Hello everyone. Welcome to the fourth seminar in our seminar series dedicated to working with individuals with autism.

I'm Dr. Mary Baker Erickson, and I'll be your presenter today for this topic of interventions services supports and accommodations for individuals with autism to enhance competitive integrated employment CIE outcomes. I am a member of the WINTAC team and a research scientist at the Interwork Institute at San Diego State University. I'm also a clinical psychologist who specializes in working with individuals with autism both transition age youth and adults. And I have conducted a number of research studies within the VR systems as well as college and educational settings. And I also am an active clinician working with this population and provide clinical services.

So, as you all know, the topic of addressing the CIE outcomes of individuals with autism spectrum conditions is not a new topic. There have been a number of previous efforts directed to this topic over past decades, including the SDL's. Right. The original name of the Southwest educational development Laboratory, which is now merged with the with the air. They had an initiative on working specifically with identifying some practices and creating vocational rehab the service models for individuals with autism that started all way back in 2009.

However, even since that time, we still have limited services limited models limited intervention programs to address these issues. And as we'll be talking about today. The outcomes haven't improved much over the past decade.

So, More recently, around The years of 2017 to 2020 The KTR center, which stands for the knowledge translation for employment, research has also started in autism technical work group and will be presenting on some of the information that came about from that work group. And some of these models that have been Identified

Now, this webinar is going to be particularly focused on on models and intervention services that have been research tested. So it is going to be addressing those that are evidence based practices for individuals with with autism in the VR service system. Now, many of these practices can also be used for other neuro diverse populations and non ASD populations as well. But the four particular models going to be presenting today have all been tested, specifically with with autistic adults or transition age youth, or both.

So we'll start off with a quick overview of data on the employment of individuals with autism as well as typical offerings of services and accommodations for this population. And then we will go into the descriptions and give you information about each one of these Identified interventions. I also wanted to state that there is an appreciation for both person first and identity first language in this population. So I will be interchanging terms such as autism spectrum conditions autism. Diagnoses ASD and autistic. And when we're talking about autism spectrum in this talk today will also include all of those that may have been earlier diagnosed with autism or Asperger's or pervasive developmental disorders. Is that Some of our adults had grown up with some of those other diagnostic Classifications

So to start off, I wanted to share some of the data from the KTR center. Now this work was also combined with the American Institute for Research, the air. Program and They particularly were funded to test in vocational rehabilitation agency settings. A knowledge broker model in which individuals are positioned to bridge the worlds of research and practice. And so in doing this they conducted a series of focus groups, a few years ago. And more recently really put all this information together and released it.

So as I spoke about in webinar one in this series, there's a large variation across each area of strength and weakness within the autism population night, hence the name the spectrum. And it's important to integrate all of these aspects within the VR services. So what was also identified as these major themes by adults with ASD as they Conducted as a series of focus groups and interviews. Is that the autistic adults revealed a few of these very important themes one right they desire to be treated as an individual. Two they have vocational aspirations that extend beyond technologically oriented occupations. Employment in the STEM fields has received much press recently as a match of strengths within the autistic community. However, this is not a global match and many individuals have no interest in these fields. So someone to have social based positions or education or the public service positions. So it's important that even though Large companies that are in the STEM fields are are promoting work environments for this population that there is still this broad range and and we need to be can, of course, focusing on the individual and their own interests.

Number three, had patients with the vocational process. This is also coming up at em in the research and research and working with this population is showing that this that autistic adults take more time. Meaning it takes more time to be responsive to some of the interventions or it takes more time to be grounded in a new appointment setting. Where it takes more time for the process of identifying Their, their strengths and their areas of interest to be applied in a vocational

In the VR consumers with autism or reporting feeling pressured by VR to fill a position so that they could claim a success, rather than target employment. That was a good fit. And that would last beyond the 90 days. So that's something we've got to be mindful of. Those with ASD in this focus group report and success when their bosses and co workers understood that you've seen idiosyncrasies with how the ASD manifests So that really fits for the further explanation of number four, and you Kate employers about behaviors.

This can include providing resources to employers like those available at the Jan of the Java combination network which is an extremely helpful. Website. It can give also support for issues that arise. Now, of course, it's more challenging to offer that support past the 90 days, but it may be necessary for a long term sustainment may want to be considering some new models for this population to allow for such supports.

Number five request for continued support once that job is obtained might So again, You know consideration that things may be going okay for the first three months, but Then Interaction may go wrong and they still need some some supports in working through that.

And lastly, employment can happen without VR assistance. They may be able to find their own jobs. But that still doesn't mean that they could value and really need again support to maintain those positions. I've got an excellent example of that. If somebody I'm working with right now. She was able to obtain her own position at a company related to her particular interests and talents. But now she's having a lot of inner personal challenges, working with customers and interpersonal challenges with coworkers and has been sent home from work, multiple times and really is at risk of losing her her job.

Now, this group also conducted Qualitative a focus group inner and interviews with VR counselors and these focus groups with the vocational rehabilitation counselor who revealed the following things.

Number one, customized strategies. The VR counselor stress the importance of a needs assessment in developing customized strategies. For those of you who have heard all of the seminars focus on the autism. To date, you'll remember that in the third webinar, there's a series in the series we discuss methods for customizing assessment and IPE process. Today will also present another model that that is focused on customized employment called access And that seems to be particularly important with the with the working with autism community.

Number two, building rapport is critical. The importance of building rapport and trust with the employer and other staff for the success of this particular employee with autism within an organization and having candid discussions about it. So can can have maybe a little longer process a little more in depth, a little bit more hands on that may be working with with Disability populations.

Number three, understand a person's interest strengths and weaknesses, a truly understanding takes time and gathering information from lots of people

And number four, consistent themes across participants in the focus groups. So interestingly the VR counters agreed with the themes of the autistic participants, even when it was potentially a negative statement about services. So there was a lot of consistency here of the challenges and the need for some possible systemic service changes within the system.

The VR counselors and these focus groups clearly understand Or reported a good understanding of the needs of adults with autism, which was fantastic. But also then reported a concern that they may not be able to fulfill those needs. And part of the reason was may be related to agency stressors are resource or resources being stretched too thin. Or they also reported due to existing policies like closing the case after 90 days of employment.

