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I'm Jena Gabriel and I'm your moderator. Today's the first in an exciting new series that will offer four fifteen minute lightening talks that address a portion of or field. Today's is teaching students on the autism spectrum and today's is offered by Dr. Blythe Corbett. I asked her to respond to the question what has theater taught you about autism. If you would like to view live stream captioning of this webinar you can follow the link you see on this slide and in the control panel on the right side of your screen. Before we get started, let's touch base on the GoToWebinar on the control panel. This can be hidden by clicking on the orange Arrow. If you need to leave early you can click on the X in the upper right corner. A recording will be available afterwards so you can catch up on anything you missed. You can connect to the audio portion of the webinar through your telephone or computer's microphone speakers. If you are calling in from your telephone please make sure you mute your computer speakers. You can submit comments, questions or answers using the chat panel. I will moderate throughout the webinar. If you prefer to speak your input please click raise your hand and I will touch base with you and unmute at the appropriate time.

At the end of the presentation there will be an opportunity to ask questions about the material. Given the very limited amount of time available to us, we respectfully ask that you avoid questions about individual students and focus your questions on the broader implication of Dr. Corbett’s work. During this open Q and A time, click on the raise hand icon if you wish to speak or type your thoughts. Within a week we will send out a follow up e-mail with the recording, a copy of the PowerPoint and a copy of the webinar transcript. This means you can into back to watch the recording and review supplemental materials in addition to the notes you take during the webinar itself. Next week our November voice there's the field continues with a talk by Dr. Laura G. Register for today's webinar you are registered for next week and I hope you will join us. The link is displayed in the chat panel. If you are active on social media I invite you to connect with us using #VSAwebinar. On Facebook we are VSA International. With that I will turn it over to today’s presenter. Dr. Corbett.

>> Thank you very much. It's wonderful to be here. I'm grateful for the invitation. Today I'm going to be talking about SENSE Theatre and I'm really excited to be able to share some information with you about our program, hopefully you can see the full screen.

So what has theater taught me about autism. Theater is the artistic expression of the social communication. It really is the foundation of shared social experience and narrative. Acting engages us in new ways that thinking, interacting and believing and theater really forces us to take different perspectives, thoughts, feelings and of course, behaviors.

So perhaps theater may be an ideal setting for teaching fundamental skills to people with autism spectrum disorder. So autism is characterized by specific challenges and social communication and restrictive, repetitive and stereotype behaviors. So some challenges that we're particularly interested in targeting in our intervention are things like serious mind skills. Being able to take the perspective of other people. Also memory for faces. Reciprocal social interaction with others and verbal and nonverbal communication. Some aspects of theater that might be able to target some of these skills are improvisation. So being able to take on the perspective of others through such techniques. Role-playing where we work face-to-face with another might improve an interest in other people. And
improving face memory. Theater games and various activities like that might help us with social interaction and also working with scripts and character development could help us with our social communications so SENSE Theatre is a unique intervention research program designed to improve the social and emotional functioning of children with autism and related neurodevelopmental disorders that was founded in 2009. Theater has taught me that those with autism can work with peers, play and performance. Our program is a peer mediated program where we take typical developing actors.

These are other children and adolescents and we train them about autism and various techniques in this way peers are not only the target, we hope that our chance at autism will be able to improve our ability to engage with them but they're actually the interventionist. Also play is fundamental to our program. We know that play is part of the emotional development and play really facilitates our children to be motivated to participate in the program.

SENSE Theatre is also very active performance based social skills program. For typically developing young actors that we work with and our counselors learn variety of behavioral techniques so a kind of fundamental in psychology to include shaping or gradual learning. Natural reinforcers like praise, also extinction which is planned ignoring. And things like prompting. Our peer service is live models but we use video models and we put them on a password protected website so the children with autism can practice key skills from their home environment. I've already mentioned some of the theater techniques that we use but also some additional one to the theater games and improvisation. We of course incorporate some singing and choreography. A lot of character work. And all of this culminates together in a performance of a play that also includes music. We perform these plays not only for the families but also for the public. Over the years we have published a number of papers in leading autism in scientific journals, but today I'm just going to focus on some of the findings in one of our more recent papers that came out this year in the journal of autism disorders. In this study we implemented a randomized control trial.

We started out with 30 participants with autism spectrum disorder. 17 of which were randomize into the experimental group. That's the group with the treatment and 13 children were on the wait list control group. These children eventually got the treatment but had to wait about six months and in the meantime started as a comparison group. The treatment was implemented on 10 consecutive Saturdays for four hours each Saturday. The children ranged in age. Each were paired with a counselor and this particular study was funded by the National Institute of Mental Health. When we’re going to try to treat something as complex as social ability. Or what we like to call social competence, we really need to take on a model. We utilize Kennedy’s model using social ability and what it teaches us is that we really have to measure across multiple levels to include looking at the brain and underlying structures that may subserve social processing also social cognition and the ability to set our underlying social abilities.

Social behavior. These are actual observable interactions with other people and then social functioning. These are broad long-term ability in a daily environment. So we use a number of different measures to look at these different levels, for example, in terms of the social brain we use an imaging technique I’I’ll describe in a minute called development potentials. We use a memory for faces. For behavior we measure the children interacting with other kids they haven’t met on the playground and for social communication we use some well established measures looking at daily functioning in the home and community
setting. Let’s get right to some of the results. In terms of social cognition, we looked at memory for faces. In just the view on the left-hand side of the screen this is the wait list control group represented in blue and on the right-hand side this is our experimental group and you can clearly see there’s a significant difference between these two and this measure of memory for faces so there was a significant improvement in the group we see for treatment after participating in the SENSE Theatre program.

In regards to behavior, on our peer interaction playground paradigm, once again we showed a significant difference between the groups. The experimental group represented here in the red showed a significant amount of increase in the amount of time they spent in group play with peers on the playground in terms of parent in future report we use a social responsiveness scale. This scale we want the scores to go down and that’s exactly what we see here. There’s a significant difference between the two groups showing there is improvement in the groups we see here in red.

