**Building Strategies Around CVI Phases**

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Please stand by for real time captions.

[Robin Sitten] Hello, everyone. This is Robin from Perkins eLearning; we will be getting started in about 5 min. We will be muting the phones; it helps keep background noise to a minimum. We will shortly have a question and answer box on the screen, so if you have questions you'd like us to address during the Q& A portion, there will be the opportunity for those to be posted there. Stand by, we will be getting started shortly.

All right, I'm going to go ahead and start introductions because we have a full presentation today and I don't want to rob any other speakers time. Greetings, everybody. This is Robin Sitten from Perkins eLearning. I'm excited to invite you back for another monthly webinar series, and today's webinar will be particularly helpful. We have been continuing our conversation about cortical and cerebral vision impairment and we'll get right into some practical strategies. If you're interested in getting information about future webinars or other resources and content from Perkins eLearning, including our publications, newsletters, webcasts, you can find us at Perkinselearning.org, today's topic, Educational Strategies in Each Phase, addresses each phase of CVI and talks about strategies for utilizing methods. Every month, we are joined by new attendees. Before we get started, I would like to review the technology.

If you are not yet seen the Perkins welcome string—screen or the Building Strategies Around CVI Phases, you're Adobe icon may have been minimized to the bottom of the screen. It's a green button that looks like a group of people. We keep noise levels in control by muting your line but a question and answer space will be provided on the screen and we encourage you to pose questions as they occur during the webinar. We will address them at the end during our Q&A.

You may have seen a pop-up or are now seeing a pop-up asking how you would like to receive audio for this webinar. You can cancel that button, we are using this conference line for our audio. You have individual controls on your screen and may choose to enlarge or minimize the captioning area, for example. He also have individual audio controls for your phone or computer speakers and part of this introduction is to give you time to make those adjustments as you need them.

Computer and telephone audio are often out of sync. You should not need both on at the same time. If you are experiencing an echo or feedback just mute one of those devices, just use your phone or your computer speakers. This event is being recorded it will be available tomorrow on the Perkins website, including a PDF version of this slide presentation. Thank you for joining us and we know that we are sure that you will have a good experience as you attend this webinar. It's my pleasure to introduce today's speaker, Ellen Mazel, MEDCTBI is a cortical visual impairment advisor working for the Concord area special education collaborative. You may also know as the CASE collaborative as a teacher of students with visual impairments, deafblindness, and cortical vision impairment.

In 2008, Ellen Mazel was named national teacher of the year for children with multiple disabilities by the Council of schools for the blind. After studying cortical vision implant with Christine Roman-Lansky for six years, she became interested in the most recent brain science information, how children with visual impairments build compensatory skills and how children’s experiences relate to their growth and development. It's a thrill to have her here with us today. Ellen Mazel.

[Ellen Mazel] Thank you, very much. Well, everybody. Good afternoon. Today, we will be talking about building strategies around the CVI phases. Let's just get going.

Why do you need to know this? We've got a poll, we would like to hear from you and let us know what your current experiences or interactions are with any children with CVI. That will be appearing on your screen and you can actually click directly using your mouse. Check any of the boxes that apply to you. And, we are interested in seeing who is in the conversation with us today. So, it's good to see a fair amount of you have daily interaction in the home. But also a growing number who have fairly frequent, but not necessarily daily interaction. So far, 14% of you have never worked with a child who has CVI.

Everybody has had a chance to vote. Thank you very much, that's interesting and lets us know who is in the room with us. It seems like those top daily interaction are representing a fair bit of you. You can go ahead and close that.

>> So, why are we here? Why do we need to know this information? Currently, CVI is the number one cause of visual impairment of children in most countries. It is requiring us to really understand new vocabulary, new understanding about brain function in requiring a new understanding of assessment. To build strategies. So, those assessments that we use with children with ocular impairments are not going to give us the information we need. They will not give us the information we need to build a strategy to assist children to move further in their functioning level with CVI. CVI is defined as damage to the visual cortex, damage to the visual pathways or both.

I think this picture right here really shows and helps us understand that the eye and brain are one. We cannot separate these two things from one another. I think as a teacher of the visually impaired in the past, I was concerned with function of the eye, not thinking so much about the brain. And now, this is totally changed. We really need to start thinking of this as a total system and how the system is working.

Ocular impairment can occur with cortical visual impairment. Children can have both types of visual impairment. We need to gather information about both visual impairments. We are going to want to get ophthalmology reports, optometrist reports, we are going to want to get any information about neurology from parents, just to give us full information about the brain and health of the eye. We are going to want to assess children using both a functional vision assessment and a CVI scale. CVI range from Christine Roman, currently the only tool available to us for CVI and that has been checked for reliability indices the only thing we have at this point. And then when we go to create strategies, we want to create them for both types of visual impairment. This is not a background lecture about cortical visual impairment in general, but I do want to just, again, remind people about the 10 characteristics that we look for in CVI and have people remember that these are the areas that we are going to be looking at in the assessment, and therefore, the areas that we are going to be looking at when we develop strategies for children.

