

## Research Article

# Dynamic Changes Toward Reflective Practice: Documented Shifts in Speech-Language Pathologists' Evaluation Practices

Giselle Núñez,<sup>a</sup>  Molly Buren,<sup>b</sup>  Tara Bailey,<sup>c</sup> and Catherine Crowley<sup>d</sup> 

<sup>a</sup>Department of Communication Sciences and Disorders, Saint Xavier University, Chicago, IL <sup>b</sup>National College of Education, National Louis University, Chicago, IL <sup>c</sup>Chicago Public Schools, IL <sup>d</sup>Department of Communication Sciences & Disorders, Teachers College, Columbia University, New York City, NY

---

## ARTICLE INFO

**Article History:**

Received May 16, 2023

Revision received August 30, 2023

Accepted July 23, 2024

Editor-in-Chief: Erinn H. Finke  
Editor: Lauren Marie Cycyk

[https://doi.org/10.1044/2024\\_AJSLP-23-00172](https://doi.org/10.1044/2024_AJSLP-23-00172)

---

## ABSTRACT

**Purpose:** This qualitative study explored the experiences of speech-language pathologists (SLPs) in professional learning communities (PLCs) during a year-long virtual professional development (PD) opportunity using an implementation science (IS) framework in an urban public school district for dynamic assessment (DA) training. The DA presented in the PD was modified based on ongoing discussions with key stakeholders in the district, so that it could be reasonably implemented in clinical practice while preserving the integrity of the DA's purpose.

**Method:** SLPs in an urban district were trained virtually using DA over the course of the school year. PD topics focused on decreasing bias and incorporating evidence-based practice into SLP approaches to speech-language evaluations. The SLPs underwent three training sessions and three separate PLC sessions. The SLPs were assigned a series of case studies to complement PLC sessions. An IS framework informed each step of the PD and PLCs to ensure applicability and integration of the content. Of the 366 SLPs working in the district, 209 consented and filled out two questionnaires and three exit slips to gather information on their experiences with the DAs and PLC models.

**Results:** SLPs reported new insights into their practice, including changes in assessment practices, awareness of bias in assessment practices, and increased confidence in working with families during the evaluation process. Two additional themes emerged: increased collaboration and enhanced group problem-solving skills when working with peers in PLC groups, and expanded proficiencies and heightened skills when applying DA practices to evaluations. The two challenges faced by SLPs included time constraints and confidence in the mastery of DA.

**Conclusion:** This study offers an approach to shifting evaluation practices in large districts to incorporate more evidence-based approaches.

---

One concern of the current clinical assessment practice is the speech-language pathologist's (SLP's) reliance on standardized tests to identify speech or language disorders (Ogiela & Montzkaa, 2021). These tests have a history of ableism, capitalism, racism (Nair et al., 2023), and

cultural and linguistic biases (e.g., Barragan et al., 2018). Standardized assessments assume a national norm against which all students can be compared; however, with the increased linguistic diversity in the United States (Dietrich & Hernandez, 2022), standardized measures often identify linguistic differences rather than true disorders (e.g., Barragan et al., 2018).

This widespread use of standardized tests to identify a disability with their validity and bias concerns is quite problematic (e.g., Nair et al., 2023). This use is inconsistent with the federal special education law (Individuals with Disabilities Education Improvement Act, 2004) that

Correspondence to Giselle Núñez: gnunez@sxu.edu. **Disclosure:** All authors listed are affiliated with or involved in an organization or entity with financial interest in the subject matter or materials discussed in this article. Giselle Núñez, Molly Buren, and Catherine Crowley were employed full time at their respective universities. Tara Bailey was a full-time employee at the Chicago Public Schools. Catherine Crowley received an honorarium to provide virtual professional development.

mandates any evaluation materials are “valid and reliable” (20 U.S.C. § 1414(3)(A)(iii), p. 992) and “not discriminatory on a racial or cultural basis,” (20 U.S.C. § 1414(3)(A)(i), p. 991) and capable of distinguishing a true disability from lack of adequate instruction in reading or math or from “limited English proficiency” (20 U.S.C. § 1414(5), p. 992). The use of these standardized tests raises ethical issues as the American Speech-Language-Hearing Association (ASHA) Code of Ethics explicitly prohibits discrimination in service delivery based on factors such as race, ethnicity, culture, language, or dialect (ASHA, 2023). Clinicians cannot rely upon widespread clinical practices to absolve themselves of the detrimental affect these practices have on numerous students across districts in the United States (Fulcher-Rood & Castilla-Earls, 2023).

The use of dynamic assessments (DAs) has been recommended as a less biased and more holistic way to determine eligibility for speech and language services (e.g., Orellana et al., 2019). However, a challenge that affects practicing SLPs is their confidence in administering DAs to determine eligibility for speech and language services (Núñez et al., 2021). In general, assessment practices within the field should encompass the diversity of clients seen by SLPs and should consider the intersection of an individual’s diversity, such as age, language, culture, disability, and socioeconomic status (e.g., Hopf et al., 2021). DA can tap into a child’s language-learning potential and modifiability without using static assessments (Bamford et al., 2022). Therefore, DA can increase the diagnostic accuracy of these evaluations. DA compares favorably to the most widely used standardized tests (e.g., Fulcher-Rood et al., 2019), which have been shown to have negative biases and poor diagnostic accuracy for many children, including those developed for evaluation (e.g., Barragan et al., 2018).

Despite the pressing need for clinical practice to embrace evidence-based practice (EBP), research suggests that the transition to EBP can take up to 17 years to incorporate only 14% of available research (Green, 2008). Moreover, a significant number of SLPs overlook peer-reviewed research on appropriate disability evaluation (Hall-Mills et al., 2023). Given these realities, this study focused on a professional development (PD) opportunity provided directly through a school district on using DA when assessing students. The goal was to shift assessment practices to align with EBP, federal law, state regulations, and the ASHA Code of Ethics. The authors utilized an implementation science (IS) framework to facilitate and assess the effectiveness of their approach in transferring research to practice. This approach aimed to inform and enhance the proficiency of SLPs in using DA, thereby moving toward an EBP approach to speech-language disability evaluations in the district (Douglas & Burshnic, 2019).

This study builds on a pilot study by Núñez et al. (2021) that examined how the same large urban district focused on in the current study supported the needs of bilingual clinicians (Núñez et al., 2021). In the pilot study, the authors used a professional learning community (PLC) to address specific areas of need identified by SLPs. At the end of the study, the use of DA measures was one of the areas identified by clinicians where more practice and training were necessary. In the current study, the authors created a PD opportunity based on a learning cycle approach in PLCs, focusing on building content knowledge and clinical skills to assess and evaluate students’ language and learning skills.

