IES Learning Acceleration Challenges: Cost and Implementation Webinar Transcript

Eden Baker (00:00):
All right. Welcome everybody, I think in the interest of time, we will get started. I am going to take a look at the poll results so we can get a better idea of who we have in the room with us today. The first question, what best describes you? It looks like we have a little bit of a mix of people, some potential entrants, a few people that are just curious to learn a little bit more. And then some people who are involved in the challenge either as a judge or a subject matter expert.

Eden Baker (00:26):
Welcome everybody, and then looking at the potential entrants - a lot of you have not started, which is perfect timing because today's webinar is all about helping you prepare your Phase 1 submission. We really hope that it's helpful as you start to prepare that submission. My name is Eden Baker and I am an engagement manager at Luminary Labs. I use she/her pronouns and I am a white woman with shorter length blonde hair, and I'm wearing a checkered top. I'm sitting in front of a Zoom background that has the logo for the Learning Acceleration Challenges.

Eden Baker (01:01):
As I said, I'm an Engagement Manager at Luminary Labs and we are an innovation consultancy based in New York. Anyone who has not attended previous webinars, Luminary Labs has been engaged by the Institute of Education Sciences to run the Learning Acceleration Challenges. And we are incredibly thrilled to have you all here today. The purpose of today's session is to provide an overview of the cost analysis and implementation planning requirements for your Phase 1 submission. We'll go through all of these, we'll hear from a few different subject matter experts, and then we'll open up for a Q&A at the end of the session, and we'll be using the Q&A function in Zoom.

Eden Baker (01:37):
You're welcome to share questions as we are going through the presentation, and then we'll come back to these at the end. We'll also be publishing answers to these questions by the FAQ section on Challenge.gov. And then if you missed me saying this at the beginning, we are recording today's presentation and we'll also share a copy of the slides on Challenge.gov as well. Today we are really thrilled to be joined by three subject matter experts, David, Kiera and Mingyu. I'm going to pass it over to you to introduce yourselves. We'll go through an alphabetical order. So David, we'll start with you.

David Knight (02:11):
Thanks so much. I'm really happy to be here. My name's David Knight, I use he/him pronouns. I'm a white male with short brown hair, and I'm sitting in front of a Zoom background with the logo of Learning Acceleration Challenges. I'm an Assistant Professor of Education, Finance, and Policy at the University of Washington.
Kiera Chase (02:35):
Hello everyone. My name is Kiera Brodsky Chase. I am a white non-binary person. I use they/them pronouns. I have short curly brown hair. I'm also sitting in front of the Zoom background with the Luminary Labs Learning Acceleration background. I work for an organization called ConnectED, we're a national organization that works with school districts that are engaged in various reform efforts. In particular, I work on math projects. I am the Director of Instructional Design and Research at ConnectED.

Mingyu Feng (03:23):
Hey everyone, my name is Mingyu Feng. I use she/her pronouns. I'm a Asian woman with shoulder length, black straight hair. I'm using the same background as David and Kiera. I'm a Senior Researcher from WestEd, which is an Agency of Education Research Development and Surveys Agency. It's headquartered in San Francisco. I've been doing studies in math and science, mostly in K-12 settings. Really nice meeting you all. Eden I'm now passing back to you.

Eden Baker (04:02):
Great, thank you Mingyu. Before we get into the details of the cost analysis and implementation plan requirements, I wanted to provide a brief recap of the challenge timeline and structure, just so that everything is put into context for anyone who missed the first few webinars. Taking a look at timeline, as a reminder, submissions are now open and close on September 30, 2022. Up to five finalists per challenge will be selected to progress to Phase 2 and in Phase 2 these finalists will implement their interventions at partner schools. This is for both the Math Prize and the Science Prize, and or out-of-school programs, and this is just for Science Prize.

Eden Baker (04:43):
Finalists will notified in early November and then will be able to start implementing their interventions. And the specific duration of the intervention may vary, but it must be implemented between November, 2022 and April, 2023. All participating students will take the NWEA assessment prior to implementation and then again, after implementation. And during Phase 2, you'll need to work really closely with your partner schools and out-of-school-time program sites to collect the necessary student and school level data, as well as data about the cost of your implementation.