The first one is color. We want to be looking at what colors, alert the child's brain to look. The brain is wired to notice color. And reds and yellows seem to be the colors that alert the brain most dramatically. And we see this in the world. We see red stop signs, we see red firetrucks. We see pop-ups on our computer that are in these highlighting colors. We see merchandise being sold to us in stores that are in these alerting colors, and that is because people understand that it's going to grab your visual attention.

Sense of movement is another thing that we look at. How does sense of movement affect the child's ability to look? We know that movement affects the brain, especially in the periphery and that movement is a primitive defense response in animals. This is something we cannot stop ourselves from looking at. Movement draws our visual attention. Again, think of yourself driving down the road the way that somebody on the side of the road is getting the attention. A car dealership is with moving flags, red and yellows, with items that are moving in your peripheral vision that you're going to have to look at. Your brain is just going to have to look at. It draws her visual attention immediately. Movement, when we think about it, is typically off to the side, shaking without noise because you don't want to complicate the input to the child with listening to noise and trying to locate the item. And it's operating in a small area.

Shiny items, when we think about using shiny items with children, we are thinking about this as a movement characteristic, because shiny items will capture reflect light and give the item a sense of movement, even though it is not moving. When we think about a shiny item, we want to put it in the characteristic of movement, not color.

Latency. How long does it take for a child to visually locate material and visually recognize materials? The child might quiet when the object is first presented, but it takes them a long time to turn and use their central vision. They need to be allowed that extra time in the world is a fast-moving place. This is not something children have access to. Things don't hang in there visual fields for long periods of time.

We also assess visual fields. What fields does a child see better in? We are assessing upper fields, lower fields, left and right fields. Complexity. This is what level of multi-sensory presentation is tolerated. And I think of that in three different areas. We have visual complexity that people really do think about that. But, we also have auditory complexity. What level of noise or new noise can the child tolerate and still maintain their visual skills? And then I think about positional complexity. What type of positioning really benefits that child’s ability to look?

Visual complexity. That is the background busyness. They need to see things very close. Children with CVI tend to be close lookers because things fill most of their visual field. If you lower light levels in a room, that seems to reduce the complexity of the room. I’ll often have children who, the visual busyness of the world is so great that they will fall asleep to avoid the complexities. Or actually close their eyes and look as if they are asleep to avoid visual complexities. Auditory complexities, the background distractions that really draw the child away from seeing. They really have a difficult time focusing on anything in noisy environments. Parents will talk about children having difficulty at large family gatherings, at the mall, at a place with new noise or anyplace that the noise level gets above what the child can handle. You will see looking really, really change. Children's ability will really, really change.

Positional complexity. Especially for these children that are struggling to maintain their positions in space. Control their bodies. Supported seating is really helpful. Children can not only locate items faster, but sustain attention on things and look with greater speed. Positions are very, very important and I think they are important for every child in school, especially. Light gazing, how does the child responds to light? Again, it is a primitive visual ability. The children will seek out light sources so they’ll spend a lot of time looking up to the lights up above in the room. This is also because ceilings are not complex. You get children looking up because it is much less complex than the world.

The children can be distracted by light sources. You will see them looking off windows or up to the ceiling. They have difficult time engaging with any materials when light is present. They perform much better when light levels are behind them. When we think of non-peripheral gaze, this is a child that just looks and the quality of their looking is without meaning. They are not looking at anything. They’re not learning about anything.

Distance viewing. What can a child access at a distance? What can they look at, what can they locate, what can they recognize? As children improve, they might become overly attentive to movement in their distance — that seems to be a stage that we see and again, we just need to control that distance movement so the child can pay attention to the item at hand.

Reflect and responses. This is not something we create strategies for because children cannot learn reflexes. But, we checked this because we want to see how quickly the child blinks. Either to the touch or the threat. Are they blinking immediately? Are they delayed or — are they not blinking at all to that input.

Novelty. What items do the children already look at that they are already familiar with? Parents will report favorite toys. I cannot tell you how many times parents have told me Elmo or Big Bird, red and yellow. They look at items they have seen in their environment for a long time. I have a little boy that I work with right now who had a kelly green bear in the corner of his crib for his entire life. Kelly green tends to be a color that this child can work with and a good starting point when I think about working with him and introducing new materials.