In the district where the study took place, the SLPs did not have time for the test-teach-retest approach to DA. This approach requires several sessions, including a pretest, mediated learning sessions, and a posttest to assess one aspect of language such as inferential word learning (Petersen et al., 2020). In consultation with the district and the SLPs, the PD focused on incorporating the basic tenets of DA, but in ways that were responsive given district constraints. To achieve this, the authors relied on IS to adapt and implement the modified DA approach (Alonzo et al., 2022). The relevant stakeholders were part of this initiative and included researchers, SLP district administrators, and the SLPs in the district who provided preparatory and ongoing feedback to the researchers and administration regarding the feasibility and applicability of the DA assessment approaches they learned in the PDs to their caseloads (Alonzo et al., 2022).

An active implementation framework (AIF) was adopted to ensure the implementation of an EBP approach within the district and initiate a shift in the routine practices of SLPs in speech-language evaluations (Ward et al., 2023). Following the AIF approach, the project included usable innovations, implementation teams, implementation stages, and improvement cycles, which were consistent with the learning cycles approach in the PLCs of this study and the earlier study (Núñez et al., 2021). The usable innovation, referred to as the DA modules and training, aimed to be “teachable, doable, and assessable” (Ward et al., 2023, citing Fixsen et al., 2013). The DA modules and training were organized and presented in logical steps, incrementally building content knowledge and clinical skills. Numerous resources, including case studies, evaluation materials, and online courses, were provided to SLPs with considerable opportunities for review and integration into the clinical practices consistent with IS improvement cycles and for greater depth as needed (see Method section for more details).

The continued engagement and participation of many SLPs underscored their commitment to acquiring

and applying EBPs to disability evaluations, consistent with AIF (Active Implementation Research Network, n.d.; Ward et al., 2023). This approach of the PD and PLCs, consistent with AIF, provided multiple chances for the SLPs to integrate DA and less biased assessment into their written speech-language evaluations. The fourth author introduced the research and principles of DA by sharing articles, delivering relevant content, using video case studies, and sharing interview information and language elicitation and analysis. In the video case studies, the fourth author reviewed DA techniques and scoring and the SLPs, in their PLCs, submitted written work and received detailed feedback and office hours were provided for clinicians who had questions. In the final PD session, the fourth author highlighted exemplary speech-language evaluations completed by the SLPs. By incorporating the AIF into the PDs and PLCs, SLPs were provided structured opportunities to deepen their clinical skills, learn from peers using a trial-and-error approach, conferred with the expert, and received feedback.

### **Learning Cycle Approach**

The learning cycle approach is based on the constructivist theory of learning, which posits that effective learning progresses through a four-stage cycle: (a) concrete experience, (b) reflective observation, (c) abstract conceptualization, and (d) active experimentation. During a concrete experience, learners encountered a new experience. During the reflective observation, learners reflected on new information while still considering their existing knowledge. In the abstract conceptualization stage, learners made sense of their experience. In the final stage, active experimentation, information was applied to practice (Kolb, 1984).

Wijnen-Meijer et al. (2022) used a learning cycle approach to explore medical students' experiences with this learning approach. A variety of learning and teaching tools were used, such as case studies, clinical experiences, and simulation throughout the study. The findings from this study indicated that the students benefited from discussing and practicing the cases, as well as receiving feedback from the teachers.

### **The PLCs**

Two studies examined the impact of PD models on SLPs. Overby and Rusiewicz (2018) utilized a problem-based approach to examine SLPs' clinical practice changes after attending a PD focused on childhood apraxia of speech in a 30-hr, 4-day program. The 25 SLPs engaged in active learning activities that engaged in critical thinking exercises, small group tutorials, and self-reflection, resulting in improved self-efficacy and improved clinical

practice. In addition, the SLPs reported benefits from receiving peer support, learning from content experts, and both critical thinking and active learning activities. Mahowald and Rentmeester-Disher (2019) investigated SLPs' knowledge and practices of reading and writing foundations and development and literacy-based assessments and interventions with elementary-aged children. The SLPs engaged in a variety of tasks, which included face-to-face instruction, online instruction, and independent work. Both pre and post measures were used to measure knowledge, and practice and classroom observations were used to monitor implementation of the learned skills. Findings suggested that the semester course enhanced the 13 SLPs' literacy knowledge and practices, which were maintained over the course of school year.

### **Purpose of This Study**

This study builds on the pilot study by Núñez et al. (2021). Findings from that study suggest that bilingual SLPs benefited from a PLC model within their specific areas of need, specifically in the areas of assessment and eligibility. SLPs benefited from learning from their peers in an area that was relevant to their current practice.

The current study examined how SLPs' experiences and confidence changed in the use of DA when participating in virtual training. Virtual training was the only option available as part of the district safety protocol for COVID-19. The SLPs were trained over the course of a school year by an expert in the field using explicit training with a DA approach based on the research that was modified, using an AIF approach, so that it would meet district time and personnel constraints. SLPs were engaged in a learning cycles approach using PLCs to build on their skills. This qualitative study was designed to explore the following:

1. How do SLPs perceive their understanding and use of DAs when trained in a PLC model?
2. How do SLPs perceive the relationship between participation in PLCs and their ability to assess students from a variety of backgrounds?

### **Method**

#### **Participants**

Consent forms were distributed to 382 SLPs and audiologists (AuDs) within the district. Within this school district, speech-language pathology and audiology are combined departments; as a result, both fields have access to the same PD opportunities. However, after attending the first DA session, the AuDs asked to participate in

PDs that were more relevant to their practice and were subsequently removed from the study ( $n = 16$ ). Twelve SLPs indicated unwillingness to participate in the study, seven withdrew over the course of the year, and three left the district. The inclusion criteria required participants to work full-time in the district as an SLP or AuD. Ultimately, 209 SLPs signed the initial consent form and were enrolled as participants in the study.

## **Procedure**

This study was approved by the university institutional review board (IRB) and school district's research review board. All SLPs were invited to the DA assessment training and PLC components; however, only those who signed consent were asked to fill out the electronic initial and final questionnaires and three electronic exit slips after meeting with the PLC groups. Three DA training sessions were conducted online. The fourth author provided all the online training to the SLPs, incorporating interactive presentations such as the use of case studies, videos, breakout rooms in Zoom, and large-group discussions.