Eden Baker (05:15):
Schools will be asked to share this data with NWEA by May 8th, 2023, and NWEA will use this data as well as scores from the math growth assessment to prepare evaluation reports. Finalists will then be asked to submit additional data as part of their Phase 2 submissions, and this will include information on cost as well as information about implementation and scalability. Judges will then review these submissions and the NWEA evaluation reports against the Phase 2 selection criteria.

Eden Baker (05:46):
The reason that we're sharing all of this today is that the implementation plan should really provide a clear description of how you'll make sure that you are able to do all of this if you are selected to progress to Phase 2. And then just taking a closer look at some of the specific expectations here. Just as a reminder, intervention should be implemented under routine conditions. This means conditions that reflect everyday practices occurring in the classroom, schools and districts when the intervention is used.
Eden Baker (06:17):
Our specific definition for routine conditions in the context of this challenge can be found on Challenge.gov. And then just another reminder here, in Phase 2, technical assistance will provide guidance around how you might measure this, for example, how you might track student participation and how you might collect cost data. Now I'm going to go through the Phase 1 submission requirements in a little bit more detail. The submission requirements listed on the screen are also listed on Challenge.gov as well.

Eden Baker (06:55):
Entrants are required to submit the following four files as part of their submission. The first is the entrance overview, and this is really crucial to verify your eligibility to participate in the challenge. The second two are the letters of commitment school and the school acknowledgement. And these are from your partner school district or networks, as well as the individual participating schools. Again, you can find the template for both of these on Challenge.gov.

Eden Baker (07:22):
And then the final upload is the intervention proposal. And this is really what is most relevant to today's session. This proposal should include an overview of your intervention, including things like its focus, the mode of delivery and the necessary equipment of resources, empirical and or theoretical evidence to demonstrate the potential for the intervention to significantly improve math or science outcomes. A description of the eligible students the intervention will support, including how it is being designed to meet their specific needs. A description of how the intervention could be scale to support additional students beyond the challenge. And then implementation plan, which I'll share more about shortly.

Eden Baker (08:01):
The final requirement here is a team description, which includes an overview of team members and their relevant experience and expertise. A couple of particular things to note here, all of these files submitted as PDFs. And there are specific format requirements, which are listed on Challenge.gov. Please take a look at the list before you submit. Then jumping into the implementation plan in a little bit more detail. This plan should include information on the following things. The first is sample size goals and random assignment plan.

Eden Baker (08:37):
The second is recommended dosage and duration of the intervention, should also include information about the number of teachers and other staff who will participate, as well as the hours required for professional development training for these staff. You should also include information about the provision of technology and any other necessary equipment for students or other users, as well as a plan for collecting the necessary student and cost data throughout Phase 2. And then also information about your risk mitigation, contingency planning. Things like how you would respond to potential school closures and other delays.

Eden Baker (09:14):
You'll see on the slide here, we have marked all of the bullets that we'll be covering in today's session. One thing to note here is that sample size goals and random assignment planning were covered in last week's webinar. And we are going be sharing a recording of that webinar by Challenge.gov shortly. For the final point there for the Science Prize, if you are submitting
and out-of-school-time intervention, we encourage you to take a look at the definitions under the rules tab on Challenge.gov, just to make sure that you are aware of how out-of-school-time programs have been defined in the context of this challenge. That's a recap of the Phase 1 submissions, I'm now going to pass it over to Kiera, to talk a little bit more about intervention dosage and duration.

Kiera Chase (10:05):
Oh, had to find my unmute button. Hello everyone. Now we're going to dive into some of the specifics of the intervention plan that Eden was just referring to. And I'll start with just talking a little bit about dosage. You should specify in your implementation plan the intended dosage and duration of your intervention. And as part of this, you'll want to outline how you're going to document the dosage also in your intervention plan. And so dosage is referring to the amount of time that your students will be participating in this intervention activity.

Kiera Chase (10:43):
And so some digital interventions maybe have some kind of built-in mechanism for tracking that data in the background, but you'll want to ensure that you're clear about what data is being tracked and communicate that in your plan. And in addition to that, if your intervention is a hybrid intervention or a non-digital intervention that's taking place in-person, you'll want to submit evidence of a log for how you're going to be keeping track of the data.