Visual motor. The quality of the child’s looking. Are they just quieting and using peripheral vision to look? Are they locating it, turning and looking, but not reaching at all? Are they looking, but when they go to reach, they will look away or look away at the last minute? Or, can they continue to look and reach together? And look while they are playing with items. These are all things we would assess in visual motor.

So, what is CVI? The child is not looking, the child is not looking and reaching, and the child is not processing information. Where is the child functioning? This is on a continuum from 1 to 10. We assess each individual characteristic to determine the level of support. I have to say, parents are essential in this assessment. You have got to get the information, they know so much about their children. You have got to use that information. And, we want to use assessment to chart progress, and we want to use assessment because we want to know when children have made improvements in their visual skills and then reduce those individual supports to the level that the child can move along.

Our levels of severity, according to Christine Romans and her range is phase 1, phase 2, and phase 3. There are specific goals in each phase that we think about. In phase 1, children are just not looking. So, the goal is to build visual behaviors. Just get this child to look at things in the environment. When we move into phase 2, we want to use the vision that is built to integrate it with function. With reaching, with using, with identifying things in their environment and using things in their environment. By phase 3, a lot of the characteristics have started to resolve and we are looking to get rid of some of those little details like distance vision and spatial recognition and some of those higher-level visual skills. So the strategies. The ocular impairment assessments that we have done we know are not going to be available and not going to be good to us for cortical vision impairment. So, we've got to use the assessments that are made for cortical vision impairment and currently, that is Christine Roman’s range.

Assessment must be done in strategies are based on the assessment and the 10 characteristics. Phase 1, as I said, we are building visual behavior. So, what are we using? We are using single colored items. Often the red or yellow's, but not always. It's very, very important for us to assess what colors and how many colors in an object a child can handle. We’re going to provide the children with a strategy of peripheral presentation. Slightly off to the side, because this, as we know, is the better visual field for children in phase 1. We are going to allow increased response time because we know latency is very, very strong for children in this particular phase.

So, when we use objects, we are going to use objects that are gently moving targets. These are targets that, again, are off in the periphery that move gently, stay there for a long time and children can locate them using their peripheral vision and hopefully turn to look. We try to provide highlighting. We try to provide that color support on everything in the child's world. So, this baby bottle that is coming repeatedly throughout the day has a red scrunchy on it, just so this child gets the practice of seeing this coming towards them and as a visual target every single day. We use red spoons. Again, this is something that is going to be happening multiple times in that child's day. I like to help children become aware of their bodies, and they're going to be missing that huge skill that goes with reaching, which is, where is your hand, what does your hand do? They miss that whole hand watching part of development. This is red scrunchies on wrists — wrists help children locate hands and they're moving targets. Children are getting repeated practice with something in the environment to look at and it's moving.

If children need hand splints, I’ll often ask the occupational therapist to order a red handspun. Again, same reason. It's going to be on hand, constantly moving, it is going to be appearing near and again, a nice visual target to build skills. Red Socks are a nice tool for getting kids to notice their own feet. Those moving feet. Again, built into their world.

>> Mylar balloons are nice because they move gently, they move slowly. If you take a red or yellow or a child's favorite color, they tend to be a little bit shiny and, again, a great visual target that can happen at “near.” And you can increase distance with this once the child is looking for it at near and starts to build distance awareness. I like to really use all of the active learning spaces and materials. Lily Nelson has talked about these tools. And, the reason I like them is that they are places for children to play that we could create that stay at “near.” Materials hang at near, they hang for a long time so children get a lot of visual practice with them. They reduce the complexity because it’s a small viewing area. Things move in the little room at the child plays. So, it's just a wonderful space to have things become predictable, have things at near so the child can learn to use their vision.

We have learning trade that again, are appearing over and over again in a child's life where you can provide them with materials of the color that is their favorite color, and then increase the number of things that the children might look at. I really like, we create these pegboard trays that are all about certain characteristics. Attribute trays. This particular one is all about brushes. You could have spoons, sea shells; you could have any number of things that a child can look at. So, you might start with one item that a child is playing with and add another as they can tolerate it and add another. It's great for building tactical senses, because as teachers of visually impaired, not only are we concerned with a child’s vision, we are concerned with their tactile skills, hear skills, sense of smell. All of the compensatory skills. We are always thinking about that as well.

This is an active learning tool, which is a vest. Again, things can be left at near. So, these vests can be created. Materials that are child's favorite color tied on there so that they have access at near to these at all times without somebody having to hold it for them for somebody having to present it in their visual field. These things can be accessible.

This is a PVC pipe sensory frame, and we could begin — this particular frame begin with the child's favorite toy, with a lion in the center, and now, with this particular child, has been able to add several other materials and the child still can look. You notice in the background, I have a black background, so the child has some nice reduction in the complexity of what's going on behind these materials or up against a plainer background.

