 Please stand by for realtime captions.
>> Please stand by. Your webinar will begin shortly. Thank you.
>> This is Robbin Bull. On that note, I think we will go ahead and kick this thing off. IM Robbin Bull with NCDB. I want to begin by welcoming everyone. I will go through some housekeeping items before hand it to Linda who will introduce the speaker. First of all all phone lines have been muted. I want to apologize for the technical issues people had trouble getting in I'm not quite sure what is happening with Adobe but I'm glad you made it in today. The question–and–answer session will occur at the end of the presentation however you can write the questions in the chat box. It will be monitored throughout the webinar. We want to know that the webinar will be recorded and we will post on the website along with the presentation and the transcript from the captioning. I am going to start the recording now. You will hear an announcement momentarily. Linda that will be your cue to start.
>> Thank you, Robbin. It's my pleasure to introduce the presenter. Dr. Susan Bruce. She's a professor of special education at Boston College. Chair of the Department of teacher education, special education, curriculum instruction and coordinator of the master degree program in severe disabilities with an optional specialization in deaf blindness. Her research concentrations are an assessment munication intervention for prelinguistic and early linguistic learners and collaborative action research our topic for today. The presentation on research is a part of a series of webinars intended to review and discuss recent research findings from the field of deaf blindness. Addressing what we know and what we need to know and what we might do about it as a field. Dr. Bruce presented a webinar in December entitled assessment and instruction of students who are deaf/blind. What is the state of our evidence. That webinar as well as webinars from March when the focus was on professional development and personnel preparation, and April and May webinars with a focus on recent research–based information to help us in our knowledge and how to best help children who are Deaf/Blind are recorded and a link to these past webinar recordings any company materials and forum postings for post webinar discussions will be placed in the chat pod shortly by Robin. As Robin mentioned in the introductory remarks you are encouraged to ask questions or make comments in the chat pod and if you are interested in continuing in conversation this topic or issues raised by Susan, or if you have only been able to listen to the recording and want to join the conversation, please consider an invitation to partner in this effort to qualified personnel by coming to the NCDB website where there will be a place for ongoing discussion . I've asked Robin to place in the chat pod a link to join the qualified personnel initiative where they are already having these form post. We need your voice as we seek solutions for qualified personnel for children who are Deaf/Blind. If we do not get to all

the questions and comments in the chat pod today, they will be addressed in the forum post that can be found through that link. We really appreciate you putting this presentation together and we look forward to this time with you today.

>> Thank you so much, Linda. Hello, everyone. I'm glad to be joining you today to talk about a topic that is near and dear to my heart and that I think is so important for our field of deaf and blindness. I will start with why it's important before I get into the slides. As all of you know, the field of deaf blindness has limited research. We have quite a bit of evidence for practices in communication. Actually at the strong evidence level also in the area of [Indiscernible] in assistive technology. Most of our literature is that in emerging level with sub at the limited level and that research will consider raising the level to moderate or strong he can provide us with guidance about how best to teach children who are deaf blind and about how to support our own development as teachers. Action research is not just about the learners. It's about US professionals. It's not just about research and teaching it's about professional development across the lifespan. One of my joys in conducting the studies is that when I engage in them I don't choose the topic. The teams choose the topics. They are invigorated to participate. I find the engagement high throughout the study and they choose the level of participation. Some joined us for analysis and some wanted to be more traditional participants. Others have joined us in presentations and also in writing. As I present today, I am doing something different. Typically I would probably describe a whole study at the end, instead I am putting excerpts from I think five different action research studies in deaf blindness that have been conducted and completed and personally disseminated like how do you write questions what findings look like. It's all the topic today is all completely geared toward deaf blindness. I will get started with that preface in the title of the presentation is conducting action research in deaf blindness. As you might've guessed. The goals are that participants will understand and apply basic principles of action research when working with children and young adults who are Deaf/Blind. This is a how to session with illustrations given from studies. Participants will become familiar with some of the literature usually through most often through the illustrations of the different studies. Literature about action research and Deaf Blindness and participants will also have resources to learn more about action research specific to Deaf Blindness. We will do our best to achieve all of those.

>> Action research. What is that? Axon research is very different from group experimental studies you might read about. Although action research does not Dick Tate design. Some research designs are more compatible with it. So go into the basics. It's a problem—solving form of research. What makes a difference with many of the studies you read about in the professional literature is the intervention is not static we don't start with one intervention in mind. Maybe that's an individual lesson for example. Stick with it through the study. We might if it's a single cycle of action and reflection, but most often

