

AAS Solar Eclipse Task Force: Lessons Learned 2014-2024

AAS Summer Meeting #244 June 10-11, 2024

Lessons Learned from Plans and Preparations for the 2017-2024 Solar Eclipses

Splinter session June 11, 2024: 2:00 PM - 3:30 PM

Greg Schultz: ASP's Eclipse Stars

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Okay. Next up, we have another ASP person. We have Greg Schulz, and he's going to be talking about the ASP Eclipse Stars.

All right, Thanks. All right. Yes. My name is Greg Schulz. I'm a senior scientist, an educator at the ESP. And this program I'm talking about is funded by the NSF division of Astronomy. As you can see listed here, it's been less than a year since we were funded for this. We're funded late summer and we had to quickly ramp up and start our as I'll talk about the training and getting out kits and whatnot for folks.

But moving on, here are the project goals. Primary goal was just to train different groups of scientists and educators in order to successfully engage either public audiences or students in on wonder of the total solar eclipse. There are some specific objectives. I won't list them all here, but basically there is. You see the one that says professional development materials and resources.

Those are the key things we're trying to accomplish with this. And the two communities were overlapping but had some commonalities. Here's the final result. I'll just cut to the chase on this part of it. The numbers that we had, we trained and supported 230 educators and 74 scientists. Original goal was 200 educators and 100 scientists. Turns out the scientists were harder to recruit.

And I can talk about that if you like, but just one of the main differences was we actually gave stipends to all the educators, \$300. We didn't give stipends to scientists. We figured they had more, that they didn't need it, but maybe that could help them out along the way. They were distributed geographically, as shown in these maps were across 32 states.

We concentrated more on the path of totality or near the path of totality, and that was a priority for NSF. Actually, we you know, we we value Eclipse ambassadors work, which was especially for a lot of off the path folks. But this was a priority for this one. But we we definitely had folks who were doing things off the path as well.

But we were hoping that to get as close as possible, they all received a tool kit. And that was similar to what Kat was talking about with the Eclipse Ambassadors program. And but some there was some slight differences. They all got those kits

mailed to them ahead of a professional development program and then some other access to resources, videos, articles, guides and such.

and you maybe wonder, how do these two programs, did they intersect at all? Well, we had a few people who did a little bit of both, but really, they were meant to be two entirely different groups like it was said undergraduates. And then the amateur astronomers are eclipse enthusiasts. That was the Eclipse Ambassadors program funded by NASA.

This was canine, primarily educated kid in ninth grade educators, teachers and then scientists who were either graduate students, post-docs or more senior. So we were both represented at the meeting in New Orleans in January, did recruitment there? And we asked them, we see, has a young person come along? Are you an undergraduate or are you a graduate student?

And I was kind of like, okay, we'll talk to them about those two different programs that way. And also cutting to the chase here, we proposed that the number of people who would be reached by the programs run by a club started just through an estimate that would be about 30,000. We actually got in through the reports from all the folks who did their programs that added up to over 135,000.

Now, of course, that's quite a range of folks. Some people, you know, classroom teachers, elementary classroom of maybe 20, you know, that may be all they had and they get a lot more in-depth programing. But then we had a lot of folks doing larger public events. And so it just adds up to be really impressive recruitment. I won't read all this just shows just how the messaging was for the two different cohorts of folks, for the educators on top and for the scientists on the bottom.

That picture, they're supposed to be over on the right. Sorry, professional development, how it lists. There's two different strands of training. Each of them were three hour online zoom sessions, and they covered the both show different with the kind of the the main priorities that were covered. They differed and you can see in the bottom paragraphs, the scientist workshops focused more on developing their public engagement practices.

They didn't need the content, you know, skills that the teachers did as much. So what we did with the educators was, of course, focus more on what they could do in their classrooms and make sure that it was aligned with their standards that they had to follow. And then there some of the topics you can see are listed there, enumerated one through five for each type of workshop.

And one of the most popular things, the third bullet up in the top portion yardstick eclipse. Maybe many of you have come across it. It's been our most popular resource by far, I think in both programs. And we we know many of you are using it out there as well. All right. I know this is be hard to read.

Maybe it's bigger than I imagined. Why put this into the PowerPoint? But anyhow, at the end of each workshop, we'd ask folks, if you've ever used a jam board, you can take a sticky note and then move it and then type into it. And so we gave them that or told them to use respond to the prompt that says I used to know.

I used to think, Sorry, but now I know. And so some of these are quite interesting. I used to think that I mean, look, I don't have a pointer, but anyhow, the bottom right says I used to think an eclipse was rare. Now I know that they occur often. Pick another. I used to think that solar eclipse only occurred six months apart.

I didn't know they could occur two months in a row. The various surprises and things that aren't even as it's 3 hours. So this is a way to quickly capture what things we accomplished, you know, in their minds that they really gained from the training. There was a more thorough evaluation. We have a firm called Rockman at all that we hired to do the contract with to do that was formative in some kind of evaluation.

They did surveys right after each workshop and they had items in those surveys that address things. You can see in yellow in the top portion bullets. Of course, there were slight flavor differently for the educators and work for the scientists. And in both groups were also asked about their eclipse experiences and post eclipse surveys. For more information, you can email me at that address up there.

And as Kat thankfully also mentioned, we encourage you to come and learn more at our conference in August. Virtual conference. We call it astronomy across the spectrum, education and outreach everywhere all at once. So it's the spectrum idea is and can be interpreted in different ways. I like to think of it as know you can think about the wavelengths of the spectrum that we do in astronomy, but also I like to think of education.

Outreach is quite a broad thing. You get a small classroom, settings are small interactions you might have at a table, at a museum or a festival. Two big events where people talk and engage large groups and it's happening everywhere all at once. So hopefully you can come and share what you've been doing in your work. And I would love to entertain any further questions.

I know we're running late. Questions for Greg. Yeah. Jen's going to ask your question. She's full of questions. So

while she's walking up, I just want to say thank you because my partner, teacher in the science club that I ran was an Eclipse star, So thank you. Awesome.

I also want to thank you the yardstick activities, so mobile and nature.

And I really appreciate it's what the favorite that I saw from every place I took it.

Yeah we love how it travel. You can pack it in a circle. I just wondered, whenever you're serving scientists, you know what? What are you. How do you delicately, like, investigate their maybe ability to be culturally responsive or good looking? Yeah. Yeah.

What instruments did you use? Because that's. That's. I understand the education aspect. You know, the education, confidence, all of it. That's awesome. I really liked that. You are also we're looking at the scientists. How did you how are you looking at that?

Is it list here? I mean we can't ask everything and we're we're not certain that you're not going to give them a quiz and how well they learn the things.

I mean, even educators, we wouldn't ever do that too either. But the idea is focusing on largely around what they gain from it in their confidence, because some of them come in as complete novices or relative novices with working with public audiences and recognizing how we can help them improve those skills and talk about techniques to listen or be attentive to their audiences.

The many scientists sometimes who speak right over their heads, right. So we're very cognizant. We've had a number of programs at the ASP where we've been developing these skills over the years, and so we apply that to this effort in this short, less than 12 month window that we had with this program. So..

So this is like a mentoring program

A bit, yeah.

And there was ongoing support after the events. And so, yeah, we, we do our best to mentor them and want them to be a part of our community as we go forward. So that's, that's part of our goals. Thank you, sir.