It is my pleasure to introduce you to Laura Campana. Welcome, Laura.

Thank you so much, Mary. We're really excited to do this webinar and share all this wonderful information with you. Welcome to everyone joining us. We'll be doing our iExploration, using an iPad for vision stimulation. My name is Laura Campana, I'm the Anne Cunningham at Junior blind -- I'm the Director of Infant & Early Childhood Program. We'll be sharing information on our pilot study including specific information regarding growth that children have made in multiple domains in using the iPad. We will also be sharing specific iPad applications with you that were useful and share information on how you can look for specific applications to use with children and young adults in your program. In the following video we will share some information on our program.

[Silence]

So as I mentioned in the video there, we're always looking at how we can challenge ourselves to see if we can provide better services and higher-quality services both through our infant and early childhood program and our agency as a whole. As we started looking at how we can challenge ourselves, a lot of parents were sharing information in regards to their children showing interest in using the iPhone. Around the same time the iPad came out, and there was a lot of buzz about using the iPad as a tool with children with multiple disabilities primarily at that time it was focused on children with autism. A lot of parents were sharing an interest in using the iPad with their children. So we began to look and explore whether this would be an educational tool that we could use with the children. One thing to mention before I move on to our pilot study, when we looked at wanting to use the iPad, we really wanted to ensure that it would be an educational tool. We did not want it to become a tool of entertainment or a tool that we would hand to the child and the child would use on their own. As I begin to mention information on the graph and the data, I want to make really clear that the information that we use and the things we were doing with the children was through actual interaction, one-on-one with a specialist or the parent to help ensure that we can use the eyes -- the iPad as an educational tool with specific goals and specific ideas for growth that we had for the children in our program. So as we began to look at what we wanted to do, we want -- we started to look at, there was a lot of data out there but all the data that was out there was really anecdotal. There wasn't any specific data on children showing growth in certain areas and we felt in order to make the commitment to have this be a tool that we could use, we wanted to make sure to have concrete data to share with both parents, specialists and others to make sure that we were using the iPad in the correct way. So we decided to run a pilot study. In the coming slides I will show more information on the specific areas that we covered but to give you an idea, of our pilot study, 100% of the children that participated in our pilot study showed growth in multiple domains when using the iPad. In the following slides I'll go into specific detail. On the different areas covered as well as the growth that the children have made.

Take me off camera.

Okay. So for the following slides, we ask that you maximize the screen so that you can see further detail on the specific areas that we cover. For our iPad pilot study we did 12 30 minutes sessions. Although our visits were 60 minutes we wanted to ensure to have the iPad as a tool and that the only tool to use with the children. To summarize what you will be seeing each of the charts, we track data on both the lightbox and the iPad. The lightbox groups which you can see here are the ones labeled in blue. And the iPad groups are labeled in red. In cycle one, which is the first chart here, the children in the lightbox group labeled in blue are the same children that are in the iPad group in cycle two and vice versa. Both groups, for the first three weeks, which you can see here, we did the lightbox so that we could create a clear baseline to check the children's progress. The lightbox group, which are labeled in blue as a whole, remained the same or decreased for all the areas that we covered. The iPad groups which are labeled in red as a whole increased in that -- at least one to two levels for each of the domains. At the bottom of each of the screens you'll be able to see the key that we used to track each of the domains. During the charts, I will be focusing on the children who made a significant change in sharing their data. We tracked the different child for each domain and cycle. In the interest of time, I will be mentioning the child in cycle one here since we can track their data over a six-month period, three months with the iPad and three months with the lightbox. So that we can see the progress once the iPad is taken away. As you will notice in each of the charts, the yellow highlighted line is Novalee. We will not be covering her, since we want to focus on the progression of the child when the iPad was taken away. Where we looked at length of engagement, we felt it was important because in order to get children to meet their goals, we needed to have them fully engaged. For length of engagement, our type of child was John. He is labeled in green, which you can see here. John began on level one. His length of engagement was about 30 seconds on average. As the weeks progressed he went from about 30 seconds of engagement with the light box to a level six, which you can see here, which he was fully engaged for the entire 30 minutes of the session. When the iPad was taken away in cycle two and the light box was given, he went from 30 minutes of full engagement to about 15 minutes of engagement and you can see throughout the weeks how he began to fluctuate. Although he ended substantially lower than when he had began, it still was higher than his initial start in the process. Communication. So this area, the target child was area. Labeled in green. When she began with the light box -- the target child was Ariel. She had not shown any improvement. With the iPad, she increased from having some babbling to actual clear verbal communication. And you can see that progression here as she started to progress. Ariel was communicating during the visit and at one point she even combined two words to ask a sentence. When the specialist was putting items on the screen, through the application and taking them away, she said, tree go? Although this is just one story of a child who made a significant gain in communication, we had multiple children go from no communication skills to clear communication. When the iPad was taken away in cycle two, Ariel went from clear verbal communication to a vowel sounds. And you can see although she decreased in communication when the light box was given again, she was still at a higher level than when she began. The next area we looked at was visual attentiveness. Visual stimulation sessions, this was one of the key domains, since we wanted to increase the child's ability to be attentive to what was on screen and work on processing and strengthening the current vision they have. For this area, the child we decided to focus on was Isabella, labeled in green. When she began with the light box, as you can see, see -- she was somewhat responsive, she would occasionally glance at it and look away and not want to see it again. With the iPad, she went from somewhat responsive to being fully engaged the entire 30 minute session. As I mentioned before, we covered 30 minutes of the entire session because we wanted the iPad to be a tool and not the only tool to use with the children. She was engaged, tracking items on the screen and began to reach for the iPad, which was a skill that she did not have prior to the iPad session. When the iPad was taken away, in cycle two she went from using clear verbal communication to vowel sounds. And you can see the fluctuation here. Although she decreased when the light box was taken away, she still remained at a higher level than she had initially started.

