



THE OHIO STATE UNIVERSITY

Starlab ExpertLink Survey Results

Experts

Starlab George Washington Carver Science Park
Director STEM Education and Outreach



Methods

- Survey invitations (37) were emailed via Airtable 1/9/2024
- 23 responses were received, last response on 1/18

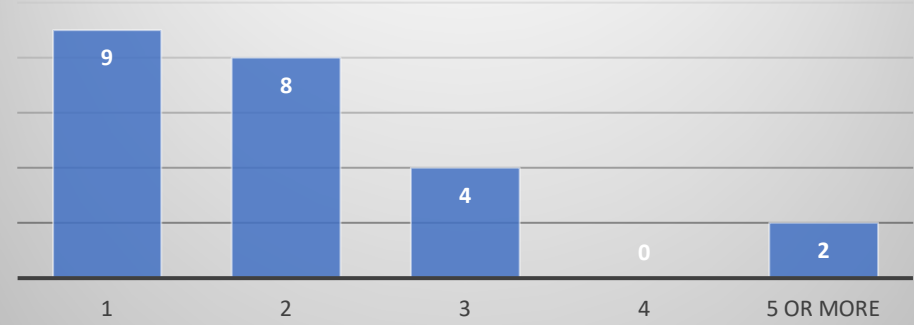


Results – Expert Participation

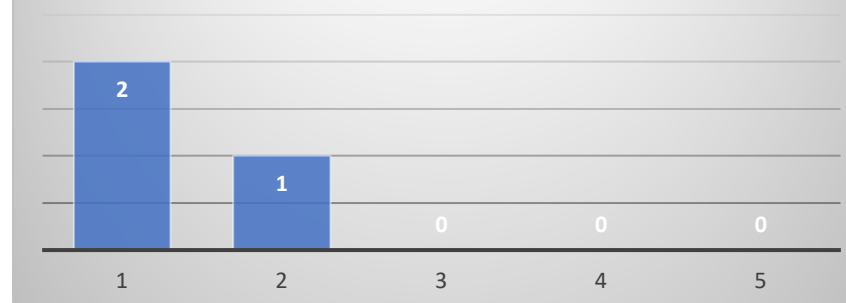
1. On how many ExpertLink panels (think schools - not individual sessions) did you serve?



2. On how many total sessions with students/classrooms did you participate?



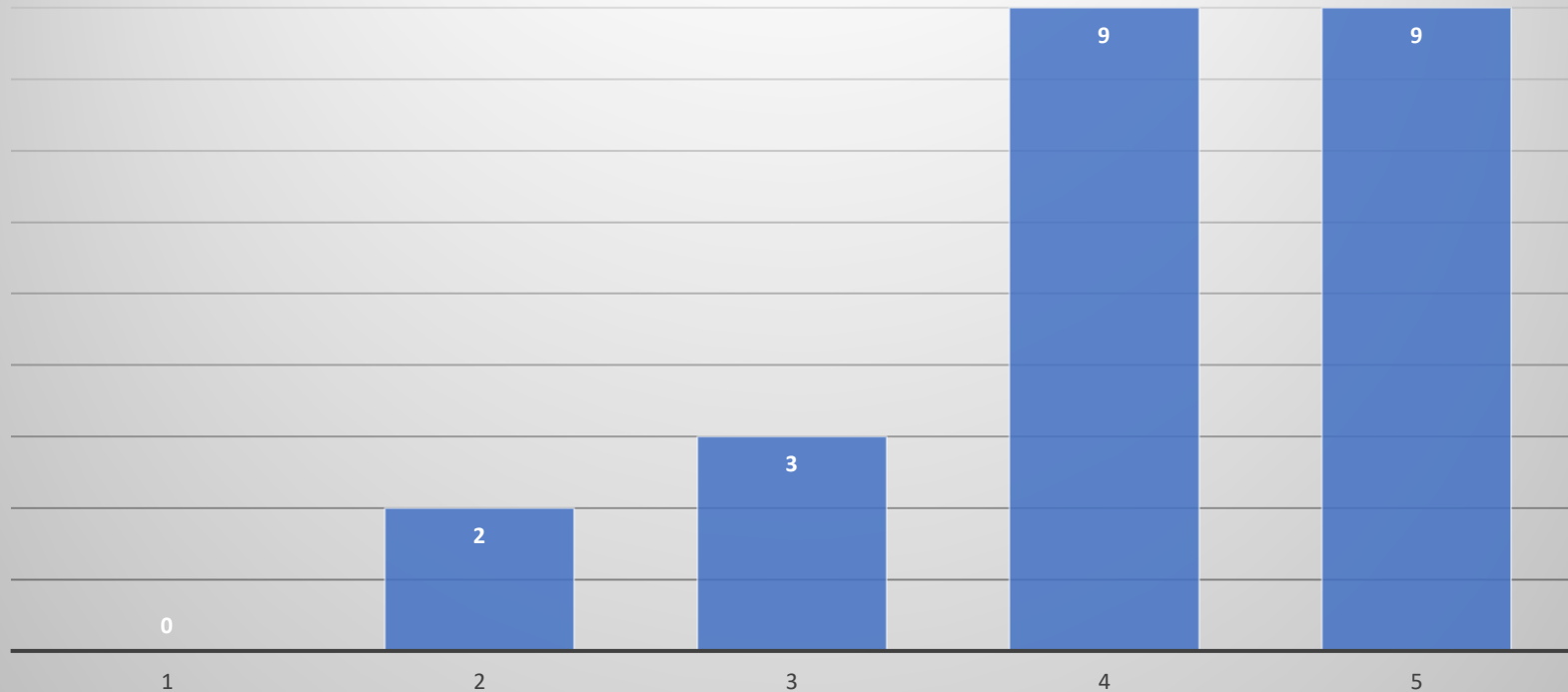
3. How many (if any) of these sessions were in person?