Kiera Chase (11:16):
This data is really important when it comes to thinking about evaluating and measuring the efficacy of your intervention, and the details of this are covered in the RCT webinar that happened last week. And you can also read more about it in the data collection and intervention providers guide on Challenge.gov. And I believe that the webinar from last week is going to be posted shortly for those of you who missed that, so you can check the Challenge.gov website to get more details about that.

Kiera Chase (11:53):
Thinking of things to consider, when it comes to dosage would be getting some details regarding the school schedule that is planned for the school that you're going to be working in. And then documenting as you're doing your intervention any changes that might happen to that, you want to be making sure that you're keeping track of, for example, students that might be entering or exiting midyear that might change the number of participants that you have in your intervention group.

Kiera Chase (12:27):
You want to definitely keep track of any attendance that's happening and so that you can monitor for truancy. These are just some little considerations. And then if you have, oh no, you might also be able to get information from your participating schools about these factors, if your intervention is taking place during school time, and that would be different for an out-of-school intervention, of course. And so you just want to make sure that you include details in your plan about how to ensure that enough of students will be able to participate fully in your intervention as planned, so fully meaning the intended amount that you believe to be impactful.

Kiera Chase (13:18):
Following from that in your implementation plan, one of the areas of consideration is going to be staffing. And how are you resourcing the implementation of your intervention? So in your intervention plan, you want to include details about staffing and professional development that is needed to support your intervention. We’ll talk a little bit about the cost in some subsequent slides, but we also want to highlight here that it’s really important to appropriately plan the amount of time and the number of staff that you need to be able to effectively implement your intervention.

Kiera Chase (13:58):
The other thing to think about too is, you'll want to be clear in your implementation plan, what you need for implementing your intervention this time. But you may also want to think about in the scaling section of your submission, thinking about what would be subsequent and follow up costs. If you were to implement your intervention year one, you might have a certain amount of costs. That might not be the same if you’re doing it again, year two, year three, with the same staff.

Kiera Chase (14:31):
We just want to highlight the importance of professional development. You really want to think about the number of hours that it's going to take to train teachers or people to implement your intervention. When are these trainings going to occur? How will staff be paid for their time? If it is happening during the school day, will the school need to provide substitute teachers? All of that needs to be detailed in your implementation plan. And then also other things to consider might be, how would you respond to staff changes?

Kiera Chase (15:04):
What happens if there's a teacher who needs to go out for a few weeks because of COVID or for a longer time, because of other reasons? Be specific about these items and ensure that they align with your partner schools existing professional learning calendars. So that demonstrating that you've mitigated some potential areas of risk around attendance or difficulties that could arise with training staff. I think that about covers it and I'm going to pass it over to Mingyu, who's going to talk about planning for technology and equipment.

Mingyu Feng (15:49):
In the proposal or in your plan, you should also need to think about all the necessary technology or non-technology based equipment or licenses and other materials that's necessary for implementing your intervention. If the school have that, that would be great. If your partner schools don't have access to the necessary resources, you will need to provide them. You think about the equipment, those could be existing or newly purchased, that's like computer or school provided Chromebook, iPad. It could be mouse or headphones, if for digital-based intervention, or for non-digital think about signs intervention needed a microscope, lens for lights or chemistry lab equipments, so on and so forth.

Mingyu Feng (16:45):
When it comes to materials used for implementation, think about digital software licenses, user account, or if it's non digital, it's curriculum, the textbooks, any science manipulatives, or the case that needed for a lab or the book list that the students need to take notes when they're running a science experiment. Those are a few concrete examples. And also in your planning, please think about other factors that could affect the implementation. For example, the
transportation of equipment, or the usage of any rooms, computer lab, or a science lab, or other fees that would not needed without the intervention.

Mingyu Feng (17:35):
When you're doing the planning, think about some specific features of the intervention that you want to implement. For example, think about, does your intervention require sound or talking or drawing on a computer? In that kind of case intervention would work better on a touchpad or iPad, or if it's not a touchpad, maybe provide the students a mouse, then they'll be able to do that. Or does your intervention works on Chromebook, or only on iPad, or is it app-based or is a web-based with browser could work?