So we’ve shown over the years many changes in cognition. We wanted to see if we see changes in brain treatment.

This is where we put a cap on the child’s head and you can see here a bunch of different electrodes or sensors. This allows us to measure brain frequencies while an individual is working a particular stimuli. In this case we’re interested in social stimuli like faces, compared to nonsocial stimuli. Houses. In this particular task the child watches passively all these different images. There are 50 faces they see only one time and 50 houses they see only one time. But if the computer randomizes selects one house or face they’ll see many times. Does the brain react differently if they see it over and over again. We’ve done some of this work and used this paradigm in children shown in the top of the screen here. And the face seen one time in typically developing kids show this kind of magnitude of frequency. However, when they see a face multiple times, it’s like leaves sort of like a memory trace and that’s the red line.

These are different from one another. In the children with autism however, even when they see a face repeatedly there isn’t a difference compare to the face they saw one time. We used this particular paradigm in our study for SENSE Theatre and based on our experimental group and our wait list control group shown here on the left hand side of the screen look quite similar. However after the treatment the experimental group as you can see here, this is the repeated line of the red line and that's starting to separate kind of more like the typically developing children as though there’s a memory trace. They've seen that face before. In contrast here our wait control group does not see the difference of faces they saw one time versus many times. In terms of summarizing, in area of mind abilities in response to the theater intervention, many of our children with autism were now better to attribute mental state to others.

Regarding face memory, they were able to identify and remember people’s faces and they engaged more in group play with peers and also in the community and home setting there was an increase in communication with others so what has theater taught us about autism? Well, we see that the supportive context, active role-playing and dynamic learning environment in the theater fosters the development of key social learning skills that children with autism most need to learn. I would like to acknowledge my wonderful collaborators on these projects. The research on human development, our funding for the National Institute of Mental Health and of course my amazing students and lab members in the sense lab. Thank you.

>> Hello?
Hello, everybody, thank you so much. We have now reached the question and answer portion of our webinar. So if you have not already now is the time to enter a question into the question box or to raise your hand. I would like to quickly remind you that given very limited time available to us we only have five minutes we respectfully you ask questions about individual students and focus on the broader implication of Dr. Corbett’s work. So let’s get started.

Great, the first question I have is what do you hope SENSE Theatre and its broad impact for students in the field in the future?

So one of my hopes is that we can really broaden the application of SENSE Theatre. For example, one of my most important initiatives is to take SENSE Theatre into the school environment. We had a reach resource as you know all too well in the Kennedy Center for the performing arts that schools might be a really tremendous resource by being able to bring some of these type of interventions into the school environment where some of our children are and utilize the great talent of our theater, drama departments and music departments whereas they can be not only resource for recreation but also a resource for intervention for children with autism.

Great. The next question is can you tell us a little bit more about the theater activities that students were doing in the program?

Yes, I'd love to. So typical Saturday session for our children that participate in the program would include in the beginning we do kind of a greeting time, we engage in joke time, everybody comes in and brings a joke for everybody. We practice how we engage with others that way. We do a number of theater games that are pretty common to children's theater.

All of the children are cast in a role that we perform, they perform in the play. We do a 45 minute play and each of them is cast a role commissariat with their ability. However importantly I write these plays for the children and as they expand their repertoires and get skills we can increase their role being able to add new wonderful aspects of what the child has brought to the role.

So it's kind of a flexible role at the same time. So these are just some of the things we work on in the program.

Great. I've got a question about the relationship between the research and the artistic aspect of the program. In what way does the research element of SENSE Theatre impact the art being made? Do you feel you need to compromise the artistic integrity of the experience and how is that balanced.

Not at all. The research is really conducted almost exclusively outside of the theater environment. We do our testing typically at the university and this is done before and after the intervention. Very little research is actually conducted in the theatrical environment and therefore, I think we maintain the integrity of that artistic setting.

Great. I do have a question from someone who has their hand raised so this is from Dina M. I'm going to go ahead and unmute now now.

Hi, Dina.

Dina? In the interest of time I'll take the next question. How did you match the participants in your study that you reviewed with us?

So it's a great question, so it depended on a number of different factors. We tried to pair based on age, so the adolescence with another adolescent. So sometimes pairing took
place because the child with autism had preference. Seems to be motivated to engage with particular peer and so we always made sure if they showed that preference we made sure to match that child with that particular child. Sometimes it was based on the level of the developing peer. Some have been with us that are becoming quite gifted in terms of behavior prevention. If we have a child with challenges we might pair them what peer that has a little more experience.

>> Great. What other resources, books, trainings, etc. would you suggest for more information.

>> I think there's a number of books out there. I don't have just one in particular. But there's a number of resources that are put out VSA in fact has several resources, autism speaks is another great resource here at the Kennedy Center. At Vanderbilt we have a number of online tools we have developed in terms of facilitating intervention. All of these are free resources as well that anyone can download and access.

>> Great, so I've got my two last questions here. The first is what type of training or preparation did the evaluators and the peers receive prior to the program?

>> So we have a full day of training where the peers and the counselors participate. Topics that are covered. What they learn about autism spectrum disorder. They learn about behavioral techniques as I mentioned. We also do live practice with some of the techniques. We also have speakers that come in. For example, we often have a parent with a child with autism that will sometimes come in, bring a child. And then I also think it's really important to get the perspective of someone with autism spectrum disorder so I often have an adult come in that has a disorder and brings a really unique perspective of what it's like to have autism. So it's a full day of not only focusing on better understanding autism but practicing learning techniques and we usually end the day with a lot of wonderful, fun, bonding time during theater games together.

>> Great. And so our last question today. Where do you see the greatest opportunity for continued research on the impact of theater and populations of students with disabilities.