The next area we wanted to focus on was reaching. For this area, we saw huge gains for many children. We had children that have been focusing on trying to reach in front of them that showed no interest and then when the iPod was brought out, they immediately reached within the first visit. And you can see that growth here. The child that we decided to focus on for this area was Georgia. Labeled in green. When Georgia first had the light box, she had no response. You can see here. And ended with hand movements in the direction of the desired o bject. As you can see in weeks 10 and 11 here, there was a drop in her ability to complete this task. This was due to the fact that she had broken her glasses and was not able to see the iPad in front of her clearly. After we finished the cycle and she was given the light box in cycle two she dropped -- you can see the fluctuation here, she dropped reaching out but with no direction intended. After the study was finished she was once again given the iPad, she began reaching and within a few weeks was making contact with the iPad and activating items on s creen.

The next area we decided to focus on was activation. This was an area that we had multiple children make significant gains. At -- activation was an important goal for us to cover, because we felt the ability to activate an item in front of them aloud for the child to gain skills that they could apply to other goals. Such as reaching in front of them and feeding themselves. The child that we decided to focus on for this area is Alondra. Sometimes just reaching in front of her, and as the sessions p rogressed, you can see the fluctuation here, she ended fully engaged and activating items on the screen not only with her whole hand but her index finger as well which is something she had never done before. When the light box was introduced, again, she dropped back to activating without a purpose and you can see the fluctuation here. Although she would reach out and make contact with the light box and push it away.

The next part we wanted to focus on was parent interaction. For this chart as you can see, there are only two lines, the light box group is labeled in blue and the iPad is read for both cycles. And to remind again, the children and parents who are using the iPad in cycle one are the exact same group that are using the light box in cycle two. For parent interaction we wanted to see the parent's ability to interact with the child and specialist with either the light box or iPad. For both cycles that parents were more interactive with the iPad as you can see here in cycle one and cycle to. But eventually some of them dropped their interest in interactions since the iPad was no longer a new item brought into the home. When this occurred, the specialist looked at different applications and activities to reengage the parent in the process.

Before I continue I did mention a little bit on the pilot study but I really wanted to reinstate again, the main reason that we did this study is we really wanted to look at gathering concrete data. In order to share that this was an educational tool and move forward on different applications to use and activities to do, we wanted to make sure that it was something that we can work with. I'll mention again, we had 60 of the 60 children in our study, 100% of them, made gains. Some of them significant gains went from having no communication to clear verbal communication. Some children that we have been working on specific goals for months within the first two visits with the iPad, were reaching these goals, expanding way past what we had imagined. So we felt obviously that this would be an educational tool and decided to move forward with it. When we looked at the advantages of the iPad we wanted to look at not only the fact that it was an educational tool but what other advantages we had in using the i Pad. As we started to compare the iPad and the light box, we started noticing the main things were its size. Although the light box has decreased in size throughout the years, it is still substantially larger and bulkier than the iPad i s. Our biggest part that we saw a lot of children were responding with the iPad that they were not responding with the light box was the immediate response. Although we could praise -- place different overlays with light box, it wasn't giving the child the immediate response they were seeking when they were making contact with the iPad even for children that were not making contact with the iPad, the specialist was able to move through multiple programs, different activities, look at expanding the child's environment, looking at what toys it can bring in using with the iPad, what applications it can use to make it more difficult to challenge the child. It's portability of course was a big thing, the fact we can take it to the visits, parents can have it on their lap and things, those were things we thought it was really important when looking at the iPad.