How Helpful?

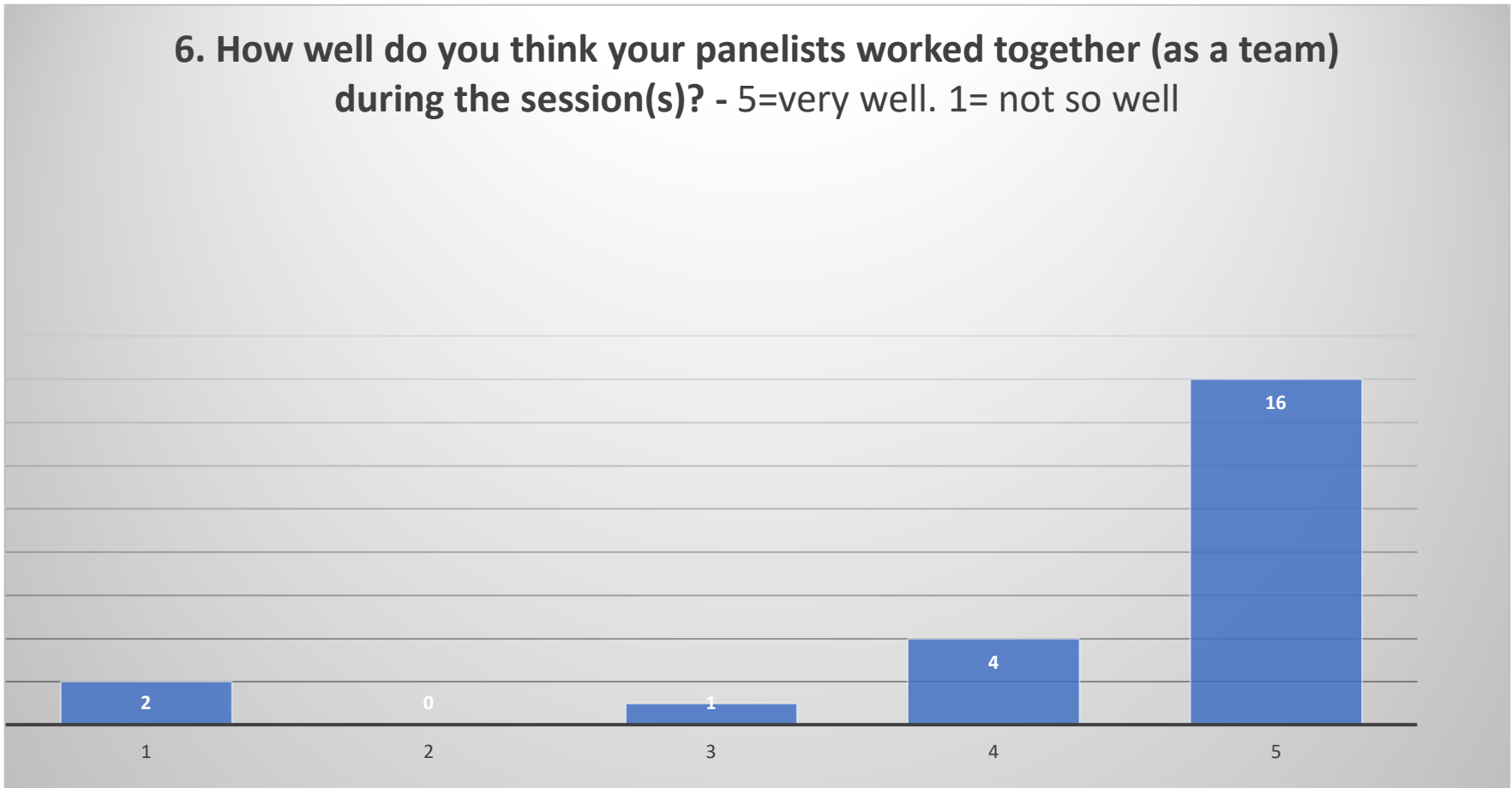
5. Rate how helpful you believe your interactions were with the classroom(s) - 5=very helpful, 1=not so helpful