>> I just think broadening the application to individuals with autism. I also must say that I think there's expanded opportunity for children with other neurodevelopmental disorders and adults. So I think as we have begun to think outside the box in terms of autism, I think we can expand that to other children that have maybe not specifically autism but they have difficulties with social communication or ways of thinking more flexibly. So I think that we just need to expand the horizons and see what we can provide.

>> Great. I want to thank you so much for your time and that will conclude today's webinar. I would like to ask you, our participants to remain on the screen for a few minutes longer and complete a short evaluation survey that will open when you close the window. Thank you all for joining us. For questions or comments feel free to mail me or call. Thanks again and have a great day.

>> Thank you.
Hello everyone. And welcome to the November installment of our webinar series, which comes to you from the John F. Kennedy Center for the Performing Arts and addresses topics related to the arts and education.

I'm Jenna Garbriel.

November's voices from the field series is called teaching students on the autism spectrum. And today's lightning talk is offered by Dr. Laura Gul. I have asked her to draw on her work to talk about what has theater taught you about autism.

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hand icon on the control panel and I will touch base with you and then mute your microphone at the appropriate time.

At the end of Dr. Guli's presentation, there will be an opportunity to ask about the material. Given the limited time available to us, we ask that you avoid questions about individual students and focus on Dr. Guli's work. Please click on the raise your hand icon if you wish to speak or type your thoughts in the chat panel. Within a week, we'll send out a follow up with a recording and a transcript. This means you can go back and review the recording in addition to any notes that you take during the webinar itself.

Next week there will be a lightning talk offered by Dr. Matthew Lerner. I hope you will join us as we continue the conversation. By registering for today's webinar, you are already registered for Dr. Lerner's presentation, and I hope you will join us next Tuesday. The registration link is displayed in the chat panel.

If you're active on social media, I invite you to connect with us using #VSAwebinar. And on Twitter we are @VSAINTL. We would love to engage with you. With that, I will turn it over to today's presenter, Dr. Laura Guli.

>> LAURA GULI: Okay! Hi there! Can everyone hear me?

>> Yep.

>> LAURA GULI: Okay, terrific. I'm happy to be here today.

Let me go ahead and get this started.

So when I was first asked to do this, let's see, you know with the question what can theater teach us about the autism spectrum, three main things first came up for me before I tell you a little bit about the research that I'm doing. Theater is such a powerful tool to connect with our humanity that I think above all it has the potential to erase some of the myths that we have about the autism spectrum. All of us who work with people on the spectrum know that there are misconceptions that people on the spectrum cannot connect, that they do not have empathy, and that they may not be creative.

Again and again in my work I have encountered these misconceptions. And I think theater, all of us who work with theater and autism know that it has the power to show us that people on the spectrum can connect. They're intensely empathetic and very creative.

So I am the creator and first author of the Social Competence Intervention Program, SCIP for short. And this is a published, 15-session drama-based intervention for school-aged students on the autism spectrum.

It uses a combination of creative drama games, traditional games, as well as process dramas for guided group improvisation to address deficits in non-verbal expression and perception of social cues.
It also includes discussion and the latest improvisations include a video modeling option. An example of the kind of process dramas that we do is one that's called detective agency. The children and group leaders engage in a group improvisation in which the kids have to solve a mystery by decoding the non-verbal social cues of the group leaders.

So in answering the question what aspects of theater drives specific outcomes, SCIP's main theory is that theater that is a reading and expressing of non-verbal cues that theater focuses on helps to develop social perception for people on the autism spectrum. Theater emphasizes the giving and taking of non-verbal cues such as body language, vocal tone, and processing. And the integrating of them together in a realtime format. And then expressing them or in the outcome of the social cues in socially appropriate manner.

In addition, theater has other aspects that very specifically link to other social competence constructs. The improvised nature of theater can help with flexible thinking and the development of reciprocal communication. The perspective-taking aspect of theater helps develop both theory of mind and empathy. Theory of mind and empathy are slightly different but related concepts. As you may know, theory of mind relate to the ability of someone to think about what someone else is thinking. And empathy is more related to the ability to put someone else's, to be in someone else's shoes in an emotional sense.

Another, but often overlooked helpful aspect of theater, is the play. Simply play helps children develop cooperation, learn to resolve conflicts, and simply gives them mastery in the experience of friendship. A lot of the activities that we do are just so much fun. And this may for some of the students be one of the first times they experience this with peers.

So all of these aspects are related to social skills. This is a partial, and not comprehensive list. Social perception, conflict resolution, theory of mind, empathy, and reciprocal communication.

Here are a couple of pictures of SCIP in action. The picture on the left is from one of the groups that I'm running in Austin. The picture on the right, interestingly enough, comes from a group that is being run in Kurdistan, Iran. Very excitedly, SCIP has been picked up from numerous organizations around the United States, around as internationally. We heard of a university in Iran that is picking this up and using this with students there, as well as a hospital center outside of Barcelona, Spain, as well as numerous districts in the United States, Canada, speech and language centers, et cetera.

So a research study we did on SCIP was published in 2013 and briefly a treatment and control group were observed before and after the intervention on structured settings at school. And the main result was that the treatment group significantly increased more positive interactions with their peers and decreased more solitary behaviors than the clinical control group. And the results emphasized the importance of social perception targeted and process-based interventions to generalize social skills.

We had overwhelmingly positive responses from both parents and participants. Here are some of the examples. Some of the students mentioned that they know more about feelings, can talk to their friends more easily. Parents said I noticed his face shows more expression. I noticed her showing more empathy toward her sister. Another student said he can understand what people are saying with body a little clearer.
Another said that he learned he could handle himself a lot better than he thought he could. A parent says their child improved in being able to think about what the other person may be feeling.

And then I thought I would end with just a very appropriate quote from the drama master that language of the body is the key that can unlock the soul.

And then if you would like some more information about this program, please contact me at the following location. So my website is www.dr.lauraguli.com. I would be happy to tell you more about it. We're currently running it in Austin. And the program is available from Research Press.

