to information over-load.

What was the perceived impact of the session for participants?

- Most participants viewed this as a professional development opportunity. Participants enjoyed learning from other professionals and gained a greater understanding of the challenges and opportunities of youth programming.
- Participants increased their interest in all of the discussion topics. The topic “measuring impact” was the rated highest both before and after the forum, and “describing goals of youth programs” increased the most in interest. Future professional development sessions could include these topics as there is demonstrated interest among the community of ISE professionals.

How did ISE professionals learn to enhance exhibit and program development using youth advisors?

- Many of the participants had previously been a part of youth programming on some level, but few had participated in programs with youth as co-creators. Overall, the discussion largely emphasized the rewards and challenges of utilizing youth as co-creators in programming.
- Participants reported planning to review their programs to find ways to better integrate youth. Future professional development topics that may be of interest to this audience include understanding how to create a program with youth advisors as well as understanding how to measure impact.

How did ISE professionals develop science communication skills, practices, and resources through participation in the ASTC connect session?

- Discussions were relevant to participants as demonstrated by their questions and contributions to the session. Participants indicated that after they had engaged in this session they had improved their ability to articulate and measure the impact of youth programming—critical

communication skills. In addition, reflections on case studies and conversations with colleagues provided opportunities to refine practice around youth programming.

- Although many resources were made available, participants accessed only what they felt were the most relevant resources including previous evaluation studies, research, and case studies related to youth programming. The discussion also provided opportunities to share resource highlights and in some cases clarify the interpretation of findings. Providing several different types of resources was an effective strategy to increase the utilization of these materials. This approach should be replicated in future discussion sessions.

Appendices

Appendix 1 Instrument



Thank you for participating in the Expanding Roles for Youth in Informal Learning Experiences: ASTC Connect discussion! We hope that you enjoyed learning with us. Please complete the following questions to help us improve the forum experience.

What was your primary motivation for participating in the ASTC Connect session?

- Professional development opportunity
- Networking opportunity
- Opportunity to reflect on the ideas and perspectives of others
- Personally interested in the topic
- Opportunity to articulate ideas on a topic and receive feedback
- The topic relates to my work
- Other _____

How did you access the ASTC Connect discussion?

- Emails with each individual post
- Daily digest email (a condensed version sent out at the end of each day)
- ASTC Connect website

Which statement best describes your overall participation in the forum?

- Followed little to none of the discussion
- Followed some of the discussion
- Followed most of the discussion

Which reason most affected your overall participation in the forum?

- Only followed things that pertained to my interests/my job/etc
- Time constraints
- Technical difficulties
- I had different expectations for the forum
- Other _____

Did you contribute at least one post to the discussion?

- Yes
- No

Which of the following statements describe your contribution to the ASTC Connect session? Check all that apply.

- Posed questions to the group.
- Participated in an active dialogue with other participants.
- Shared related resources with the group.
- Shared my expertise with group.
- Other _____

Many discussion resources were provided as part of the session. Please indicate how many of the files or links you had a chance to review throughout the session:

- None
- 1-3 resources
- 4-6 resources
- 7-9 resources
- 10+ resources

Please describe which resource, if any, that you found most helpful or applicable to your work:

Rate your interest in the following topics BEFORE and AFTER the completion of the ASTC discussion, where 1=Not interested at all and 7= Extremely interested.

	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Defining current youth roles in informal science experiences--Programs for youth, by youth, or with youth?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Describing goals of youth programs--Implications for youth and adults engaged in these experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Measuring impact--What are current methods capturing?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting the word out--How do we disseminate findings more broadly?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What do you feel you gained through participation in the ASTC Connect discussion?

Please describe how, if at all, this discussion has enhanced your knowledge or understanding of working with youth when developing ISE programming.

Which of the following areas describe your role in the field?

- Education
- Research
- Exhibits
- Evaluation
- Administration
- Volunteer Management
- Other _____

What ideas or concepts from the forum do you think will you use in your own work?

How did you hear about the “Expanding Roles for Youth in Informal Learning Experiences” forum?

- ASTC listserv
- Space Science Institute listserv
- ASTC website
- Colleague
- Other _____

Have you participated in an online discussion forum or similar session before?

- Yes
- No

Have you participated in a previous ASTC Connect activity?

- Yes
- No

Which ASTC Connect activities have you participated in? Select all that apply.

- What Do We Know about Learning in Natural History Settings?
- SMILE Online
- Girls RISEnet Regional Hub Resources
- Science Festivals
- CAISE Forum
- Beyond Painting Science Pink: Engaging Girls in STEM
- How to Start a NanoScience Cafe
- NanoDays Online
- ASTC Dimensions Discussion Forum
- Working with Scientists and Engineers
- Youth Programs
- Field Trips

Any other comments or suggestions you would like to add?

Thank you for your feedback!