Jonathan Blutinger:

Understanding how to hone that pitch, whether to apply to your research when you're trying to sell your topic to journals if you're trying to get published or your presentation, trying to get the audience attention, there's always a scenario where you're going to have to use tools like this. So you might as well kind of jump into it, get your hands dirty, and use a competition like this. I call it a competition, but really it's just more of an experience like this, to really hone your skills. Because it'll be extensible to anything you do in the future, so I can't emphasize it enough, for sure.

Speaker 2:

This is the ORISE Featurecast. Join host Michael Holtz for conversations with ORISE experts on STEM workforce development, scientific and technical reviews, and the evaluation of radiation exposure and environmental contamination. You'll also hear from ORISE research program participants and their mentors as they talk about their experiences and how they are helping shape the future of science. Welcome to the ORISE Featurecast.

Michael Holtz:

Welcome to the ORISE Featurecast. As ever, it's me, your host, Michael Holtz from the Communications and Marketing Department at the Oak Ridge Institute for Science and Education. And today we are talking about the annual ORISE Ignite Off! Competition. The Ignite-Off! Competition is a showcase of the talents of interns from participating federal agencies that ORISE works with, and they share their research through what are called Ignite Talks. So it's a competition where each competitor has five minutes to present their project using 20 picture-centric slides that automatically advance every 15 seconds. I've done a competition similar to this, actually a presentation. It wasn't a competition, but a presentation similar to this. It's a little stressful, but it's also a lot of fun. And to tell us about their presentations, we have the winners of the 2024 Ignite Off! Competition. Joining me today are Jonathan Blutinger, Erik Head, Christie Kim, and Ashley Daniszewski. Y'all, welcome to the ORISE Featurecast.

Jonathan Blutinger:

Thanks for having us.

Ashley Daniszewski:

Thank you.

Christie Kim:

Thank you. So excited to be here.

Michael Holtz:

I'm excited to have you. And I just around the horn, just want to get a quick read from you all, where you're stationed for your ORISE opportunity, and a little bit about what you're doing because I know you'll talk more about your research as you explain your presentation for the Ignite-Off! Competition. But Jonathan, you go first. Where are you in OTRISE land?

Jonathan Blutinger:

So I'm currently located in Boston, but my base is in Natick. I work in the Combat Feeding division at DEFCOM Soldier Center, and I work specifically on 3D food printing applications for field use for soldiers, so thinking about how soldiers will eat when they're in the field away from a barracks or some kind of cafeteria.

Michael Holtz:

Okay.

Jonathan Blutinger:

Anything like MREs, 3D printing food, and future technologies is what I'm kind of dealing with.

Michael Holtz:

Really interesting. Erik?

Erik Head:

So I'm a student at Texas A&M, so I'm currently in College Station, but my ORISE internship was over the summer at Oak Ridge National Lab in Oak Ridge, Tennessee.

Michael Holtz:

Okay.

Erik Head:

And so, my research area was on biofuel purification with my mentor. But that was something that I just totally started right over the summer. I had no previous research experience in that area. It was just that summer internship that I was in Oak Ridge.

Michael Holtz:

Awesome. Christie?

Christie Kim:

So I'm currently based in Atlanta, Georgia. And I'm currently at the CDC, and I serve as a Special Assistant for the Director of the Office of Science Quality and Library Services. So that's a mouthful, so we go by OSQLS to be short. And I just support my mentor with specific projects that he has on scientific clearance, so kind of like the TSA of CDC, which is very different from the topic that I actually did for the Ignite Talks.

Michael Holtz:

Okay. Okay. And Ashley?

Ashley Daniszewski:

Hi. So I'm based in Morgantown, West Virginia at the National Energy and Technology Laboratory. And so, I work as a part of the Reaction Engineering Team here, where we focus on understanding microwave technologies, application for electrifying industrial processes. And so, I work on understanding microwave fundamentals and how it affects catalytic performance and the development of a catalyst system.