Okay. I'm open to questions, now! I'm not sure how much time that was. But ...

>> Okay, all right.

>> LAURA GULI: Not quite a lot of time for questions.

>> We have now reached the questions and answer portion of our webinar. If you haven't already, now is the time to enter a question into the question box or to raise your hand.

I would like to quickly remind you that given the limited time available to us, we respectfully ask that you avoid questions about individual students and focus your questions on the broader implication of this work. Now let's go ahead and get started.

The first question coming in. Can you speak to some of the settings in which you see the SCIP program being most applicable? For example, do you see the manual being used most in school settings? In programs that support artistic development? In private practice? Or somewhere else?

>> LAURA GULI: I could see it being useful in a variety of settings. Absolutely school settings is one that is very important. Definitely in school settings. I do know that it's being used in outpatient hospital settings, as well. I think probably in the therapeutic practitioner setting it would be more useful than in a direct arts setting. And the reason for that is I think it's important that the group leaders have some knowledge of the populations that would benefit from it. And some experience working with children on the spectrum.

>> Have you followed any of the participants longitudinally? Is there a developmental progression for social communication skills gained by participants? Have you looked at any generalization or maintenance data?

>> LAURA GULI: That's a great question. We have not done yet, unfortunately, any long-term followup from a research perspective. Informally, I have heard from several participants and informally I have anecdotal data that tells me they're doing well. I just received an e-mail from a parent the other day whose child participated last year. Apparently he is not only doing great socially, but has taken on theater as a professional interest. And apparently is doing commercials. Out in California and doing commercials now. So taking this anecdotal data and looking at it from a research perspective is something that we plan to do in the future and I think would be terrific.
From the generalization standpoint, as I said, the research study we did, did show that there was preliminary generalization to the natural setting. And that is one of the things that I think makes this research unique. There is very little currently in the research to have evidence for generalization.

>> Is the program ideal with just students on the autism spectrum? Or is it most effective to have a class with peers?

>> LAURA GULI: Great question. The program is primarily designed for kids with deficits in social perception. But it’s also been very, not only has it been effective for kids on the spectrum, but for kids with ADHD as well as non-verbal learning disabilities. I have found it helpful for kids with social anxiety, as well. We have not, I have not personally yet done a mixed group of neurotypical peers and kids with social perception deficits. But I anticipate doing this in the future. And I’m really excited to see what kind of outcomes that we get.

I think, you know, there is so much, there is so much that theater can be applied to. I don’t see that there is necessarily a limit. One thing that the program has been a little more difficult with is kids whose social difficulties stem primarily from conduct issues.

>> Can you talk a little bit about the development of the program and how it progresses from session to session?

>> LAURA GULI: Yes! So it’s 16 sessions. Of course the practitioner can choose to be flexible in how they do that. The first seven or eight sessions focus on the input aspect of social perception and really focus on the perception of social cues such as facial expression, body language, and vocal cues. The first couple of sessions actually really focus on group cohesion and cooperation. Then we move into the focusing of attention. Then we move into the perception of social cues. Around sessions 8 through maybe 11, we really focus on the integration of those cues, how we can put facial expression, vocal cues, and body language cues together in realtime and what happens and how things, what makes it more difficult when those are looked at together. What happens when those cues don’t match. And how the kids can practice the giving and taking of those cues. And finally, and that’s when we get into some of the more improvisations or process dramas. And finally the last sessions focus more on the output aspect of social perception. And more traditional social skills, training aspects such as how do we deal with teasing, what are ways to approach and initiate conversation. But the SCIP model rests on the assumption that before kids can really adequately understand things like how to deal with teasing or how to approach conversation that they need more fundamental in the basic social input aspects of social perception. I hope that answers your question.

>> Great. Just in the interest of time I’m going to ask these last two questions. This first one builds actually it seems on the last question. Can you talk about in thinking about those social goals that you had for each of the sessions, how did you map those specific drama activities?

>> LAURA GULI: What a great question. As I think the biography notes, I was a theater teacher about 20 years ago. And, you know, I think it was just a lot of experience with theater and theater activities and a lot of trial and error when we used them in practice with kids. That really helped us map that out. Yeah.
Wonderful. And our last question, where do you see the greatest opportunity for continued research on the impact of theater in populations of students with disabilities?

LAURA GULI: Where do I see the greatest impact? Can you repeat the question?

The greatest opportunity for continued research on the impact of theater in populations of students with disabilities.

LAURA GULI: I think the greatest opportunity would come from the collaboration of academic and practice organizations. And from the collaboration across disciplines. I think that's the beauty of this work. That we have both theater, psychology, psychiatry, child development, all working together and then when that happens we can do so much more.

I think that without that interdisciplinary push the research could be a lot more limited. So I would encourage the theater world to reach out to the academic and psychology practitioners and see what opportunities they have. I think in isolation we use a lot of those opportunities.

Great. Dr. Guli, that concludes today's webinar. I would like to ask the webinar participants to remain on the webinar a few moments longer and complete a short evaluation survey that will open when you close the window. Your feedback is always appreciated. And thank you for joining us. For questions or comments, you can contact me at Jgabriel@kennedy-center.org. Or by phone. Have a great day!
Hello, everyone, and welcome to the November installment for our webinar series from the JFK center for the performing arts. I'm Jenna Gabriel, the Manager of Special Education at the center and your moderator. This is the third series of four exciting lightning talk. November voice's from the field series is called Teaching Students on the Autism Spectrum, What Teaching Theater Teaches Us. I asked Dr. Learner to respond to the question, what has theater taught you about autism. For captioning, you can look at the slide or in the chat box at the right of the screen.
We will look at the webinar control panel, which can be hidden by clicking on the orange arrow in the top left corner. If you need to leave the webinar early, you can click on the X in the upper right hand corner. A recording will be available afterwards to catch up on what you missed.

