

I'm really excited that you're here today for Module 7, Data Collection. Data collection is such an important piece of the puzzle when we are working with any student really or our own child. We want to see how things are going, and we don't want to guess about progress, and we don't want to guess about intervention. And so taking data is definitely something that is going to be helpful for us in our journey to communication. Participants will be able to learn and define continuous and discontinuous data collection, but don't zone out there, those are fancy terms.

But I want to talk to you about real life, how do I take data? I've been doing this 20 years. Continuous just means trial-by-trial. Every time the client or child does something, we take a data point. Discontinuous could mean the first time we work on something, I'm going to take a plus or minus data point and that's it. I really have streamlined my data collection over the years, every year it changes just a touch, based on the students that I'm serving. With my own private practice, I'm going to show you the datasheet that I've been using for my younger students. And then really, in my time as a clinician, I worked three days a week in a public school, I really have refined how I take data.

So I'm so excited to be able to share that with you today because I know that we can get really overwhelmed with how we're going to take data. Data collection is absolutely essential and it can be a challenge. I did a blog post, maybe a year or two ago now, probably two years and it was all about my datasheets and how to take data. And I'd get a lot of people that would download the data sheets and they would say like, "I don't really understand how to use these." So I'm excited to be able to share these nuanced items with you here today. I do love this little trending line up and this guy is so very proud of his data.

All right. So our data essentials are that, we're going to talk about what a baseline measure is, what does that mean? We're going to talk about different ways to take data. I'm going to show you examples of a data sheet, a couple of different data sheets, and then how are we analyzing our data? We know that data analysis is so very important. We can have the best data, the best plan, the best activities, the best data but if we don't analyze that data, it's like we should never have even taken the data. Okay? Because when we analyze it, that's where the power is and so we can analyze it and make decisions about treatment.

So basically, data is very, very important and it's something that I do a lot of training on. It really is imperative for us to have baseline data. Baseline data is data you take before you start an intervention. It's as simple as that. So if I wanted to know if my student could fill in the blank, peek-a-boo, and I want to see if my student can say, boo, I would do that and I would be taking baseline data. I'm not going to prompt the student to get the correct answer. I just want to see when I present that peek-a, does the student say anything after me? And I would do that maybe during that one session or a couple of sessions to see, can the student do it on their own? And if they can't, then that is our baseline data and we would include that.

I think where we're going to look for baseline data, if you're a parent and you're listening, baseline data is really important when you're getting any kind of evaluation or documentation from your providers, because we want to know like, "Okay, this is the goal. Why is this the goal? Is it based on assessment? Is it based on my child's baseline data?" And so as a clinician, what I try to do if I'm writing any kind of formal documentation, is I always try to write the baseline data in, what is the percentage or what is the prompting, the date that it occurred. And I think it's really good to keep that documentation because going forward, we know, "Okay, this is when we started working on peek-a-boo as a fill in the blank and this is the date that it was baselined and the student baselined at 0% accuracy.

And then, maybe we worked on it and it took us six sessions and then the student met criterion. That's all really powerful information going forward to know, to plan our intervention and how much we're going to work, on how many

targets we can do with our students. So what this might look like? Dana is a two-and-a-half-year-old girl who's recently been diagnosed with autism. The SLP does an evaluation and during the assessment, Dana is very limited in her ability to engage in shared activities with the SLP and other familiar adults in her life. So we've been talking about how very important that social reciprocity, this joint attention piece is for our early learners.

The SLP observed during the assessment that Dana currently is able to engage in a shared activity for one minute. So this was the baseline. The speech therapist had a phone. I was looking for my phone with my timer. I always have my phone close by. I use my timer a lot in therapy, and that is one of the things that this speech therapist did, is they just started the timer, the running time on their phone, and they took a baseline. The speech therapist also assessed this during the first two therapy sessions without intervention. The one-minute duration is the baseline measure for this skill. So really important to know.

Shared activities, we talk about that a lot, as being a foundational skill and so now we know where the baseline is. I know many, many times when I was working down in Austin, Texas, as an autism facilitator and support specialist. I would go in to help support teachers and speech therapists that were working with autistic students and I worked a lot in the preschool age. And one of the things that was so hard for students, and it seems like it is across the board, is this time of morning meetings, this time of circle time, this time where we're needing to sit on a carpet square, and there's a lot of language involved.

And there's a lot of different reasons why that might be hard for different students, but this is always important. This is something I would always talk to staff about, "How long is the child able to engage in that activity?" It gets a lot deeper. We need to evaluate, we talked a little bit about that in the group module, but we need to talk about what's going on during the activity and how can we help our students become more engaged and how can we scaffold and support them? But I always say, "Well, what is the student's baseline? How long are they able to engage in the activity at baseline?" Really important information.

Data Basics, let's get nerdy for a moment. So Cummings and Carr, really good reference, a really good article that I'll include in our references. They talk all about data collection methods. And this is where these kinds of bigger terms come in. Continuous data collection, or is the data collection discontinuous? So continuous could be talking about trial-by-trial data. And you see this a lot when speech therapists who are working with maybe a student who's working on speech sounds. Okay, I say the K. They say the K. I say K in the beginning, can they say K in the beginning? And every single time we're doing this back and forth, we're taking data. We're taking data.