In addition to the three virtual training sessions, it was highly recommended that SLPs complete three online learning modules developed by the fourth author and offered at leadersproject.org: Grammar Fundamentals for a Pluralistic Society (Crowley & Grossman, 2014), Advanced Grammar Fundamentals for a Pluralistic Society (Crowley et al., 2020), and EBP in Language Disability Evaluations (Crowley, 2021). All SLPs were offered ASHA continuing education units (CEUs) for 5, 3, and 6 hr of learning, respectively. SLPs were offered CEUs based on their overall attendance at trainings and PLC meetings.

Additionally, each participant was encouraged to download DA assessment materials available on the Leadersproject.org website. This provided SLPs innovative and accessible materials, consistent with the AIF framework, that they could then apply and integrate into their speech-language evaluation clinical practices. These materials include the School-Age Language Assessment Measures (collectively referred to as the SLAM materials; e.g., Crowley & Baigorri, 2019), which encompass evidence-based language elicitation tasks (e.g., Burns et al., 2012), the SLAM Guidelines for Analysis (Crowley, 2019), the SLAM overall scoring parameters (Crowley, 2020), and the Parent/Caregiver Critical Questions and the Teacher Interview (Crowley, 2014). Participants also received scoring forms for nonword repetition tasks (NWRT). These SLAM materials have been demonstrated to offer a less biased approach for the identification of language disorders in children (e.g., Washington et al., 2021). Furthermore, research by Castilla-Earls et al. (2020) has demonstrated that gathering data on bilingual students from various sources,

including DA, language sample analysis, and parent/caregiver and teacher interviews, can lead to a convergence of evidence that support conclusions about a student's language disorder. SLPs who completed the PD series received copies of all DA assessment materials, presented in color and durable card stock, along with an evaluation bag, as an additional bonus at the conclusion of the project in spring 2022. This added bonus was a pleasant surprise, as the SLPs in the district were unaware of the forthcoming materials.

There were two research components in the current study: electronic initial and final questionnaires and three electronic PLC exit slips. The purpose of the initial questionnaire was to gain insights into SLPs' current understanding and experience of DA. Each exit slip asked about the SLPs' experiences working with their peers and of how they were learning and using the material. The final questionnaire was used to increase the understanding of SLPs' experience over the course of the school year.

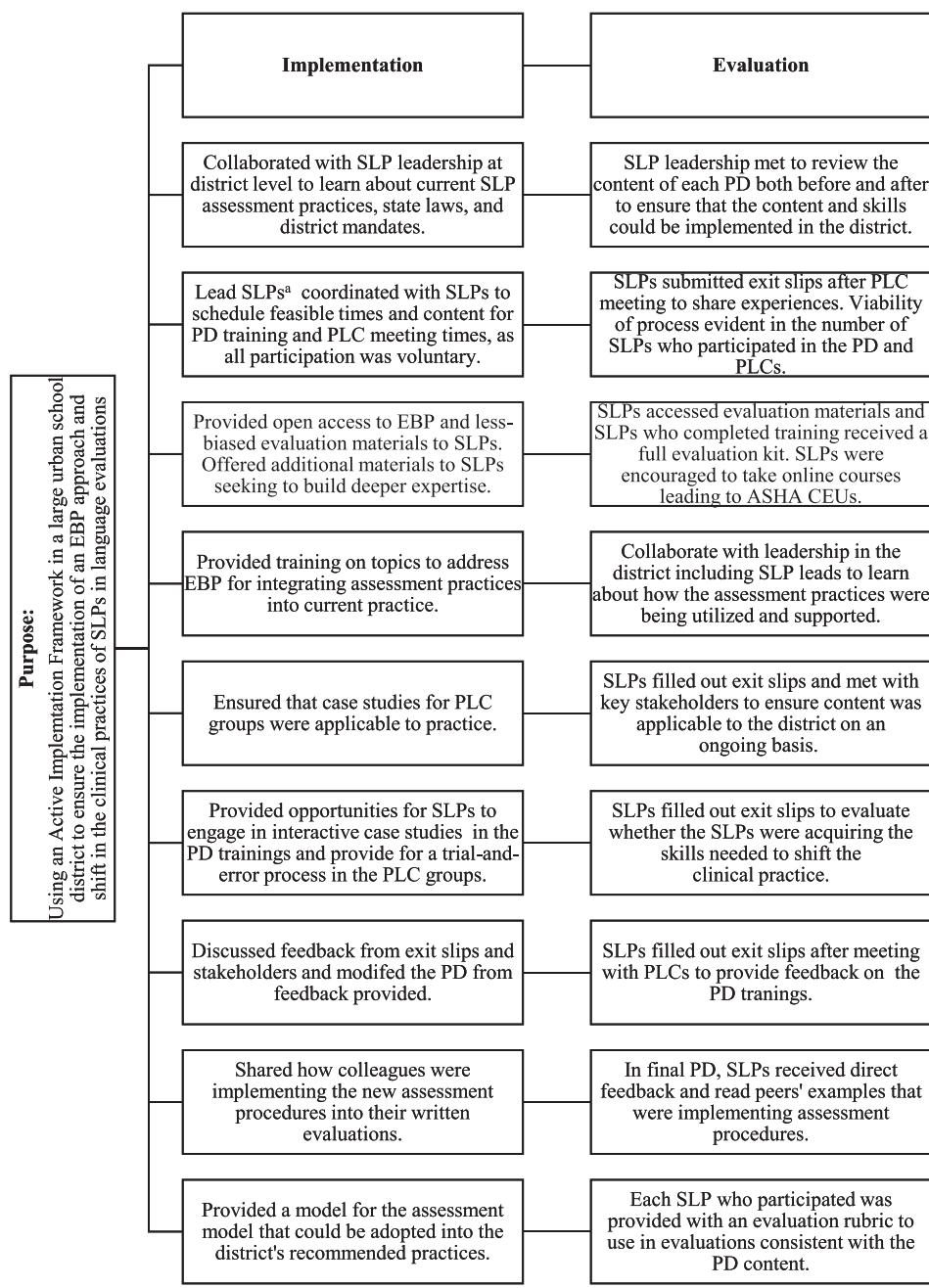
## **IS Model**

The learning cycle approach was adapted in the current study to meet the needs of SLPs who would be learning new skills and be expected to apply them in their own practice. The learning cycle approach introduced new methods to assessment by providing learners with opportunities to experiment with, apply, learn from, and incorporate some of the new evaluation approaches into their evaluation practices. Commonly referred to as Improvement Cycles, these learning cycles allowed learners to engage in a "trial-and-learning" process, gradually building their skills with support and feedback from other learners, leading to increased confidence in these new approaches to evaluation practices (Fixsen et al., 2019). Through ongoing and regular meetings with stakeholders, the integration of the foundational concepts of DA into the district became feasible. Clinicians and the district were able to implement this approach in their ongoing and future evaluation practices (Waltz et al., 2019). The goal of this training was for the SLPs in the district to reflect upon their assessment practices and adapt what they were learning to their everyday practice in disability evaluations (see Figure 1 for the IS framework).