For this part, we ask that you put full screen again so you can see some specific details of the iPad. So I know some of you have had the chance to explore the iPad. But for those of you who haven't, we really just wanted to show some areas you can see. So there's the status bar, the different app icons that you could see, there's a home button, except for the first version of the iPad, all of the other iPads how -- now have a front and a back camera. You have the ability to take photos in front of you or turn the camera around and take a photo of y ourself. We found this to be really beneficial for a lot of our children because they were able to see themselves on screen, see how they respond, able to take pictures of them, those were things we found to be beneficial. So now moving on to the applications in our curriculum, we used multiple applications of course when we started this p rocess, the iPad was new, so there were many applications out, there were a lot of recommendations made. And we really did try multiple applications and then started narrowing them down. We look at applications based on specific goals, looking at applications that we felt could challenge some of our children, applications we felt were a little bit more interactive, that a child would only need to look at the screen rather than make contact with the screen. As we continued with our pilot study we started nailing down the applications we really saw change from the children, that we saw children responding, we saw -- not only children but the specialist and the parents engaged and we've narrowed it down to our top six which you will see on the screen. I'll be going through each of the applications and sharing specific information as to what you would see in that application and why we felt it was beneficial.

So the first one to mention a little bit about all the different applications and what you will be seeing in the slides, we will have the name of all the applications here. We will have a description of the application. One thing to mention is specific description from the App Store, so not necessarily something that we would use to describe the applications, but that is there. You'll also find the price for all the applications. This one is free. And then we did purchase some of the other applications but all of the applications that we used were under $5. You'll find the category, the last time the application was updated, version, size, copyright information as well. As you go through the videos, we will be giving more information on the specific things. One thing that we do look for in all of our applications is really that immediate feedback. We want the application where if the child makes contact with the screen, they're going to get the feedback right away as well as different colors, shapes, integration of sound, a love of our children really enjoy sound as well as the contrast of the white background. Applications seemed to have all that. In the following video, you will get more information on this application .

Baby finger is one of the most basic and powerful applications we using our curriculum. Which every touch the screen, baby finger will play a scrapy a scrap -- place out. Touching the object on the screen will cause them to disappear and continue as subsequent touches on empty parts of the canvas create more sounds and objects to appear. The application also comes with a numbers mode as well for more advanced learners. Baby Finger promotes visual attentiveness and reaching. Interaction between the specialist and child can be fostered as finger place interact with the app.

So as you are able to see in that application, it gave immediate feedback. It was something simple to use. That's another thing to keep in mind when you are using an application. You don't want an application that becomes so difficult that the adult is not able to use it, let alone the child. And then it becomes more difficult for the child to be engaged. And then they lose interest, which is not what we want. For the next application, we bubbles magic. In the following video, you get more information on this application. And I'll share for -- share more information.

Bubbles Magic, like our other apps, operates with a touch the screen with the ability to change the background into any image that the child will enjoy, bubbles appear with the slightest touch with the addition of sound of popping a child can make the biggest bubble he or she wants and then pop them at any given moment. The application is helpful in activation and keeping children focused on the app. Bubbles Magic promotes visual attentiveness and reaching, interaction between the specialist and child can be fostered as finger plays integrated with the app.

So as you were able to see in that application it was really simple to use, gave you the immediate feedback, something huge that we are really looking for, but it also allowed some challenge for the child. They have to make contact with the screen. So I will mention upcoming slides, some things to look for. That is one thing to keep in mind, what does this application do? So that we can know what we're looking for. The next application is kids sewing machine. This application gives us all the things that we wanted, the immediate feedback, use of familiar songs -- in the following video, you get more of an idea of what the application brings as well as some of its benefits.

[Music]

go! Row, row, row your boat gently down the stream.

Kids Song Machine is an application that uses children's music and integrate visual and make -- animation -- animation. Kids can change songs and move items. Constant movement in the application promotes tracking and visual attentiveness. The ability to touch characters and interact with items on the screen promotes reaching and activation. One drawback in this application is the misinterpretation of some of the songs as they use different themes that don't correlate -- correlate well with the music.

So as you are able to see in that application is really was really simple to use. I did mention and I'll mention again, for some reason the application seems to be a favorite of a lot of our children. They really enjoy it. I know as an adult and other a dults, we did find it a little frustrating that the pictures did not match the different songs, itsy-bitsy spider, things like t hat, but for some reason with the children it seems to be a really big hit. For this next application, it is baby's musical hands. Is $0.99. And the following video, you'll be able to see a little bit more information on the app.