we use our findings as we go along. We engage in data analysis and we use our findings to improve the intervention. More closely resembling what school teams or teams serving individuals for Deaf/Blind and other settings would want to do. We want to see what's working and what's not working based on data collections and we would want to change it. The message from action research is there's nothing wrong with changing the intervention in the middle of the study and in fact it's a good idea. We will be talking about that and I will give you examples later. The intervention is not static. It's okay if it didn't work well. It doesn't mean it failed or even that is not publishable. It means you can change it and go into a second actual cycle. If we are going to have multiple cycles of action reflection and planning, that analysis must be ongoing. Therefore, action research is more suitable to contexts that are changing and students and adults who are complex in their needs. And to have problems that are complex. Problems that cannot be answered easily. May be when we are shooting a question around what is the most appropriate expressive communication form for a particular child who is Deaf/Blind. I just had that conversation this morning. It's not an easy question to answer. Especially in the early years. The intervention changes according to findings and we have cycles of planning, action, and reflection.
>> Here is the diagram to represent that. Multiple single or multiple action cycles and each cycle involves planning what you do which is the intervention called hear the act. The observation so observing the effect of the intervention on the learner. Thinking about it, what went well and what didn't go well and then planning again what you need to change to have things go better hopefully in the future and then taking the next act. The cycle goes around and around. Sometimes we have very finite, short studies that are single cycle. Our question is answered we don't need to change the intervention i.e. the lesson in order to get the answer to the question. Sometimes we can have five or six cycles in a long-term study until we get the intervention, the lesson correct.
>> In the literature, there are discussions of four types of action research. Here I'm using Hendrix's structure. I'm going to define that but I will add in what the fifth one might be. I've experience with several of these and I will use those examples in today's presentation. The first one is classroom action research. The second is collaborative action research. The third is critical action research and the fourth is participatory action research also known as PAR. Going back in a little bit this is often called teacher research or practitioner research. I have events in her field to using the term action research although I would be fine with practitioner. I use it because it's a broad term that captures all of these types of research. And also because I think teacher research is to limiting a term. I think it works really well in general education where the research might focus more on the act and learning of teachers and may be an occasional teacher assistant. In a field like ours where we have so many speak — — speech and luggage pathologists, occupational therapist, physical therapist, certified mobility specialist. Teachers

of the visually impaired. And so on. I think action research is more inclusive and it's indicative of more people than the teacher being involved. That is why I use that term. The first one in terms of distinguishing these types, the first one is classroom research. This is when we have an issue of importance that involves one or more students and part of action research is building on capacities. Building on abilities. Building on what we already know the student or young adult or adult is able to do. Although I will concentrate on students. Forgive me if you are in another setting but you can apply these principles to group home settings. Adult service settings or any settings. The principles action of classroom research can be applied outside a classroom. We can examine students we can also examine learning of teachers. How are teachers thinking about something that's occurring in the life of a student or in the classroom across a group of learners. It can be applied to any of our related service professionals. Some examples of real live classroom action research in Deaf Blindness a class question can be how can we support students to interact with each other and not just with adult. That is a classic question for us in special education. Just how often we think we hear people say they initiate this with adult. You can see how you can shape that into a different but related question like how do we support a particular type of initiation a way of initiating. That's the whole question you can refine in an individual student question. An example of an individual question that is on your slide is how can we teach Joe to answer in the affirmative as in nodding his head, or signing yes. Often when I am out doing consultation I meet a child who knows how to say no in several ways and is definitive and then I realized there's no way for this child to say yes. I would like this child to be able to do that and answer in the affirmative.
>> This slide with the picture of the detective is to remind us that action research helps us to consider deeply the effect of our actions and helps us to look at both learning and teaching. It can be an examination of your teaching and what is effective about your teaching and what is not so effective and what you could change in a subsequent cycle. So multiple action cycles can apply to any of these types of research. The next type is collaborative research which is what I most typically do. It involves someone from outside of the classroom so and outsiders sometimes called an expert. Sometimes that person is a researcher. It could be someone who has a lot of knowledge about a particular topic you might bring in a literacy expert of a certain type to help you move into thinking about how you might teach literacy in new ways. An outsider could perhaps be a colleague from another school or even down the hall. Someone outside your physical classroom. A university partner or a member of a community group. Success and collaborative research must involve voluntary participation. The people who are involved all need to want to be there like any project. We all know when we are told we have to do something it doesn't go quite as well as when we want to be there. The idea is wrong. This is why I depend on teams to tell me what they want to research. It's also dependent on clearly established roles and responsibilities. In the

case of collaborative action research it's important to understand the
expectations everyone holds. For me that means I want to know what
phases of the research to various team members want to be involved in.
Who will carry out the intervention? Who will review data? Who will
analyze data? What will our communication mechanisms be? Who wants
to participate in writing an article? Who wants to present at
conferences? We may not know the answers to all of those questions
and as life brings new curves or joy to people, sometimes they may
change their mind about responsibilities. We still should have a
discussion about that upfront. A clear communication especially when
it comes to discussing and making decisions about the effectiveness of
the intervention and at what point we may want to change it. We have
to have a clear way of communicating. We should have some timelines
especially around the intervention. Also for all phases of the
research. With of course some flexibility built in.
>> The next one is critical action research. Medical action research
has a specific flavor to it. It focuses in on inequity. There must be
many topics around — — that are critical in the field of Deaf
Blindness. There is strong social justice orientation. Involves
immunity persons who hold a vested interest or advocates about a
particular topic of importance. Something around how people are
treated or how people will are included. Examples I gave you that I
thought may relate to Deaf Blindness are what can we do to make our
municipal buildings more accessible to individuals who are Deaf/Blind.
This would not have to be a question outside of a school setting I
just created it. How can we make community events such as story hour
at the library engaging for children who are Deaf/Blind. It could be a
parent wanted their child to be more engaged not just have things
accessible but move into engagement and they were looking at different
opportunities in the community and what might be areas that could be
improved to be more inclusive and more engaging to their child who is
Deaf/Blind.
>> The fourth type of action research is participatory action
research. Also simply called PAR . This one is different from any of
the others in that individuals who are Deaf/Blind identify the
problem . I've made this example specific to Deaf/Blind but we could
be talking about any group . It is up to them to decide what is
important to study. What are they interested in? The individuals in
this case who our — — are Deaf/Blind may our called co-researchers.
They may also be co-writers. So participants with a/co-researcher.
They are self-determined. We are giving up our power as the researcher
whether we are the teacher researcher or an outside researcher. We are
partnering with them but they are holding the power. Self-
determination and advocacy are very foundational counts ups — —
concepts to participatory research. There's a type of PAR that some
people regard as being different from PAR . This is where we get into
those conceptualizations of our therefore types of action research or
five. That potential fifth type is a emancipatory research. It's
simple — — similar to participatory in the earlier concepts I
mentioned still apply but the difference is the money and the power is