## **The PD Content**

The first PD focused on DA research, such as the test-learn-test approach to assessing inferential word learning (Petersen et al., 2020), and graduated prompting on fast word mapping (Horton-Ikard & Weismer, 2007). The student's responsiveness or modifiability was considered through rating scales regularly discussed in the research (e.g.,

**Figure 1.** Implementation framework. SLP = speech-language pathologist; EBP = evidence-based practice; PLC = professional learning community; PD = professional development; ASHA = American Speech-Language-Hearing Association; CEUs = continuing education units.



Petersen et al., 2020). Video case studies were used to demonstrate each DA task and highlight what to observe in terms of the student's ability to learn from the prompts and support provided by the evaluator.

The use of DA modifiability was illustrated in a video case study. For instance, a case study video was used to demonstrate the use of guided prompting for two

students who initially could not complete a sound manipulation task during a phonological awareness task. Instead of simply accepting the students' initial responses, the evaluator provided graduated prompting and taught the students so that they could learn the phonological awareness skills. The outcome of this DA activity was that one student learned the skill during the session, whereas the other could not complete the skill without additional

prompts or support. Through these videos, the SLPs could observe how to incorporate DA, including prompting and teaching the task within a short period of time, along with analysis of student responsiveness and modifiability.

The second part of the PD aimed to incorporate DA into language elicitation and analysis using SLAM materials (e.g., Crowley & Baigorri, 2019) and a case study video. In this task, students were asked to arrange a set of illustrated cards to form a story. First, the student was asked to tell a story. Some students missed key details, while others provided only a gist of the story. Follow-up questions focused on assessing the students' comprehension of specific story features, such as theory of mind, false beliefs, and temporal cohesion. These additional questions provided students with an opportunity to demonstrate their understanding of the story. The DA was intentionally integrated into the SLAM instructions, encouraging SLPs to prompt students or use visuals if the initial response was incomplete. This additional prompt, without revealing the answer, allowed students the opportunity to modify their responses. In reviewing the case studies, the SLPs learned to differentiate those students who were actively learning from the cues from those who demonstrated more difficulty, often revealing specific core language issues to address through their speech-language goals.

## Measures

Three measures were implemented to gather data: an initial questionnaire, a final questionnaire, and three exit slips, all administered electronically. To ensure participant anonymity and increase overall participation among SLPs in the district, responses were anonymized by the researchers. Subsequently, the responses were coded and analyzed. The instruments were implemented sequentially, commencing with the initial questionnaire administered prior to the DA training. Following each training session, exit slips were distributed, and the final questionnaire was disseminated at the conclusion of the study (see Figure 2 for an outline of the study).

### Initial Questionnaire

Participants were invited to complete an initial electronic questionnaire designed to gather insights into their experiences and perceptions while working in a large urban district. The questionnaire comprised 13 questions, incorporating a mix of multiple-choice, close-ended, and open-ended formats. Developed by the authors, these questions aimed to provide a comprehensive understanding of participating clinicians. Questions were focused on demographic information and their assessment practices.

A total of 135 SLPs completed the initial questionnaire, with a response rate of 64.5%. Access to the

electronic questionnaire was granted to the participants upon completion of the IRB paperwork, until the commencement of the first PD training session. This questionnaire was closed the morning prior to the initial PD training (see Appendix A for the initial questionnaire).

### Final Questionnaire

After the final training session, the participants were invited to complete the final electronic questionnaire developed by the authors to gain insight into the skills applied by clinicians in their personal assessment practice. In total, 164 SLPs completed the electronic questionnaire, resulting in a response rate of 85%. The questionnaire comprised 12 questions, featuring a combination of open-ended and Likert scale questions. There were seven questions specifically focused on the use of DA in practice.

The participants completed the final electronic questionnaire following the conclusion of the third and final PD training. The questionnaire remained open for responses for 1 month after the final PD training (see Appendix B for the final questionnaire). Data obtained from the questionnaire were based on question type, with recurring themes identified through the coding of open-ended responses.

### Exit Slips

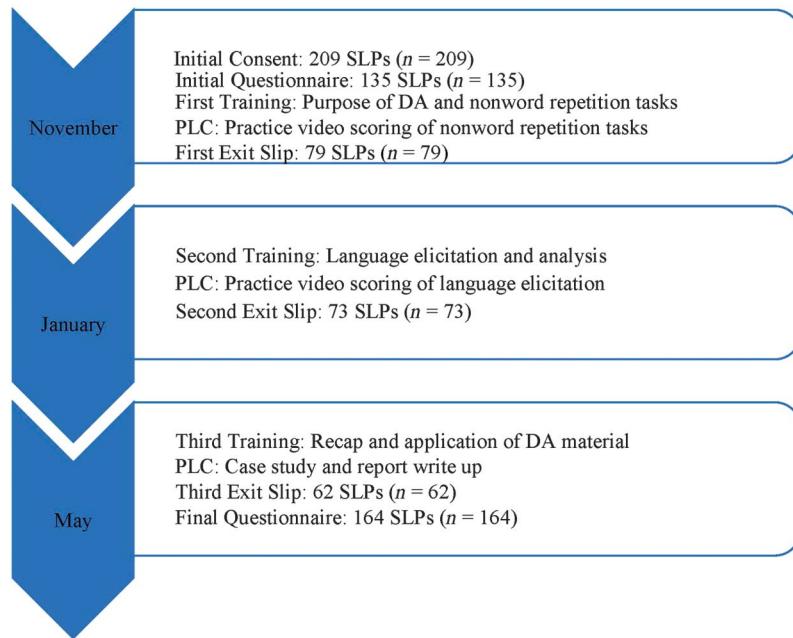
The exit slips employed in this study were the same questions used in a pilot study (Núñez et al., 2021). Each participant completed an electronic online exit slip at the conclusion of every PLC peer group session, which comprised three questions. These questions aimed to assess participants' experiences with the session's topics and activities. After each PD training session, the participants were granted access to the electronic exit slips. They were instructed to complete exit slips following PLC group meetings. The first and second exit slips closed the morning prior to the first and second PD training sessions, respectively, whereas the third exit slip remained open for completion until 1 month after the final PD session.