Michael Holtz:

Very cool, so a lot of interesting research happening, really cool. I love talking about the research that ORISE fellows and interns are conducting, so great to have the opportunity, thrilled to have the opportunity to have this little bit of time with you all to talk about your Ignite Talks. And speaking of, so you all decided to enter the competition. First question, what led you to decide to enter the competition? And then, just, I'm imagining from a stress perspective, 20 pictures, 15 seconds each, things move very quickly. How did that feel? And Ashley, we'll kind of go backwards. We'll start with you.

Ashley Daniszewski:

All right. So I joined because I'm always trying to push myself out of my comfort zone. My comfort zone is talking about my research to my colleagues here and discussing it lightly with my husband at home. But I wanted to really be able to develop my skills and able to talk about my research in a different kind of way. And this platform allowed for that. And so, I really just wanted to participate to go kind of through the process of learning how to reword your very technically big words, science, and then put it into terms that we can all understand and make it more applicable to everyone. And so, that's why I really wanted to join this Ignite Off! Competition, and I'm so happy to have participated.

Michael Holtz:

Awesome. Christie?

Christie Kim:

So the reason why I decided to enter this competition was also just to step out of my comfort zone. And I've always wanted to do some type of talk, and I saw this opportunity and even my mentor had flagged it to me. She was like, "Oh, it might be a great experience for you if you participate in it." So I decided to enter it, and it was such a wonderful experience on my end. And it was pretty stressful trying to put together everything in 20 slides, 15 seconds each. But at the same time, it also taught me how to communicate science clearly, making sure that this information is accessible to the public, and people are able to understand it in a very meaningful way.

Michael Holtz:

Awesome. Erik, how about you?

Erik Head:

So I was pretty nervous about it at first because I was already familiar with the idea of an Ignite. I had done that as a project my sophomore year of high school, and I just remember it did not go very well. So part of it was pride. I wanted to redeem myself in that way. But the other part of it was I really wanted to push myself to be able to communicate the science that I had learned. Because the way I view a lot of the problems we have in the world is a lot of them have been solved already. It's just the people that solve them don't know how to communicate it. And so, I really wanted to push myself to not only be able to present what I had been researching, but also put it in this very, very difficult format to see if I could really make it something that people could comprehend, even though it's just a five-minute, very, very fast-paced presentation.

Michael Holtz:

Awesome. And Jonathan, how about you?

Jonathan Blutinger:

Yeah. A lot of points have already been made, so I won't try to repeat too much. But I resonate with what Erik just said, and I totally agree in the sense that besides the fact that it kind of pushes you out of your comfort zone, I think a lot of scientists run into this dilemma where they have amazing ideas or things they want to communicate, but it can be a very hard thing for them to do that. But putting it in this medium where it's just pictures, it also feels very apropos because with social media and things are so quick, you're used to just scrolling really quickly. So it's a good challenge. Obviously, it's not the way most presentations are, but it's a good way to kind of challenge yourself and get you into this different kind of thinking mindset. So I think it has extensible traits to other presentations in the future, for sure.

Michael Holtz:

Awesome. And what I'm hearing is a theme is making the science that you're doing understandable to other people, so making it digestible, making it accessible so that people understand what you're doing. And Erik, kind of to your point, a lot of things have been solved. Scientists don't always know how to talk about that. So it sounds like this is a great way to help future scientists, up-and-coming scientists, be able to communicate the work that they're doing in a way that people understand. So I'm going to start Erik with you, if you'll talk about your presentation and basically how it went. You took second place in the competition, so you did very well, and talk about what you did.