Phase 1, we are building visual behaviors. That's our goal. We are using shiny items. We have quieter environments and quiet toys you could take the toy and take the sound out by covering it up with a sound reducing material. We are reducing background complexity and using single item presentation rather than many items to look at. Here's an example. In the top picture, you see a tray top for a child that is very, very complex. This child is trying to see the red scrunchy on the tray while seeing his own movements of his legs through the tray, while seeing the floor, while seeing his shoes. Just simply covering that, you see in the second picture down, just simply covering that gives that child the single item, red against a plain background that he can now access. This is a typical classroom that you might find, a typical preschool or in some of the older grades. That shelf is way too complex for a child to have as a visual background.

>> You see a simple addition of a curtain on these shelves, just with a tension rod and curtain. We just bought some black cloth. We went to our high school sewing class and gave them the dimensions, the students in the class got credit for community service and we got our shelves covered. Again, in this classroom that I am working in, we have divided the classroom into small areas. We can control the sound and control the complexity of the environment. Again, people do need to be reminded about complexity.

Even though we have this nice set up with individual learning areas, it starts to get very complex because people add things. We really, really want these simple visual areas. And I like to sit child's chair so that I can know exactly what the child is seeing. These are calendar system so we are using with children. Again, we are presenting the symbol, the three-dimensional symbol against a black background so children can access the symbols for the next item.

Again, single presentation, very important. Tray covers on everything. Putting black backgrounds on Walker's, Tony Walker's, standards, every single surface that we are presenting items against. And ourselves, using plain clothing ourselves, or covering it over with an apron. Because you are the background as well.

We use these boards that can move around and move them into different areas. Remember, we are going to have in phase 1, very, very well-positioned child is very important. Staff is wearing plain colored clothes, because you are the background, again. And, three-dimensional symbols are to be used. Pictures are not accessible for children in phase 1, they just cannot make that visual leap to what this picture is supposed to represent. Three-dimensional, very, very important. In any of your symbol systems building and communication systems. Again, we are going to be controlling the light because we have children light gazing. We are also using light. It is our friend and enemy. We want to use it to draw the child’s visual attention. We might want to use light boxes at this point or an iPad to do that. We are not programming for visual reflexes because we cannot teach visual reflexes. We are using familiar items they can recognize those rather than novel items. We will be using lateral skills and putting targets everywhere.

If they’re looking at the red pom-pom, we are going to the yellows, to the greens, and blues. That is lateral learning for the color. If a child is looking at a slinky, we are going to move to a creature that has slinky arms and slinky legs. This little character is here. Once they are looking at this slinky arm, slinky leg man, we've got a face. We can move onto other things with a face. Building lateral skills and giving the child something to hang their hat on. Using large targets builds for visual fields and blocks that background complexity. We want to place items in the child’s best visual fields which we have found out from assessments but at the same time, we want to challenge those weaker visual fields with materials that are familiar.

If your child is very visually impaired, we will be registering them with your state agency. And, vision boards from APH, great tools to move around your classroom. So, I think we will stop. Let you take a breath?

Really interesting ideas and we’d like to take this opportunity to hear from our participants. If we could ring back poll question up on the screen, you should be able to interact with that and tell us strategies that you use and let's check that broadcast results so everybody can see them. And just list some other ideas that you have, particular to phase 1 that have worked for you. Don't be shy. You told us, 40% of you have daily interaction. Here are some common. So again, that shiny that you talked about, Alan. And bold. A nice concrete object that people have. Oh, fingers and toes. Very nice. They are different switches of yellow and red. We will be able to share these also materials that are available after the presentation. Let's get into phase 2, Ellen.

Okay, phase 2, as we said before, the child is beginning to look and we want to integrate out looking with function. When I think about that, I mostly think about reaching. Strategies that we are going to be using are too encourage the child to visually locate and then use by hand. So, we are reducing complexity. Reducing auditory, visual and positional complexity for children. We are using highlighted color. Using highlighting color as part of the visual target. We know the child's favorite color is red, we are going to using red to highlight materials and the best place to use them and we are going to be using embedded symbols, which are symbols that still have three-dimensional elements to them, because the child still needs elements of three-dimension.

Here is a switch. What we have done is raised it up on a platforms so that the child sees the entire switch. It is on something like a tilt board. Even though it is red, it was difficult for this particular child, so we added some shiny. Again, as we know, whenever we put a support in place, we are always looking for ways once the child has achieved that goal of pulling those supports away. So, you would be making this shiny area smaller and leaving the red switch only eventually. Children don't know where in space to put things. We outline the edges, this is an all done bin that we use with calendar systems. We outline the edges in red and the children have dramatically better abilities to place things into these tubs once we highlighted the areas.