Panelist Teamwork

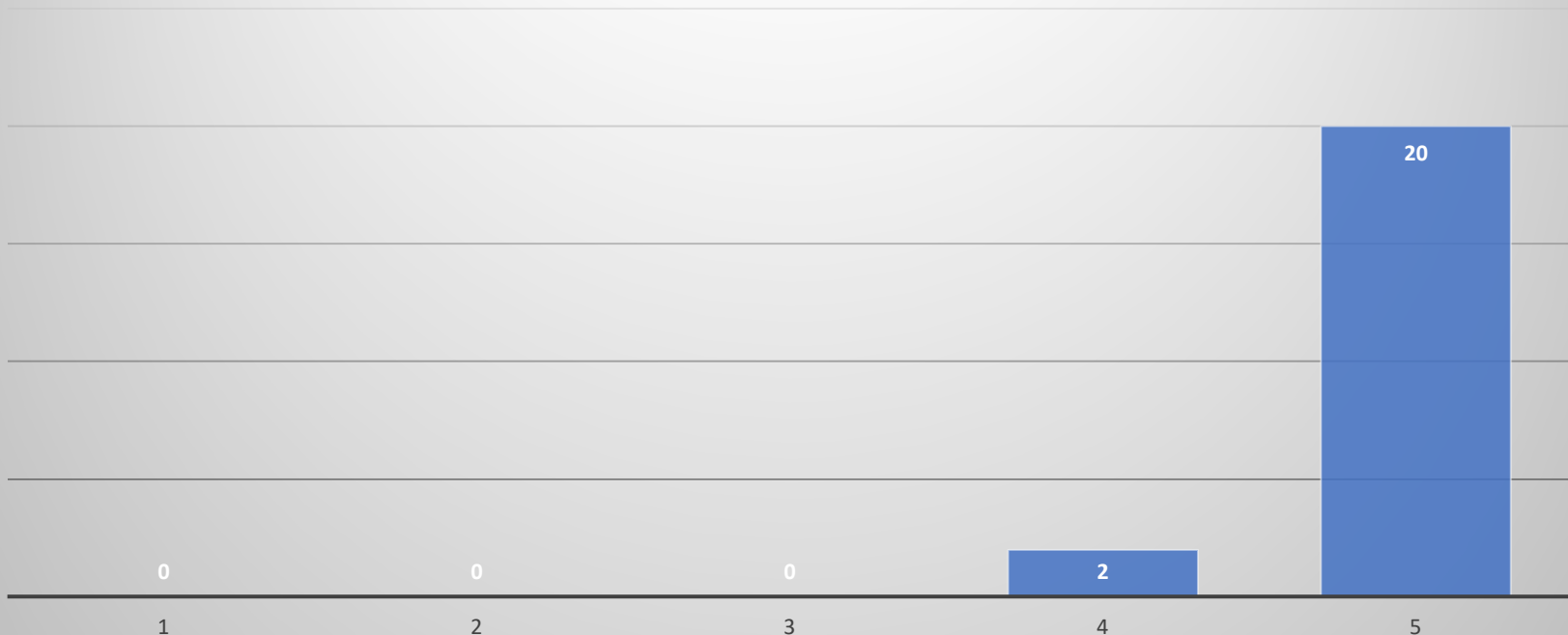
6. How well do you think your panelists worked together (as a team) during the session(s)? - 5=very well. 1= not so well