Erik Head:

Okay. So I guess I'll start with my research. I was doing, it was classified as biofuel separation, so essentially reinventing gasoline. So already from the get-go, I kind of ran into this dilemma of how can I present something that's not typically the most popular avenue of thinking about green energy or improving our energy usage? Because I figured the most popular topics for presentations are already healthcare or some new form of energy, but this is just something that already kind of exists. We're just kind of perfecting it, so figuring out a way to present that in a new way. And the way I got around that was by comparing it to our current method of fossil fuels, because all it does is directly improve how we're getting gasoline and diesel. And then, I'll say as an engineer, I took a very engineering approach to how I broke down this presentation.

Michael Holtz:

Okay.

Erik Head:

I made my little script document. I counted all the words that were headings and subtracted them out and then said, "Okay, you have roughly 20 to 30 words per slide, don't exceed it."

Michael Holtz:

Right.

Erik Head:

And then, just practicing that script over and over again, trying to get all the numbers down. And I think the most difficult part of this for me was actually making the slides to a large extent, because we weren't allowed to use any pictures from other research. I believe the rule was it had to be on Creative Commons, the images.

Michael Holtz:

Okay.

Erik Head:

So to get around that, I started just making things through Google Draw, I think. If I found a figure I really liked, I would just recreate it in that format. And so, I could have more technical things in my presentation, but they were also fundamentally kind of dumbed down a little bit to what I could understand, what I could just make really easily. And that helped present the information in a much more comprehensible format.

Michael Holtz:

Okay. That's fair.

Erik Head:

Yeah. So I went through... My overall process was making the PowerPoint, then writing the script, and then realizing I didn't like the PowerPoint anymore, and then just going back and forth until I stopped correcting things.

Michael Holtz:

One day you just have to go, "All right, I'm done."

Erik Head:

Yeah. Yeah.

Michael Holtz:

"This is it." Christie, how about you? Christie, the third place winner for the 2024 Ignite Off! Competition.

Christie Kim:

Yeah. So I guess I can also start with what I was working on. So my research is really different than what people are actually doing through their fellowship. So I typically just serve as a project manager for my mentor, but then I was actually looking for practicum opportunities when I was completing my MPH during this fellowship. And through that, I had to find someone within a different department or a center to work on various projects related to nutrition. So my mentor actually connected me to someone that he knew.

So I was able to work with the Division of Nutrition, Physical Activity, and Obesity, and I worked on breastfeeding, which was something that I had no idea anything about. And it was just a huge learning curve for me to know that there was a world out there about that type of information, how important it is. And I really learned so much while working with this team. I still work with them, and I was able to help them update the breastfeeding rates for each year based on the NIS data that is released every year.

So I was able to work on that with them, and I decided that maybe this is a great way and a great time for me to showcase the information that I was working on with them, which is why I decided to choose this topic for this, although it's very different from what I currently do in my role here. So I don't do active research, but it's just finding disparity gaps within these populations, which is also considered research, but a different type of research.

Michael Holtz:

Sure, sure. But important information nevertheless, right?

Christie Kim:

Yeah, absolutely.

Michael Holtz:

Awesome. Go, ahead.

Christie Kim:

Go ahead.

Michael Holtz:

No, go aheadf, Christie.

Christie Kim:

Oh, I was just going to say in terms of planning for this presentation, it was definitely a wild ride. I was trying to see what kind of photos to use and also wrote out the script. But I guess I did start off with the script first because I wanted to know what I wanted to say before I find photos. And then, based on my script, I decided, "Oh, maybe these photos might be more fitting for this situation." So I was changing around the order of things, seeing what flowed better. And I changed the order of the photos one day, and then I was like, "Oh, wait. Maybe that's not the best way to present it." And I also reached out to my mentors and asked if they had any input. So it was a lot of iteration here and there, but finally we were able to pull through and go with the final product.

Michael Holtz:

Awesome. And obviously you did very well.

Christie Kim:

Thank you.

Michael Holtz:

Ashley, you were the fan favorite for the ORISE Ignite Off! Talk about your presentation and a little bit also about your process.