We highlighted the areas of our communication notebooks also. Children are able to locate and more importantly reach, take off the symbol and carry it to their next activity. These are embedded symbols. We have done is taken the real object. In the beginning, it was a sippy cup or a container of yogurt or a container of applesauce. We’ve sliced it in half, we’ve placed it on a black card. So, it still is a symbol. We have upped the ante a little bit but putting it on a card. We reduced the three dimensionality of it and made it more a two-dimensional item and we are using these now in our communication systems.

We might, still, in phase 2, we are needing to give the child movement in order to locate something but that item doesn’t have to continue to move. We can stop the movement once the child is looking. We are still allowing time. We are still allowed that extra response time for latency. We are using familiar items, especially when they go to newer learning. So, if you are in a math class and that child is looking at the UNIX cubes for addition, when you go to teach subtraction, you will use those same UNIX cubes instead of introducing a new material for them to try to figure out when they are trying to use that new skill. We are using predictable books that have salient features; these are maybe, something that’s appearing regularly on every page.

Here's an example of a book, it's called Yummy, Yucky.

In phase 2, I might be covering one page at a time to allow the child to visually locate. As the child can learn, they have access in phase two to both pictures on both pages. As you see, this creature, this little boy, his head appears in a very standard way on every single page. And children seem to respond visually to this. Salient features, something that appears the same on every page. Spot is another nice book, where Spot is appearing the same on every page. One of the ways I would create or use a book is I might get a bunch of stickers and have the child put stickers on different pages. I can control that salient feature in each phase.

In phase 2, we know that if the backlight materials it helps children visually locate and reach for things. Again, we are using our iPad app, lightbox. There's a great iPad app called LED lightbox which turns were iPad into a lightbox and I find that helpful. We are using larger prints, because it helps build more of the visual field and we are highlighting the best place for children to reach to. Here's an example. I want the child to be able to find their lunch box, reach the best place possible to grab that lunchbox and that’s the place I'm going to highlight and children, again, have really dramatic skills once you have highlighted that particular area.

When I see a child that has developed this skill, I'm going to think about it that support away, reducing the amount of red that a child needs on that particular item. Here is a hairbrush. Again, where is the best place to grab the hand brush? The handle. The handle is highlighted, all the while looking at how I'm going to pull those supports away. This is a pony Walker. Where is the best place to put your hand on pony Walker? The reason that is important is because it's a complex background, very difficult for us to reduce complexity of the background. Same thing. We wanted a child learning to get up from a chair and get into their Walker. Where is the best place to put hands? Again, these are targets that children can reach towards.

Again, getting into a chair. What is the best place to put my hands when I want to maneuver myself to a chair? This is a little boy whose parents wanted him to high-five with neighborhood kids. He wasn’t making eye contact with children who were not being kept engaged and they felt just by greeting him, if their little boy could high-five, it would be a great social interaction. What we did is created this high-five glove and it was a red target. We could move it gently in the child's environment. We put shiny items on each one of the fingertips, if this child learned to high-five and had really nice social interactions in his neighborhood. We began by taking away the shiny, then cutting those fingers off the glove. And now the child is high-fiving with no support at all. No red glove at all. He has built this skill.

In this case, we wanted child to put their glass particular place on the surface of this tray in this target assisted the child realize where it should go. This is the communication book, back and forth to home. The red highlighting on it helps the child realize what is the best place to reach. So, red braille area helps the child locate where the braille is, because this is braille on all materials in red braille. Here is the spoon. We have the red spoon, the child is familiar with. We wrapped the handle in gold shiny paper for the best place to grab a spoon when you see it on a tray. Again, once that skill has been built, we are cutting back on that gold paper. Here is a toy where the area that you want to turn the toy on is highlighted in red. Again, once the child is successful with this toy, we are taking those supports away.

The toy on the left-hand side is very difficult for the child to find out where to turn this toy on. On the right-hand side, you see the adapted material where we have outlined that switch area for the child to find where to turn it on in silver duct tape. You've got to have your duct tape. It comes in all colors and shininess and you're just going to highlight that area until the child can operate the toy then taking that away.

This is a balance beam. Where do I keep my feet? Where do I put my feet? It can improve a child's motor skills on a balance beam. This is a picture from the side of the mount that I was hoping the child locate a switch. In phase 2, you can introduce more materials, more items to look at and on a tray, and here's a choice of two. This should provide providing them with a nice background. This is just a large slant board and put on some plastic so I can talk things underneath it and use that. So, that is some of the strategies for phase 2. So, we'd like to hear some of your strategies that you have put into place for phase 2.