Program Leader Interaction

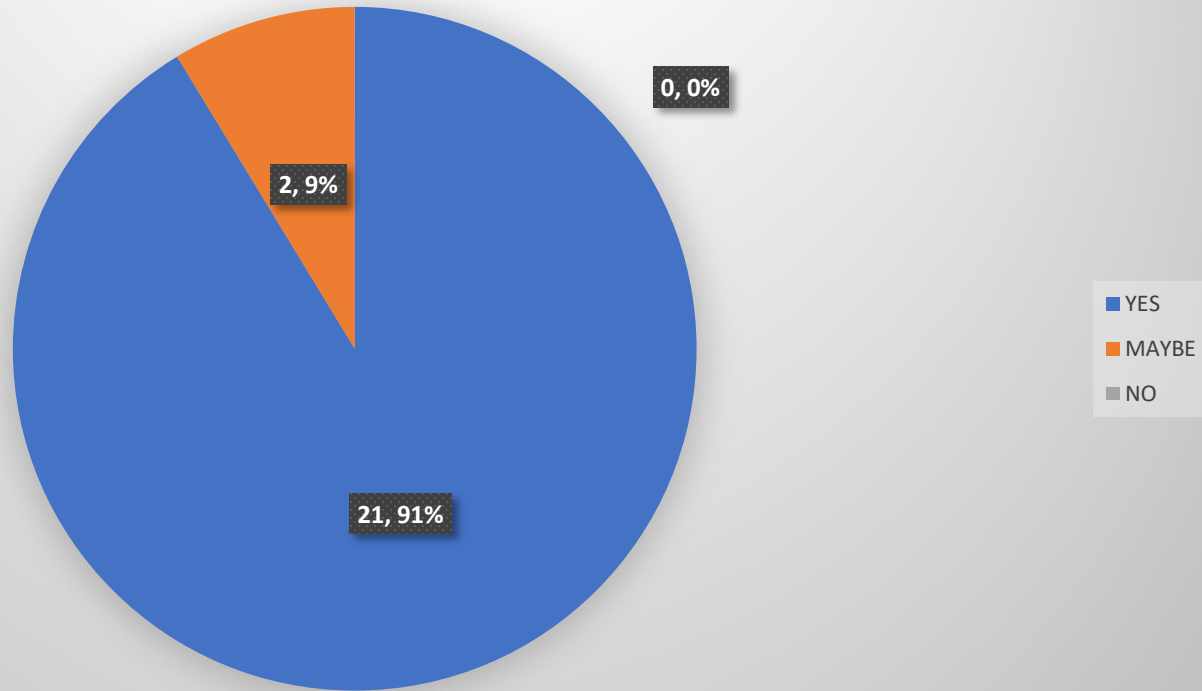
12. How effective/helpful were your interactions with the program lead (Howard)? - 5=very effective/helpful, 1=not so effective/helpful





Do It Again?

13. Would you be interested in participating in a similar program - remotely linking you and your expertise to a classroom - at a later date?





How would you characterize your interaction with the school lead?

- Great
- Good. I would have preferred more structured meeting times. I found myself reaching out to see when our next meeting will be a little too much.
- She was very friendly, and it was easy to get a meeting scheduled.
- good communication. very helpful
- The school leads were great communicators and all of the teachers I interfaced with did an excellent job of helping to facilitate the meeting, consolidate student questions, etc.
- Reasonable. Everyone is busy.