Discontinuous data collection is a little different. We may refer to this as cold probe data. Data are recorded for a subset of learning opportunities. So it might mean that I might work on a fill-in-the-blank, or I might work on a verbal imitation target, 5 to 10 times across a session. But I'm going to take data on just that first time, just that first time to give me a brief little snapshot of how the child is doing with that skill.

Okay. So this is an example of a trial-by-trial data sheet that I had used at a non-public program that I was working in. Before I started ABA Speech, I split my time between a public school and a non-public program. Now that my company is really growing, I spend my time between a public school program and ABA Speech. So this is a really cool data sheet that we took continuous data on, and you can see the different items. So this student was working on labeling, some more functional items, and labeling food, labeling actions, labeling vehicles. And then you can see on the right-hand side, the little plus and minus.

All the other stuff in between there, are different prompting levels and it may not be applicable for each of those targets. And so we would take this data. I would take data when I would see the student for speech therapy and then the one-on-one staff would take it if they were helping to support communication outside of speech therapy times. And so it was very, very intense data. It was great though, we got really good information from the status sheet.

This is a data sheet that I like to use currently. Like I said, I kind of ebb and flow in my data, as I learn more about my practice and about speech therapy and ABA, and my students' needs and how I can support them, I'm always analyzing my workflows and I'm always changing them as I need to. Not unnecessarily, but as my students change and as their support changes, I change how I'm taking data. So this is a data sheet that I've been using for a student who's working on some of these foundational skills that we're discussing in this course. Okay?

So you can see at the top, and I just made this on a Google doc. So non-verbal imitation, joint attention play, that's a fancy way to say verbal imitation. One-step directions, we've been talking about doing a book together, that's an example of joint attention. Matching, receptive ID, we haven't talked so much about that in this course, but that's a receptive language task. Manding or requesting, and then labeling. So you can see some of these foundational skills that we're discussing in this course, are absolutely represented on this data sheet.

And so I knew when I first started seeing some new students this year, that I needed a data sheet that was going to reflect the foundational skills. And so this is how I'm setting up all of my sessions for students who are autistic and who are struggling communicators, or not yet communicating independently on their own. And so this is really what worked for me. Now, as the sessions went on, the first couple of sessions, I would just take notes. And usually what I do for each session, is I will write out a plan.

So, when we work on non-verbal imitation, we're not working on the same imitation every single time to mastery and then we're done with that example. I am being more fluid in the exemplars that I am presenting to the student. So in this one, and you can see a lot of these examples, I am showing you tutorial videos of daddy pig, sitting on a chair. I had the two little chairs like you saw in one of the videos. I had a little people person and the person had daddy pig. I put my person on the chair, they put their person on the chair. You can see that that student was able to do that, so I put a little plus.

Now, if you're not the kind of person that likes to write things out, you could definitely type these out. For me, it's very easy just to write it in at the moment. Play, we did Play-Doh, we were rolling the Play-Doh. We were doing tubes with the Play-Doh. The student was able to verbally imitate shoe and grapes. Oh, we did wheels on the bus. We had been doing wheels on the bus for quite a long time and the student was able to imitate one motion this time, which was super exciting because previously he didn't care about that song, really that much. I would sing it and I would do the motions and the family would do the motions, but he really had not been doing the motions yet. And so he was able to, and that was cool. We have to mom, was our one-step direction. We did a Dora book.

You can see how I'm going through and writing down how the student is doing with the different items. Another area that I like to do for all my speech therapy students, not just autistic students, I think it just gives you great information. It goes back to the idea of gold standard observation, is I usually have a spot on my data sheets where I write spontaneous speech down. So, if I have a student who is not yet fully verbal or fully verbalizing on their own, I always have this area that shows spontaneous speech. Because I think it's really great to capture those times when the students said different words.

And what's so cool about working with this particular student is that all these words are being said through play. So yes, I do have a structure of working on these foundational skills, but I'm embedding all of this in more of a child-centered, child-focused play-based way. And as you can see, this data sheet is really, really filled up. We intended on doing a lot of different things. And you guys will get access to the data sheets that I talk about here as part of your principles.

Data analysis. Data analysis helps us plan for future sessions. So if we look back at that and we're able to analyze it and say, "Oh man, this is really hard for this student." Or, "I've presented the wheels on the bus song every week and the student is not engaging. Let's try a different song or let's try to cue the student into participate with that." Data analysis helps us know if our student's making progress. What's really nice once you get into school-based services, when you transition and especially if you're in a specialized program or if you're receiving special ed preschool services, there will be embedded times where you as a parent, are going to get progress notes. And that's a great time.

It's a great time for us as providers to say like, "Wow." Sometimes we're like, "Look at all that stuff we've been doing in therapy." And then other times we're like, "Oh man, this one skill is are really hard for this student. How can I modify my intervention so I can help this student learn these skills?" So it's really good to have that check-in time embedded and that's what's nice about programs. If you're a parent and your child's going to start going to a clinic or a school, they will tell you when you're going to get a progress report or a progress note, but make sure that you note that down because it's really, really an important time.