[Robin Sitten] Thanks, Ellen. That's got me about so many ways you could use those different spot guides and we would like to hear, let’s broadcast those results also, some of those things you have to write specific to phase 2, particularly with highlighting or even starting to phase that highlighting out. I will give you a couple more seconds. Because phase 3 gets exciting and I don't want to take any more time away. Okay, let's go ahead and close that. And let's continue with phase 3, because this is where stuff starts to get so promising.

[Ellen Mazel] Again, we are coming up on phase 3. That would be seven, eight, nine, ten on the Christine Romans range. And we are starting to see the characteristics resolve and there are so many children that are ignored in phase 3. They are not diagnosed in phase 3, and yet, they are having visual trouble locating things. Different, harder, situations they are showing early visual behavior. An example is that you have the children that is in a solid position to look, engage, and understand when they get up into their walker, in a position that is uncomfortable and a lot of work, you see immediate light gazing, going back to those early behaviors. There's a lot of things to be teasing out in phase 3. We still want to think about complexity and reduce the auditory, visual, and positional complexities. Very, very important.

When we think about presenting some of the literacy, we are going to be about increasing the spacing between words and the spacing between letters because the more they are together, the more complex they are. We are still going to be using the color highlighting to draw our attention to salient features, and the predictable books and materials. Again, taking away that novelty pieces so children have predictable visual presentations in their lives, especially when they are learning new materials.

Here is one, this was a patterning tray that a teacher was using, and she had presented the pattern of frog, red frog, yellow square, red frog, yellow square. And she's got a background that is highlighted. She's got the plane black, she's got areas so that each one of the presentation places is outlined to the children knows exactly where the item belongs. And again, this sorted out was it a cognitive or visual issue, in fact, by putting this tray in place, this child is capable of the cognitive task of patterning but could not figure out where to put the materials. It really helped us figure out the child's cognitive ability.

Again, these are some sorting charts. In this case, sorting trays, plain background, Navy blue tray, black areas to place the materials that you are sorting. Each one of those is rimmed in red. And again, when this task was first begun, this child was not able to match the red airplane to the red airplane, we thought, maybe it was just cognitive. Just putting this strategy in place, the child’s visual skills worked on to each individual tray they were able to accomplish that cognitive task, because we took the visual complexity away. We used the same trays in all of the different kinds of sorting, now, this child has been moved from sorting those three dimensional items , which were a red cylinder, a little cupcake, and a yellow coin. We were able to move those to be photographs from the actual items, and how that child is a sorting photographs which was a huge step forward. Here, the teacher in the child/functional pairs. This spoon is going with the goal, the bubble wand, the bubbles, toothbrushes going to the toothpaste. Again, cognitive skills worked on but that presentation was a standard presentation where the child understood and we took the complexity of that task away.

We are still using large print. You know, you really have to look at print size, when you look at each individual child but large print seems to be the best. We want to use covers and line keepers. If you are presented with a full-page of a task to be in school, covering half of it and then switching that cover can really, really help. Using backlight technology still helps. The iPads are wonderful for this. I'm checking facial recognition in phase 3, because I think that is still often a problem. One of the things I will do is ask a parent who is very familiar person to come in and stand at 12 feet away without speaking and watch the child's reaction in phase 3. A child may look right at that person, but you don't see that I could issue. And I ask that parent or favorite person to move to 6 feet and watch the reaction, and then moved to 3 feet and watch a reaction. Then, I'll ask that special person or that parent to say hello and you get a big reaction from the parent because that auditory piece of their parent’s voice was recognized, but you did not see the visual recognition.

If there is anything that a child could recognize it would be a parent and that they helpful to figure out who people are and tells us as a strategy that we need to introduce ourselves to children every time we see them. Hi, it's Ellen. I've got my pink shirt on today. You know, let's go. If you use Christine Romans CVI complexity cards from APH that's also a nice tool. Understanding two-dimensional material. We are moving from our embedded symbols to photographs. That leap can sometimes be hard or children and people want to make that leap very quickly. Very carefully transitioning.

If that child is accessing that embedded symbol of the yogurt cup, we want to take a photograph of the exact the same size as that embedded symbol card and it's the exact same material. Again, you've got that familiarity with visual input and your changing it to a two-dimensional. And how can they access to dimensions against different levels of complexity. Christine Romans complexity cards has helped decide that. Here's an example. The child finally had some success locating that ball and we were able to use that ball to build distance vision because he was very motivated by it because the child was able to track it perfectly. It was a great way to look at all 10 characteristics. We said, let's move it to two-dimensional. We took an 8 x 10 picture that was very similar in size. Now the next step would be, can we reduce the size of the picture as a next step for that child? Here is a picture where the child really liked wrapper snapper. This is a very complex book, adding that wrapper snapper to different places on the page, your Velcro places on the page for the child to locate the wrapper snapper. Here is a letter complex book. We take a child's favorite toy, which happens to be a See and Say. I’m taking a smaller — this is a 2 inch picture of that favorite toy. And again, I'm adding you to different places on the book, and having her locate and then she gets to play with the particular toy. This is some color highlighting. On some literacy materials. You are really highlighting the shape of the word and assisting the child in understanding the shape of each individual word.