So a quick review of the dire situation that has motivated, all of us to be on this webinar and to to pay particular attention to this autistic population. Is that even with these efforts that have that started and been operating in some levels and says, we talked about 2009 2010 We haven't seen much improvement. Overall, so only 16% of autistic adults are in full time paid work and this hasn't improved in almost four decades. So this graph showing 2007 data with the before Employed and folks indicated in red. And then the exact same findings in 2016 with only four Indicated as red as being fully employed. So we need to continue our efforts and continue to be change agents. So that we can finally get these figures to change and improve

So just a bit more information of what we know. So now looking at the autistic population post high school. So this was a large project that surveyed Hundreds of individuals post High School. And what happened to these young adults with autism between high school and their early 20s. Not so great. Right. So we see here in the green box that only 36% attended any type of post secondary education, whether that was a community college or a university or even a vocational Program. And unfortunately there is very low numbers of those who did attend in terms of graduating with a degree or certificate, they were pursuing and those rates are even even lower or as low as 15 to 20% We also see over here in the purple box that 19% Had living arrangements that meant they were living independently. So the majority of folks are living still with family with parents who are some with very aging parents Others within residential facilities. According to this data 58% had some form of employment. For pay But looking closer this data, we learned them again, very few Have full employment and the majority had part time employment. With very low hours. On the range of eight to 15 hours per week. And the lat last blue box here 70% did have access to services and received some type of service. So that groups, many services together, including medical mental health. Disability Services and vocational services.

Now, when we looked at the adult population. So past those years of 20 We see very similar results. So again, this is from the Drexel autism Institute life course outcomes research program. And this is their national autism indicators report. It's looking particular within the data from the vocational rehabilitation system that 911 database. And they found that the number of individuals with autism receiving VR services has doubled over the last five years. Over in the next box, we see that they found that 60% of individuals with autism who received VR services left VR with a job. Now, what we don't have here is that sustainment of the job and the individual studies that are starting to look at that are showing that the outcomes are not as positive as these numbers of leading with a job. And then again, that's not indicating a full time work majority on leading with with part time and also finding that the jobs are living with are potentially forums under employment, meaning that it is not a job that necessarily fits well with their skill set and their abilities. And that it's an entry level job where they may have The abilities to do much higher level work. Down here in the purple box on the left, we see that 80% of workers with autism who left the VR with a job or important part time. And so we see that the difference in the number there and and the box on the right office and administrative support was the most common job type at 22%

Now, this group also continued There, you know, survey, looking at other life outcomes within the autistic population. And they saw the same again with this adult population as they saw with the with the transition age youth population that only 36% were attending any post secondary education. Only 58% had a job for pay meaning ever had a job for pay outside of the home. So looking at it from a historical standpoint. Again 19% living independently ever so ever lived, away from parents without supervision. 76% In terms of social socialization, where the question was ever in the past year. So not quite ever but in the past year. Let me clarify that they saw friends called called friends or was invited to activities. So the majority of them are socializing, which is good news. received any services 74% received at least one service after high school and 60% had co occurring condition. So they had two or more additional health or mental health conditions, along with the autism. So amatory having complex disability.

So as most of you all know there are a few main services provided by a VR in support of the CIA, along with training services such as personal vocational, social adjustments and work adjustment services. And what we'll be talking about further today is the following evidence based interventions that were chosen were particularly chose to be to to Represent and be and or be delivered, let me say that better were particularly chosen because they have all been developed and tested and and delivered within one or more of these funded programs for within the VR system so Couple of the programs have also been tested within the transition age you so the pre employment transition services and I'll be kind of identifying those who have also been tested there as well.

And before we jump into the evidence based interventions, I did just also want to go through the Kind of a general list of common accommodations for autistic adults as well as, as well as autistic today that have found to be very important. And those really consider embedding into your own services and that actually have all been identified. To be embedded into these evidence based practices that I'll be presenting

So, The first one, providing simplified instructions and delivering the instructions in a multimodal fashion. Which means, right, giving them verbally, along with in written or visual kind of pictorial images that makes a really big difference for this population and women should can continue on in the job site. So that would be something to be educating the employers. About using that methodology on a regular basis. For their employee with autism. Just to, you know, continue to provide good support.

Second one, provide clear expectations. And these clear expectation should give details and attend to the potential that they could be interpreted literally Right, so by adding more clarity it hopefully reduces the literal interpretation and allows for The match with the autism brain of a focus of details.

Next one is Modeled training. So when training on a new school or process. It's best to model it demonstrated and allow the individual to observe how it is done. So again, not just kind of explaining but but showing Potentially even letting right the person then try it themselves and get in practice and get feedback. So that it's real hands on. Form of of learning the systems.

Building and reminder systems. And these reminder systems can include those that are available. Maybe on their phone on their smartphone. To remind them when to be at work when to come back from break Giving them prompts of when to complete tasks or deadlines that are coming up. Maybe some other management systems using maybe a Google Drive or slack or They're working within a computer systems that can provide those reminders. Or Again, some other kind of built in kind of alarm systems or even quick timer.

They also can really use regular and ongoing feedback. That involves both the positives, what they're doing. Well, what they're doing. Right. And the constructive. Too often in employment settings right they Be back Maybe given on the go, as is corrective but Kind of a sit down discussion and talking about it occurs, maybe once every six months or even less sometimes once a year during the employee. Evaluate formal evaluation this population can benefit from much more frequent and regular. Forms of evaluation. And again, adding in those specifics with details.

Providing consistent schedules as much as possible. Having a consistent work schedule. So they can get into a routine this population that routines work very well for them and and it's a real strength that they have this to follow their routine. Once it's established This also goes with for meeting. So even as a VR counselor meetings that you have the support of meetings or meetings with john coaches should also really occur on a consistent schedule. Check Ins providing reassurance. So we recommend, you know, creating these creating a check in moments into their work schedule so they can just check in the supervisor or a Higher level co worker who operates as as more of a mentor. It also means as you're working with them and you're providing supports as a VR counselor or a job coach or somebody within the supported employment. staffing model is that you also want to initiate some check ins. This could be email or text doesn't always have to be for meetings. But to and then ask some of those specific questions about what is going well and what is not what problems today have today or yesterday. So that it's not to open ended of. How's it going, where they have a difficult time trying to answer that, but rather poignant specific questions to gather information and within this check in. And being able to offer the reassurance to them that those are typical problems. That's okay, that that happens in the workplace.

And then lastly organizing job tasks and use of systems right really providing those organizational systems for them as much as possible checklist timers alarms task analyses. Look for ways that they can really be embedded into their work setting. And in that the employer. It's using them and continuously use them on a real regular basis. It helps tremendously.