held by individuals who are Deaf/Blind. This would mean that if they were grant funds that would be going to the people who are Deaf/Blind not to university partner or a community partner who then might distribute funds. This means that the decision-making is made by the people who are Deaf/Blind and lessen collaboration as it might be in participatory. I hope that's clear and the different conceptualizations are clear . Examples I will share with you today from you today or multiple examples from studies that were collaborative work and also one that was participatory action research with young adults.

>> Here's what I want to do is we want to start talking about how to conduct action research. I think that it would be most useful and I'm hoping you have a piece of paper or another screen handing where you could start to relate these ideas that I will share with you to an actual situational situation or topic of interest. It can be positive that you want to build on. The first thing we will talk about is identifying the problem. If you can think about I kind of guessed all of you have some sort of a problem you could shape into a question within your practice. He could even be about collaboration at your worksite. If you are not directly working with children who are deaf/ blind. Or how do I give more effective feedback to people I work with. It can be anything along that nature. I will keep my example specific to children who are Deaf/Blind and young adults. How do we come up with a problem? Most of us can make a list of problems we are concerned about in our work. One way we can think about identifying a problem is through our observations of the children. What seems to be going well? What seems to be the stumbling blocks? Who are you worried about in your classroom? I know some of you on the call are doing consultation work or project level work. You can ask yourself when I look at that classroom, what am I concerned about? Sometimes I go in and do a consultation and I read the report from professionals and the child I see doesn't seem to match those in the way that I had expected. Maybe that is a source of a problem. Or may be a source of a problem would be some new set of skills that a team needs to develop in order to serve the child more effectively. We observe for things that happen in our context that make us realize there is room for improvement. It can be something we have observed in our own teaching. Just like when I teach at the University every semester I write notes on what I need to improve for the next year. It is all part of continuous improvement. We also can use data on student performance. Maybe we are worried about behavioral data. Maybe we are worried a child's literacy skills aren't improving in the way that we anticipated given our approach and strategy. Maybe there's a need for us to change how we teach. Some of us may be keeping professional journals or teacher journals. A lot of us don't take the time to do that but some people are good about it. It could be that problems or questions emerge from journals and records that were already keeping. Are there actions you can take to address the problem? This is an important thing to ask yourself. You've thought of the problem. Now you ask yourself is this something I can improve? Do I have the

power? Do I have the capacity? Maybe the financial means perhaps relate to this question. Are these conditions there that I have the potential to take action to make the difference. This is that wisdom of knowing when you can make the difference and when you may not be able to. We are talking about teaching children and should be able to make a difference. If the answer is yes you have a problem you can translate them into a researchable question. We will get into that in just shortly. Try not to select a problem that is too huge for you to have success with. Break it down. Make it more narrow. If you feel like a student isn't learning, you really don't want to pose a question such as why isn't my student learning. That is too huge. It could be thought of in terms of all the different areas of student learning. There could be so many components involved just in terms of the student and their characteristics. Keep it a little more narrow than that so you can have something more controllable that you can expand as you go. In other words keep it more narrow so you can have success.
>> Let me give you some examples of problems that teams I know identified and then these problems became studies. This is very close to what they told me. The adolescents in our school do not interact with younger students. Then they told me about how one of the young adolescents ended up in our study would run away when they were young children around because young children were active and they might touch you and they were unpredictable. We had children with charge in the study and he didn't appreciate having kids bump into them and all the activities. We wanted to nurture ways for adolescents to make contributions to younger students in the school. That was the problem that they identified. We are very invested in studying. It's the team coming up as the issues not me as a researcher or you as a consultant or researcher. Another one came up with secondary students there was a combination of students with visual impairments and Deaf Blindness. The problem was their parents contacted the school and the students were talking a lot about getting a service dog. They were asking professionals at the school to fill out forms or help their parents fill out forms so they could get service dogs and it may have been a therapy dog or a guide dog. Including someone with a progressive disorder who was non-ambulatory but the problem was the parents were saying they don't feed the dog we already have at home. They might play with it and in one case maybe not even that in fact two of the kids in the study were bitten by dogs and were leery of dogs. Yet they were interested in the concept of service dogs but were still maintaining a fear. That was shaped into an afterschool study I will talk with you about in a few minutes. The third problem and I can cite many more but I chose three was a typical one we see among kids who are Deaf/Blind. It was about a student who very seldom initiated communication and closely coupled with that problem was the problem that the staff and the faculty at the school were not confident they would identify an efficient expressive form of communication with him. That was still a question and it related to this problem.
>> I'm hoping you are thinking of a problem. Take a drink while you