Participants responded to questions using a few sentences or short paragraphs. A total of 214 exit surveys were completed during the duration of the study. A total of 79 surveys were completed after the first DA topic, NWRTs, whereas 73 exit slips were completed following the second DA topic, language elicitation. For the final PLC session, 62 exit slips were completed after the final PLC session (see Appendix C for the exit slip).

### Content Delivery and Skill Building for the PLC

PLCs were implemented in this study as they were demonstrated to be a positive learning experience in a

**Figure 2.** An outline of the study that includes a breakdown of the time frame, participants, and outline of each session. SLP = speech-language pathologist; DA = dynamic assessment; PLC = professional learning community.



pilot study (Núñez et al., 2021). The PLC model was continued and expanded from the pilot. It encouraged an engaging and collaborative environment where SLPs were able to problem-solve and discuss their own personal learning and experiences (Dixon, 2013). Moreover, the use of a virtual PLC model benefited practitioners by allowing them to support each other emotionally, hear their peers' perspectives, reflect on their practice, and maintain flexibility (Davis, 2013). In addition to providing a virtual PD and PLC model, a learning cycle approach was included to build upon the learning experience. This format has been created and modified to meet the needs and time limitations of the district. Prior to each DA training, all SLPs in the district were provided optional readings, specifically assigned by the authors and relevant to the training topic, such as background on fast mapping. These readings served as a reference for the training sessions. All readings and activities were made available in an electronic folder following each session.

In this study, regular meetings of the PLCs provided an engaging and supportive space for the SLPs to implement new approaches to case studies, enabling them to refine their recently acquired evaluation skills and proficiencies. Throughout the year, certain PLC members assumed leadership roles, with shifts occurring based on the specific content and skills emphasized in the DA approach. The use of "exit slips" after each PLC meeting offered immediate feedback on the effectiveness of the

training and provided insights into necessary adaptations, modifications, or clarifications. The shared motivation among participants to learn and implement these DA approaches was evident, as they could have chosen to disengage from the project at any point.

For the first and second DA training, the format involved splitting the sessions into two virtual sessions, with each SLP participating in either a 3-hr morning or 3-hr afternoon session. However, the final session was condensed into a single 3-hr session. All training sessions were conducted by the fourth author of this study. All SLPs in the district, including the participants, were encouraged to engage in all three PLCs throughout the school year. The PLCs focused on future training and practical applications of the materials covered in the DA training session. Each PLC was peer-led, and the SLPs were asked to collaborate to find a suitable meeting time after each DA training. They were given approximately 2 months between each training session. The 21 PLC groups were assigned based on the geographic proximity of the participants' primary school assignments. The compositions of the PLC groups remained consistent throughout the year.

Although the PLCs were scheduled for 1 hr, SLPs were not required to report the exact meeting times. Attendance was recorded, and credit was awarded by the district based on attendance. During each PLC meeting, participants engaged in the same activities, such as practicing DA tasks with each other, watching supplemental

videos related to DA, and practicing writing the initial results. Due to ongoing COVID-19 concerns, all PLC meetings were conducted online. The topics addressed during the study included NWRT, language elicitation, and implementation of the material using case studies and examples from the district. At the conclusion of each PLC meeting, the participants who provided consent were asked to complete an electronic exit slip.

### The First Training

Prior to the first training session, the SLPs were instructed to read an article by Levey et al. (2020) that provided an overview of SLP assessment practices and the use of linguistic domains for children learning a new language. During the first training, SLPs were introduced to techniques for gathering essential information about a child's cultural and linguistic background and academic performance through parent/caregiver and teacher interviews (Paradis et al., 2010). They were also introduced to DA, its purpose, and the two main approaches in the literature: test-teach-test approach and the graduated prompting approach. Case study videos illustrated how to incorporate DA principles into their evaluations using needed modifications for their district.

SLPs were educated on the purpose and benefits of incorporating NWRTs into their assessment practice, along with instructions on where to find examples and scoring sheets on the Leadersproject website (Dollaghan & Campbell, 1998). NWRTs were emphasized for their ability to provide insight into the child's attention and short-term memory skills, as well as the child's ability to hear, retain, and repeat a series of consonant-vowel nonword combinations.

During the initial training, 352 SLPs participated, 277 in the morning session and 75 in the afternoon session. In the first PLC meeting, following the training, SLPs were provided with two videos from the fourth author's own personal assessments. Within each PLC group, SLPs practiced scoring two NWRTs and discussed student learning strategies and modifiability. The videos featured one child with a language disorder and one without. The SLPs were then asked to send in their individual scoring forms and respond to a series of questions that were developed by the authors and district leads, which facilitated application and connections to the tasks and their own caseloads. The district reported that 161 SLPs were present for the first PLC meeting and that each group correctly identified the child with a language disorder using the NWRT.

### The Second Training

Prior to the second PD, SLPs were asked to read articles that provided an overview on the importance of

using narrative language tasks during assessment practices (i.e., Petersen et al., 2017). At the start of the second PD session, the fourth author reviewed NWRT from the first training and went over the findings from the case studies that SLPs had been asked to look over in their PLC groups. Following this, SLAM illustrated stories were introduced as an EBP to elicit complex language structures and to demonstrate cohesion and intranarrative connections in assessment (Oetting & Maleki, 2024). The SLPs received an overview of sentence structures (i.e., use of complex vs. simple sentences), dialect-neutral features of narratives such as perspective taking and causal cohesion (Burns et al., 2012), and the SLAM scoring guidelines and scoring parameters. The fourth author reviewed two different case study videos with SLPs and provided an example of how to score and incorporate the SLAM assessment into a written evaluation. During this training, 210 clinicians logged in to the morning session and 61 logged in to the afternoon session ( $n = 271$ ).

In the PLC groups, the district reported that 260 SLPs were present in the PLC meeting. The SLPs received a video for analysis, sent by the fourth author, and SLAM scoring forms to practice with each other. They were also asked a series of reflection questions to connect to their caseloads. The fourth author offered virtual office hours after this session. This offered a further opportunity for the SLPs to ask questions regarding their understanding of DAs or questions about their own practice, further supporting their incorporation of language evaluation science into their own evaluation practices.