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We will send a link of the recording, a copy of the PowerPoint and a copy of the transcript. That means you can go back and review materials in addition to the webinar itself.

After Thanksgiving, we will continue with Dr. Anderson. I hope you will join as she concludes this exciting conversation on what can theater teach us about teaching students with Autism. By registering for the webinar, you are registered for her presentation. If you would like to invite colleagues or friends, the registration link is in the chat panel.

If you are active in social media, please connect with us on # VSAwebinar, on Facebook we are VSA international, and Twitter we are VSAINTL. With that, I will turn it over to the presenter.

>> Dr. Learner: Can you see it?
>> Looks good.
>> Dr. Learner: Thank you so much for this opportunity, I'm really excited to be presenting to this audience today. So I'm going to dive right in and begin to try to address this question of what theater has taught me about ASD, and I would like to talk about my background in this field. I'm a professor at Stony Brook University where we do research on these interventions. I started in the field working as an interventionist, like many folks do after college, working on social skills groups. And the idea of social skills groups is to teach children how to interact. And we do this, and this has been around for 20-30 years as a methodology and I do it in a straightforward way.

Here are my graduate students in the lab modeling this for you. So for instance, we will talk about the steps for learning how to interact with other people, the interventionist has the steps in mind, the students call in and offer their thoughts and the interventionist then helps guide them towards kind of a prescriptive plan to help others express their own feelings and then they will model that and try it out in the context of the session.

And they pull from manuals like this, from a widely-used manual, social skills manual, on the 5 steps of understanding the feelings of others, they try to teach those steps. The notion of this approach is to train kids to know what to do socially, social knowledge, and that we might didactically teach them as it applies to role play and apply it to social skilled behavior, or outside in approach, that the child can display the behaviors and achieve the same outcomes of friendship and social connection.

And in working this model, I started thinking, what if there's a different way and another way to approach this question that makes an end run audio whether kids specifically know what to do.

I sat down with friends of mine at the time who are actors, and we start to devise an alternative approach, and capitalize on methodologies used on training actors to perform, the idea being what are actors really doing. They are learning to get in the mind of a character, they are trying to learn how to connect and respond quickly to another person.
So these to me seem like the fundamental building blocks of what we are trying to teach without having prescriptive goals of how one might do it.

So, for instance, here: You can see that some of my graduate students modeling a very basic improv training game, you make eye contact with somebody and clap at the same time. It seems simple for them, but for the students in our classes, the students in our programs, it takes a while to learn how to coordinate in that way.

Here's another activity:

[ Crying noise ].
"I'm so sad."
Somebody states an emotion and demonstrates it.
Kathy for instance shows happy in a different way than Jackie.
For nervous in a different way.
The notion is that, again, it is not audio a prescriptive means of demonstrating emotion, but allowing children to compare their own way of frustration to someone else.
"I'm angry."
Likewise, we might do -- likewise, we might do more advanced activities, like the improv game shown here.

>> This is a really cool motorcycle. I just hope that we don't get into -- [Off-mic comments].

>> So they freeze, somebody comes in, takes the position, and then has to begin a new scene from that position which, again, takes flexible responding from both the person in the scene as well as the new individual.

So we developed a model that we call performance training, which -- [ drop in audio ].

[ No audio ].

>> They missed the opportunity for flexibility. We find that kids are able to come up with novel solutions to social problems really take to the performance training much better, sort of they are ready and waiting for it.

We also find kids with more self-awareness of their social ability tend to have different response to performance training, and then we also very recently found specific improvements in the starting condition in friendship making as well as neural -- the speed and efficiency of neural response to faces in the brain. And we are moving towards matching kids in intervention type.

So stepping back from all of this, what have I learned? Well, working with several thousand kids in these groups over the years, I learned a few things. First, I found that providing kids structure is not the same thing as being rote in our instruction. That is to say, all of the activities I have shown you have the kind of structure that help kids on the autism spectrum to learn, but it does not require telling them what they should do and know, they can provide flexibility in the context of structure.

And humor is vital and not just us being funny, but understanding that these kids with whom we work have often brilliant and wonderful sense of humor and these activities can be a venue in which to display and share that humor with each other and with us. In fact, some of you might be aware of the new documentary coming out this month by the DePos brothers called Asperger’s Are Us, and all of the participants were from this program, and they learned their skills by being the world’s first all-autistic comedy troop in the context of intervention. We can use humor for kids to connect and give them professional opportunities going forward from that.

And importantly, we spend a lot of time in our interventions asking kids to be flexible but, really, we have to be the flexible ones. If the child wants to make the improv activity
yet again audio Star Wars, that’s okay, if that’s what gives him the opportunity to engage effectively with their peers.

And importantly, likewise, their special interests can be a source of connection, rather than being something that we have to tamp down, as long as we provide a venue where they can work. And finally, this can be an opportunity for teaching implicit social learning and teaching. So rather than assuming that children with Autism must be taught each individual step of social interaction explicitly in advance, we can provide a venue in which they can learn from social context just the way that typically-developing kids do if they have the structure to do it.

In current interventions, we are comparing STARI to activities to see the effects of it. We are working with the spectrum school in New York City, provided in the Spectrum of Hope which works with 300 kids with autism, teaching theater and looking at the efficacy of their interventions. We are looking at this across the country and identifying who can respond best to each of these different types of interventions.

I would like to close with this quote from a participant, that he likes to bring people’s miracles to life. And what I appreciate audio that, anybody who is listening to this webinar is someone for whom this is true. And that is really our goal and, of course, the wonderful thing audio these interventions is we can not only give them this experience, but they can feel this power to be enriched.

I want to thank the funders of my research who are listed here, as well as members -- my collaborators and I am ready for questions.

>> We are ready for the questions. We ask that you avoid questions audio particular students and focus on the broader implications of the students work.