And if you're getting outside services from potentially, an outside provider, usually they will go over the progress note with you. You might have a parent training session where part of the session is going over those specific examples. Because what's so important about the data as a parent, is understanding, "Well, what does this mean for my child? Are there things that we're working on that we can generalize into the home environment?" And really for most students, I would never pick a target that doesn't make sense across environments, or isn't really important in this one environment and the parents know how to generalize it. Because that's, what's so important, is really embedding all this communication across our students day, into functional routines.

Task sheet. I wanted to go over what a task sheet is because this really, really helps me know what specific targets my student is mastering and working on. And so a task sheet helps us keep track of these very specific examples that we have worked on. It allows us to know exactly what targets a student can do on their own and allows us to report very specific progress, which is going to help the entire team know what our student's working on, is going to allow us to plan for that generalization piece and really, really is great.

This is what the skill tracking sheet looks like and you're going to get a copy of this as being part of the course. So let's say for example, that your child is working on labeling. So at the top of this, I would write the child's name. I usually potentially, write down what their IEP minutes are or what objective or goal this correlates with if your child is on a structured IEP plan. Skill area, I would write labeling. Now what's cool about the target skill is then we can write the specific labels your child is working on. So let's say your child's working on labeling bubbles because they love that. And then they're working on labeling Pete the cat, something like that. We can put date introduced.

Now, the date introduced is the same thing as baseline, remember when we talked about baseline? So when this target was introduced and there was no intervention yet, what date did that occur on? That's going to be really important information. And then date mastered. So if we say, "John is going to increase his overall expressive language by labeling preferred items with 90% accuracy, over two consecutive sessions." We can see the date that it was introduced, the

date that it was mastered and then we can see the number of days to mastery. And why that's so important, is it can give us an idea on how fast a person is learning, how fast our student is learning.

And we know there's a lot of different barriers to learning. If you're in a public school, you potentially have the whole summer off. If you're in a year-round ABA program, you're probably still going to have one week in June and one week in July and there's going to be some times where you have off. And that's not a bad thing, but it's something to think about for days to mastery or sessions to mastery. And so this task sheet, instead of us just saying, "Yeah, he's able to label with about 95% accuracy."

We can't be vague like that. With our autistic students, we need to know, and with all students, we needed to know what is the labeling target? What is the verbal limitation target? What have you been working on for joint attention? These things are important and we need to be very specific here. And this will allow you to do that and I have this included in your principle packet. Data needs to be taken and it needs to be easy for you to manage, and it needs to be analyzed. And if you are not yet doing these things, that's okay. We want to help support you on your journey. So I would ask you to goal set. Okay? So, if you're not always including a baseline, that might be a nice place to start. And if you have questions about it, don't hesitate to ask, that's what I'm here for, to help.

Flexibility in data. Therapy may not go as planned, we know that. I get ready for my preschool sessions and I have my whole bag packed and I get the one thing I think my client's going to love and they could care less about it. And the one thing I forgot was in my bag, is the start of the therapy session. That's okay. We need to remain flexible and we need to see these teachable moments. So the game example, I had a student and I think I mentioned it in one of the other modules. But I had the vocabulary cards that are from the Dollar Store, the very general clip art, labeling cards. And so I was going to work on some labeling or verbal limitation with these cards, or putting the cards into a little mailbox.

And when I had the cards out, the student was so excited to see them. He labeled each card and then he wanted each card. And then after I gave him the card, he said, "Game." And then he looked at the next card. He labeled it, he wanted the item and he put them out. It didn't go the way I planned, because what we were going to do with the cards, is we were going to put them into a little mailbox. That's what my plan was, but I remained flexible. And I'll tell you what, you have to pivot like this in therapy and that really allowed me to see how many teachable moments we had.

We were working on joint attention. We were doing a shared activity together. I had these cards. He was really excited about these cards on this particular day. He wanted these cards. We were taking turns, looking at these cards. He was putting together this little game, like a Go Fish game on the table. It was so cool. And we did that together for 10 minutes until he got his game set up. It was a wonderful time for him to work on labeling, to work on a shared activity, for him to put together his own game. He really, really loved that and it was such a super fun activity. And if I would have said to myself, "Well, he didn't work on it the way that I wanted to, I guess we're not going to do that today."

I would have missed all that language, all that communication. We have to learn to be flexible. We have to learn to pivot. It's okay if things don't go the way we thought they would go. We have to remain flexible, especially for little ones, and follow their lead. In this module, you'll get the data sheets, that's the principle for that. And so these are just over time, ways that I take data, ways that are helpful for me to capture these moments when I'm working on foundational skills with my students. I'll see you in the next module. Oh, my goodness, the next module is just a wrap-up. We're going to talk about highlights from the course. You're very main takeaways, very, very important. And ways that we can stay in touch and that I can still remain a support to you. I'll see it in that module.