Mingyu Feng (18:17):
Those are concrete things with the intervention that you should think about when they're being used in the classroom. And for a science press, if it's non digital, any curriculum textbooks, or notebooks, or equipment that's needed for the exploration activity. Will the materials be refurbished in time during the intervention? Do they have enough to use? Those need to be all provided to their schools. And for Math Prize, since those are special education students. Think about what kind of accommodation are needed for features, especially designed for those students, if they're at risk or for a disability kind.

Mingyu Feng (19:06):
Also I want to mention that in your planning you should also think about planning ahead for what is required to set up the intervention. For example, when you think about a non-digital science materials. If they need to be printed or shipped or be purchased, so they often need extra time in that kind of thing. Or even access to a science lab, school have their computer carts that can be shipped, moved to the classroom. But for a science lab, there's often limited access in school. They're shared among many different classrooms, so you need to plan and schedule ahead.

Mingyu Feng (19:51):
For digital intervention, think about creating accounts for teachers and students. If there is any installation on school device, really think hard about that. Do you do individual download or is there a way to push down the app through some a central mechanism that'll make it easier? The planning ahead also related to that, if you are selected as a finalist, you will not have much time between being notified and when you need to start implementation. So it's really important to think ahead of all these factors.

Mingyu Feng (20:41):
As a part of your proposal for the intervention, you are also expected to provide evidence of usability and feasibility of the intervention you want to implement. The evidence could come from usability studies, focus group, or think aloud studies. And the feasibility study often comes from small classroom implementation studies and data can be collected through instructional logs, or classroom observations, or interviews, or surveys with the participants.

Mingyu Feng (21:20):
When we think about usability, these kind of testing ensures the intervention can be used as intended by the targeted users to improve their learning. Really think about who are your targeted users? Are they students, teachers? What's the population of the sample and what's
their characteristics? When it comes to feasibility, it really emphasize a program can be used by your targeted user in authentic education settings as opposed to lab, where the development happened. In the lab, everything is strictly controlled, but in the authentic classroom, there is a lot of realistic factors that could play a role.

Mingyu Feng (22:11):
For example, things we just talk about, the equipment and computers in school. The computers in school could be low profile and their internet could have having limited bandwidth, or think about whether the program is easy for your targeted user to launch and manage. Is it easy to update information or manage the program on the computer? Can the science kid work in the classroom? Are there space in the classroom? Is it safe? Are there all the necessary equipment and is it age appropriate for the targeted user? These are kind of all factors that are being considered regarding feasibility.

Mingyu Feng (23:03):
Things that sometimes got less thought of is, think about the intervention, whether it can be integrated into the classroom routines and the school schedules. And sometimes school has specific short days, long days, they have their own schedule. And also could this be part of the classroom instruction of the teachers when they already have the routine practice? Can this be used really to meet the instructional objectives the teachers have? These are all the things that you think about before planning your implementation in school and making sure all the resources needed are provided and training required are provided. And Kiera just already talked about that, how important the professional learning is.

Mingyu Feng (24:02):
They are talking about the feasibility. I want to mention a few things that regarding the planning of the project and really planning for the unexpected situation. We all know that schools are really dynamic places, your plan should include references to contingency planning. Things could happen in school, there could be school closure, which we’re actually just experiencing in the past few years, school closure due to factors like weather or pandemic like COVID.

Mingyu Feng (24:46):
And you should also have some contingency plan when non-compliance happened during the implementation of the study. When we talk about non-compliance with random assignment, this could happen when a control school is exposed to the intervention, or a teacher could decide that they would also like to deliver the intervention to their classroom. The participant may not like the condition they're assigned to. They say they changed their mind or something like that. This kind of thing could happen. Another concern you should consider is the low implementation fidelity.

Mingyu Feng (25:31):
It refers to the degree the intervention is being delivered as intended. Kiera just mentioned about dosage, that's like part of it, but also there are other categories people often talk about. Was that program delivered as expected or is delivered as prescribed by the developers? How close the delivery was to the ideal? Was the quality of the delivery good or not? And how engaged for the participant during the delivery? Those are information that can be collected during the implementation phase.