Can you describe how students describe to the STARI model? Do you see that students are copying emotions that they see, or are they able to extrapolate the emotion and create their own expression? How steep have you found the learning curve to be and how long does it take to make this transition?

>> Great question. To clarify, as mentioned when showing the video in the emotion ball game, we try to be fairly limited at least up front in the instructions, the notion is we want to be fun first. And the first instruction we give them in that activity is show the emotion your way. Don’t just copy the other person.

And now, interestingly, most kids -- even kids who are fairly minimally verbal who at least understand the concept of the emotion that we are asking to display can do this.

And when I say it is the most accurate version of their own emotional expression, it is a little cartoon ish at first and that's okay, the point is to highlight the contrast and show that we show emotions differently, just as we would do with cognitive behavior therapy. We will help individuals hone in how they express their own emotions.

So actually, I find that the learning curve to getting kids to express emotions differently. The difference is to have them hone in in how they do it themselves. If they don’t do that, our argument is that by paying attention to those differences, even if they are not quite right audio themselves, that that’s where the action is in the intervention.

>> Do you find visuals to be key in instructing emotion based in improv games?

>> Do we find visuals to be key? We find visuals as part of the structure of the schedule. You can have them up there, but all over the walls we have a clear schedule and timing. But actually, in many ways, the sort of specific instruction, we end up trying to avoid visuals too much in terms of visuals a little bit because, again, we worry audio becoming too prescriptive. If I show somebody a picture and they decide they want to show angry as it is depicted in the picture, in some sense that is thwarting our goal, which is not accurate mimicry of somebody else’s emotions, but flexible attempts to try on that emotion or expression themselves.

The exception is when things are more complex, in a group we were running last week the kids were quite good at that game. So we moved on to perplexed or persnickety or really other advanced emotions for older kids, it was a group of older participants. And in
that context, sometimes we show them, we will give them a sense of -- how to expand their emotional vocabulary but not necessarily to prompt the specifics of their own expression.

>> In curriculum planning, how often do you introduce new games, each week or do you have them work in the games week after week?
>> In the curriculum, we have 150 games or so that we refined over time. We are not just playing improv games, it is not as simple as that. So we really focused on making them -- on modifying them so they are accessible to kids on the spectrum. We did improv games at the level that our professional kids would get overwhelmed.

So we would do different themes, one would be getting to know other people, one is body language, and one is somebody else's perspective, understanding someone else's perspective. And we lightly discuss that theme in the beginning and the end of the group, but the focus is not on the discussion, the focus is on the doing and the performance training.

And so, those within each of those themes, there's a stable of activities that I trained my staff to use. It is designed so that certain activities weave themselves throughout the 10 weeks, and which specific activities there are varies based on the interests of the group. So, you know, if the kids love that emotion ball game, there are many opportunities to re-visit it. If they hate that emotion ball game, you can minimize the use and focus on things they do like because, again, the key here is we want to keep them interested and engaged.

>> All right. So in the interest of time, I will take the last three questions that I'm seeing. What literature do you have available or would you recommend in learning this approach to put into practice as a teacher?
>> Great question. So probably the biggest question that I get when I give talks is, you know, where is the manual? This is when I put on my scientist hat and say unfortunately the majority of interventions available have not been evaluated empirically, we don't know specifically what they are doing from whom and when they work. And that concerns me and why we are doing these research studies, and with the exception of Corbitz theater program and the UCLA peers program, with those exceptions in mind we have more evidence for this intervention than many others. It is still not as a point where I personally would feel comfortable saying, just go ahead and do this and I know it is going to work perfectly for you. We need new research. If anybody wants to work on research with me, feel free to drop me a line.

In the interim, there are interventions that are similar that are based on the same principles, Dr. Laura Gooley has her intervention that is similar in context. Cindy Shnider and Amelia Daveys has a book. So while we are working on the specifics of what sequence and how the activities can work well, etc., any of those at least three books that are available, you know, for download, or for purchase on Amazon use activities in similar principles maybe in a slightly different structure, but can at least get you started trying out some of this at home or in your own schools.

>> So it would seem that in distinguishing the social knowledge from social performance intervention tactics that there's a powerful argument to be made for drama programs in schools. How would you approach that conversation and what evidence is needed for that argument to be made?
>> I'm not quite sure, do you mean an argument to administrators?
>> I would guess, yes. I would guess arguments to administrators for using drama as a social performance model.

>> Well, you know, it is a tricky balance here because I'm not -- just as I'm not convinced that a purely rote approach is always helpful for everybody, I'm likewise not convinced that, you know, theater all the time in all cases is going to be a panacea for all kids.

So I think the approach I would take is similar to the approach I would take for any intervention for an administrator, what are the needs for the kids in this school, in your
district, the kids who -- you are already spending time and money and energy on trying to serve. Do you feel like their needs are being met?

And, if not, what are some of the things that are getting in the way?

And, given that, what are the options that are available? I think it is important that these are understood, just like the interventions that are being presented over the course of this webinar series as part of that menu and, as part of the menu that has significant, empirical support.

So rather than framing it as an arts versus non-arts, we are framing it -- our school administrators care about our students and they are looking for what will work best and also most efficiently.

And I think, in many cases, and I've had this conversation with many school administrators when they see these interventions and think about their kids, they find this is an option that is not only effective but potentially efficient and that is often the feedback you get, too.

>> Wonderful, you just answered the last question we had as well. So way to go.

>> Thank you.

>> Thank you so much.

>> [Multiple people talking].

>> Thank you for your time, it has got to be that improv.

So that concludes today's webinar. I would like to ask you, our webinar participants, to remain on the webinar for a few moments longer and complete a short evaluation survey that is available when you close the window. That is appreciated. For questions or comments, you can contact me at e-mail, JGabriel@Kennedy-center.org or you can call me. Thank you and have a great day.

[ Meeting concluded ].
>> Hello, everyone.