think about problems. Once we identified a problem that's of importance to us and we believe it's a problem that we have a chance to have a positive impact on, now we want to alter that problem. We want to translate it into a good research question. In action research, unlike some forms a researcher good question cannot be answered with a yes or no. We will not be doing elaborate statistical measures in most cases. We don't want to pose yes or no question. You want the question to be as specific as possible and understandable to everyone. We will probably have some question. We will have a more general question but still specific enough to address and we may have some questions. I will give you some examples in a minute. Some people feel it's important to take ownership of the research question by using pronouns like I, me, we, and our. Like how can we ask? How can I ask? This is what you're trying to accomplish. This is very important in terms of having the team share ownership and so the team should identify the problem as opposed to an administrator telling them what the problem is or researcher telling them the problem, and then they should shape the question together. I want you to know even the most experienced teachers can just revel in the experience of action research. I can tell you about one where I didn't expect anyone to be Deaf/Blind. I just published this on braille decoding and when I would and I said [Indiscernible] they have all of these years of being reading specialists and what could I possibly do with them. It was about us learning together and we learned a lot about the nature of braille decoding errors that ended up being very surprising and they felt like they got a lot out of it and they could carry in their teaching. To me that's why I found this satisfying. It regenerates their energy about the job. Action research can be a great job who want to go out for a PhD. It doesn't fit into their lives. They need a challenge. This is the way they can challenge them and can even make it part of their PD rather than sitting through sessions that aren't about deaf blindness and don't relate to children that are particularly involved with. I have a lot of enthusiasm for what this does in terms of regenerating teachers and their commitment to their work. Here are some examples of collaborative action research cycles and occasionally I will look at their notes because I thought I should have put the references on these pages I was going to remember to do that. You can flip to the reference page. You will know which articles that relate. The first that is the socialization study involving [Indiscernible] of different age students. It was a pals group. This is the one that was related to the problem of the adolescent students really not paying attention to the elementary age student. We had three adolescent students and three elementary age students and for children with charts. I think it was four in the study. All of the older and one of the younger had charge syndrome. The question that we came up with was how will interactions between these older students with CHARGE syndrome and young students with mixed etiologies change over time in the context of an engineered interaction stays − − space. We created the fine spaces in the classroom such as a pretend play area or motor vehicle area where they can push things around. We

had tabletop activities on the floor. Activities on the table and we also started out because the adolescents were so dependent on wanting adults to rescue them, and their interactions I guess one of them had fear of interacting with the child that was younger. We had a map they could get around but it reminded them don't run to the adults too often. Our sub questions included what socialization goals will older students select and what types of feedback will older students give each other. In the study, the point for the younger children was just to have playtime with an older person who they could learn to touch -- trust. In the older students they was a self evaluation component. We videotaped the interactions. The adolescent students stop the younger ones viewed it and they looked at their performance and they set their own goals for interacting and more effective ways with their younger pal. And then they gave each other feedback and completed and I said the goal sheet and the evaluation sheet. They learned a lot about watching their own practices and so forth. It was a lot of fun.
>> Examples of research questions from collaborative action research study continued. This was a positive behavior support study that generated individualized behavior profiles with support. I believe this was nine adolescents who were Deaf/Blind. Our primary question was what positive behavior supports are most effective with each of the young adults who are Deaf/Blind. I should say to you it's more narrow than what that question would lead you to think. We focused in on three areas the faculty wanted to look at. One was an environmental engineering or the physical arrangement but that included lighting and sound. Another was how adults use language including the specific words and signs they use. The third was on sensory needs and sensory sensitivities of the students. A number of the students in the study had charge. We have one article out and we are currently working on the larger piece for most of the kids that were in the study.
>> Examples of research questions from a PAR study. This was amazing. It was the idea of organizations in Deaf Blindness including the Helen Keller center. Linda could probably tell me some of the others involved. Really A.B. Parker was involved and she was I believe a doctoral student at the time. I said you know what you are describing is a perfect PAR study. What they did -- I did not come up with this at all, but they work with young adults who were Deaf/Blind all literate and fluent communicators in either sign or speech. These adults wanted to learn more about advocating for their own group. They went to Washington DC and stayed at Gallaudet University. They learned how to write policy briefs. They learn new mobility skills in D.C. They went and met with Congressman to present the congressmen and women to present their policy briefs. And they were very, very empowered. Some of them went on to do amazing things. One graduated from Harvard Law school. At least one went to Uganda and did advocacy. There were a wonderful group. They were so successful after two years of Amy working with them. I only worked with them for when you. Two years with the agencies and Amy they basically didn't need us. They struck out on their own. That is basically what should happen in PAR. For those of you that are working with adults, young adults. PAR is

hard to do in a school setting because we can't get the students that much control. It works well with adults and is appropriate. Having given you that background the questions we generated were how will participant co-researchers describe each active - - effective claim agent. So learning about how to affect change. How can you advocate for change and be an effective change agent. They studied what was involved in doing that. We wanted to know how they as participant co-researchers we were the young adults that were Deaf/Blind. Not the adults from the agency or any Parker or myself. How do they describe their own development? How would they reflect on their own development as a result of this course and curriculum provided to them. There were class sessions they did with them as well as these experiences I described. Finally, how will participant co-researchers think about their various advocate roles. How did they think about advocating for themselves in different situations? How would information from the course potentially be used to help them in different situations they encounter in various contexts in their life. And then how would it affect their ability or plans to advocate for others? Not necessarily just about Deaf Blindness. It could be about poverty. It could be about racial inequity. How would they use this information as an advocate?
>> That was one we fell into that turned out to be an interesting study. It went from being a course with wonderful intentions to being a study that we ended up publishing. We found the problem. I hope you did a good job of finding problems. We shaped the problem into a question and reviewed a few questions. The next step is to plan our intervention. On that earlier slide this would be planning the action. We could review our existing data before we develop our intervention. That seems like an intervention thing to do. We would then develop an initial intervention or could be another assessment. We would develop an initial intervention that addresses the research question. Make sure that is connected. Then of course that intervention we will have to replan it later once we look at the data if things don't go well with the initial intervention. We can also plan an intervention by consulting journal articles. What have other people Don? We could go to websites and our favorite websites in Deaf Blindness or some schools like Perkins, the Texas school for the blinded others. We can go to the state Deaf/Blind projects. NCDB of course. We can look for information and what people think about intervention and lessons we may have . Maybe they even have copies of plans that may help us. Maybe teach the websites to help us. We might go down the hall and talk with a colleague and say how did you teach social skills to children who are Deaf/Blind?   How did you do it? We know the kids are spread out so we don't have so many opportunities. We have to be open to looking at a variety of different options for getting ideas for our intervention.
>> Fidelity is important. When you do classroom action research you may be the only one carrying out the intervention which could be a lesson. If you are the SLP and you are conducting classroom action research as an SLP you may be the only one carrying it out. We would