Mingyu Feng (26:19):
When you plan, these are considerations, as you can see on the slides, we would recommend you to include cushion in your implementation schedule for these kind of special situations like teacher professional days, professional development days, or school holidays, or testing days. And it really emphasized the importance of research compliance to our participant and tell them you're in the control condition, or you're in the treatment condition, but both conditions are equally valuable to the experiment. And it's important to the integrity of the study that you keep in your condition.

Mingyu Feng (27:04):
That's that and you communicate all that to your participant very clearly. I would also encourage you to monitor the usage and provide support to the implementation. However, I think as previously mentioned by Eden, you shouldn't provide any additional support that's not typically provided when school and districts use the intervention. So it should still be the routine condition. With that, I'll now pass it to David, who will talk about the cost of data.

David Knight (27:45):
Thanks so much. I'm going to talk a little bit about collecting cost data, because you'll have to have a plan in your proposal for how you're going to collect cost data while the intervention is taking place. We could sort have mechanisms in place for collecting the test score data or what we might call outcome data, but in your proposals, you'll need to include plans for how you'll collect information about the resources needed to implement the intervention, or what we might call input data.

David Knight (28:12):
And so think of those things as the ingredients of the intervention, or the resources needed to produce the positive outcomes that we're measuring. And so what are the inputs or ingredients? They generally fall into two categories, personnel time and then non personnel resources. And so personnel time sort of people time or people... We're talking about things like initial training, ongoing training that teachers or other staff might be receiving. Anything that takes up personnel time that's required to implement the intervention, that's going to be all personnel time.

David Knight (28:52):
And then that you're going to likely have resources in your intervention that would fall under non personnel. That's going to be things like equipment and materials, computer technology, maybe transportation, or the use of spaces. It's a list of things that the control group is not getting, what is the treatment group getting that the control group's not getting? And even if the school already has some of these resources like technology or those sorts of things, they still represent costs if they represent extra resources that the treatment group needs to implement the intervention.

David Knight (29:30):
And so you'll need to have a plan for collecting that data. And that's generally a good rule of thumb and thinking about the ingredients to your intervention, what are the resources that the treatment group is going to get that the control group won't be getting? Some things to consider, thinking about time investments of teachers or other staff, you're going to want to have a plan for collecting that data. And so we often will use things like time logs or some method to keep track of their time investments.
David Knight (30:03):
It could be something maybe like a weekly or monthly check in with the people, but you'll have to have a plan for collecting that personnel time data as well as non-personnel resources. And then remember in your Phase 1 proposal, you're just describing the plan for collecting that data. And usually at this stage you already have a sense of the resources that are required to implement the intervention, and we've talked about feasibility and that's going to be a part of it. But you won't know at this stage exactly what resources were used in real-time to implement the intervention. That's going to be the cost data that you'll be collecting.

David Knight (30:44):
And then the next two slides, we included here as extra ideas about the types of things that you would want to include in your cost analysis and then the cost analysis plan, and then the types of resources that you might not want to include. And so on this next slide there's two columns and it'll show examples of what to include. We'll start with personnel time, these are things I've mentioned earlier, things like professional development that's specifically about the intervention and that the control group's not getting.

David Knight (31:17):
And so you wouldn't need to collect data on professional development that your treatment group teachers are getting, that they were kind of getting anyways, or that the control group's also getting, just the general professional development that they might be receiving. And then you want to include if the intervention requires staff time for initial planning or ongoing check-ins those sorts of things. And then the next slide includes a list of examples of non-personnel resources that you'd likely want to have plans for collecting data about.

David Knight (31:49):
These would be things, materials, it could be digital, software licenses. Maybe it's going to be equipment that has to be used, those sorts of things. And sometimes you can see in the column that says what not to include, if it's equipment that's already in place, but you're going to use it, you might need to estimate the percentage of a computer lab that's used there. You want to know how many hours of a computer lab is used, those sorts of things.

David Knight (32:23):
And I did want to flag a few resources, there's a group at teachers college that provides a lot of information. They're called the Cost Analysis Project, and you can go to their website, it's Cappproject.org, and they have additional resources it's on how to plan for cost analysis. And I think we're also having office hours, which we're going to talk about in a second, but I'll pass it now back to Eden, who can provide more details there.