And welcome to the November installment of our VSA webinar series, which comes to you from the John F. Kennedy Center For the Performing Arts. I'm Jenna Gabriel, and I'm your moderator. Today is the final webinar in a series that all address an important theme in our field. November's forces from the field series was called teaching students on the autism spectrum, and today's lightning talk is offered by Alida Anderson. I’m asked Dr. Anderson to draw on the research from our other panelists and her own work to respond to the question what can we learn about teaching students with autism from these theater-based approaches. If you would like to view live stream captioning, you can follow the link in the slide and in the control panel on the right-side of your screen.

The control panel can be hidden by clicking on the arrow in the right-hand corner. You can leave the webinar by clicking on the X in the upper right corner. A recording of the webinar will be available afterwards so you can catch up on any parts that you miss. You can connect to the audio part of the webinar through your telephone or through your computer’s mics and speakers. If you are calling in through your telephone, please make sure that you mute your computer speakers. You can submit comments, questions, or answer to questions using the chat panel located near the bottom of the control panel. I will monitor it throughout the webinar. If you prefer to speak your input rather than typing it, please click on the raise your hand icon on the control panel, and I will touch base with you and unmute your microphone at the appropriate time. At the end of Dr. Anderson's presentation, there will be an opportunity to ask questions about the material. Given the very limited amount of time available to us, we respectfully ask that you avoid questions about individual students and focus your questions instead on the broader implications of Dr. Anderson's lightning talk. Please
raise your hand if you would like to speak or type your thoughts into the chat panel. We will send out a link later with a copy of the webinar and the transcript.

Our December webinar, arts and inclusion, holding ourselves accountable and reaching students with disabilities will take place on December 13th at 3 p.m. I invite you to connect with us using #VSAwebinar. And on Twitter we are @VSAIMTL. And we would love to engage with you. And with that, I will tush it over to today's presenter, Dr. Alida Anderson.

>> Alida Anderson: Good afternoon, can you see everything okay?

>> Everything looks great Alida.

>> Alida Anderson: Thank you. Thank you for including me in this panel on teaching children with autism, what teaching them teaches us. Jenna you've asked me to reflect on the findings of what we've learned this past month other theater interventions and students with autism. My name is Alida Anderson and I'm an associate professor of education at American University here at Washington, D.C. And I'm pleased to be part of the esteemed colleagues who have taught on this important topic.

I thought I would start on reflecting on what the researchers have talked about in their work about what teaching students with autism has taught them. We learned about Dr. Corvett's research at the Sense Theater Lab using sense techniques and behavioral approaches to influence social and emotional outcomes in children with autism. We've also learned from Dr. Guli about her social communication intervention program, which uses creative drama to influence non-verbal social cues for students with autism. And we've also heard from Dr. Learner on his spotlight program involving theater and social communication, social competence skills. In particular, he focused on STARI, the sociodramatic effective relationship program.

I wanted to see how these findings affect classroom practice. I thought I would consider the impact on the individual student, both students with and without autism in our classroom. And then take the influence out to the school community in teaching teachers, and then teaching our community and society.

In teaching students with autism, we learn that students are the focus of the intervention in these intervention-research programs. The outcomes are highly individualized.

They are social-emotional in nature. Or affective. And social communication and cognition are some of the areas that are most prominently featured.

Additionally, these intervention programs are carefully sequenced and highly scaffolded. When we consider the influence or the impact on the students without autism in these intervention programs, the peers are the models. They are the intervention targets, if you will. They are also the interventionists. They're the ones engaging with the students with autism. And they require a lot of perspective taking on the part of the peer model, not only to be involved in the dramatic world or the dramatic activity with their peer, but also understanding the perspective of the student with autism in relationship to their own.
Certainly we can see social-emotional, cognitive, and language outcomes for those individuals, as well.

When I considered what the impact is on teaching all students, it becomes clear that social communication outcomes, both receptive or understanding as well as expressing them, are prominently featured. Certainly students are understanding the meaning of eye contact, prosody and flexion. As well as being able to understand them and use facial expressions. To convey more abstract relationships, emotions, connections to plots and characters. And finally our researchers have spoken on theory of mind and perspective taking. Certainly in the receptive skill of understanding perspective, not only one’s own, but others, and then being able to express them or voice them. Not necessarily through verbal expression, but through physical expression, through acting gestural and physical forms, as well.

Another area that is prominently featured, but may not be a direct outcome, but something throughout the common core has been critical thinking skills across content areas. Something that students are being asked to do across English language arts, as well as all of the content areas requiring listening, speaking, reading, and writing about oneself in relation to the text being considered, as well as in relation to other’s opinions, and that requiring reasoning skills.

Certainly the idea of belief and systems of acceptance and belonging through the dramatic context and more broadly in the school and community and positioning within oneself, ones family, school, and community, and ultimately society.

When we consider what the impact is on teaching teachers and teaching our schools, certainly communication and social communication outcomes are very much ways that we can influence learning for students with autism, as well as those without autism in our classrooms and in our schools.

In particular, the context is something that we can learn from for our own classrooms. The role of the peers as models and the feedback mechanism, as well as the use of video modeling. The environmental modifications through the different variety of theater games, theater techniques to be able to meet the needs of individual learners as well as the particular needs of the peers. The importance and the role of pacing as well as grouping, potentially one on one, as well as matched partners. And finally, the idea that within a theater intervention context, you may have individualized objectives for students with autism. You may have shared objectives for students with and without autism across social emotional language and cognitive areas.

And more broadly, in the sphere of influence, I think that the research on interventions in theater with students with autism teaches our community and society about acceptance, belonging, and inclusion for students with autism. It challenges the assumptions about the nature of our students’ challenges and weaknesses. That students with autism can and do learn social communication skills within theater contexts.
And it makes room at the table for all of our students to participate and progress.