Now, I just wanted to also Put on this kind of lengthy list that are all reasonable and common job accommodations These or certainly things to select and then put into writing for their employer. These accommodations have all been discussed throughout these various webinars in this series are working with individuals with autism and maybe our system. So, Those of you who have followed along it's not new, but again, it's kind of just this quick review of those that can be particularly helpful. And helpful for the employer to think through as well. My give the employer this heads up, let them know these are the kinds of things we're talking about there. They're not costly and there there are things that small businesses can do along with the larger ones. But right you dream. Of a piece of wisdom here caution here is a remember that more is not always better when it comes to accommodation. So it's important to fit this specific combinations of course to the needs of the individual. Too often, when a long list is is given like this. People get tempted to check off many items right and include many items in there. What Not always a valuable task to go through all of our way of using accommodations

Alright, so, um, these are the four intervention models. I'm going to be presenting on today, like I said, each have research. Testing. Completed on them. They have come in some various methodologies used to test that research with The virtual reality job interview training and success and Project SEARCH plus ASD supports of all conducted randomized clinical trials. So using very, you know, rigorous research designs. You can see here That each Of use of acronyms. Um, and, but also what that acronym stands for, as well as a presentation here of The where you can learn more information about each one. So each of the program developers web pages that provide some additional information and Information about, you know, potential access and use of these models so Please. use that information to learn more about each

So starting with the first one. VR JIT, which stands for virtual reality job interview training. This is a model. That was Tested and funded through an ni MH small intervention business research grant. So Dr. Matthew Smith, who's in the School of Social Work at University of Michigan partnered with a technology company called simmersion and developed this this really neat novel virtual reality job interview training. So you tell you a little bit more about it. This is just a slide from this group, recognizing all of all of their, their partners and developing this program. So the simmersion Technologies. The they got some support with the school social work, the Grand Challenges efforts and was funded, like I said from the National Institute of Mental Health

So what you're seeing here is a screenshot of the job interview training for adults with autism, the character, the main person you see there it is. Molly. And She is the interviewer. And the program includes this virtual interviewer. And there is also a tape version. That the interviewer is called sim anthem and then there's also a few other versions of Different people. So the day version actually has a few different characters. Virtual simulated people that they can interview with. So there's two separate versions, one for the adults and one for the tape. And the, the ritual. Reality interviewer asked a participant a series of interview questions and then the participant chooses a response from a, from a set of responses provided so that's what you see here on the right side of the screen. You also see when other character on the screen, which is the woman who is a small character in the pink sweater. And she is a coach. So as the person is is in the interview and responding with their response choices the coach give some immediate feedback. She will give some thumbs up feedback immediately. So the The person practicing can can know right away that their response was worth a good response. She gives a little hand movement of kind of a no good. Kind of like you're, you're kind of out like they might use an umpire in baseball to indicate that that was not a great response so they can get this immediate feedback. They also thinking get more information about why their response was not very good. And then these text boxes pop up and and indicate the reasoning. The rationale As well as the reasoning rationale of what a better response would be, you can see there's the tabs of top also once shows transcripts, so they can actually review and and read through the full transcript of the interview to again see Which responses worked well and which didn't and they can kind of learn from that they also are given specific notes and can take specific notes as they're learning. So it's a really neat program that they can Private practice, you know, interviewing As well as as learn you know what to do and not to do as they're going through it and they can and it starts with easier levels and it progresses into more difficult. Levels where the types of questions being asked in the interview just become a little bit more challenging or a little bit more complex. You can see this is a little bit higher level where it's me, Molly asked a question. What traits. Do you like to see in a boss. And it allows for this multi modal table learning BECAUSE MOLLY will be talking in real time and look like a person as she talks with facial expressions and tone of voice. But at the same time the texts will also come up there. So the person can read it as well and and get that information. The, the trainees can do this interview process repetitively. And they get Scored on it so they can see what their score is it ranges from zero to 100 And they can choose between 10 to 15 different statements for almost each question that Molly ass. And you can see that there's multiple right answers so they can go through it in different times. And Experience things differently and Molly can also have different personality styles so she can be Have a style. That's very kind of much more warm and supportive kind of smiling and nodding her head a lot and providing reassurance during the interview. She could have a little bit more of a firm style where her face or an effect in is a little bit more neutral or or maybe even conservative bit flat. And so they can practice with different interview interviewer. Styles, which certainly happened to the real world.

This is just the screen now is a screenshot of another interviewer within the transition age youth version. So this is Travis. And he also can show a little bit different personality styles. You can also see the coach in this version is a little bit more matched to a younger adult. So the coaches also a young adult herself. But the format of choosing responses. And being able to view the transcripts and getting notes and getting feedback are all the same. One other difference with the transition age youth version is the choice, the number of response choices has been shortened. So it's more manage manageable for them. They also have a little bit more of a feedback feature tool. They also have some kind of initial training components to go through before they jump into the interviews. And there's four levels of feedback that the trainees can receive But again, the trainees, you know, can, can interact with this person that's giving nonverbal cues, giving them real time feedback, these, these virtual characters really operate really appear and the experiences as if there was a real person. So it's really a fantastic technology. And they get, they get, you know, feedback on their specific statements and again why why it worked well why it didn't. Each interview can take anywhere from about 10 minutes to the easier levels of difficulty or up to 25 minutes for the harder levels of difficulty with this version. It goes a little bit longer with the adult version. And you can see here, just a little bit of Kind of a little summary of how the how the scoring goes There's different scales within the score so they can get a scale on kind of their, their honesty based off the responses score on their Ability to be dependable based off of off of their responses and you know categorized in that way. I'll be kind of presenting some of the data in just a minute. But they have definitely found that the more interviews that the person practices, the greater improvement in their skill and senior their total scores go up significantly And there is A huge value in a need for staff support. So this isn't necessarily something that that you attain or an adult would just go on completely independently on their own and work through that they found in general that It does require kind of a trainer to work with the individual talk them through some of the, the challenges talk them through some of the findings and and the interpretations of the scores. And To be trained as a staffer They offer training, it's about three and a half hours in length to learn this tool.

So here's some of the data. This is off of Two different Studies one with the autism population and and another study which actually occurred first with it with a semi serious mental illness population. Because this program was actually very, the very first version of it was designed for an SMI population. And you can see that they they did compare control group to the intervention group. And what this is showing that The intervention group had Much higher Rated performance on their job interviewing skills. So, you know, in a real time mock interview with a trained raider They were rated to be have much Higher interview skills. After receiving an intervention, where both of the groups, that's where those those lines start off matched is they started off in a very similar Ability and and similar score with generally speaking SMI group performing better than the autism and group at the pre test, but then you can see the elevated Slope. Take off for the the intervention groups for both of these populations.

Now when they looked at the outcome of Employment. So the rate of offers that were received at six months. Post completing the interview training. We see they found again some very significant differences between the control group, which are the gray bars. And the intervention group, which are the yellow bars for both the adults with serious mental illness, as well as the adults with with autism. And basically, those who completed the virtual reality job interview training. Twice as amount Of receiving job offers so in the Or for autism population 53% compared to 25% in the control. So those are pretty significant findings.