hope that wouldn't be true. Fidelity means whether or not you are delivering instruction which I have been calling intervention. Are you as a single person delivering it with consistency. We know how big an issue that is. Also if there's more than one person delivering instruction across people are we being consistent. We know in elaborate research studies we might have a training and we should still have training in action research. We may go to the point in other research where we would videotape and maybe have Raiders have a checklist to see how consistent they were. We may calculate reliability. Not necessarily suggesting that. When I did it no one would conduct action research. It's a lot to ask. And people working with children have limited time. I think we can do some things that help us like having joint lesson plan. I did one study on pivotal milestones it was 15 studies because we carried it out on different milestones. We came up with a joint lesson plan that was a minimal script I guess you could say. People on the team wanted to be able to add their own flavor. We wanted elements that were the same. That was what we did through our joint lesson plan. We have to make sure everyone understands the intervention and we should check on that. Maybe we will have checklists of things to watch for. Maybe we will take turns watching each other and maybe we will use video to see if we are being consistent across teachers and assistants. Related service professionals that may be involved. Video may be a possibility. Whatever method we use we should do our best in any research to make sure we are delivering the lesson and the instruction and the intervention with fidelity. That is true of teaching in general.
>> Let me give you a couple examples of intervention. The study involving the kids who wanted to go out and immediately get a service dog. What were we going to do? I said it became an afterschool course. We pulled information when we were pulling our intervention from the Humane Society and other curricula we could find on humane education. The fit – – none of it was modified for children with visual impairments who had developmental delays. We didn't have anything ready to go. We had to use it as background information and shape our own intervention and we developed a course and a curriculum that was published. The reference that had the word Feinstein in it, the name Feinstein, Jennifer Feinstein is an OT and she had a service dog the students were familiar with. Norman was our co-teacher. We would do a little mini lecture and lots of handling materials. Each child got a bag of dog care materials they would keep at the end of the study. That was exciting for them. The second half of each afterschool session was spent practicing skills with Norman. The service dog. They learned practical things like feeding, brushing his teeth. I actually learned a lot about brushing teeth I didn't know in terms of brushing the teeth of dogs. Picking up waste. I wouldn't have thought of that. How to play with the dog and not be too vigorous. And how to walk with a dog. That was really – – as I said two of these children had been bit. This was about getting past the fear one of the memorable things was when we added a twist at the end we brought in a

puppy. You start to realize puppies are unpredictable and they can climb all over you. If you don't have sufficient vision to know what they do next or that they are coming at you it can be quite unnerving. Also it can be joyful for kids. That was interesting. That was a rough description of some of what we did with the kids in the humane education study. Humane education is about being kind to animals. That was a central focus of that. Not yelling at a dog. Making sure when we Pat we don't pet too vigorously. Be careful only brush teeth. Being gentle in our approach. Socialization studies. This was one with the different aged peers. We had a preview and review of goals. He for the little ones came in the elementary students came in, the adolescent students previewed what they set as their goals. So they would be reminded on what to focus on. They were reviewed later with them when they watched videotapes. They evaluated their own performance. We also worked on self-evaluation skills. There was room to grow in that area with some of the students. They also gave us feedback on the intervention on what we needed to change. We had to be responsive to the anxieties.

>> More examples from action research studies. In the positive behavior support study which had a number of children with adolescence. We applied the principles of cognitive behavioral therapy which includes teaching people in very specific ways how to handle challenges in the environment. You've probably seen CDT applied in various shows on television. It hasn't been applied that I'm aware in the field of Deaf Blindness that I'm aware of. It's been applied to students with intellectual disability but not a lot of literature. There is a psychologist who had expertise in that. Some of the studies we've done included psychologists and PTs and OT's as your gathering. As I said we considered the environmental arrangements the effect on creating optimal conditions to have optimal behavior. We looked at the sensory needs and we created adult language. We looked at how to create individual profiles on each of the kids that could help the team to all have a shared set of skills and knowledge to promote positive behavior which is a kind thing to do as opposed to being reactive. We were being as proactive as we could. In the PAR study that happened in Washington DC, the advocacy study we provided a course on advocacy and how to become a change agent. We included experiences with writing a policy brief and meeting with congressmen and women.

>> You might find it helpful to create an action plan and maybe you have done this for some of the work you have already accomplished in the various teams you've had experience with. You want to defined what you want to do. I could be the lesson or the instruction and the intervention. How are we going to carry it out how will it happen? Who? When? You may even need a where unless it's the same location. Action plans can be helpful in some cases. That's another option you may include.