Eden Baker (32:58):
Great, thanks so much David. Before we wrap up, we will pop in the chat the links to sign up for office hours and a couple of the SMEs we're speaking today, as well as some of the SMEs from the previous webinar will be available. We'll pop those in the chat so that you can sign up if you've got specific follow up questions. In the meantime, we did want to open up for questions today. We are going to start with some of the questions that we received before today's session. And as we're talking, please feel free to add additional questions in the Q&A box in the bottom of your Zoom window, and we'll try and get to those today as well.
Eden Baker (33:35):
Starting with one of the questions that we received by the Eventbrite, this was from someone who had just found out about the challenges and they were asking what they can go to view materials from previous webinars. As we’ve mentioned before, we will be posting recordings for all of the webinars on Challenge.gov, as well as posting written answers to questions by the FAQ page, and we’ll be updating that as we go. We’re planning to post the recording for the virtual information session later today, and then the recording for last week’s RCT webinar shortly.

Eden Baker (34:06):
If you joined already, please make sure you challenges on Challenge.gov and that we can make sure that you are notified of all editions to the Challenge.gov listings as well any key dates, or reminders around the close of submission, and things like that. Looking at another question that has come up before today’s session for Kiera. This one is, for interventions that aren’t digital, what is the best way to track dosage and participation? Kiera, I'll pass that one.

Kiera Chase (34:46):
I think it depends on the setup that you have going. I feel like one strategy is to train, I mean, if there’s going to be a consistent person who’s going to be in the room as the intervention is happening, then having that person be trained on the whatever log you set up. And then you could also have whoever’s implementing the intervention be responsible for tracking that kind of log data. The challenge with that is that teachers are often distracted and preoccupied with delivering the intervention and interacting with the students so they can forget, and they might not be tracking at the level of, oh, a student left and went to the restroom and didn't come back for 20 minutes.

Kiera Chase (35:51):
I think it depends on how are you're structuring your intervention and the kind of person power that you have, but creating a consistent method for a consistent log for tracking that information and then training somebody on that would be the two things that I would want to think about. And then thinking about how you have a backup for, if whoever's in charge of doing that either forgets or is unable to be there because they're ill, that kind of thing.

Eden Baker (36:25):
Great. Thank you, Kiera. We had another question. I think this is building on what Mingyu was talking about. What do you think are the risks for non-compliance with random assignments? Is there anything that we can do to encourage compliance? Mingyu, I will pass that one to you.

Mingyu Feng (36:46):
Sure. I think I lightly touched on that a little bit. When there’s non-compliance with random assignment, this could really break your initial random assignment made and then hurt the integrity of the study. That's something that we want to avoid and try to mitigate during the study. Things I could think of, before the study or when you recruit, doing a recruitment and doing your messaging to participant, you really emphasize both conditions are equally valuable, it's scientifically to the study.

Mingyu Feng (37:30):
Things that we tried before is that, we made it clear that the treatment group get the intervention first. But think about if you are in the control group, you actually can keep your business as you want and you don't need to change a thing, there's less change that you need to worry about. That was helpful sometimes, especially nowadays, there is a lot going on in school and teachers are quite busy. And another thing we've tried is that framing it as a lottery, and that only a selected group could get the intervention immediately because of the capacity to limit of training or any support provided by the team. So those are things that we tried before.

Mingyu Feng (38:21):
Other things we tried before, including adding benefits for both conditions, for people who are assigned to the control group, consider maybe providing them delayed treatment. They would need to wait for some time, but they will have access to the intervention as soon as the experiment is over, or provide some stipend to the other group, if they rather not have the delayed treatment. Other things we've considered also include offering them a different program that is not going to affect the targeted outcome of the study.

Mingyu Feng (39:06):
For example, if the targeted construct is students mass learning outcome for the control group, if you're going to offer something like a rating program that is far away from the mass intervention, that's not going to change the outcome, but there's some benefit for them. I'm just using that as an example, but you can think about things that you can do to offer to the schools or the participants in the delayed group. And also I'm thinking during the study, continuous communication with participants is also going to be helpful, really tracking what they're doing in the treatment or in the control group, what they're doing, what are the programs they're introducing in the classroom or in after school program.