Musical hands is an application that uses colors and sounds to stimulate the user. The application promotes visual attentiveness, reaching and activation. With every touch of the iPad, sounds in brilliant explosions of light from the screen are emitted. The use of the primary colors red, yellow and blue and instruments such as piano, synthesizer and various drums make this application a great candidate in teaching children positive effect. Interactive finger play and color matching can be incorporated with this application.

As you were able to see in the video, it really was simple to use. It give you immediate feedback, had a lot of light, sound, color. For our next application, we looked at infant visual stimulation. What we will notice when you see the video, this is our simplest -- simplest application. As we start to discuss what to look for an application, this would be one you want to use with children who don't necessarily need to reach out and make any contact with the screen. It is the simplest to use and you can change screens and manipulate the speed.

[Music]

Infant Visual Stimulation is an application that uses high contrast colors and patterns to stimulate vision. The application is useful in helping children to track, adjust seating positions and ultimately reach to change slides. The application is both automatic and manual slide control. Using black, white and red colors Infant Visual Stimulation is perfect for children working on visual attentiveness. With soothing music in the background the application is perfect for grabbing the attention of the child and ensuring optimal visual stimulation.

When I move onto the next application, some information, we will be muting some of the lines. We are still getting some feedback from some people. Everyone should have their phone muted, so that you can only hear the presenters. We will continue to try to do that. We apologize for the feedback. We are getting feedback from other people. We're trying to take care of that. For the next application, we did zig 11. This one is a fun application that was fun and -- we did Talking Larry the Bird. Applications in the upcoming slides -- you'll be able to see where we use this application. Please enjoy the video.

Testing. Testing. Testing one, two, three. Testing one, two, three. Talking Larry is a very interactive application that promotes speech, reaching and activation. With an array of buttons available, the child can feed Larry, play with them and even make him sing. Talking Larry is more than a interactive application. He's a bird that will repeat every word spoken to him. Being the Mockingbird that he -- that he is, listens to sounds and words he can imitate. From babbling to full sentences Larry pushes infants to keep vocal and communication.

As you are able to see in that application, that's one of the applications that everyone seems to enjoy, it's a lot of fun, it's really interactive and it gives you the immediate feedback. Moving forward, what we wanted to look at is focused on the top two applications. Which narrows it down even more to be able to see which applications we felt we could get further feedback, we can challenge c hildren, and which were applications that we could modify to use with some of our higher functioning children as well as some of our more involved children. So the top two applications we decided to focus on where Infant Visual Stimulation and Talking Larry the Bird. In this slide it has the same information as you saw in the previous slides regarding description, price and the category of where you should find these applications.

What we decided to do was focus on specific children using these applications, so you can get specific knowledge on how to use this application in the following video you will see Brody, who is six months old, diagnosis of optic nerve damage, prenatal intracranial damage and you will see him with the specialist in action using Larry the talking bird.

In the following video, we present the iPad application talking Larry. Talking Larry islking Larry is a very interactive application that repeats when spoken to. Larry, a Mockingbird that speaks when spoken to, can be fed and will sing with the touch of the screen. Brody is six months old. Since his birth, Brody's parents were told by health professionals that he would not thrive. Therapists and educators gave Brody a low chance of success after various tests. In addition to an implanted shunt, Brody was diagnosed with optic nerve damage and significant prenatal intracranial damage. Prior to these visits with his vision specialist, Brody did not reach nor did he clue or girl -- coo or gurgle. Please take note of how the specialist uses different seating arrangements and shifts the iPad into the field of you for the c hild. Take note of how speech and incorporation of the application Talking Larry Ades Brody's speech. It be very attentive to Brody's first words ever spoken, Mama, at the end of the video.

This is Brody. We're doing Talking Larry application. Brody is sitting up, wanted to see -- he is reaching for the Larry the talking bird. He's going to be using his right hand more so to reach and even just trying to imitate his own voice from the Talking Larry. Here we go.

Say hi. Yeah.

[Bird sounds] trying to get the bird. Good. Just changed the position a little bit because I wanted to make sure I'm not lounging over or he is positioned -- making sure he's upright. And even the way I'm holding the iPad to get him a little help, the tilt from his back. To get better visual and not so much fighting with his visual and head position. Wow. Where is Larry? Where is Larry, Brody? Let's get Larry. Yeah. Yeah. Okay.

Before I continue, I just wanted to remind you guys again if you are not able to mute your phone, if you can just be aware that everyone else can hear you, because we were unfortunately during the video hearing other conversations. If you can please keep that in mind so that we can make sure to get the correct information that we are able to hear you, we heard some talking, laughing, things like that and it's hard to hear the video when we have the feedback from everyone else. I wanted to encourage you to please mute your phones and if you're not able to, please be aware that everyone else can hear you. I really appreciate that.