>> We figured out the problem and we shaped a good question. We figured out what our initial intervention will look like. Now we need to figure out what the data source could be that would help us to

inform our thinking and our progress toward solving the problem. Sometimes we take field notes. Sometimes we have observation videos and observation notes. Field notes may be more about context then everything happening. That's how I distinguish it from observation notes. Sometimes they can be merged. We might do observation video and then take notes off of them if they become notes. We might do pre-and post testing which we did in the humane education study. Or pre-and post-surveys. We did that also. We did that in the behavior study. Pre-and post interviews that is common. That can be adult participants or students. We could ask people to keep a journal and then code the ideas of the journal. We can take our test analysis and depict the steps of a lesson. We can record how the child performed along with a level of prompting. We can use that as a data source that is very closely tied to what it is we are teaching. We may want to look at written documents. Maybe we have more of a whole group question like a program question like how could we address whatever that might be more effectively or how do we address that. To get a baseline and maybe we would want to do and IEP analysis like looking at what are the communication goals looking like? Or some area that we feel we are not doing much about like are we writing literacy goals. We would pose that is a question but it could be a problem we identify we shape into a researchable question. We may also want to look at written documents such as behavior plans and communication profiles, action plans of other types that have Artie been created we are developing the intervention but we may want to create our own in the study that become a data source. In the behavior study we had monthly meetings and we use a flipchart and the teachers and psychologists and the liaisons and I met and we took turns. We took turns in other ways playing the lead role and we generated all these ideas about what was effective. The interesting thing in that study is within that group we had the three teachers sometimes each had some children in the studies. We were able to get a longitudinal issue and they were like he's doing that again. So we had a longitudinal look that was interesting. I'm not sure how clear this will be on your screen. This is an actual shot, a photo of one of the flip charts. We tried hard to label them adult use of language, environmental engineering and sensory sensitivity is what we called it. Occasionally someone would have an afterthought from something we talked about. I tried to label it. Let me read this in case you can't see. Working on teaching him to remove himself from the environment. They were doing proactive teaching. You go into an environment and they were letting the kids know the conditions of environment as they transition. They taught them skills about getting skills out of the situation that was going to represent sensory overload. Another one asking him it's going to be – – it's really gonna be loud. Do you want to leave? Sometimes they couldn't generated on their own but if you asked the question that was enough of a prompt for them to apply the strategy. This particular child Joe who is one we will write about and I believe he had CHARGE. He had an issue as many of us do with you leave something unfinished and come back in someone has touched it. He needed his own space. He

needed to know what his space was. He wanted to know around his desk
what area belonged to him. Has many people who are Deaf/Blind need,
they want to know what their spaces and they want to know who is
coming in and out of it. Being jostled and touched her having your
belongings messed with by someone disorganize is your life. It's an
emotional upset. That was something we worked on with him. Last year
sitting at his desk was a problem. Doing his schedule became a
trigger. Instead of a help to him. That was difficult. As a mentioned
he didn't like being jostled. Some of the kids in the study we avoid
taking them on crowded elevators. We also worked on desensitizing them
as part of cognitive behavior therapy. There were some issues that
were so charged we had to pick and choose what to work on. He liked to
be active and that was promoting positive behavior for him to keep the
activity level high. He would request that people put more stuff in
his backpack. Apparently having a heavier weighted backpack was
soothing to him. There was a sensory integration technique. They had
to have him discontinue signing in at the work room. When they had him
sign and it was a trigger and he started crying. That it was difficult
to move him forward and we couldn't identify why they were both
crying. Simply not having him sign in greatly reduced the problem. It
wasn't just I am in the work room it was signing in. Sometimes it's a
tiny part of a context that causes the problem. He likes to wear
uniforms. He loves badges and costumes and hats. Where would that be
appropriate? Often he would resist an activity in the beginning and
then join in and enjoy it. Even though he had communicated no. We see
that a lot with kids. Then there is a comment about a sighted guide.
And sometimes he would ask for handshakes. I don't remember the
details. That's a sample. These were fun. We thought we would talk
about all the kids. We actually had — — the teacher selected videos
they wanted to review. We ended up having to slow it way down and
focus on one child. We had one or two pages on each of the three main
ideas like environmental engineering we studied on each child. We
ended up with detailed profiles on the kids. This was enriching for
teachers because it displayed — — this isn't my knowledge it was
totally the knowledge of the people that work with him every day. You
can see how empowering this is when we step back and they own it.
>> This is just a shot — — data source could be photographs as well as
observation videos. Although photos are limited in their own way. This
girl who is in the humane education study was very curious about where
Norm went. What did he do? Where did he spend his nights? What was
he doing when he wasn't walking around in the classroom with them Rex
she wanted to explore the crate and she initiated that. The photo is a
nice memory. She was so thorough. Checking out all of the fasteners.
She dug way in there to check out the depth. The width, the height.
Everything. This was her own curiosity driving it. It wasn't we had a
plan to teach it. We tried to be child guided as we tend to be in our
field.
>> This is a picture that was delightful. Unfortunately I am not in
it. I am delighted for everyone else. I didn't want to miss my
teaching and we did not know President Obama would give an audience

