Show Notes - Episode #18
Great Ideas In Aphasia Care Programming: A Conversation with Gretchen Szabo

Ellen Bernstein-Ellis (California State University, East Bay) speaks with Gretchen Szabo about the power of scripting in the treatment of aphasia.

Gretchen Szabo, M.A., CCC-SLP is a research speech-language pathologist and Aphasia Communication Group Coordinator at the Adler Aphasia Center in New Jersey. She also serves as an adjunct professor at Montclair State University. She has over 10 years of experience working with individuals with aphasia. Her research and clinical focus is on functional and community based treatment approaches to aphasia and on awareness and advocacy initiatives for aphasia.

In today's episode, you will:

- Find out the connection between LPAA values and using scripting as a therapy approach;
- Understand personal, impairment, and environmental factors that may contribute to successful vs. unsuccessful script implementation;
- Hear a story sharing how scripting impacted the participation of a client with severe aphasia.

Note: These show notes has been edited and condensed.

I've been a huge admirer of the Adler Center and the work that they have done. I'd love to visit one day and to attend one of the Adler Center musicals!

Honestly, it's probably my favorite day at the center each year. It just blows me away what our members (who are the individuals with aphasia who attend our center) and our staff and crew pull off. You could not pay me to get up there on the stage, but so many of our members thrive up there. It ties into what we're going to be talking about today with scripting - since that's a natural part of the show process. We actually use script training to formally work with some of the cast members in the play to learn their lines.

I was so impressed by your poster at the first Aphasia Access Leadership Summit that I really want to pursue this topic with you. Would you mind starting with a basic description of scripting as a treatment method for those who may not be familiar and maybe even start by telling us the goal of treatment and how it dovetails with the life participation approach and values?

Sure. Basically, the goal of scripting is to improve the production of personally relevant information. It's working to make it easier to say the specific things that are important to the individual with aphasia. I think it really fits well with LPAA values in that it's working in that activity and participation domain of the ICF as a way to support re-engagement and independence in specific aspects of an individual's life.

We know that narratives and scripts are essential for everyday aspects of our lives - meeting someone new, picking up a prescription at the pharmacy, talking about our day with our families - we all have these narratives and scripts that play out each day. The studies of scripting as an intervention support the idea that individuals with different types of aphasia can more fluently and more efficiently convey information from trained scripts.

Could you share some of the connections to the literature?

The foundation of scripting stems from theories of automaticity and whole task learning. There's been a good amount of research supporting the clinical use of script training and within that research there's definitely variation across the studies and how the interventions been administered. There does seem to be some common components. The scripts usually are in the form of trained monologues or dialogues and a lot of cases they're personalized. Another component is that they incorporate intensive practice of the script and that goes to promoting automaticity. They also tend to incorporate a structured cueing hierarchy to facilitate script learning and increased independence.

The cueing hierarchy has been based on principles of errorless or error-reducing learning and that component is something that Cherney and colleagues have recently examined, comparing a high and low cuing level to see if it’s required for long term maintenance. There's a lot of support across similar treatment frameworks and it's exciting to see that some of the newer research is starting to examine what components of that framework might be critical or might be preferred depending on individual characteristics.

What might a typical treatment session look like? I'd like to know if you follow the line-by-line or whole script method.

Clinically, we've typically done line-by-line training and we build each line on the ones that came before. So, if a script is five lines long, then we train line 1 through to mastery (or near mastery) and begin working on line 2. Once line 2 gets comfortable, then we’ll combine 1 and 2 and practice those together as a chunk before we begin working on line 3. I've had this question before and, from a theoretical perspective, line-by-line is still consistent with that whole task approach.

Even though we're not practicing the whole of the script at once, I think each line is representative of a whole chunk or unit of meaning and it still relates directly to the context of the scripts and I think it's that larger script context that constitutes the targeted whole. I Practically, when we've tried to do more than one line at a time or advance to a line too quickly, we've seen struggles with acquisition and mastery. So, it just makes more sense from a clinical perspective.

In terms of what our sessions looks like, typically we'll start by checking in on how that home practice went and we'll talk about the use of those learned scripts that have been mastered before. We'll troubleshoot the challenges or celebrate the successes of those scripts. Then, we'll put it in the hands of our members and see what they want to start with - do they want to review an older script or just jump into what we've been focusing on recently? If we are working on that new script, then we'll take each line through the cueing hierarchy and that is going to be specific to the individual. After that has been mastered, we'll combine it with previous lines and then update the supports so that they have it in place to practice at home.