Moving forward, before I move onto Andy, just as you saw in the video with Brody, how exciting was that? We were able to capture his first words and although he is just one child, we have that with so many children which makes us so excited about our study and the applications that we're using and the things that were doing with the children because we're able to see firsthand the growth that they're making. Although the data was important and you were able to see the children and see their growth, it makes it so real when you're able to see them in action and see how these applications are helping them grow in different domains. For the following video, you will see Andy, who is 23 months old and has a diagnosis of hypoxic encephalopathy . Keep in mind and soothe differences in how the specialist is interacting with Andy versus Brody, just based on his diagnosis and his skills.

In the following video, we present the iPad application Infant Visual Stimulation. This application uses high contrast colors and patterns to stimulate vision. The application is very helpful with helping children to track, to adjust seating positions and ultimately reach to change slides. The application has both automatic and manual slide control. The child in this video is Andy. And he is 23 months old and was diagnosed with hypoxic encephalopathy which causes him to have seizures. And he tends -- Andy tends to turn his vision to the right when his therapist is sitting on the left. The stimulus has been very important and beneficial in helping him turn to his left. Through iPad use, Andy has improved his attention and has begun to tolerate sitting. Take note of lorries communication with Andy verbally and nonverbally. Pay attention to how Lori helps Andy stay relaxed, contented .

Okay, Andy, are you ready? Are you ready to get this show on the road? Okay. Good job. Yes. Yes. All right. We're going to do the Infant Visual Stimulation. We're going to show you that. Andy, since -- sits by himself with just a little support, we don't use a chair or get on the floor for Andy. This is more comfortable for him. He prefers his right field. He's doing more in his left field now, but basically, he does more in his right field. I sit on his left, so he will turn to me and turn to the object I present so that helps him move to that side more. So that's why I try to sit on his left side. Whether he wants to look at me or not, good job. Good job, sweetie. Okay. All right. Right and left -- going to bring them over here. Can you see them over here? Andy? Good job, sweetheart. Good job. Can you see that? It's right over here again. Try it over here. You are okay. You're okay. How about over here? What is that? Is that pretty? You like those colors, don't you? The red and the Black. Andy is able to sit fairly well on his own with his hands to prop himself from falling. We like to use a little extra padding to bolster around him, so he doesn't have to work as hard when he's sitting, so he can focus more on the iPad, the other images we present. So he doesn't have to work as hard. This way, he is propped a little bit with pillows and bolsters.

So as you were able to see in that video, we were able to use that application with a child who is more involved and still get results. Of course, as specialists we look at different things. For a higher functioning child, we want them to do more things versus and involved child but we still want them to be attentive and participating and engaged in what we're doing. What we decided to do was give you a second view of a second child using the same application so you can see how the same specific application can be modified by the way that the specialist is talking, the way that the child is positioned and the interaction that is happening. In this next video, you'll see Jonathan, who is 26 months old, has a diagnosis of Vacterl Syndrome. A hearing impairment and some developmental delays.

This application uses high contrast colors and patterns to stimulate vision. The application is very helpful with helping children to track, to adjust seating positions and ultimately reach to change slides. The application has both automatic and manual slide control. The child in this video is J onathan. He is 26 months old. He was diagnosed with Vacterl Syndrome, a hearing impairment, and developmental delays. Visually, Jonathan has astigmatism. Jan, his vision specialist, reported that before being shown the iPad, Jonathan struggled to reach his midline. Since then, not only is Jonathan reaching but he has even started to activate and maneuver the iPad himself. Going onto more complex and higher functioning applications. Take note of how Jan uses the application Infant Visual Stimulation to help Jonathan track and stay visually attentive with the iPad.

Okay. We're starting with the Infant Visual Stimulation. Which isn't a very complex for Jonathan. Jonathan's visual skills are fairly good. And he likes to have things happen when he wants them to happen. But he is very attentive. He will track it. And is watching JJ too. Where did it go? Where did he go? Good job. Look at you go. And up and down. There you go. Trying to get Jonathan to track the black-and-white pictures. And I'm turning it to the one that goes auto flash, because he needs a little bit of movement and it keeps his interest. So he is more apt to track it. When it wasn't moving, he wasn't trying to track it. He is tracking up -- so I'm using the moving picture and the vision stimulation program to get him to move. And track. Using his eyes. He does pretty good with just his eyes, tracking with a little bit of had movement. It's really important with all the kids to find a good visual position for them. Jonathan King -- tends to to lay down to do things including the iPad. And so I am propping his up -- propping him up a little bit with my body. He doesn't really need the support physically, but to get the best visual response out of him, basically, a little bit of support helps. So if he is on his, and -- if he is on his tummy, it's a little hard to get them to look with both eyes at the same time and track. Tracking pretty good, yeah.