Mingyu Feng (40:00):
If teachers really making sure they can ask questions, or if there are a situation coming up, for example, if you are piloting a science curriculum, now that the district is doing the same thing, but for a different science curriculum, you would want to know that. And if your teacher is also in the testing group for the district and you would encourage all of those kind of messaging coming up from the teachers.

Mingyu Feng (40:28):
I think those are the things that we try to do during the study, but I also want to see that after the study, the data analysis will go with the original assignment condition like it's intent to treat kind of analysis. I think so, but folks at NWEA probably should attest that, whether treatment teachers implement this intervention law now that they become control or control group being exposed to treatment will both reduce the contrast and weaken the detectable effect between conditions. This is a really important consideration.

Eden Baker (41:15):
Andrew, I'm not sure if you want to weigh in on anything there or provide any follow up to what Mingyu just shared?

Andrew (41:26):
No, I think she answered it well.
Eden Baker (41:31):
Great, thank you. Then another question also for Mingyu, which is, how would you recommend we plan for potential school closures? How can we mitigate the potential impacts of this? So I think touched this in your presentation Mingyu, but is there anything that you would add there?

Mingyu Feng (41:51):
Not at this moment, I think it is really just be very realistic and build a lot of flexibility in your plan, not only for school closures, but also for preparation of the study and training. So there will need to be days for them to take the NWEA assessments and provide training to the participants, whether teacher or students, and allow time for users to get used to the new program that they're adopting. And often there is a learning curve. Sometimes it's steeper, sometimes it's flatter.

Mingyu Feng (42:29):
And there are often other four unforeseeable circumstances that could take away classroom time, the cold weather, or it could be the internet is down, so your intervention couldn't work, or it's a fire drill, or it's earthquake drill. In one of our studies and there is a local harvest to holiday. Everyone went out, harvest a potato, and they're now taking math class that day, or it's a Halloween parade. These are things that all could happen in the classroom. I can't expect all of them, but you probably think about as a realistics and really be flexible. Think about it. If there are 100 days available for implementing your intervention, maybe only build a plan of usage for 80 days. I'm making the numbers up, but just really giving some cushions there would be helpful.

Eden Baker (43:33):
Great, thank you, Mingyu. We have a question live here, which is, there an expectation to also collect implementation data from the group so that we track what happens in a business as usual setting, for example, monitoring how long they use other math programs, curricular activities, et cetera. That one I'm actually going over to Andrew from NWEA.

Andrew (43:57):
Yeah, thank you, Eden. The short of it is no, there's not an expectation that you need to collect those data for the control group. It can be potentially useful for your own site to understand how and where things are working. But in terms of the challenge itself, there's not an expectation that you closely monitor the business as usual for the control group.

Eden Baker (44:20):
Thanks Andrew. And then we have a question here for David, which is, why is cost data important? Why is that something that we should be thinking about as part of challenge?

David Knight (44:32):
That's a great question. It's important to consider the cost because even if your intervention has a really big impact or is very effective, it might also be very expensive and that's going to limit the number of students that you're able to reach ultimately. For example, school could implement a different intervention that slightly has a slightly smaller impact, but if it's much less expensive, then it's going to be able to reach a lot more students.
In general, in these types of evaluations, it's great to know the impact of an evaluation, but it's immensely helpful to also know the cost. And then we can think about how cost effective different interventions are. The cost effectiveness is the impact divided by the cost, is ratio that we can calculate. And that measure is a part of the final score during Phase 2. So that's another thing that we're interested in the cost.

Eden Baker (45:35):
Great. Thanks, David. And then another question for you, which is, what level of specificity do we need to describe how we're going to collect the cost data?

David Knight (45:46):
That comes up a lot, it needs to be with enough detail that the readers of your proposal have a clear sense of what you're going to do and the types of data you're going to collect and how you're going to collect it. The example of time logs, if it's going to be teachers, those sorts of things. At this stage, again, you're not going to be able to say in great detail, the cost of the intervention, because we need to know the empirical cost, we need know the cost as it took place. In your proposal, it's sort of a general sense of how you're going to collect the data, not a highly detailed analysis of the cost of the intervention.