In terms of individualization, how do you determine the length of the script? How do you decide if the goal is to do it with or without visual or auditory supports? What goes into those decisions for you?

The decisions are specific to the individual and guided by their needs and their goals. As far as length goes, both with individual lines within a script and overall, it's usually guided by a mix of the topic itself as well as aphasia severity and fluency level. So, usually our scripts for non-fluent members are going to be a little bit shorter and other influences like a co-existing apraxia or some working memory impairment come into play. In the end, I think we find a sweet spot for each individual. Usually that first script, especially if it's with someone we haven't worked with before, we probably don't nail the length and complexity the first time around and we'll do some editing along the way. With subsequent scripts, we have a better idea of that range where they're achieving success and conveying the information they want to convey. For us, at least clinically, it's been more art than science.

Do you tend to introduce one script at a time or do you work on multiple scripts that tackle more than one setting or topic?

We tend to actively work on one script at a time, but occasionally we do multiple scripts. If we're doing multiple scripts, then we tend to have a clear break between the practices and maybe some other activity to separate them. Also, if we're working on multiple scripts, then that tends to be with members who have a more mild aphasia or who have time sensitive goals that involve different scripts. I can think of one example where we had a member who was going to be speaking at our annual gala and he was also working in our member store and was going to

be going out and doing some sales outside of the center. So, he wanted to have a script for both of them and both were starting in the same month, so we worked on two at the same time and it worked out well. Also, even though we do focus on one script in a session, we're always reviewing older scripts to keep them fresh. As we come to the end of one script, we'll start to preparing for the next script, so it's not all one script for the entire session.

Your 2014 study with Fromm, Heimlich and Holland recommended one hour of script practice every day. That's quite a commitment. What helped to keep the client engaged in that kind of sustained practice at home? Do they have study partners or do they practice independently?

That hour did *not* have to be in one setting. It could definitely be spread out. And I think that hour was sort of the idea of "shoot for the moon land and land in the stars" idea. So, even if we don't quite get that hour, then hopefully we're still getting substantial practice. But I think to really encourage more of that practice is to make sure that the scripts are consistent with the LPAA framework. If the content of the scripts are meaningful to the person who is working on them and helping them to reach that larger goal - whether it's a language goal or a participation goal - then it's going to be more internally motivating. They also need the tools to make home practice accessible and successful, so we use different recording devices to make sure they have what they need to successfully practice.

One of the challenges we sometimes encounter is simply identifying the right recording tools so they can hear the script at home. Do you have any tips or recommendations as to what's worked for helping the client access the recorded script at home so that they can easily repeat it again and again?

The answer might be different depending on the person. We've had a lot of success using tablets (specifically iPads) with different apps on because it allowed us to upload photos, add written lines, include audio, and incorporate video into it. It just gives us a lot of flexibility.

In terms of a specific app, we use the Pictello app for iPad (which I believe is also available for Android). We have also used the photos app with some editing software that allows us to add text in. We've also recorded videos and just put that on the device in a separate folder. For those who have a Lingraphica, we have used that device in order to incorporate the multi-modal cues. We've also used the AphasiaScripts program out of the Chicago Rehab Institute. There are a bunch of different options and a lot of times it's based on what's accessible to a specific person. Often Pictello has been our go-to choice.

Is there a typical number of sessions needed to learn a 25 to 50 word script?

Honestly, I hate to be a broken record, but there is a lot of variability across individuals. What I *can* say is that there seems to be consistency across scripts for the same individual. In the cases that were reported at the CAC presentation, we focused on four participants. It took anywhere between 6 to 19 sessions to achieve mastery. That wasn't controlled for length, but you can still see there's a lot of variability. We've also learned that sometimes we have to take into consideration the issue of of length and that it may be helpful sometimes to break up longer content into separate, more manageable scripts.

In the CAC study, you ended up sorting your clients into three groups according to their performance: successful users, moderate-to-low success, and poor performers. Did you end up identifying any factors that seem to differ among these three groups?