And here, when they looked at The Group who got the the tape group. The so they got their virtual Interview training within the pre ETS services in their school environment. And they looked at it from a number of outcomes. So the first one. In the top left is the likely liveliness to be hired Pre and post test and then you can see that the intervention group which is the dark blue line has An improvement slope, where the Control group where they just got the typical free employment transition services without receiving this virtual reality training their, their slope was slightly declining The job interview skills total score. So again, when they were kind of rating their Their abilities. We saw that the score went up significantly for the intervention group, but actually declined over time for the control group or services as usual. When we go to the bottom line graph the job interview anxiety. So this is a particular measure that was measuring the amount of anxiety and a higher number is more anxiety and a lower number is less, we see that the intervention group reduce their anxiety, but The services usual group maintain the same although they came in with with lower anxiety to begin with, in the pre test. And then the last graph here shows a bar chart of competitive integrated employment by six months following the completion of the interview. Training and you can see here that for that group in the pre ETFs 23% 22.9%, to be exact obtain that employment were zero of the services unusual group obtain employment.

They also talked about the some data where 30% of the pre ETS obtained non competitive jobs within six months. But nothing competitive and and and then 19% of the intervention group. Also obtained non competitive job, meaning that if you add the 23% in the 19% now 42% obtained some kind of work after the intervention compared to only that 30% who were placed in non competitive jobs as part of the services usual PRE ETS Program. So you can see that the interviewing skills definitely helped with focus on the CIE Outcomes.

And then they did this additional study that was quite interesting, where they really had a chance to this was not a randomized study. It was just going to Open Enrollment within The believe it was a school setting. Where they had a chance to look at this dosage effect and they saw that the more interview training and these trials means how many interviews, they actually completed. Made a pretty significant. You know, change over time. So, meaning the more that they completed the interview, they are at a much higher likelihood Much higher likelihood of being employed six months. Later, so that if they practiced interviewed these interviews in this virtual format 15 or more times. They were their rate of getting employed was as high as 55% And you can see the sample size of 318. So that was it. That was a very rich group of individuals. Now it wasn't just autism. So it was across different disabilities, which also Gives us indication that this is a very valuable program for those Other disabilities, not just autism as well.

So taking now a minute here to move on. To the next evidence based intervention. This one is called success. It's an acronym that stands for supported employment comprehensive cognitive enhancement and social skills. Now you'll see that I am the, the author of this study the PI of this study. And it was conducted Partially at San Diego State University, as well as At the child adolescent Services Research Center Rady Children's Hospital. Also wanted to state that although I was the PI on this project that this curriculum and this this whole program really was developed by a research community. Collaborative research community partnership called achieve achieve also is an acronym stands for an active collaborative hub for individuals with with ASD to enhance vocation and education outcomes and this group includes researchers But also providers. Service administrators educators family members autistic adults transition age youth. And and and everybody giving input from the beginning of the concept of the beginning of the needs assessment to say, hey, we need something to Address their executive functioning and and basically their location or soft skills to actually writing the curriculum giving input contributing to the design of the studies. And interpreting the results.

So success is a vocational soft skills intervention teaches new skills and enhances existing skills in the areas of executive functioning social content and communication skills, all of which are quite necessary to be successful employed. Right and the damage has shown, not only for the autism or or disability population, but really for kind of all That the Number one reason for job loss is a soft skills problem. Somebody have having a having low level vocational soft skills or or not demonstrating their soft skills. Whether that leads to kind of an inner personal or social conflict with with coworkers or or communication challenges with with customers or the executive functioning challenges of time management order or Getting to work on on on time and and Knowing the schedule and following the schedule, right, that those are the reasons why people lose their jobs. Very rarely. It's because of the actual skill like work skill, not being Sufficient And soft skills are really the key deficit areas for those with autism, right, if we look at what are soft skills, their executive functioning. So to the cognitive and communication skills will. Those are the three diagnostic categories that are clear deficit in the autism population. So it's understandable that this is particularly an area of challenge for them.

So just a little bit on What are these executive functioning skills. And what is this cognitive enhancement therapy or this cognitive enhancement. Intervention well executive functioning is really, you know, viewed as a term. Kind of this umbrella term to describe many different cognitive processes that individuals use to control their behavior to adapt to their environment and to respond to different situations. It's also described as this higher order thinking. So it is something that really starts to develop in the teen years. And so transition age youth are kind of still it in the form of a rapid development in this area and it goes on. Our development of our executive functioning goes all the way up into our 30s. So there's plenty of room for to grow and to be enhanced. During the young adulthood.

There's really two approaches that are involved in this cognitive enhancement or cognitive training. To improve executive functioning skills one falls under Kind of a category of restorative We might have kind of called it rehabilitative skills. However, in the autism population, it's really more of a debilitating because it's not that a skill set that they had a loss that may be something that could occur within traumatic brain injury or even post traumatic stress or dementia. That these are these are folks that have to activate it from the beginning, but the approach of training your brain to activate these areas and to create New or stronger neuronal connections is is the same. It operates the same whether it's debilitating or rehabilitative The other main type is compensatory the my for kind of a shortcut name of be called workarounds. So this is the use of devices and strategies. To really help our executive functioning and we all do these on a very regular basis with our new smartphones smartphones are really fantastic. compensatory device that helps us remember things right, which we technically then don't have to remember because our smartphone is doing it for us. It's kind of almost like this. Is borrowed brain that we use. So it keeps track of our schedule and it gives us a reminder, it gives us a notification that something's coming up. It prompts us, it sends alarms. It allows us to write notes. Etc. And those are all compensatory type strategies that are very important to use to enhance an executive functioning ability

So as we described executive functioning is is kind of this this higher arc a higher level way of thinking. It's also considered a package of a number of specific cognitive skill sets. So what this slide is just kind of presenting here is is the package that's all included in the Success Program and and viewed most commonly As those within the executive functioning package. There's sometimes a little bit of debate about a few of these concepts is working memory part of executive functioning or is it its own standalone But Our, our group found that this was, was a set that was of use to be focused on and to be providing cognitive enhancement, particularly around. And so what we put in the right hand side is just sort of a more common phrase that might be used in in day to day life to help people. Understand the scientific term a little bit better but also to recognize that these are common for again for people in general is that the we're using these things on a very regular basis. Each one of us within our workplace, but also within our, our more broader life. And when when somebody has a challenge in this area or a deficit, it can impact in a number of areas.