for this group. He did indeed ask the young Deaf/Blind adults. This
was posted on a White House blog. You can imagine their excitement.
Some of the folks in the article with Amy and others we wrote they
were talking about realizing they could make a difference. They had an
ideal experience with people whose faces you will recognize I think in
the photograph. We see the dogs with the different attitudes. There's
one looking up at President Obama and the other one that says where my
now. Very worthwhile study. A picture to treasure for sure.
>> We have our problems we translated into a question. We develop an
intervention. We identified our data sources that answer our research
question. Don't collect a bunch of stuff. Make sure it's connected.
You will have to find out now that we are in the next phase just
before you collect data. Do we need consent forms from parents?Think
about asset forms from the individuals who are Deaf/Blind if they
understand the study. Who will collect the data and where do they
store it so it's private. Consider a students to aid and M and then
try to remember their real name to protect their privacy. Especially
if it's a sensitive topic. This is important. How often will you share
the data and review it cracks remember the analysis is re-iterative.
You going to keep analyzing it. You will have to figure out as a team,
how you know when it might be time to sit together and look at the
data and consider whether or not it's time to change the intervention.
I did a series of studies on pivotal milestones related to the
achievement of language. One of the students who was Deaf/Blind people
didn't think of her that way but she was. What we agreed on we were
all keeping our data. We agreed if someone - - if we didn't go by 80
percent. We thought it wasn't the best way to think about it. We were
thinking if you felt the child your data showed that the child achieve
quite a lot of consistency. In the belief based on your data that any
one of us could come forward. We had three different types of
professionals. At that time I was in the TBI role. What we learned
about this child was she wanted to BAC student. It was like a
revelation. You probably have this like 20 years ago. If we waited for
80 percent to move her onto the next thing, it would not happen. She
consistently in our phases had about 70 percent and started to go
downhill. If we moved her up to the next idea of teaching because in
this case we knew the sequence of what we were teaching because it was
so grounded. She would be fine and - - fine in progress. Her
development was different than what we sometimes see. She wasn't going
to give us 80 percent. That was something that that child taught me.
How will you know? How do you communicate to each other? What is
your agreement about reviewing data and considering a change in the
intervention? By the same point it could be I'm not saying a change
but who will bring that forward how do you meet to make a change if
it's collaborative? Thinking about data analysis the says the goal of
any data analysis is to remove vast amounts of data into smaller sets
of information. One of the challenges is to be thorough in the data
analysis but not become lost in it. When we analyze quantitative data
it is a deductive process. You will gather all of your quantitative
data sources and you will display these. Any of us who do state

testing do a ton of us. We will take notes about how each data source relates to research question. Remember quantitative data can be counting something. Or could be calculating the amount of time that goes by like a duration that something doesn't occur. Knowledge about partial interval full interval reporting is all of those behavioral principles will help us when thinking about quantitative data. I did a slide on statistics that I won't do a lot of as am noticing the time. Some of them I don't think are likely to come up. The ones that are likely are within the measures of tendency. I think we will be calculating means. If we look at how often something occurred within a day, week or month and it can be positive behavior we don't want to focus on negative. How many communication initiated tips – – initiatives occurred in pathology and morning circle. We might want to create a mean. And then mode is most common score. We would probably not use that very often but there may be a circumstance. Median is the score in the middle. So definitely more related to group research with group learners. And then we might look of range of scores is a measure of variability but probably not standard deviation in most research studies. So analyzing quantitative data and I hope you get into this is an inductive process. There are all of these notes and these ideas you express. Now you have to make sense of it. You have to make it meaningful. This is a very basic portrayal. Read and reread your data source such as your journal or your observation notes. Memo writing about the data and what you think it means what common elements are there? You may look for keywords especially if you are doing conversation samples. Identify key things and categories. Be attentive to things you attempted to see that didn't happen and also the opposite. Be clear about the connection between each theme and your research question. Don't quote data that doesn't relate to your research question. That is extraneous. Make sure you look at all your data. If it relates to the research question. Then we must address trustworthiness. People trust numbers more than the analysis we do. There are ways to make the work trustworthy. There can be biased in any kind of research including quantitative research. One way you could ensure trustworthiness is to make sure you keep good records. Make sure that your analysis is reviewed by others. You might do number checks if you are participants who you can share your interpretations with such as you've done an interview and now you have come up with your themes from the interview and what you believe were the messages and you do a member check to see if that's what they remember or not. Clear records of your analysis. You need to keep documents. When I do qualitative analysis and keeping a series of documents I label. If someone said to me how did you reach that conclusion? I want to present them with that.
>> Key findings should all directly relate to your research question. Keep the extraneous out. Quantitative findings can be simple counts for example counting how many times child engage in a particular behavior. Qualitative findings are critical because they help you to get at the Y and all of the features. They may tell you more about teachers and other practitioners. I gave you an example not an

encouraging one. An example of quantitative findings. You can see here this is a child who we were working on percentage of times the child expressed out of the opportunities across three lessons and conditions. Breakfast, morning, circle and SLP. Breakfast he went from 52 to 55 percent. Not much change. Morning meeting 38 to 52. There is some change there. SLP's 30 to 42. I think the message here is that he is up-and-down. Sometimes a quantitative data doesn't show us what we are hoping. Try not to be too discouraged. We don't always get positive results when we conduct studies. Even when we made changes in the intervention. Small change but some significant things learned along the way.