Eden Baker (46:29):
Great. Thanks, David. And then one thing I did just want to flag too, we have answered a couple of questions in writing. If you miss them, just make sure you take a look at the Q7A window there. One was around Phase 2 expenses, such as software licenses and whether these fees will be reimbursed. And then there was another question there around the focus grades and whether it needs to focus on one or all of them. So if you miss those answers, please make sure you take a look at the Q&A box in Zoom.

David Knight (47:02):
There was also a question about the cost analysis-

Eden Baker (47:02):
Sorry, just go ahead.

David Knight (47:06):
Sorry, just a quick jump in there, [inaudible 00:47:08] cost analysis project from teachers college that Fiona Hollands runs. I didn't mention her name earlier and that's been posted in the chat.

Eden Baker (47:21):
Great. Thanks David. And then someone's just pointed out. I'm not sure if everyone can see answers to questions in the Q&A, I can read them out just in case anybody missed them. One was, will any of the Phase 2 expenses such as software license fees be reimbursed, or will the schools have to pay these fees? There are no funds to specifically support implementation, the intervention provider and the partner schools will need to cover the costs associated with this. In saying that, every finalist in Phase 1 will receive $25,000, which can be used to support implementation.

Eden Baker (47:57):
Just a reminder that prize money awarded in this challenge is different to grant funding in the sense that there are not the same reporting requirements, so there's strings attached. Essentially finalists are able to use the $25,000 to support implementation if they choose to do so. And I think my colleague name has also just popped that answer in the chat too, so you should be able to see it there. Hey, I think we have time for maybe one or two more questions. We have another question about costs, which is, how would you go about finding out the prices for certain items? What types of approaches might we include in our plan?

David Knight (48:40):
Yeah, that's a great question. Personnel time, you could use either, think about the local cost of personnel is their salary and benefits, but we're thinking about the cost of replicating this intervention elsewhere. If you collect data on the qualifications of all the personnel, then essentially you can figure out the national average teacher salary and we have resources to help you with that. Personnel time and salary and benefits, and we can help you find those prices, the prices of non-personnel resources, sometimes it's really easy.

David Knight (49:18):
As we're talking about iPads, you can go to amazon.com and figure out the price of an iPad. For other resources that there's not sort of a regular Amazon, Googleable search for the price, it gets a little more complicated and I would direct you... We have some online resources that we can help you figure out the price of, for example, a classroom. In your proposal, you don't need to describe in too much detail how you're going to estimate those costs, but you just need to say that you're going to collect information about all the resources used.

Eden Baker (49:59):
Thanks, David. If there are no more questions, I think we will wrap up, I'll give everyone 30 seconds just in case anything else comes to mind. And then just a reminder, we mentioned this before, but we do have an FAQ page on Challenge.gov. And so we are adding answers to questions as we receive them. Please make sure that you are following the challenges on there so that you're notified of the answer as we add additional answers. I think my colleague Naomi, yes has also added some links in the chat.

Eden Baker (50:32):
These are for all of the office hours that we are hosting over the coming weeks. These are really an opportunity to ask specific follow-up questions of the SMEs. Each one will have a slightly different focus, they will be conducted in a group setting and available to potential entrances for both the Math and the Science Prizes. You can see in the link there, we have one on September 7, one on September 8th and then two the following week. One on September 14 and then one on September 15.

Eden Baker (51:00):
All the dates should be listed on the slides there. And then the links to sign up are in the chat. You will need to register via Eventbrite in order to get the Zoom link. Make sure that you do sign up there. And then as the previous webinars, we are going share a recording of today's session as well as copy of the slides, again, via Challenge.gov. Just another plug to make sure you're following so you're notified as we add additional content there.

Eden Baker (51:27):
A big thank you to all of the SMEs, Kiera, Mingyu and David for joining us today and sharing their expertise. We really appreciate it, and we hope to see some of you at the upcoming office hours. If you do have any other questions in the meantime, we have the email address for IES on the screen there. That's Challenges.IES@ed.gov. Please reach out to that email address if you have any follow up questions. Thanks everyone, have a lovely afternoon. Bye.