Now this intervention also focuses on teaching social cognitive skills and embeds in what we know from the literature on on training within social cognition. So social cognition is defined as the ability to think about the minds and mental states of others. it first came out of the social psychology theory that focuses on how people process store and apply information about other people in social situations. But it's now actually viewed more under the kind of neurosis neuroscience and neuro psychologist as a as a cognitive neuroscience function. And it also we kind of expanded the definition about about it to include processes used to decode and encode about the self, other people and inner personal knowledge. So when we're talking about Understanding emotions and understanding perspectives. It's being aware and understanding own as well as other people as well as what would be considered the, the general knowledge or the Social norms. Sometimes we, you know, use the word. You know what's expected under that category of information.

And it also has an area of of sub Skills. Some areas that all kind of fall under this more umbrella term of social cognitive skills. So again, kind of put the science terminology. On the left in the blue and the more kind of day to day kind of fun way of Acknowledging and on the right hand side a little bit of a maybe a phrase or a saying. But it includes perspective taking. social awareness social knowledge emotional awareness. Being aware of your own feelings, right. Take a chill pill knowing when you need to calm down when you need to maybe compress the emotion and deal with it later. As well as social communication now social communication falls under the social cognitive skills. But in the Success Program. We also kind of pull it out because within autism population. There's a lot of nuance and component under social communication that you know includes verbal communications and tone of voice. And pacing, as well as non verbals and facial expressions and body language and spacing and how far close you stand to somebody and those are all aspects of social communication. So we kind of developed the bat with a number of skill sets all within their

So how does this success intervention kind of operate well it's delivered In Small groups. It has a set curriculum where each session has defined Concept to learn. So it starts off with this psycho education component to teach the constructs that also You know, provide some of the neuroscience terminology and the neurological functioning to provide the reasoning and the rationale, because that we can become pretty important at times for the autism population. Then it, it provides some experiential kind of hands on understanding of this concept. So they kind of learn it in the psycho education, then they kind of learn it, of what does it look like in a work environment and it can notice If it's not there rain. If it's the the skill or the executive functioning is not turned on, as we might call it in some of these brain. What, what would happen, what would it be like Then their specific strategies taught. Now our autism partners on this project really didn't want us to use the word strategies or coping skills or there was a number of terms that they really didn't like Any longer in adulthood. They said it was sort of us to death through their life, and they were sick of hearing them. So we ended up shifting the wording to calling them moves. What move. Are you going to make what your game plan and that actually resonated very well with them because they felt that was kind of A new appropriate term and one that was also related to kind of gaming, which many are quite interested in. So it was something very familiar. So we basically teach them what to do in this way of activating this brain function. This particular strategy to yours, and how to use it. Then they would they do more activities this experiential Learning approach of what is like when when you're using this move. So when you're actually doing it this kind of turned on and they can comparing contrast of what the experiences of using using and having it turned on versus not. They practice in a number of different activities and role plays or seen simulations and then they are given Specific assignments to complete and to use these these these skills. These moves in their own life. And these are called try it and apply it and then they will kind of come back and report on how did it go and report on their success stories.

So this is the all of the different chapters are the set of curriculum. The green is all executive functioning focus the yellow Context Awareness is actually Kind of a combination of of of using executive functioning skills as well as social cognitive skills. So we put those in the yellow Color and then the red are all the social cognitive, including those social communication skills as well as Other relevant within those constructs specially in an employment setting which are things like social networking and self advocacy and use of social media and electronic communications and so we Our group decided that those are also very important to teach on specifically within the curriculum.

So this is just a little demonstration on some of the approach of teaching some of these social cognitive and communication skills that are rather complex right and have a lot of different components and And and nuance to them. So we use kind of this additive model. And we use a lot of logic models. So this first one on the top it says relationship plus role. Plus context clues equals a social interaction types. So we help them understand that, you know, whether you have a relationship with a person an existing relationship with a person matters. You know whether the role of yourself in this other person matters or the a supervisor versus a co worker. They lead mentor co worker versus a kind of a equal level co worker. What are the context what the environment is this, you know, in a work meeting or is this a work related to social event that's occurring outside That all of those things matter in terms of how you're going to interact and what you're going to say, and even what kind of spacing, you're going to use and this interaction type we we teach is on a continuum from casual On one side of the continuum to formal on the other side of that continuum. And then there's this blended part that goes on in between. And you have to then make this determination, what type of interaction would I have with this person, am I, should I have a casual one or should I have a formal one And then that understanding also then feeds into into what to do next in terms of social communication. So, So the first is a logic model on how do you, how do you, you know, figure these things out from a social cognitive perspective and then The second one takes you down into now how to implement it within a social communication component. And so you can see that social interaction type box is still there. You see another new box. So this perspective taking box which we teach. And we have a kind of a model to teach that. And now we're adding those two concepts together. That you have to think of your, your perspectives, your own perspective as well as somebody else, then you have to add that to the social interaction interaction type is this going to be formal or casual a blended Rate when you go to interact with somebody. So you first. You think about those things. And then you go to interact, which is this do parts. So you always want to start with some kind of a greeting and that greeting might be a hello, hi. It might even be an eye contact. So we always have that arrow of when you're transitioning from thinking about what to do into doing it need to, you know, give some kind of Approach and kind of breathing and now you're, you're going to apply what you do differently based off of that social interaction type of perspective based off of what you thought about so How close you stand to the person right if it's a formal interaction. You're going to stand further away. If it's casual, you're gonna maybe stand rather close. What kind of non verbals you might use when the old days, we would shake hands. If it was formal But if it was casual, we would just give a hug. Possibly or high five And verbals you know do we call the person by their title doctor or do we use a first name. And in a casual way and all of that right one information gets fed into the another and kind of carries things through. So that just gives you a little bit of how this information is presented. So jumping into some of the research data. There was a number of studies conducted, there is an open Trial with 100 participants with the employment Success Program. There was a randomized clinical trial with the employment Success Program. Then there's also a adapted version for college students. So college success and there is an open trial. With Studies across four universities and and one main Community College District or three universities and one main Community College District And there's also a transition age youth version of success and a randomized clinical trial was conducted with that version, the cross to high schools and to transition programs.