Ashley Daniszewski:

So like I said before, my research really focuses on microwave technology and applying microwave technology to catalytic reactions and electrifying industrial processes. But I had to make a clear connection between your at-home microwave that we all know, and that even the whole audience might recognize and understand what it does, and make that connection to research and how that applies to industry, and how can we use that in different ways to lower costs associated with some processes and just make more reactions chemically and efficient.

So I think I had a different view. I actually kind of took pictures that I knew that I liked, and I just threw them into slides, and then I worked backwards from that. I was like, "Okay, so if I have these kind of pictures for my research that I know I would like to use, what can I say?" And then, I kind of built a script and then I'd go back to the slides. I went a lot of back and forth, I think, to make these slides clear and represent what I want to say well.

But yeah, like you said earlier, making the content digestible and relatable, it was difficult. It was definitely something you have to think about in a new way as a researcher. I've been working in research for, I say a long time now, but my PhD took six years, and now I've been here almost a year and a half. So I've talked about it one way this whole time. So this was a new experience. And the slides definitely, I think they came out well in the end, but I had a good fan collective team behind me supporting me.

Michael Holtz:

I love it, love it. And Jonathan, you took first place in the competition, so talk about your prize-winning presentation and how you got there.

Jonathan Blutinger:

I don't know if it was that much more special than everyone else's honestly. I think we all put all the same blood, sweat, and tears into it it sounds like, as everyone's talking. But yeah, so my background, I've done this research, I worked on this basically during my PhD, so it's been seven, eight years' development, this kind of research. So I've had the upper hand of being able to give this presentation many times, definitely not in this kind of setting.

Michael Holtz:

Sure.

Jonathan Blutinger:

But I guess briefly my research topic was around 3D food printing applications and using digital software tools to create food for on a robot machine as more detached from a person. So the idea of software cooking, that kind of thing, which is really similar to the work I'm doing now, still with the Army. But yeah, so I think my approach in doing this was look at a lot of past presentations that I've given that I like, pull pictures from it.

Thankfully, for my presentations, I usually only used pictures anyways, so that was helpful. I'm one of those people who doesn't like to use any words on slides because I feel like if you have words on slides, it's going to force people to read them and not listen to you. This is the way my professor always kind of taught me to give more like Ted Talk style presentations in our lab meetings. So in that way, it really helped prepare me for this sort of thing.

But I think the hardest part was, again, coming up with a script that felt authentic. I didn't want to read verbatim off of a slide, so I came up with a really interesting setup where I had my computer, and then I had my huge 50-inch screen behind it, and I lifted it up. But then, I had notes on slides that were queued at 15-second intervals that also matched the interval of the timing. So I also tried to take an engineering approach to this and try to kind of come up with a clever solution. But yeah, I think coming up with a story in a cohesive way with just using pictures was an interesting challenge. But yeah, it was super fun in the process.

Michael Holtz:

Excellent. Well, first of all, congratulations to all of you for your amazing presentations. And I know we've talked about this a little bit, but I know it's important for people to understand the science that you're doing. From a researcher's perspective, it sounds like it can be a little bit difficult to make your science where you're using big words and large concepts that are not easily understandable by a lay person, sort of breaking that down. So it sounds like the Ignite talk was a great way to help you figure that out, if that wasn't something you'd already done. Any thoughts on just that piece of the puzzle from anyone? That's an open question for whoever wants to take it.

Jonathan Blutinger:

Yeah, I can jump in briefly. I think that's a huge debate in academia I think too, with I feel like usually in order for something to feel more high impact, or if you want to get across a more technically challenging thing, you tend to use bigger, verbose words to try to evoke the intensity and the knowledge base. But I think it's sometimes harder to create a presentation or a communication style that's more for the layman. So I think if you're able to dumb it down, so to speak, and make it more understandable to everyone, I think that's a greater challenge. So in that way, I think I'm very much more of the person where it's like knowledge should be easily understandable, easily disseminable, no matter what the topic is.