So as you were able to see in that video, the exact same application was used as the application that was used with A ndy. And the way that the specialist was interacting is what made the difference in how we use the same application to get a different result. Now we wanted to move on how we rate our applications because we felt that this was important in looking at how you would find an application and see if it would be one that you would find beneficial to use in your program as well as the parent can use with their c hild. Some of the things we looked at is response time, which I mentioned multiple times before because that is something that we felt was really important. You want an application that's going to give you immediate feedback. As it becomes too difficult, if it takes too long to load or the child is not getting desired results, they're going to give up. You're going to lose the interest from the child and then it's going to defeat the purpose of why you want to use that application. So immediate response is huge. You're going to look at color and contrast. Obviously things to keep in mind our the child's preferences, do they like certain contrasts? What are the applications that you can use that would provide that? Shapes, sounds -- sounds or feedback? A lot of our children are very specific on the sounds that they like, whether they like high-pitched tones or low pitched tones those are things to keep in mind when you look at an application. Ease-of-use is really key. You want an application that does not require much. As you saw in kid songs, that was the only one that required a menu that you had to scroll through. That is one for an example that we would use for some of our higher functioning children's or the specialist would be the 1 -- to lead the menu and get that child involved in the application. You want to keep in mind that we really want to work on encouraging the child to explore the application, so in order to do that you want one that does not require multiple steps. That is easy to use, that you turn it on and you're able to move a long. Baby fingers is another simple to use -- the menu does not require much. There are three options the specialist could click into and will pop up the desired results. Is a motion -- using motion for tracking. Another thing to keep in mind is also how the specialist is using the application. As you were able to see with Johnson, the specialist Jan was using the same applications, Infant Visual Stimulation that Lori used with Andy but she was positioning the iPad, moving the iPad across, she was able to encourage that motion and tracking from that c hild. Another thing to keep in mind is how we choose our application. The most important thing we look at is diagnosis. We want to keep in mind the child's diagnosis. Based on that we want -- we will be able to know is this child looking for certain contrasts? Based on their diagnosis, are they hearing-impaired? Do they have more hearing? Can we use an application that has more sound? All of that. One important thing is we really wanted to be goal oriented. I did mention before and I'll mention it again we wanted the iPad to be used as an educational tool. We did not want it to be a tool that can just be given to the c hild, used as a babysitter, things like that. That is one thing keep in mind because we are well aware of the guidelines from the pediatric Association that recommends that children do not watch television under three. The way that we use the iPad is very different than the television. We used it as a tool in the visit, and we've encouraged parents to use as well as a tool that requires interaction. As you were able to see in the video, the iPad was the center t ool, the specialist was using the iPad, making eye contact with the child, interacting, using language, we used all of those things when we use the iPad. We do not recommend and we don't expect any of our specialists as well to use the iPad as something handed to the child and no interaction used. Preference is huge. You want to keep in mind for a lot of your children that you are using this application for, what do they prefer? Do they prefer certain sounds? Certain colors? As I mentioned before for a lot of our colors, really turn them off, so you want to keep that in mind. One thing we really recommend is always exploring an application before placing it with the child. You want to explore it as an adult to see if it has the use if it has the ease-of-use, the immediate feedback that you're looking for. We always recommend that the specialist using this -- for parents as well -- that you purchase the application, there are a lot of applications that are free and then have the ability to purchase. Of course, if you are exploring it as an adult, then you can get the free application but we really recommend if you are using it with the child that you want to make sure that you purchase the application. One big reason for that is you do not want a child who is fully engaged in the application and then they click on a button, they get sent to the App Store, try to go online and then you lose their ability to be engaged, which of course is the number 1 thing we want, in order for the child to reach these domains, they need to be engaged in what they are doing with the application. Interactivity is huge. We really want to keep in mind to have the child interacting with the application, make sure that it's something that it's not going to set the child up to fail. For example if you have a child who is really not reaching yet and may not have the ability to do so, you don't want to use an application that requires them to do that. Because the child will get frustrated and they will lose interest because they're not able to get their desired results. For example for a child like Andy doesn't yet have the ability to reaching front of him or activate things and some visual stimulation was a perfect application. Because it did not require anything of him other than to be attentive, have the visual attentiveness and be engaged. Another child like Jonathan or Brody who's starting to reach out in front of them and other children you may find this is a goal you want to work on and showing interest, you want to look at application like Baby Finger or an application like kid songs HD, something that requires something of them. Of course we always recommend that you challenge your child but always look at an application that is going to be able to not only challenge them, but is also going to be able to meet them at their level so the child can feel accomplished, be engaged and attentive to the application so that you can get that desired result from them. For this next part we actually wanted to share what we did as part of our pilot studies. We started presenting, meeting with people and sharing a lot of information on applications. The feedback that we got across the board, people were saying, this is great. But how can I use it in my program? How can I use it with the children I work with? How can I share this information? What can I take away from this? The next step we decided to do is we created an iPad curriculum DVD. We looked at our top 12 applications -- six applications and looked at being able to discuss how we can modify these applications. As you were able to see in the Infant Visual Stimulation video, we used the exact same application, different specialists, different children with different diagnoses, different levels of growth and how you can modify that application so that it can be used for both. So what we decided to do for the top six applications I shared with you today we created 12 different videos. We did two videos per application. For example, Baby Finger we did two videos. Involved child and a higher functioning child so that you can see the interaction that is happening, the conversations that are being held, we mentioned the position that the child has been sitting, the way the specialist is interacting, all those things. Like I said, we felt those things were important. The iPad became a tool, but we did not want it to be the only tool. In looking at that we wanted to focus on how the adult can use the iPad how can you use these specific applications to gain the desired result? What you'll see in the files area, there are two different handouts. The first one is and iExploration handout. That one has our charts, our information. Including our data findings and the list of all the applications. The majority of the applications that we used in our pilot study so you can get an idea of all the other ones that we narrowed down from. The second file is our DVD order form. What we've done is we've created this DVD to be used for educational purposes of course, parents and educators, and what we have is a DVD order form, you can download it and send it back to us in -- order as many DVD's as you feel are needed to share with families, share with specialists, they are free of charge. What we really want of course is just to be able to have this information out there to be able to share what we've used and see how it can be beneficial for others. So now we'll move onto any questions and comments that you may have.