So just to present some of the data on the employment success findings of the randomized clinical trial we see these line figures that are presenting on An individual executive functioning skills. And so we have two informants. On the left is the participants reports. So how they viewed their own Intervention or executive functioning skills and on the right is the parent report. And we can see here that The participants in the intervention group which is the orange line are showing Rather major reduction in executive functioning problem. So this is a measure where the higher the scores, the more problems they have with executive functioning skills. And they reduce that so that it was not a problem area where the control group was slightly decline, but really looks rather stable and the parents also report see report a much deeper decline in scores for the intervention group compared to the control

When we look at measurement tools of social cognitive and communication skills. We see the same pattern with the orange being the intervention group with a quite a dramatic decline. This measure also is kind of a problem focused measure. So higher scores are more problems in these areas, lower scores are our lesson. So from free to post, we see much change. From the participant report, which is on the left side and we see rather stable minimal change not really anything That we would view is is meaningful from a statistical standpoint of change in the control group and we see the exact same pattern in the parent report and the parents didn't really know what their Their adult Child was learning in the success groups. They didn't really have access to the curriculum. And so they were just reporting on what they saw in the home or community environments that this participant was now demonstrating so it's really kind of a neat generalization point

We also see on the left here, changes in an actual social performance off of a social skills performance assessments. So it's an interactive role play With the trained administrator and a trained coder and we see that this is now higher scores indicate better functioning. And so we see the intervention, having a much higher steeps upward slope, meaning that there's much more improvement. Look at control grouping very minor and with employment, we see the intervention group shifting their employment to increases, right, getting more of them. Employed at the post where the control group, which we're still getting vocational services. So it really was a service as usual type of group actually lost employment, they declined. Overall in their, in their employment and what we also found was Zero percent of the control group receive raises where the intervention group had 21% receive raises and increased hours over time and the intervention group was working substantially more hours and a higher pay rate than the control group as well.

And this is just a quick demonstration of of some of the what the participants said qualitatively. And we also ask them to draw it out for us. In kind of a visual. And here's just a few of the drawing. So the participants. summarized in one particular group what they learned, they said, we learned how to act in the workplace, the expected and unexpected behaviors and self advocate ourselves in any situation, including the workplace. And you know, I think these drawings are rather telling, I can do this and then shifting to another day. Great day at work. Clothes into an age and then all of a sudden popping out with kind of an image of of confidence, we see the ladder almost up to the top of reaching the goals. And then just a really neat figure graphical and using the word success across each of the bar graphs, saying that quality of life at home, at work, increased over time with success. Which I absolutely loved That since I'm so interested in both the program and data.

So now we're going to move on to access achieve which also is an acronym achieving competitive customized employment through specialized services. This is a program Developed By Tammy Jorgensen Smith. She is at the University of South Florida. And also this again. This program was 100% delivered with within the VR community services, just like the Success Program and was and the The virtual reality, job training also

So this, this program of access study really is focused on customized employment and so just a, you know, quick review. Of what the WIOA defined as customized employment, which is competitive integrated employment for an individual with a significant disability that is based on individualized determination of the strengths needs and interests of individual with a significant disability designed to meet the specific abilities of the individual with the significant disability and the business needs of the employer and carried out through flexible strategies. So access is 100% following that customized employment model. And And we'll see how it does that.

So at first, it really uses a social associate ecological approach or social ecological theory behind the scenes. So this bottled customized employment processes is truly grounded in this theory and acknowledges the complex interplay between a person and the environment. So, it emphasizes the importance of this person environment fit as well as the diverse systems that influence human functioning. So it takes into consideration the unique aspects of each person, such as the person's age or dis and disability functional capacities disposition interaction style right as that orange. Middle or Most kind of ingrained circle in this concentric circles. And then it also then now takes in the next level of contextual factors as as within the interpersonal. So those are things like the living environment and geographical location of the person what Within you know their circle there. Friends and family circle of support a weds what's involved there. And then it moves on and it's still also focuses on the Community level. What are the larger support systems. What are the connections that the person has and the resources that are there for them in the community to facilitate this employment. And then it's also involves that the broader system level focusing on these laws and policies and practices and really using the models that are available through those So that the outcome aligns with these individual interests and talents, while considering the conditions that may impact this successful long term employment. In which all of these levels matter.

So this is a figure that is providing how this is kind of working within the CE process. So the job seeker is in the middle the center Of the process and should always be involved in every aspect of his or her vocational rehabilitation. So the customized employment process begins with with the top with the discovery. And if we can have them read kind of going clockwise around the job seeker. We can see that's Going to move into the vocational profile. So also going to involve the competitive employment planning deployment blueprint right and and using that circle of supports. To all provide some input. It's going to include portfolio visual resumes. That's going to Focus on the job development and the negotiation process and then it's certainly going to also include accommodations and supports. And it's not a linear process made its interactive circular but the discovery will continue to take place throughout the process. So, so it's continuous to move and this vocational profile is ever evolving to reflect the newly obtain skills, the interest and support needs.

So what the access intervention directly does is It. Protocol right develops kind of a set structure. Protocols a system of, how do you do this competitive employment for the autism population. It's developed within a user friendly system, it actually creates and user friendly system that incorporates interconnected package of tools templates logs and that that makes a standardized and and promotes a consistent method of delivery. It includes fidelity checklist. It's it's embedding in elements from the merit of popular see models and feedback forms that have been established for a number of years. But it's kind of making it manageable. It's been tested so it's got this establish evidence based And it's purposely focusing on how it can be generalized generalize to other settings. Outside of this particular PI. Group.

And it very much uses the essential elements of the customized employment for universal application that was that was Published in 2017 And the, you know, a document developed by leaders in the field and published by by WINTAC the Workforce Innovation Technical Assistance Center, so Again, it's kind of embedding, you know, these, these approaches that are existing. It's not a complete novel approach, but it's it's creating forms templates in the process that people can go through a standardized The methodology.

So, it breaks it down into see six key elements. Of first one is this going through this discovery process and there's protocols on how to do that. Second one is developing the vocational profile. And again, kind of protocols on how to do that. The third one is Is running and and having establishing the customized employment planning. For develop developing the portfolio, the visual resume, knowing that that's a really important part that typical interviews don't work very well in customized employment. The fifth one customizing the job using that job development, but also particularly the form of negotiation, making sure that it's a win win that it works for the employee and it works for the employer. And Number six. Specifying the accommodations and the post employment supports and having a clarity of those in place.

And as mentioned, The access has a fidelity instrument. It's called the benchmarks of quality checklist. And it's used to assist with both the training and access but also particularly monitoring adherence to the access model. And so it documents, whether there's any old missions or additions or adaptations that were made during this implementation for each consumer Walking the person through how to follow the templates and protocol for each of those and and when something's not working, what to do and why

Now interestingly within their Research demonstration project. They're showing that This process which with other disabilities using a customized employment model was often taken four to six months, but with the odd some population is taking more like eight to nine months to to complete And they're noticing why that is, is even within the discovery. Phase, the first things that that's taking Time to really get the richness that's needed in the discovery or, you know, really important parts of understanding what is the skill set, or what are the strengths. What would be a good Form of employment for this person. So the initial interview is often taking on average 3.5 hours observations in the home on average 2.8 hours. Observing familiar activities. Those are occurring in multiple settings 4.7 hours and watching those novel activities which most often are in the community. 7.5 hours so average time take Spent in discovery 27.7 hours.