How would you characterize your interaction with the school lead (2)?

- School lead was very clear on the end state. Laid out timelines and expectation management very well.
- I think some clarification or guidelines for how to coordinate a panel could be helpful moving forward. For example, we (the experts) probably have a bit more flexibility in how to schedule and we need the teachers/students to help provide reasonable times that work for a more structured school day. Maybe this is a personal preference but having the teacher initiate the request that they want a meeting for X days at X times would be helpful and minimize some of the back and forth.
- excellent - very easy and professional. Well prepared
- At first the connection was inconsistent but improved significantly as the session approached.



How would you characterize your interaction with the school lead (3)?

- Communication was quick and the school was able to accommodate the conference platform that we needed to use.
- Information about the schedule and arrangement needs was communicated clearly and in time.
- Positive, they seem excited but of course are very busy trying to fit this in



How would you characterize your interaction with your other panelist(s)?

- Great! We worked really well together.
- good communication. helpful support
- The other panelists were great to work with and fairly responsive to requests.
- excellent interaction during the session, complementary input
- Excellent. We met prior to the panel itself and got to know each other. The other panelists were outstanding.
- Really great experience and excellent overall.
- Great! The other panelist was helpful and encouraging to students. 11



How would you characterize your interaction with your other panelist(s) (2)?

- I was blown away by the knowledge, expertise, and experience of the panel leaders that I interacted with. Truly amazing people doing astounding work.
- Live coordination at the virtual meeting was smooth and interactive.
- Positive, panelists were very helpful



Please share an interesting or funny anecdote from a panel session.

- The classroom interaction was general - about space - and not specific to the challenge (which is why I didn't give it a 5 for helping the students).
- The students asked a ton of questions! They were definitely interested and thinking out of the box with their project.
- I was very impressed with the students and their approach to the issues they tackled. I was equally impressed with how the panel members were able to guide without lecturing and able to plant seeds for the students to pursue to make their projects better.
- Howard got us a last minute add who was from the human spaceflight program at NASA, really the questions where much more centered around the human condition in space than the science or engineering around the solution.



Please share an interesting or funny anecdote from a panel session (2).

- A lot of the students in our in-person session seemed to really enjoy getting the perspective of engineers. A couple of them were so nervous to present! I advised on their project of course, but we also talked a bit about presenting your project. They were surprised to learn that even in my early 30s and as a successful engineer, I still get nervous shakes before presentations. They were floored!
- We didn't have panel sessions (at least not that I was involved with). There were two "experts" assigned to the school. We met once (without the students) to discuss the program and did exchange some over email. After that, I met with the classrooms individually.



Please share an interesting or funny anecdote from a panel session (3).

- Classroom calls - we did a few group sessions and I met with groups to the side within a large, loud classroom and it was hard to hear, the kids were distracted and at times it was hard to move forward with the groups. I think the younger kids need more facilitation (someone sitting there with them on virtual calls). The kids were often unprepared for reviews so sometimes it did not feel like a good use of my time, but nonetheless sometimes just the accountability of having to talk to an expert can be used as a driver (and I think that was the point in my case for some of the teams that were lagging). One of my schools asked me to give glows/grows feedback after each session and I thought that was a great way to help kids get some feedback and direction. One thing I also picked up on is that some groups really were not working together (they were working independently on different aspects that in the end did not go together), so there should be some way to identify and help groups like this earlier.



If you could make one change to the program to make it better or more effective, what would that be?

- Let us know the design challenge details more before sign up. Me and another expert in NASA are both not experts in the design area, it would nice to recruit more close related experts, we can only provide generic methodology level feedbacks.
- I would have 2 different types of sessions. We just had sessions where the whole classes asked questions around the room, which is great but missed the opportunity for back and forth discussion. The classroom was broken into several groups, I think it would have been a good idea to have 15 min meetings one on one with each group so that the students could have more of a discussion about their ideas. I even notices some students were nervous to speak in front of the whole class, this might help with that.
- Better expectations for panelist discussions. I felt like my team lead and I were both unsure of how the session should go.
- share questions beforehand



If you could make one change to the program to make it better or more effective, what would that be (2)?