I'll wait to get feedback on the questions so that I can begin answering.

Thank you, Laura. Sorry, my phone was muted. [Laughter] we had -- there was a lot of great information. And we have quite a few questions. So I'm going to just start reading the questions to you. From Diane Mitchell, were you able to purchase an iPad for each child in the study? And did they get to keep them?

We didn't purchase them for every child in the study. We did purchased or another grant for some of the children. We were able to get them. We have iPads for all of our specialists and we're moving forward. That is a goal that we would like to have, because we do have in just our component we do have 165 children so we didn't include everyone in the study but we really would like in the future to be able to look at either grants or how we can raise the funds so that we can have loaners out there to use. And that is the main reason why we didn't want the iPad to be the only tool, because we are very r ealistic. It's not cheap and we can't expect that every single parent is going to be able to use the iPad with the children so we wanted to be used as a tool and then engage them in the next area. One of our babies that we didn't focus a lot on was the yellow line in cycle two, Novalee. With the iPad, she was not only reaching, she was activating, she was fully engaged. So of course this was an area we wanted to focus on. With her, we used the iPad and started placing leads with the iPad and started taking the iPad away and she started reaching for other things. For her, it was a success story. The mom actually went to work so excited, here's this baby who for months we've been trying to get to reach, now reaches in front of her, all of her coworkers pitched in and purchased the baby an iPad.

That's a great story. We have a question from Lita. What type of iPad case and do you have any suggestions on --

We used the Griffin case. You can buy it at Best Buy, it's about $79. We recommend that case because it is spit approved. A lot of our babies like to suck on the iPad. It's easy to clean and it does -- you can fling it across the room and the iPad won't crack or break. One disclaimer that we do say, if you have a child who likes to throw things, you want to be careful with it because it makes the iPad substantially heavier. And when it is thrown, it can hurt someone. That's the one that we use. You are able to take apart the pieces and clean the iPad and put the pieces back in, but that's one that we really use. Griffin military grade -- they come in different colors. And they are all in different s izes. I believe they're creating one for the mini but we have one for the iPad 2 which is what we've been using.

A couple people asked, if there is a kids mode so that the child may accidentally swiped and then he goes to a different program -- so is there a way to prevent that?

We have -- you have the ability to lock the home button. So you are able to do that. If you lock the home button, the child can only stay on that application and they can't click out of that application.

Okay. And then Jackie asked, -- that's the same question. Prevent the screen from changing. Sorry. A number of you have asked about is this being recorded? It will be available on the Perkins site. Yes, it will. Www.perkinselearning.org under the learn category and it should be up tomorrow or Friday at the latest. Let's see. I know that somebody commented about the audio cutting out -- that may be of the wireless -- I'm not sure. But the recording will work well. And any other questions? Here's a question from Laura. Have you tried a darkened room and did that make any difference?