### The Final Training

The final PLC focused on reviewing the DA concepts presented over the year and application of the material. Led by the fourth author, this 2-hr session involved a comprehensive review of the submitted work from the PLC groups, with detailed feedback provided on exemplary submissions. This allowed the SLPs to observe higher level work in describing and analyzing a student's language skills, mirroring the process of writing a speech-language evaluation. Additionally, two SLPs from the district were invited to describe how the PD and DA impacted students on their own caseloads. Because the final PLC was based on the SLPs' submitted clinical work and testimonials, it demonstrated how deeply the SLPs had acquired new content and skills and, most importantly, had learned how to incorporate the science into their clinical practices. A total of 232 clinicians attended this final training session, during which the next steps, such as eligibility criteria and goal writing using common core standards, were introduced and discussed.

During the final PLC meeting, SLPs watched a video featuring a child with a language disorder and

scored it using SLAM material. They also practiced writing an evaluation and developed goals using Common Core standards. Following the meeting, the clinicians were encouraged to submit their write-ups and receive personal feedback from the fourth author. In total, 115 SLPs participated in the final PLC. At the conclusion of the PLC, clinicians who signed the consent form were invited to complete the final questionnaire.

## **Data Analysis**

The responses from the three exit responses were coded by the first and second authors using an open-coding approach for each individual exit slip (Charmaz, 2014). Each individual response was coded in chunks to identify recurring themes (Charmaz, 2014). After independently coding each exit slip, 30 codes were identified. The authors then met to compare and refine the codes, resulting in the identification of 10 focused codes. Finally, the data were used to identify seven major thematic codes within the data (Charmaz, 2014; Glaser & Strauss, 1967).

## **Credibility and Trustworthiness**

Similar to a pilot study (Núñez et al., 2021), several efforts were made to establish the credibility and trustworthiness of the findings in the current study. The third author, an administrator of the district, played a key role in facilitating the study, assisting with recruitment, and ensuring alignment with the skills taught with best practices supported within the district. This follow-up to the pilot study aimed to ensure that the SLPs were motivated to learn practices that would be supported by the district.

Building on the findings of Núñez et al. (2021), the fourth author, an expert on the topic, was again invited to present relevant content to ensure the SLPs in the district were fully engaged. Additionally, throughout data collection and analysis, all authors engaged in debriefing sessions to discuss emerging themes and insights. To enhance the credibility of the findings, triangulation was employed. This involved comparing the responses from the initial questionnaire with the preliminary exit slips. This information was used to gather questions, comments, and concerns from participants, which were used to shape the content and address areas of confusion throughout the study period.

## **Researcher Positionality**

During this qualitative study, it was crucial to consider personal positionality and reflexivity (Trainor & Graue, 2014). As researchers who were involved in the pilot study and interpreting results, our personal self-reflections regarding our past experience and

expectations could influence our interpretation of the data (Maxwell, 2013).

The first author is a bilingual SLP and professor in the field of communication and sciences disorders, with over a decade of experience working in the district. The second author is a researcher with a PhD in special education and 12 years of experience in the district. The third author is an SLP and a supervisor with over 20 years of experience working in the district. The fourth author is a trilingual SLP and professor in communication sciences and disorders with a legal background. She has extensive experience in evaluating children from birth to 21 years old and has published research papers on biased assessment practices and DA. As a result, social desirability bias cannot be ruled out. While the third author played a critical role in coordinating the study, she did not collect or analyze the data. However, her presence throughout the study could have influenced SLPs' reactions to the information presented and their perceptions of DA assessments. We acknowledge the importance of DA training for SLPs and the need to administer less-biased assessments to all students in the district.

The first and second authors coded the responses from the exit slips, whereas the fourth author delivered the content of the meetings. As this was a collaborative study, the preliminary data provided by the SLPs through the exit slips were used to review and modify the material in each session, incorporating additional practice or case studies as needed. Consequently, the first, second, and final authors regularly consulted with one another to self-evaluate and question interpretations of the data (Trainor & Graue, 2014).

## **Results**

### **Initial Questionnaire Findings**

The participant demographics revealed that the vast majority, 98.5% ( $n = 133$ ) of the participants held a master's degree in speech pathology, while the remaining, 1.5%, held a PhD or SLPD ( $n = 2$ ). Among the participants, 8% ( $n = 11$ ) were in their clinical fellowship year (CFY), 24% ( $n = 33$ ) had 1–5 years of experience, another 24% ( $n = 33$ ) had 6–10 years of experience, 16% ( $n = 21$ ) had 11–15 years of experience, and 28% ( $n = 37$ ) had more than 16 years of experience.

Regarding the populations served, the majority of SLPs indicated that they worked with both early childhood children, comprising 82% ( $n = 111$ ) and elementary-aged children (K–5), comprising 94% ( $n = 127$ ). Additionally, 55% ( $n = 75$ ) of SLPs worked with middle school

students, while 16% ( $n = 22$ ) provided services to high school students.

When asked what other assessment tools they used besides standardized testing to supplement testing a student's language skills, the majority of respondents (87%,  $n = 118$ ) indicated that they were using language samples. Play-based assessments were used by 59% ( $n = 80$ ), and curriculum-based assessments were used by 35% ( $n = 47$ ). Teacher interviews were conducted by 96% ( $n = 130$ ), 99% ( $n = 134$ ) reported using classroom observations, and 26% ( $n = 35$ ) used ethnographic interviews.

Regarding the use of DA in current assessment practices, 71% ( $n = 96$ ) of the SLPs reported that they were not administering DAs, while 29% ( $n = 39$ ) indicated that they were. Among those who reported using DA, 28% ( $n = 38$ ) used narrative assessments, and 6% ( $n = 8$ ) used NWRTs. Fast mapping tasks were used by 1% ( $n = 2$ ), incidental word learning tasks were used by 2% ( $n = 3$ ), and similarities of function tasks were used by 3% ( $n = 4$ ).

Of the 39 SLPs who reported using DAs, 30.7% ( $n = 12$ ) reported being trained during a PD opportunity, 61.5% ( $n = 24$ ) received training in DA during their graduate studies, and 8% ( $n = 3$ ) expressed feeling inadequately trained in DA use. When asked about the primary challenges faced by SLPs when assessing students, the coded responses revealed that time constraints, lack of assessment tools, and confidence in interpreting responses were the main issues (see Table 1 for participants' demographic characteristics).