And again, anybody else have some strategies that they are using for phase 3? We'd love to hear some of your strategies.

[Robin Sitten] I'm going to get that poll open in just a second. If you have additional ideas, things that have used or tried in phase 3 but you would like to share, type them right into the box on the screen. We've got about 15 min. remaining, and I know that Ellen, you have some summary thoughts as well. We have seen a couple of questions come into the Q& A box, feel free to add more. We will get to those. We will go ahead and close this and let you do your& Then we'll take questions.

[Ellen Mazel] Again, I have to take — I have to stress that strategies are in place until the skills are accomplished, and then we really need to be pulling those strategies back in a very, very careful way. The only way that we know that that particular skill is accomplished is through assessment. So, assessment is driving the strategies and assessment is driving the reduction of the strategies. These children really are visually impaired. Certainly very visually impaired in phase 1 and phase 2. Some of the best practices you are using with children with visual impairments, again, you are going to carry over to children with cortical visual impairment. When I think about that, I think about registering them with agencies for the blind, beginning to use the learning media assessment to figure out whether or not you need — this child is going to be a print or braille reader can be accomplished. Providing direct service, I think, is very important, certainly in phase 1 and phase 2. These are the areas that these children are very visually impaired and really benefit from your service. The team benefits from your service. If you are going to meet a child, obviously, you are alerting the child by name, so that they know you are talking to them. These are the strategies you use with any child with a visual impairment. Every child with a visual impairment, you are supporting compensatory skills. You might be using touch cues, certainly giving in services to staff around issues of cortical visual impairment, helping them to understand what cortical visual impairment is, why you are putting that strategy in place, why you're pulling that strategy when things are accomplished. Really educate the team to begin to use these strategies and create strategies completely on their own.

In service to staff, not only about the idea of cortical visual impairment, but, how that reflect or represent itself in each individual child and their skills. I wanted to talk about fluctuating vision. This is often talked about with kids with CVI and what happens is that often people will say this child can't see. It's the child, it's always the child. I think you to think of another thing. One is, yes, it could be the alert state of the child or fatigue, but the first thing I want you to do is think about the environment. If the child is not looking, think about the environment that the child is in. Is it too noisy or complex? More often than not, if the environment that is influencing that child's visual skills, not their internal health. Immediately check the complexity and components of the environment. These are just some leaders in the field that I really highly suggest you read more about what they have to say about cortical visual impairment. I think you'll find it interesting. I think they have themes that are similar to one another and maybe just a little bit different take. But, very interesting. Christine Romans book is listed at the beginning. CVI perspectives is a nice DVD also available on quota from APH, the APH website has good strategies. I really like Ted Talk, if you go in there and put in vision, vision processing, or the brain, you get some nice information. You really want to be educating ourselves with information about the brain in general. Not just why we are doing what we are doing but the background. Why is this true? So, I like the Ted Talks for that. Resources. Texas school for the blind has information on their website. We have New England CVI, and Perkins eLearning. There is another webcast out on literacy coming up, so we have some nice things coming up from Perkins eLearning. So, thank you, today for joining us, nd I look forward to questions and any ideas that you have. I'm always open to new strategies from you.

[Robin Sitten] Thank you, Ellen. We do have a number of questions. Let me address one that is actually for me, which is, a number of you are asking about handouts, what materials come out of this. Yes, as you can see, we showed you 110 slides in 60 minutes. Those slides will be available on the website on the next business day. As I mentioned at the top of this webinar, this session has been recorded and that will be available as well. And recorded webinars can make nice in-service training, lunch and learns, it's nice when a group of people want to get together and you can stop and start them. Yes, we will have all of that material soon.

Let me start with a question that came early in the presentation when you're talking about Christine Romans-Lansky range assessments. Are you finding in schools that assessment is being used within school settings? You can actually speak to the camera. Don't worry about answering these. I'm used to that.

[Ellen Mazel] I find that it is being used and more and more, which I'm really happy to see. I am nervous, sometimes, that people don't really understand the range that they have heard about it, they get the range, in paper form, and, they fill it out without the scoring guide, for instance, outlined in Christine Roman’s book. That makes me nervous that people are doing the assessment without full information. So, I'd really like to see people read her book, get to as many lectures as they can, and learn to do that scale in a better way. Because, it will get better information.

[Robin Sitten] Do you need credentials to administer that?

[Ellen Mazel] Not currently.