So their benchmark of quality checklist, they have in the research notices. It's a pretty key usage of it. It is a copyright measure that's available for us. So you can see the reference down here at the bottom. That's fine. And it really serves a very important function to facilitate the training and guidance for community based providers to implement this approach this access intervention while simultaneously promoting adherence to the access model. And documenting omissions and additions and adaptations that are major implementation process.

So, what they found. Through their research studies. So a number of great outcomes but also a few challenging ones.

They found Within the primary outcome of competitive integrated employment that the four participants who completed the access intervention. It was through the research. All obtained competitive employment. Which is fantastic.

But they also had this challenge that only four participants completed access intervention and what they found with that was they had a particular challenge with one community provider were five participants who only met with this person went to two times all then dropped out. And because it was services research it You know, they kind of had to go with that. So there was something clearly there. That was not a good niche match with this particular provider in Using this approach.

They also found another can of This handful of participants who withdrew. That was really kind of connected to work motivation. That they tend to be not intrinsically interested in working and motivated, but was actually kind of more influenced by family members and that that really made a big difference. So The that becomes a really important part is whether kind of maybe doing a work motivation assessment or or kind of interview at the beginning to see if this person is really You know interested and motivated and ready to work. In terms of the work that these participants. were hired in there was quite a variety. One person was in self employment and became a game developer through contract working 25 hours per week. Another person. Found self employment as within the health and wellness industry and was working 75 hours per week. Third person became a financial accounting worked a job within financial accounting working full time 40 hours per week. And person had a job at the hotel, but then they noticed that later had to turn down for some personal reasons. They also Found That Their, their program. You know, could could value from some additional evidence base. But in particular, you know, our services within the VR system really need a greater focus on on Developing evidence based models testing kind of services and being able to implement them. They feel that there are some particular challenges that really are implications for for greater policy and practice changes, kind of at the systemic level that within The VR system. There's still Too much of staff turnover, that there really is a need for highly qualified practitioners, especially with these unique populations, the autism population. There needs to be consideration about caseload. As we talked about this population is needing additional support and oftentimes lengthier amounts of services so Those you know folks working with this population. To have potentially smaller caseload sizes. And other capacity as we kind of talked about in terms of longer, longer time and this job retention services need to be included. So something that's potentially passed this this 90 day And so they they decided that there instead of kind of jumping in with another research study that they're going to take some time to to Focus on building a better system. Take some time on focusing on on creating some of these service changes. And it was Great learning this through conversations with this group of impacts when they jumped in to conducting this real world services research and I can say, as we also could, you know, jumped in with the success intervention that a lot of these resonate. For us as well. And so Those of us who have done some research are are are experiencing similar Types of findings within the service system. So here's just some information on how to Access their access products and resources that they're making available.

So the last intervention to talk about today is the Project SEARCH so certainly Project SEARCH Has been around for quite some time and used across disabilities but Project SEARCH plus ASD with the ASD community was Particularly developed by Paul Whiteman and Carol. Carol and colleagues at Virginia Commonwealth University. So Rehabilitation Research and Training Center is conducted number of studies in this model. So just a bit of overview of the Project SEARCH his model is a transition to work internship program that uses a supported employment approach to assist youth and young adults with developmental disabilities acquire vocational skills. It utilizes a series of internship rotations and various work settings to help the student obtain job experience and determine job preferences. So, and build them some of that job exploration With getting the hands on experiences and then helps kind of guide and determine that the kind of job development function of where to go. It assumes a close partnership with the business by ensuring that the internship work is meaningful and productive and that it benefits both the student and the business. So a lot of these businesses have been very large Type businesses like a large hospital settings or I've heard even some large university settings have been good partners so that there are a number of Variety of jobs and experiences that the students can be involved in as part of these internship rotations. The program has been reported to serve individuals with a wide variety of disabilities. And now this group, particularly focused on the autism spectrum. And found that they didn't need to do some adaptations to the original Project SEARCH model for specifically for the autism population. But the broad Project SEARCH program is implemented in over 400 sites now internationally. So kind of across the world. And have always had fantastic completion rates and fantastic employment rates as high as 92 to 94% completion and employment rates as high as 70 75% As a particular article article stated in 2017

So I put a citation here on a particular webcast that speaks again will even more detail about the Project SEARCH model. And this is put on by the National Advisory paint panel as an effective vocational rehabilitation program and and so this webcast presented in more detail.

So I'm giving you an overview of product search, plus the ASD supports. The majority of this information was was pulled from a number of publications from Michelle and Wayman and others. That The Project SEARCH plus ASD supports provide specific techniques and meet the needs of youth with ASD. So they added a set of these new supports one really focused on social communication training. Number two. Really embedding in visual cues and making that a Core Component of using visual cues. And number three, incorporating in behavior support and self regulation strategies. So as women states and 20 and a publication in 2021 of the essential hallmarks of the ps plus ASP model is the braided provision of services by educational and adult service agency simultaneously. So with another really important components. Braided funding rated self service support. And for this population as being transition age. It's really using the pre employment transition services. Pre ETS as the delivery of Project SEARCH

So some other main addition program elements. Is that may supports are in place in preparation for graduation. Graduation basically means graduating from, you know, pre ETS and transitioning into competitive integrated employment. So as part of this preparation for graduation. The specifically define the criteria for a job. This includes amount of time individual would like to work to location. Your where they like to work potential really focusing on having it is near to the home as possible. Having a clear understanding of preferred tasks and jobs and industries and preferred shifts

They also specifically develop a strategic plan for employment. So this specialized Strategic Plan. Brings in the existing support people that they had within the pre ETS and and they maintain that then they they move that directly in so there's not Kind of a gap or of re enrollment or you know something with a whole new set of people and ideas, once they hit the, the more general VR service system for obtaining that job. They also developed specialized job seeking modifications.

They do this because many of these individuals are unable to sit for interviews. So these minor modifications include things like clicking videos of the person working Gathering those recommendation letters from internships supervisors. Gaining those job leads from the families contacts. And doing working interviews where the applicant performs the duties of the job alongside the supervisor. And they know a lot about those abilities right through through the internship experience. They talk a lot about the importance of maintaining the continuity of the team. And this team involves a focus On on people. Moving into the, the, the general VR so having the same be our case manager, having seen job coaching agency that provided the services during The pre ETS and during the Project SEARCH ASD year And making sure that there's a link between the pre ETS and adult VR system. Very, very important. And lastly, to launch directly into job development post graduation. This includes job seeking profile and that was completed during the internship years and the students go directly into job development. If the job is not found immediately after graduation. Then they move quickly into a phase three, which is a job site training phase four which is long term support.