We did. We defined successful users as folks who not only benefited from scripting, but they also demonstrated carryover and use of it outside of our work and an ability to use the script functionally. In contrast, poor performers either inconsistently produced their scripts or, even if they had learned them, they weren't able to use them functionally which was our end goal. Those folks in the middle mastered their scripts, but then that was questionable. Some of the factors that we looked at include individual characteristics (aphasia type and severity) and a willingness to use the mobile tech supports for training and carryover. I don't think it's surprising that our most successful participants regularly practiced at home and they had access to those supports that would help give them the success so they could get all the cues they needed even if they didn't have a clinician working with them. I think the biggest factor that we considered were environmental factors: the opportunities to use the content in a novel setting or with novel communication partners. I think that was the piece for that middle group: a use-it-or-lose-it factor. Even with access to Adler, some of our members still have limited social networks. When we looked at the really successful folks, those were the ones who took advantage of opportunities to meet new people and share their story. They tended to participate in more interactive groups. These people had more opportunities to use and practice the script at our center and outside of the center. I really think this is such a key factor and it ties into the LPAA principles. It's not enough just to train a script. There needs to be access to opportunities to use and to have an impact. A lot of times that takes an extra step of working with individuals or families or the communities to facilitate access.

Do you incorporate metacognitive awareness strategies to identify appropriate opportunities to use this script outside the clinic? In other words, what type of directed generalization training do you really need to do so people move from practicing with you across the table to using it in the situation (which requires that they identify that this is the time to incorporate the script)?

I don't think I've actually thought of it that way, but we are definitely using some of those metacognitive strategies. I think it comes into play at that beginning point when we're trying to decide what scripts to do and we're encouraging members to think about their current communication needs and to identify the mission goals as well as the barriers in place. When we get that scripts close to mastery, we're definitely talking about the strategy.

I really think for so many folks you need to work explicitly on generalization - it can be really important and I think it can make or break the meaningfulness of the work that went into mastering it. Some folks need more explicit training and more direct support to generalize that, whether it's talking about picking a date, a place, an audience, or identifying that you're going to have to pull some content from older scripts to go with the one you're working on. Then some self-evaluation on what worked and what didn't and how to adjust for the future. Those are conversations that are ongoing throughout the process.

If automaticity is key to learning the script, then how do you actually build in conversational flexibility for when the partner in the conversation changes things up - especially when it's a dialogue vs. a monologue script?

The flexibility has to be targeted in treatment for a lot of people and we actually do it for both monologues and dialogues. You know, it's easier and more intuitive with dialogues but once that script is mastered as written, then every time we're going over the scripts, we're changing it up a little bit. For monologues, it may be that we're practicing eliciting specific lines based on questions or situational context. Even with a lot of our monologue scripts, a lot of them don't tend to be a speech that's being delivered at a gala. They tend to be points that they want to make on a topic, so we're trying to give them that flexibility. With the dialogues, we will change up the order or will throw in novel questions or novel responses to see how they're able to respond to that and to work on identifying, "Wait. That's not the next line in the script. I need to move a little bit forward and change it up."

Scripts have become a very popular treatment approach for good reason and I'm wondering what some of your best takeaways from this experience have been?

I think my main takeaway is that scripting can be a really powerful tool in therapy. In order to utilize the real power of it, you have to apply it within the context of LPAA - it has to be a part of re-engaging individuals in activities that are meaningful and pertinent. That script content has to be driven by the individual's goals and needs and with consideration of who their communication partners are and what their communication opportunities are. what the environment is. Scripting is an accessible, straightforward approach that does have the potential to impact a lot of the individuals we work with.

Do you have a story that comes to mind when you think of all the different experiences you've had with scripting that you'd like to share?

There's one member at the center who has just an ideal scripting candidate. He started at the center almost eight years after a stroke. When he started he didn't speak - he effectively used his phone to communicate. But, he's someone who has just transformed. I can't attribute that transformation to scripting alone and I can't separate out the role of participating at the center versus scripting versus other factors, but he's just been such a prime example of the power of scripting and the power it can have while providing opportunities for increased participation. Some of his scripting successes include calling his parents "mom" and "dad" again and being comfortable talking on the phone with his family. A couple of years ago, he landed the leading role in our center's annual production, so he went from using only his phone to communicate to being a lead in one of our shows. He has someone who trains lines of the script for the show and he totally nailed it. It was an amazing moment to see him up there using scripting and being in the limelight and totally being awesome.

That is a powerful story and great way to wrap-up today's episode. Thank you.

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