Additionally, it provides a vehicle for learning across our students who can experience equally beneficial gain across key developmental areas in language, cognition, and social emotional areas. I included throughout this presentation pictures from a colleague's work who has done process drama with students. And this particular student who struggled in literacy attainment had reflected through his process drama of in-role writing about his relationship to reading. I have seen many students who have gains across developmental areas through their action in drama.

Another area of impact for classroom practice is the diversity of theater intervention contexts. We've heard about theater gain, the use of theater and production, as well as improvisation. We've learned about programs, intervention programs that are featured on the weekends and after school as well as the use of evidence-based behavioral approaches that are integrated within theater contexts.

And directly impacting classroom practice is the current applications on the use of drama-based pedagogies, but they draw on many of the same practices. Certainly dramatic practice integration on and tableau have is shown us promising practices for increasing social communication as well as behavioral gains and literacy gains, as well.

Where do we go from here? The research on classroom applications of drama-based pedagogies, interventions, and theater programs is burgeoning. We've heard from Doctors Corbit, Guili and Learner on the best that we have to offer in this intervention. But we do realize that the outcomes for students with and without autism are limited. We need more of these intervention-based studied. We need to examine the efficacy of them, as well as their feasibility in classroom contexts. And when I refer to classroom contexts, our contexts are very diverse for students with autism. We may see students in inclusive classrooms where I've worked with and without students. We may see students with autism in self-contained classrooms, as well as in therapeutic, one to one, or small group contexts. And all of these areas we need to be able to learn more about how theater supports developmental gains for students with autism.

And with that, I will thank you for attending and I'm excited to hear from participants about questions and comments.

>> Great, Alida. Thank you so much. We have now reached the question and answer portion of our webinar. If you haven't already, now is the time to enter a question into the question box or raise your hand. I would like to quickly remind you that given the very limited amount of time available to us, we respectfully ask that you avoid questions about individual students and focus your questions instead on the broader implications of Dr. Anderson's lightning talk. I'll give you a few minutes to type those in and we'll get started.

Great. Alida, the first question, this panel has provided a lot to think about in terms of improving art integration and improving instruction in academic settings. What do you see as the greatest opportunity for improvement in the arts context?
>> Alida Anderson: Great question. If I understand the question, it is asking the question of what is the greatest area for arts integration in academic settings. Is that fair to characterize as the question?

>> I'm looking at it. It seems like it's more focused on instructional improvement in the arts setting, in the arts classroom.

>> Alida Anderson: Ah, okay. So within the arts classroom how to integrate academics? Is that what I would understand from that question?

>> Um, I would say how do you see these findings? Most useful? in instructional improvement in an arts classroom?

>> Alida Anderson: In an arts classroom. I would say if we're talking about, depending on the arts, I would say first of all drama based on what our focus is this month on drama, I think that the use of very particular theater activities that are mapped to social communication outcomes could be very useful for arts instructors. So focused particularly on key skill areas. If we're thinking about the different areas that have been identified, perspective taking, theory of mind, and particular arts activities and dramatic activities that map to those. Could be very useful for arts educators or drama educators working with students.

Both students with and without autism, I would say.

>> Wonderful. The next question is what do you feel about all of the sensory-friendly performances? Do you think that they're working?

>> Alida Anderson: Well, I think that they're a wonderful way of providing access to a range of learners, a range of audience members, not necessarily those only with autism. There are a great number of individuals who could benefit from the sensory-friendly performances. And to the extent to which they're working, I think it's a question of access to the audience. And if you're increasing access to your audience, I can only see that as working. You know, from that perspective. However, from the theater, from the actor, the dramatic, or the artistic aspect, if there is some sacrifice of the art in the terms of the sensory aspect, that might need to be considered. Although I would certainly say that the theater that offers sensory-friendly performances is only creating more accessibility for a wide variety of audience members.

>> Inclusive classrooms where neurotypical students are working with neuroatypical students for the first time, how much work would you do with the neurotypical students beforehand? What would and wouldn't you share?

>> Alida Anderson: I think that is an excellent question. It boils down to translating our theater intervention work into the real world, into our practices, into our classrooms. I am reflecting directly
on one of my graduate students who has done work in the summer-time in a community-based theater program that focuses on integrating experiences for children with and without autism. And the peer models are the typical kids in the camp. And she reports the major challenge is being able to help neurotypical students understand theory of mind. So that's a concept in and of itself that is fairly complex. And to be able to understand it and then to be in a role where you're the model and being able to take on multiple perspectives is very challenging. So she has been talking a lot about and thinking about ways to teach theory of mind to neurotypical kids in the service of supporting a more inclusive context. I think that these sorts of ways, these sorts of interventions that address the environment, not only the environments of the students with autism, but the environment for all of the learners, are going to enhance and support the outcomes for all of the students.

So back to the question "What would I share," I think that there needs to be a common framework for all students and particularly for neurotypical students about the challenges, the strengths and the challenges that all students bring to the learning environment.

>> Great. We have time for just one more quick question in our five minutes. And this one seems to actually be about your research, Dr. Anderson. They're curious if you have a program that might qualify as examination for research, drama-based pedagogies. They're curious how they would get that information to you.

>> Alida Anderson: Sure. My particular research has focused on the language and the social-emotional outcomes associated with process drama, tableau, and different theater interventions, different theater-based activities in content-area learning. So I would welcome any ideas, any sharing on ways to collaborate and promote and further this research. A lot of my work has focused on students with primary, expressive and/or receptive language disorders, including students with autism. However, I feel that the understanding of cognition, language, and affect are critical for all of our students and the ways that we can support them through the environment I think is only going to enhance what we do with children in the classroom.

>> Great. Well that concludes today's webinar. Thank you, Dr. Anderson, for making the time. I would like to ask you, our webinar participants, to remain on the webinar a few moments longer and complete a short evaluation survey that will appear. You can contact me by e-mail or by phone at 202-416-8861. Have a great day!

>> Alida Anderson: Thank you.

(The webinar ended at 12:53 p.m. Eastern Time)