[Robin Sitten] This is a question that came in about working with older kids. Maybe even teens, older teens, and find age-appropriate strategies for working with kids who are maybe older . Are there other adaptations that you would make to what you said here?

[Ellen Mazel] I think that all of the strategies, come out of the assessment with materials that you're using with children. So, if you are working with younger children, then, those strategies of reducing the complexity, of using color, of allowing wait time, all of those strategies you have chosen, so if you have an attribute tray, working with some older kids, I have some older kids may be in an attribute tray. We have a little girl and we got a bunch of purses for this attribute tray. Or, bath sponges or things that are more appropriate to her age. She's, — keys, any number of things that can be visual targets and with age-appropriate materials.

[Robin Sitten] Are we finding there is a typical length of time that it takes children to work through these different phases?

[Ellen Mazel] I have not, and I think that — no, I think that is not something I have had experience with. I can meet a child, and I have no idea the speed with which they will gain visual skills. It's just stuff like that, I think.

[Robin Sitten] And, a question similar to that is about, could a child with CVI present at a later stage, or does our research shows us that the children must pass through all three of these phases?

[Ellen Mazel] I think that you can get kids t all different levels. You know, impacted at all different levels when you need them, depending on the assault to the visual centers of the brain. But, when you interview parents, what is interesting is that you do hear people saying, they used to have that problem but they don't anymore. They used to do that but they don't anymore. So, I think, you know, careful questioning of the parents about a child's history will show you the levels of improvement that the child has gone through in their visual life.

[Robin Sitten] That is helpful. And, in trying to assess how much direct service a person needs, whether that is in frequency or duration, is there a tool that you use to assess that?

[Ellen Mazel] No. I think it tends to be very personalized to individual children, and also, to individual teams. If I have a team that I think would really benefit from much more support, in a consult, I would increase the amount of consult time . But, I have to say that I feel very strongly that children in phase 1 and phase 2 deserve direct service from a teacher of visually impaired. They are severely visually impaired. And often, multiply involved. But, they still deserve your time. And I think that any direct service always has to be balanced with consult. I literally have no child on my caseload that does not have the equal amount of consult to any other service I provide, because the consult piece is huge.

And also, putting in IEPs, that there will be services at the beginning of every school year and in services at a change of staff, in services at any level change.

[Robin Sitten] You and I were talking before about, you know, taking those supports away little by little, and you had some interesting things to say about the level of support and encouragement you need to give the parent for, you know, finally, there has been this breakthrough, the feeling of a breakthrough. He picks up his backpack and now you want me to take that away. I know we only have a few more minutes, could you talk about that? How you counsel parents through that?

[Ellen Mazel] First of all, I think education is a huge piece of helping parents understand what CVI is and I want to reduce those strategies. And I think once parents realize that the idea is to move child forward, I don't think you're ever going to have any problem with convincing parents to remove those supports with good explanation. But, I have met many, many parents who will tell me later, you told me this was going to get better and I thought, what a nice lady, she's trying to make me feel better. I was not trying to make her or them feel better, I was really telling them that their child had the ability to improve and we are going to put strategies in place at that child's level to make sure that that happens.

Thank you. I will take this as the final question.

[Robin Sitten] Could you explain the problem of reaching without looking with looking first to locate infant reaching—looking first to locate and gauge and then reaching? Why is that a problem?

[Ellen Mazel] I think that's a great question. I don't understand what's going on, but the background is, why the brain needs to do that, why that child can't do those two things at one time. I think that is what it is. The child has an inability to do those two things, that multi-sensory task that is involved, can't do those two things at the same time. I don't know, in the answer to that question, I don't know why. It seems to me this classic progression that kids will go through. I think looking and reaching is important is that I think accessing materials and then looking while you’re playing is how you learn about things. If you are not looking while you’re holding or looking when you are manipulating, there is a big piece of learning that’s lost, and that is why that particular skill, children seem to have to go through it, the strategies that you put in place. Moving those skills along.

[Robin Sitten] Thank you so much. This has been really stimulating conversation and really, just a delight. And I wanted to remind those of you who participated or who are watching this later, Perkins eLearning webinars do offer CEU credits, including ACVREP credits. You will get information about that in a follow-up letter. If you are watching this later, that information can be found on our website, PerkinseLearning.org. You will be taking an assessment, a 10 question assessment about this material which will entitle you to professional development CEU credits or ACVREP credits if that is relevant to you. I also want to remind all of you, as Ellen mentioned, that we do have other sessions available on CVI that we have presented in this format. Next month, our conversation continues with Diane Scheline and we will look at literacy strategies for students functioning within phase 3. On behalf of all of us at Perkins eLearning, I want to thank Ellen Mazel for being with us and welcome you guys back next month. Thank you.

[Ellen Mazel] Thanks, everybody.

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