So Product Search plus ASD has been conducted In number of research studies. And there was one large multi site randomized clinical trial across for school districts And community hospitals. So each school district was paired with a community hospital setting, which was their business partner. The sample was described as being kind of moderately impaired with the range of mild to moderate impairment. So there was Some that had limited language abilities. Autism, along with intellectual disability. So, A bit of range in population. And the findings that they found that graduation. So again, this is after one year of being in the program. So all the participants transition from a self contained special education program into this One year Project SEARCH plus ASD. Interest internship. Intervention during their last year of transition services so that they were no longer in the school day, but the majority time was spent working And they did still also receive some classes in terms of social skills as well as some regulating their emotion skills and things like that. But these were all individuals who were pursuing a special education certificate of completion, not a standard diploma. So a graduation 32% in the intervention group compared to 5% who are in this control. were employed and those that were in control mate stayed in their special education self contained classroom. Within the transition program. At follow up 73 73% of those in the intervention verses 17% in the control group are employed. And a graduation average of 19 point 36.36 hours were worked for a week. So just under 20 And the hourly rage wage of $9 and 60 cents per hour, which was about minimum wage. At one year follow up the average was 21 hours like increase an hourly wage of $9 and 67 cents. So that's telling us that that they maintain train and stable. Stable our stable work.

So there was a variety of jobs that they went into Some largest proportion of participants went into the healthcare industry so got a job within the healthcare setting. Again, remember that's for their internship started It was their internship year within a healthcare setting but Went into food services nine into retail seven the hospitality five into distributor. Three manufacturer supplier to entertainment to in the sports recreation one in education one facilities management one transportation. So that's really showing that even though they Learned their job skills within this healthcare environment that these skills were generalizable to a number of different types of positions and those positions again were particularly pursued to match to their interest and matched to their, their Desires and to their skill sets. Now, out of the control group for participants obtain their employment to include service and to landscaping.

So then they looked at this group that did not gain employment by when your follow up and it turned out to be 15 Folks And they noticed that six of those ended up gaining employment after one year follow up so they just needed more time. Three decided not to pursue employment at all. And six to not complete the intervention. So, very few right stopped the intervention.

So there are six key elements of the product search plus autism. Spectrum Disorder strategies. Right, that's that add on that they Developed to the typical Project SEARCH model is, well, the number one. That's part of the project original Project SEARCH model is in internships so that participants gain their work experience through these internships. And they built their, their skills while while on the job. And these were also designed specifically to Have kind of acute cumulative build up their employment skills to practice their social communication behavior. To have the eventual eventual goal of each participant demonstrating and career readiness. By the end of the internship. In that third rotation. There's also this Embedded instruction. So they're particularly instructing Within classes. On you know how to kind of behavior, the internship. How to there's instruction provided for the job coaches on how to use ABA techniques. And what ADA is applied behavior analysis is how to figure out with the antecedent what happens before behavior, what is the behavior. And what's the consequence. What happens after that maintains that behavior. They spend time and make sure they do a personalized vocational assessment and training. They do this. With their they're partnering with the hospital. So now for these different types of work experiences. Purpose to make sure they have these three different rotations.

As mentioned to the other slide they put a lot of effort in the seamless transition to adult services. Including transitioning the staff. So the educational staff and job coaches. Will transition with them. They also had regular contact with their VR counselors while they're in the internship building that relationship and getting them ready for that transition So these things were not, you know, just put in at the end that they were all put in, even at the very beginning of the one year internship. They made sure that they were leaving high school with a resume and examples of successful work. So that might be a video resume might be portfolio might be a combination of all of those things with along with working interviews. The Collaborative put in this portfolio there. recommendation letters or letters of support comments. co workers and supervisors during the internship. And they focus on meeting the business needs so well interns were offered the opportunity to grow through the experience. They were expected to perform the job as required. These high expectations, increase the quality of jobs, the quality of the job skills learned

Unless these barriers to implementation, they figured out right they identified a series of barriers, just like the other groups had And a few of these were identified is this does require intensive time. So again, that time factor comes up again here. The identified that replication sites must coordinate with and purchase the training and technical assistance for Project SEARCH from the Cincinnati Children's Hospital projects search developers. So again, that interest in fidelity. Don't know if I specifically said about the virtual reality program having fidelity. Success Program having fidelity, but those all had it as well. Access. We did talk about fidelity and here they're talking the importance of fidelity as well. In addition, the rep replication size will need resources to fund staff and outfit. The classroom with materials and supplies. These costs represent more during the startup, but also continue across the life of the project. They also identified additional training or requirements for for staff. Training in Applied Behavior Analysis training and behavioral practices. The clear Understanding and use of braided funding and program design was was really necessary right really making sure there was this interagency collaboration in place. That's particularly important. And the model requires a business to participate as a host site for the project. So these businesses really need to partner and then we can be as we talked about large enough to accommodate multiple internships and multiple students And it's helpful that if these sites. You know also You know, just You know, really are engaged train the process really take it on as as a absolute shared project, not just allowing People to be placed there but but taking ownership of it.

So we've spent a lot of time today really could only highlight before of The evidence based practices that are that have been funded through different Government funding agencies, but there are some other ones, particularly funded by by the Miller program. Teach At the University of North Carolina. has recognized support an employment model also for people with autism spectrum disorder. The have a designer, a program designed with an average of 200 hours of job coach support. That does include embedding in the assessment process, the job preparation work adjustment training on site training the follow up services. So please take a look at their program. I put a webcast there that that presents that in more detail. The Power of predictive opportunities for work and recreation is a community based program, providing employment services of people with autism spectrum disorders in Delaware, which is another Program. That's, that's really interesting and value to learn. So I put the webcast there as well.

And just as a friendly reminder if you landed on this training as your first training in the autism series that we have three other recorded trainings that are available on the wind tack web page. The first one in the series was understanding individuals with autism spectrum conditions within the our services. Second one, engaging and communicating with individuals with autism before, during and after the intake process through eligibility determination. The third one tailoring assessments and individualized plan for employment that IP process for consumers with autism. So feel free to take a look at any of those, there's two different ways you can watch it on the main web page, or you can go into the training web page and Receive CRC credit for it in that way by completing Short post test. So again, thank you very much for your time and attention today. Reach out at any time. Love to hear from you. Take care.