And I think the reason why this Ignite challenge is good, because I saw this with all the presentations, the people here included, you're kind of having to come up with analogies and ways to analogize your work to other things that are more understandable with visuals. And it just makes it so much more... It helps you understand your topic more, and also in the process gets you to explain it to other people in a much better way, and helps with those family gatherings when you're trying to explain it to your parents or your brothers or sisters, people who are not in your topic area. So yeah, I really like that idea of it.

Michael Holtz:

That makes perfect sense.

Ashley Daniszewski:

Yeah, I agree with that really well. I think that you have to be able to make your case to anyone. So you have to be able to say, "My research will provide this and it'll have this benefit." And you have to be able to say that and talk to anyone and describe what your research is and why. And so, this really helped just develop the skills to communicate our research in a different way, like Jonathan said, to just make it more relatable to anyone. To my parents or my relatives at a holiday event, it's hard to describe what we do on our day-to-day work. And so, make it relatable and make those analogies and connections to real life. It's easier for me in a sense because microwaves are everywhere in everyone's home most likely. So I can say, "Well, if you use it to heat up your food fast, why can't we use it to do other things quickly?" So it's just finding those connections and those terms and how to describe it. This talk really makes it more relatable and you learn a lot doing it, so yeah.

Michael Holtz:

Awesome. Awesome. Thank you for that. Christie.

Christie Kim:

Oh, and I also do want to add onto that. I just wanted to say I wholeheartedly agree with what Jonathan and Ashley have mentioned, and I do feel that individuals should be given the opportunity to learn all this information as well if they do want to. But they should just be given the opportunity. And by putting this into layman terms, it allows them to actually not be too scared about learning these topics. Because sometimes if you see these huge words, you're like, "Oh my goodness, I have no idea what that means." So if we're able to put this into more understandable terms, people are able to learn, because life is a learning journey and everyone should have the opportunity to do so.

And I also do feel that as scientists, we always want to get all the information out to everyone and feel that it is really important. Although it is really important, it's also important that we have others able to understand this information that we do want to share to them, because if they're not able to understand it, it wouldn't be as beneficial to others. So I think it's very crucial that we're able to cater this to the audiences that we want to send these messages out to.

Michael Holtz:

That makes perfect sense. Erik?

Erik Head:

Yeah, I think they all just hit the nail on the head. And I would only add that this also helps us as researchers get a better idea of just where we're going with things. Because I think the fundamentally thing you have to do in order to communicate with your audience is establish that foundation where we all know what we're talking about. And in order to do that, it forces us as researchers to kind of get out of the weeds of our own research, of the chemistry, of the physics, of the biology, where we're just lost in all the abstract things and get back to, "Okay, this is the real world implication. This is what we're actually pushing towards."

And then, from that point, you can give a little background to what people already know. So in my case, it was essentially gasoline. Everybody understands you need gasoline. Give a little background to what that is, and then you can push forward into, "Here's what I'm doing to make it different." But having essentially this goalpost in sight both for yourself and for your audience, it helps you ground what your research is and maybe what even your future aspirations will be just in the field, and also ground your audience in what we're doing in the real world and what we're doing to push the boundaries of what we have right now.

Michael Holtz:

And I think too, one of the challenges that I've seen as a communications professional who works with the media is people sort of get stuck in what they hear say today. And science is always evolving as we get more data, as we understand things better. And so, something that you say today may be totally different from what you might talk about, what you might say about your research a month, two months, a year from now. And so, helping people understand that process as well, that science is iterative. It's the nature of the beast that it's not static. Yes, there are concepts that we know that we know, but at the same time, it's always evolving. It's always changing and being updated.

So I appreciate you all helping people better understand and grasp the nature of the research that you're doing. And it sounds like from everything I hear that A) this was a great experience and you would recommend the Ignite Off! experience to your fellow researchers, right? I'm seeing thumbs up all around. And like Jonathan, I am thinking you didn't necessarily expect to get first place, you were just participating in the competition. It wasn't about the prize as much as the process, it sounds like.