### **Thematic Findings: Increasing Knowledge About DA and Inclusive Assessment Strategies**

When examining participants' perceptions of the relationship between involvement in PLC groups and DA for students, new insights into professional practices emerged. Two principal themes were identified: (a) engagement in PLC trainings changed how SLPs perceived the impact of DA on assessing students and (b) awareness of bias in assessment practices increased. Moreover, participants frequently emphasized that, alongside the knowledge gained from PDs and PLCs and the cycling learning approach, their actual assessment practices evolved to align more closely with the existing research on conducting less biased and more evidence-based evaluations.

#### **Perceptions of the Impact of DA on Assessing Students**

Participants described how their understanding of DAs positively influenced their approach to student assessment. They self-reported improvements in assessment methodologies following their engagement in the DA training. One participant contrasted the new approach to traditional

**Table 1.** Participant demographic characteristics table.

| Variable                                    | n   | %    |
|---|-----|------|
| Highest education level                     |     |      |
| Master's degree                             | 133 | 98.5 |
| PhD or EdD                                  | 1   | 0.75 |
| SLPD  | 1   | 0.75 |
| Total years practicing                      |     |      |
| Clinical fellowship year                    | 11  | 8    |
| 1–5 years                                   | 33  | 24   |
| 6–10 years                                  | 33  | 24   |
| 11–15 years                                 | 21  | 16   |
| More than 16 years                          | 37  | 28   |
| Age of population served (total)            |     |      |
| Early childhood                             | 111 | 82   |
| Elementary                                  | 127 | 94   |
| Junior high school                          | 75  | 55   |
| High school                                 | 22  | 16   |
| Nonstandardized assessments used (total)    |     |      |
| Language samples                            | 118 | 87   |
| Play samples                                | 80  | 59   |
| Curriculum-based assessment                 | 47  | 35   |
| Teacher interviews                          | 130 | 96   |
| Classroom observations                      | 134 | 99   |
| Dynamic assessments/ethnographic interviews | 35  | 26   |
| Current assessment practices (total)        |     |      |
| Not dynamic assessment                      | 96  | 71   |
| Narrative assessment                        | 39  | 29   |
| Nonword repetition tasks                    | 8   | 6    |
| Word mapping tasks                          | 2   | 1    |
| Administering dynamic assessment            |     |      |
| Trained in professional development         | 12  | 33.3 |
| Trained in graduate school                  | 24  | 66.6 |

standardized assessments, stating, "It has been so helpful to utilize practices of DA with students on my caseload with varying cultural, socioeconomic, or developmental differences where a standardized assessment may not provide the most useful information." Another SLP highlighted the transformative impact of DA on her clinical practice, remarking, "I really think this is a training that will change the way I do assessment from here on it, therefore it will help me support my students and their families, as well as my fellow staff members." Incorporating DA into SLPs' clinical practice reshaped their perceptions of student assessment and support.

#### **Recognizing Bias in Assessment**

When asked about the potential impact of participation in PLC training on their knowledge and skills in working with students, two central themes emerged: (a) awareness of bias in assessment practices increased and, as

a result, (b) SLPs' ability to distinguish between language differences and language disorder improved.

*Increasing awareness of bias.* Participants explained how their awareness of bias in assessment practices was heightened as a result of their engagement in PLC training. They acknowledged biases inherent in standardized assessment practices, with one participant noting, "As I have been administering standardized language assessments, I am way more conscious of the inherent biases in some of the questions/situations that we present to the students." Participants also emphasized the importance of mitigating bias by using nonwords in assessments, as expressed by one participant: "... using nonwords so that background knowledge and exposure to vocabulary does not create an unfair bias or advantage during testing." Another participant underscored the significance of this awareness in reducing bias in assessments stating, "I think this information is critical in reducing bias in assessment, especially with the communities I work with. I plan to integrate DA more frequently as the year continues. The critical questions will be crucial, especially for initial evaluations." Recognition of bias changed the participants' approach to working with families and co-workers; however, this nascent awareness also improved clinical practices with students.

*Distinguishing between difference and disorder.* Participants reported a direct connection between awareness of bias in assessment practices and improved capacity to differentiate between language differences and disorders. One participant highlighted this connection, stating, "DA has been great information to be presented to make sure that SLPs are looking at the whole child and attempt to eliminate bias of varying home language influences and cultures versus true language impairment." Another SLP echoed a similar sentiment, "It [PLC training] has drawn my attention to bias of standardized tests and that standardized tests may not accurately capture many language components we are looking for and/or unfairly identify those with language differences as having a disorder." Furthermore, participants emphasized an increased awareness of cultural factors when assessing students. One SLP elaborated, "I am assessing students in a much more culturally competent way. Practice analyzing Burns' markers has helped me assess and treat language in a more ethical and equitable fashion." These insights underscored participants' enhanced ability to discern bias in assessment practices, differentiate between language differences and disorders, and incorporate cultural considerations when working with students.

### **Strengths of Learning DA in a PLC Model: Moving From Thinking to Doing**

Participants characterized their experiences of collaborating with others in a PLC as having a positive

impact on their clinical practice. When examining how SLPs perceived the relationship between their engagement in the PLCS and their ability to assess students from a variety of backgrounds, SLPs disclosed that the collaborative nature of the groups and collective problem solving fostered skill development and augmented their proficiency in DA.

### **Collaborating and Group Problem Solving**

Participants reported the importance of practicing and scoring DAs with fellow SLPs, highlighting its instrumental role in mastering the new assessment approach. Specifically, SLPs enriched their practice and developed proficiency in DA by learning from one another and capitalizing on each other's experience and knowledge. Three central themes emerged: (a) practicing DA with SLPs was beneficial, (b) SLPs learned through collaborative scoring, and (c) finding time for assessing and analyzing data proved difficult.

*Practicing DA with other SLPs.* Participants highlighted the benefits of discussing DA within a collaborative group, noting how diverse interpretations of data deepened their understanding of the process. Many have emphasized the value of working in such a setting. One SLP explained, "I think I learn best when collaborating, and so this has been a great way to practice new skills, and bounce ideas around with my colleagues," while another stated, "Our group has done a nice job trying to help one another understand the DA process and associated terminology." Additionally, a participant underscored the importance of collaboration post-COVID-19, expressing, "I like meeting with my colleagues and discussing this topic, especially since the pandemic we haven't been able to get together and collaborate and are all in our separate schools."