- Let us know the design challenge details more before sign up. Me and another expert in NASA are both not experts in the design area, it would nice to recruit more close related experts, we can only provide generic methodology level feedbacks.
- Maybe in the future having an expert Bio list available to all the other experts would be helpful
- Provide some follow up for the panelists on the outcome of the student projects.
- Better way to align expertise with the questions the students will have.
- I'm not sure if it was a function of the program or the panel lead, but we only met with our school once (I met with a different school for the second session) and the school had asked for more than one session; the leader just didn't seem responsive but maybe there was something happening behind the scenes. However, I also really enjoyed the in-person aspect.



If you could make one change to the program to make it better or more effective, what would that be (3)?

- This was an initial opportunity and I believe a lot was learned. Identifying skillsets and allowing for targeted discussion with groups that need it might be valuable. For instance, using something like SpaceBytes as the point of organization for online/in person sessions, where someone's skillset is best utilized to answer targeted questions is likely of value.
- I think knowing some information about the school's involvement in the challenge and what is their plan would give the opportunity for the panelists to give their input better.
- I'm guessing that the structure wasn't consistent among the experts and schools. We didn't have a "panel" per se. It was kind of improvised. Maybe more instructions for the teachers or panel leaders?
- Additional of information about the project focus topics or a sample list of general questions of interest, for students or panelists to think in advance.



If you could make one change to the program to make it easier for you to participate, what would that be?

- (Make sure) the design topic is related to my expertise.
- It was pretty easy, nothing here to add.
- The provision of instructions on how to create the bio video, or alternately the elimination of the bio video submission, but I appreciate that it has value to the program.
- I think the virtual meetings were great.
- NASA is not zoom friendly. Teams is a better communication platform for us, but I'm not sure much can be done about that.
- It was well set up for easy interaction with little to no additional time needed outside of the hour with the students. Felt like the students could have been more prepared and more interested, but I work with kids a lot, that is not unexpected.



If you could make one change to the program to make it easier for you to participate, what would that be (2)?

- Nothing, I think it's great as it is.
- It was incredibly easy to participate so I have no changes.
- A concise packet with the rules overview for the competition given to all participants. I was very busy during this time and having something to briefly review ahead of talking to the students to get my mind right would be beneficial.
- I loved serving as a panel lead and communicating with the teachers and other panelists (and Howard of course). It was easy to participate.
- Although virtual is ok, in person for me is much easier with students. My school was 75 minutes away, so I did make it there twice during the period. Pairing experts with schools closer in proximity (where feasible) would be very beneficial.
- A brief description of information about the participating schools and panelists.



If you could make one change to the program to make it easier for you to participate, what would that be (3)?

- Nothing on the program end. After participating I think I have a better idea of what I would put in the video.
- I was unsure if I was going to have a second session or not, it wasn't hugely inconvenient, but if possible, it would be nice to know that ahead of time
- It was super easy to participate, I felt
- More time flexibility - but I know that's not possible for the teachers
- I would have liked to understand the materials each school received for instructions because they did reference components that I was not familiar with (and I believe I attended all of the training) and the judging rigor at the end (just how the kids would be evaluated).
- I need more experience working with K-12 students!



(optional) Describe how participation in Starlab ExpertLink affected you, either professionally or personally?

- I do have a passion for education so this was my first real opportunity to give back since becoming a professional. I was happy to participate.
- In the grand scheme of things, it didn't affect me significantly to my knowledge. While recruiting, as champion, did require significant time, my participation was minor compared to other educational outreach in which I'm engaged.
- I loved seeing the students get excited about astronauts and space! I also enjoyed getting to connect with the Starlab network at OSU, and Howard.
- I found participating in this to be very rewarding and a good opportunity to hopefully inspire and encourage students to dream big and think creatively.
- impressed by the thought process and plans of elementary student grade 1-3. I would love to see the final proposals.



(optional) Describe how participation in Starlab ExpertLink affected you, either professionally or personally (2)?