>> Here's a sample of qualitative data in teaching strategies. Providing highly motivating context. Creating opportunity to communicate. Close proximity of the communication partner. Repeated naming of the representations. We wanted him to learn. Pairing objects with pictures. Here's the big one we learned when we got into the data that most changed the study. We could not figure out for the longest time why he knew some -- what his errors were about. We did an analysis we found that drawings that were colored created a condition in which he was less accurate in picking the correct symbol. The correct meaningful symbol. Then when it was just black and white. We tend to think color makes it more interesting and in this case he was picking favorite colors. When we eliminated color as a feature of the line drawings he got better. It was toward the end of the study. Hopefully they continued with that. Going back to the positive behavior support study, here are the eight themes we emerged. We will write about this shortly. As I said this included a number of kids with CHARGE Sim drum -- syndrome. Providing structure and supporting students to cope with anxiety. Addressing sensory needs. Supporting on test behavior. Supporting transitions between activities and environments. Supporting mature behavior. They were using immature behavior sheet which they defined. In a specific way. Establishing and maintaining a positive climate and adult language. How we talk and what we assign and say and how we sign and say it makes a big difference in terms of positive versus negative behaviors. We will describe the strategies that work within each of those themes.

>> Collaboration is essential in planning your intervention. Identifying your problem. Throughout all the work we do.

>> We need to take time to reflect on the actions that we performed as part of our action research studies. So in this study with the different aged peers we had a lot of struggle with joint attention. In the end the student suggested sitting down for more of the session would be helpful. The younger children kept wandering off and with their low vision and hearing issues it was difficult to corral them and interact with them. We didn't have older ones chasing younger ones. We had an issue with wait time where we taught one of the adolescents to count to a certain number. Because in the video you can see he gave up 1 to 2 seconds before the younger child looked up and paid attention. It was that feeling that he just missed it. We taught him a strategy and he was able to employ it.

>> Another example as I said was removing the feature of color. At we have to make time to calm down and what ever our reactions may be. To the intervention. And the child's performance. In response to the intervention and make time to reflect. And then in thinking about closing this out before questions. We want to think about disseminating. We conduct action research to benefit the children and young adults it's important for our field that we disseminate these findings. We could share them with team members and we could share what we learned at staff meetings and faculty meetings. We can present to our school or conferences. We can write a practice report a full article or research report. We could write an article for VI DBQ we could write an article for deaf blind international. By the way the deaf blind international network has been doing a series of articles on Deaf Blindness. I think four were published in two more will be done before we are finished. Maybe publishing on websites such as NCDB or Perkins. I am hoping you'll have ideas to share.
>> On the later slides I just gave you examples of the articles. The series as mentioned. Then you will see the humane education and the other articles in a little bit of reference on the network which includes an action research group if you want to join us. Before we go to closing I want to reiterate my commitment to action research being a way that we can inspire teachers and related service professionals that might want to take on a new challenge. They may be trying to find something to reinvigorate their practice. They may have problems they need help solving. We all do. This is something that can be helpful in the professional lives of the people we care about as well as the benefiting of the children we are devoted to. I hope each of you here today will take these ideas and come up with a practical letter — — way to apply it in the people that you work with.
>> From Cindy. When does action research date from? When was it first used? Action research is about 100 years old in terms of what we know. I wrote a book with Jerry Pine that tells about the history because my friend knew a lot about it. If you want to write me I can tell you more. It's been around for a long time.
>> From Julie. Can a sample of consent letter he uploaded to the IQ P forum? I think it would be a helpful resource. I guess that's possible. The thing is consent letters like from a university perspective there are certain requirements that are dictated by the institution — — institutional review board. So in a school they could be different. Sometimes as university person you have to do consent and you also have to do and make every attempt to send it from the individuals. Some of the studies I done with Deaf Blindness I've had had [Indiscernible] from the students. In some students who can't give assent you need something that if you cause to believe that typical stress for the person you need to judge that based on information for people who know the child best. You really need to discontinue the child in the study. I had a study recently where we lost half of our sample. We went from 4 to 2 because it was so stressful. Working on socialization was really stressful. We have to think about consent and sent maybe we can correspond with that and may be they could help put

together some basic ideas I consent.
>> From your experience from the US to teacher training programs include how to conduct action research in their programs?
>> Some do and some do not. We used to have it as a central focus in our inquiry course. Then frankly the state assessment of teachers which was extended to pre-service took over that course. We still emphasize reflection and inquiry which is intimately part of action research but we don't do the studies so often. Some do. I think in many ways action research is more alive and well in Europe that it is here. You will see some good books out of your. Certainly I would hope all teacher preparation programs support more broadly.
>> I have to say this is all I can see on my list for question. Does anyone else have a question they want to pose?
>> There's another one. Linda says tools for action research including example letters could help. I'm not sure what you mean by tools. The problem is they don't give you a lot of examples. Related to special education. The one Jerry and I did included studies. They weren't in Deaf Blindness but they were studies conducted by Masters level students in her classroom.
>> Julie says she might want to talk more about consent letters. She has a lot of ideas. We love people with lots of ideas. I like a good chat.
>> Glad to have a chance to interact with you. I did tell the people next door you may hear me talking to myself for an hour and a half.
>> Thank you for clarifying that you are talking about resources, Linda. Maybe we can talk I would be happy to help.
>> Thank you. I appreciate it. I am sensing we are winding down.
>> This is Robbin. I want to thank you. It looks like we are winding down. You can put comments in the chat but we will wrap it up so people can leave if they are ready to. We do appreciate your presentation.
>> Happy to do it. Thank you for your participation. Hopefully there will be additional people that will be engaged with this topic when the webinar is available for them. Thank you, everyone.
>> Thank you so much, Susan.
>> [Event Concluded]