For some of our children, that have light perception, it did. When using the iPad, in the beginning we treated it like a light box so we of course want to get to be used with not a lot of stuff in the background, the way we would do with a light box as well. And then moved on from there. The way that we did this, we did it very individualized. So like I said based on the child's diagnosis, if this was an area we felt they were of course having some light perception and were distracted by other things and we did make the room a little bit darker and had the iPad placed in different strategic ways.

And Bob T also left a comment here about the Apple Store has a link called certified refurbished that we have used in his district to purchase iPads that were c heaper. And there are models that are stored demos or in stock but have not been sold. So that's a great resource.

Definitely a great resource. And the ideal world, we would love if every single one of our children in our program can have one.

Gala Garland asked, have you tried the modular hose? If so, do you find them effective?

We have not tried -- we've tried to specific applications, we've tried using the iPad, different locations and things like that but one child has one and uses it but we have and not as a program purchased them but we do have one child who you will see in the video has one against their bed and that's how they are able to access it. But we haven't because the specialist is usually the one that is holding the iPad.

Question from Julie. What do you foresee after the use of these two preferred apps? And has it been any use for sound -- sounds only if a child has complete blindness?

Yes. We actually do have -- you'll be able to see in our DVD we do have some of our children who have -- who are completely blind and we still use some of the applications. The kids song HD is actually one that one of our children really enjoys who is completely blind and she loves that application so we do focus on some sounds specific like children who are completely visually impaired. We do use those. For our next part of our project, we focus when we did our curriculum DVD, we want to state -- taking a step further. What we are going to do in this upcoming year is creating a curriculum that's going to have more specific information because although we shared our curriculum of our top applications we thought it was not enough. So what we're going to do is be creating a curriculum that's going to give specific tips. How do I know if an application is going to work for a child? It's going to give you specific ideas. After X number of times, you should be beginning to see this response from the child, whether -- depending on what goal of this. We're going to focus on specific areas, for example for communication, what are some of the applications that you could use or Talking Larry is one because it captures the child's grunting and coughing and giving those examples. And then saying, after X number of times using this application, you should begin to see this from the child. If you don't, here are some things you can modify. After modifying, if it is not working, looking at the next step could maybe a different application and things like that -- that's the next step we want to take from our project.

And we have a question from Kimberly, have you found any one particular app that is better for CPI students?

We have used multiple ones. The way that we look at our children is we don't look at just the specific diagnoses because as you know with anything there's a spectrum that they fall under so we really look at specifically individualized for that child because we may have a child who has CVI but still maybe has more light perception than another child so we really look at it very individualized, but we'll get there -- the goals is a big part that we want to look at. If you have a child who has CVI and is interested in music, let's say, you want to look at what applications are going to have more music that the child is going to be more engaged in, want to make contact with the screen and things like that. We really look at it specific to that child rather than just the diagnosis.

Jackie says that -- I just lost -- we've read a study that there must be at least 25 centimeters between the iPad and a child with a shunt. And could you relate that -- that question about interference with and implanted shunt?

Yes. That's very correct. What we do -- when we do anything with the children, we keep all that in mind. So for our children who do have shunt, we ensure that the iPad is going to be far enough away from them, we're not going to have it in their space. We also have some children who have seizures and we are well aware of the different lights and things that we should not be having on screen to make sure that we don't have an undesired results with the child.

And also from Bath, have you used the vision testing?

We have not used the vision testing app gets. What we do in our program is we do our own functional vision assessment. We still get reports from the optometrist, often optometrist, ophthalmologic and all that but we do our own assessment. We are we are able to gear the child's functional vision, so we'll get there reflects responses, light perception, response to certain things whether they're tracking, whether there -- the peripheral vision is stronger, also all of that. So we do our own assessment and then from there, we gauge what we find would be specific to use with that child.

This is terrific. Laura, I must say, we are really thrilled to have this content presented today. And judging by all the questions that we got, you can tell that people were really engaged with your webinar.

Thank you. Thank you for giving us the opportunity.

[Laughter] it was our pleasure. And I thank you for sharing your knowledge on this important topic. We really appreciate it. And we thank you to our technology partners at the Junior Blind for making this presentation possible. And to all of our participants who are joining us today, we hope you found this webinar to be informative and we hope to have you join us for future webinars. And remember, this webinar has been recorded and will be available on our website either tomorrow or the next day. And just so you know how far-reaching this has been, we had participants from 19 states and four different countries outside of the US joining us today. And we had a total at one point of 108 participants. And this is very exciting. So thank you very much again, L aura. And thank you to all of you for joining us.

Thank you.

Goodbye now.

Bye-bye.

[event concluded]