- Every time I have had the opportunity to interact with students on projects like this I come away impressed at the sincerity with which the students approach their tasks. This was no different.
- Made some new connections in the field, which was helpful, but I did not feel my background was well-aligned with the students needs.
- I really enjoy getting to advise/teach students, whether they be preschoolers or high school or college. Being able to foster that innate curiosity and desire to solve a problem is priceless. I also just love space science! The ability to connect with the students, and with engineers at NASA, was fantastic.
- Participation helps me to understand the comprehension and creativity level of students at different grade/age levels. This is very important to me both professionally and personally as I have kids and I also want to develop outreach modules and programs.



(optional) Describe how participation in Starlab ExpertLink affected you, either professionally or personally (3)?

- I enjoyed reaching into my experiences to draw upon different elements (I remembered components I had forgotten); forcing me to describe things at a level that is different from my normal professional environment was challenging but fun; for those teams that were engaged it was great to see their ideas and see them grow as a group



Is there anything else you would like to share?

- Thanks for organizing the program - it was great!
- Overall, my experience with this program has met or exceeded expectations.
- The only critical feedback I could offer is to help the experts understand what the end deliverable for the students looked like. The students asked a lot of questions about their prototypes and I did not feel knowledgeable enough to help provide beneficial input to guide them to success. Also, as a non-Starlab employee, it was challenging to answer questions about Starlab and their specific requirements.
- I thought that I might be called on to serve on more than 1 panel, but that is all that materialized in the end. I hope no one else was over burdened. The panel I served on was fairly inspiring to the panelists - we had a good time and it didn't take very long.
- Need to make sure the students needs are more aligned with background, and I would prefer a more concrete challenge and solution path, which would require more interactions, but would be more meaningful.



Is there anything else you would like to share (2)?

- Howard was great - very effective communication but not so many emails that it became tedious. He was very personable and his excitement was palpable.
- Thank you for this opportunity. It is great to see Ohio trying to organize a mission for increasing STEM opportunities from early ages all the way through high school. I hope to see Ohio become a leader in Space by building successful pathways for young and aspiring minds at all educational levels, and this feels like a fantastic step in the right direction.
- nope! thanks for running this- really cool to see all the students get excited about Starlab :)
- Overall, great program and I was happy to participate. School teachers do not get enough kudos and those dedicated to helping kids through competitions like this are exceptional professionals!
- The teacher asked the questions. It would be easier to gauge the level of student interest if they participated more.



Take-aways

- Most experts served on one panel with 1-3 sessions total.
- There were a few in-person meetings, but these were largely the exception.
- Most experts thought that virtual meetings went well and that participation was very easy with a modest time commitment.
- Experts thought their classroom interactions were helpful, highly supportive of students and that they functioned well as a team
- Experts' interactions with the Program Lead were very effective
- Experts are interested in participating in a similar program in the future.
- Communication with school leads was helpful and effective, but scheduling could have been done in a more structured and less ad-hoc way.
- Experts thought other panelists were great to work with, helpful to students and effective in their interactions with one another.



Take-aways

- Experts were impressed with student questions, their interest level, sincerity and approaches to problem-solving
- Sometimes managing the small groups within a larger (classroom) group and individual (non-complementary) efforts within a group was challenging
- Occasionally there was some confusion about how sessions should run and whose responsibility it was to manage them.
- Some experts felt their expertise was not well matched to the very human/ “bioastronautics” theme of the design challenge.
- Knowing a bit more in advance about the context of the design challenge and the school’s/classrooms approach would have been helpful.



Action Items

- Encourage setting up in advance a *series* of panel meetings with the classroom(s) as opposed to ad-hoc
- (School lead training) Need to address the balance between whole-class and small group interaction with more targeted conversations with experts.
- (Training) Encourage an advance meeting of the panel leader (or entire panel) and the school lead should. This helps with scheduling, setting expectations for sessions, learning school context and panelists feeling comfortable with their role(s).
- Provide panelists and teachers with a bio list for the panel.
- (School lead training) Where possible, school leads provide an advance list of questions to the panel before the session.
- (Panel leader training) Supply a concise packet of rules, expectations for the design challenge, end deliverables, judging, etc... to all experts
- Find a way to encourage communication of project outcomes back to panelists