Jonathan Blutinger:

Totally, totally, and I can't emphasize that enough. I'm sure for all of us, it helped me definitely hone my pitch a little bit. At the end of the day, we're always like, no matter where you're working, whether you're doing a startup, whether you're working in government, where you're working anywhere, academia, you're always selling. We're always selling something. So understanding how to hone that pitch, whether it applies to your research when you're trying to sell your topic to journals if you're trying to get published or your presentation, trying to get the audience attention, there's always a scenario where you're going to have to use tools like this, so you might as well jump into it, get your hands dirty and use a competition like this. I call it a competition, but really it's just more of an experience like this, to really hone your skills. Because it'll be extensible to anything you do in the future, so I can't emphasize it enough, for sure.

Michael Holtz:

Perfect. All right. Well, y'all, I just want to thank you again for the opportunity to speak to you about the Ignite Off! Competition and about your presentations. Is there anything before we wrap things up that anyone wants to say about anything we've talked about: the competition itself, about your ORISE experience, whatever. I'm going to open the floor to whoever wants to take a moment. And if not, that's okay too, but Erik?

Erik Head:

I would just say the Ignite Off! Competition, it seems very daunting. The whole presentation format feels very, very unnatural. But I would just re-emphasize that it is a fantastic experience. It teaches you so, so much about your own research and how you communicate information. And I think for anyone who is in this program who has the opportunity to do this, I think they should. Whether they think they could win or not, that that's irrelevant. I think this is just a fantastic experience, and it teaches you so much about how to communicate and really understand exactly what you are researching. And I think that is just a valuable resource for you no matter where you are in your research field.

Michael Holtz:

Awesome.

Christie Kim:

I also want to just add onto that, saying this was such an amazing experience. And regardless of whether you are a winner or not, everyone is a winner. And it's just a really valuable experience for people to have, because like we said, it allows you to step out of your comfort zone, but also just be proud about what you've accomplished because this is a really big achievement that you made in presenting this information. And I also do feel that ORISE gives you the opportunity to showcase your new skills or even practice new ones, because everyone has the potential to do such great things. And I'm super optimistic that we have people like everyone here to see what our future is going to be like, because we can continue to learn from each other. Because learning from each other is really important, and I just feel like I had a really wonderful experience learning about everyone's presentations and just being a part of this program. And I'm so proud to be a part of it as well.

Michael Holtz:

Awesome. Ashley?

Ashley Daniszewski:

Yeah. The ORISE programs allow for a lot of opportunities. They offer so many different things, just not only this competition, but even just attending some webinars they have. Anything that you can get your hands on, I always try and do because I think you grow as a professional, you grow as an individual, you grow as a researcher in any way that you can. ORISE provides you opportunities like this. So when I first applied for this competition, I didn't even look at it like a competition. I kind of excluded that word from my head and I just went into it just trying to learn from the representatives that we spoke to in our brief meetings prior to the competition. And I just wanted to learn. I wanted to learn how to communicate, improve my communication skills, and just develop new skills in research and just science in general. So getting to learn from each other like Christie said, it's just a great experience. And ORISE, I have nothing but to say. I'm so thankful that I've had this experience through ORISE and just happy to be a participant, so yeah.

Michael Holtz:

Awesome. Well, thank you all. Jonathan, Erik, Christie, and Ashley, thank you so much for spending this time with me and letting me get to know a little bit about you, but sharing about your ORISE Ignite Off! presentations and just the whole process. It has been a joy and I appreciate your time today.

Ashley Daniszewski:

Thank you.

Christie Kim:

Thank you so much, Michael. Totally worth the drive from California to Georgia to make it here.

Michael Holtz:

Awesome. Thank you all so much. Have a great day.

Speaker 2:

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