When asked about the positive aspects within the group, many SLPs shared specific examples of how they benefited from the experiences of other group members. One participant remarked, "It has been helpful to exchange ideas with a clinician who is more familiar with SLAM materials," while another noted, "One of the members uses the SLAM cards weekly so that was helpful to have a knowledgeable person to talk to when going over discussion questions." Others discussed their growth in interpreting scores and diagnoses, with one stating, "Understanding there are many 'shades of gray' and getting comfortable interpreting this has been interesting," and another mentioning, "We used our collective clinical knowledge of language disorders to complete the assignment, and it was helpful to 'talk it out' with other SLPs." Participants described how sharing their experiences and learning different approaches helped broaden their knowledge of DA and also increased their understanding of how to use DA tools.

*Learning through collaborative scoring.* During PLC sessions, SLPs engaged in the collaborative analysis of videos, language samples, and scored assessments, finding this group analysis particularly beneficial for sharing opinions, ideas, and strategies. One participant explained, “It has been helpful to meet with my PLC to discuss specifics of scoring nonword repetition tasks, collaborating to discuss ideas, and hearing opinions and/or strategies you may not have thought of yourself.” Many participants highlighted the value of collective scoring; noting its utility in activities such as “conferring with other clinicians on how they scored responses,” “digging deep into the analysis and bounce off ideas or findings with one another,” “discussing together how to interpret the different videos/language samples and determine the strengths and needs,” and “getting hands-on experience scoring the NWRT and comparing my scoring with others.”

However, the participants expressed concerns that scoring the assessments was subjective. One participant explained, “We had some differences in how to allocate points for the children’s responses and there seems to be a fair amount of subjectivity in the process.” Despite this challenge, SLPs reported that using examples and working through scoring decisions together in PLC groups helped to build confidence in their abilities. For instance, one participant shared, “It [PLC group] has strengthened my ability to score more consistently and talk through differences in the subjectivity of scoring.” When asked about challenges with the new assessment techniques, in the first exit slip, one participant explained:

I still feel like I need to continue to build my skills in utilizing the tools as I feel that I still lack confidence using such assessments. It also feels somewhat uncomfortable moving away from the more traditional standardized tests.

Other participants echoed concerns about scoring DA, particularly errors, were problematic. Participants explained, “The scoring of the distortions vs. errors can be tricky, as well as needing to record and score the test can be time consuming,” and “The scoring form and process are a bit confusing. It’s hard determining how many points to assign to each error, and this was a point of discussion in our group.” Overall, SLPs reported that working as a group in the PLC was a strength because the experience improved their comprehension and application of DA and their ability to work through the challenges of scoring.

*Time for assessing and analyzing data.* When asked to describe their experiences with PLC training, several participants reported that finding time to assess, score, and analyze DA data was difficult. One participant explained, “The challenges I have faced have been the

time it’s taking me to transcribe and analyze various narratives when using SLAM cards and language samples from wordless videos.” Specifically, SLPs described the role of time in data analysis, “It [DA] is also extremely time consuming to analyze, which isn’t realistic for the school setting with a large caseload.” Additional participants shared similar challenges, “I have attempted to use the SLAM cards, but feel I do not have enough time to analyze everything the student said and write a thorough assessment report.” Limited time has been reported to impact participants’ ability to schedule collaboration time and assess and analyze the data.

### **Developing Proficiency**

Participants described PLC meetings as prime opportunities to hone their clinical skills, using this experience to apply what they were learning in PLC groups to their own practices. Two subthemes emerged: (a) participation in the PLC helped build SLP’s confidence in their clinical abilities and (b) improved their practice with students and families.

*Building confidence.* SLPs reported an increase in professional confidence as they progressed through the PLC training and group work. For example, one participant described newly acquired trust in her clinical decision-making skills due to participation in PLC training. She explained:

The dynamic approach gives me more confidence in my clinical intuitions. When standardized assessment results don’t reflect what I experience with a student, or when the language abilities demonstrated in session do not seem to match a student’s overall academic performance, I can better substantiate my clinical recommendations via DA.

Several other participants echoed this sentiment and described how PLC training affected confidence in their assessment abilities. Participants explained, “I have grown a lot more confident in understanding what I am measuring/looking for when assessing students. I am also less hesitant to provide additional cues when evaluating a student,” and “I feel that now that I have completed all 3 training sessions, I will be better able to use the assessment with confidence.” In general, SLPs reported an increase in knowledge, insights, and confidence in their professional abilities after completing PLC training.

*Improved practice with students and families.* When asked to describe how they used the information provided in the training to support students and families, participants reported specific applications of the new knowledge gained. The SLPs transformed the assessment practices to become more inclusive. One participant

explained, "It has a big impact on my assessment processes, particularly when working with low income and bi-lingual students/families." Additionally, the participants changed how they delivered information to their families. Some participants shared, "I have been able to give more specific functional information to families and teachers," and "I am now practicing how to articulate this information to families and staff during the [IEP] meeting." The acquisition of new skills impacted how SLPs assessed students and delivered information and support to their families.

### **Final Questionnaire Findings**

Based on the results of the final questionnaire, of the 164 SLPs who participated, 94% ( $n = 154$ ) attended all three DA training sessions, whereas only 70% ( $n = 115$ ) participated in all three PLC sessions with their peers. Among the participants, 70% ( $n = 115$ ) indicated that the training was well organized, with only 1.2% ( $n = 2$ ) reporting dissatisfaction. Furthermore, 48% ( $n = 79$ ) indicated that this format helped in helping them create a network, with 2% ( $n = 3$ ) indicating otherwise. When asked about the additional training needed to gain more experience in administering DAs, the coded responses indicated that the majority expressed a desire for more practice using the materials, along with report writing, goal setting, and additional grammar practice.

## **Discussion**

In this study, we investigated the engagement of SLPs in a large urban district with virtual DA training using a learning cycle approach and a PLC model with their peers during a year-long PD opportunity. The findings offer insights into their collaborative experiences, application of acquired knowledge to their practice, and interactions with peers.

Consistent with the pilot study (Núñez et al., 2021), participants in the current study reported that the PLC model was beneficial. However, this study was of a larger scale than the pilot study. It involved all SLPs in the district and prompted a reevaluation of their current assessment practices. Similar to the observations from the pilot study, the collaborative nature of the PLC model served as a significant motivator for SLPs. Many expressed their appreciation for the opportunity to problem-solve and share experiences, noting a shift toward incorporating DA into their own practice. Additionally, participants recognized the importance of this shift from their traditional assessment practices, acknowledging their efficiency in assessing diverse student populations (i.e., students with intellectual disabilities).

It is noteworthy that the district where this study was conducted boasts one of the strongest teachers' unions in the country, with a history of work stoppages and multiple strikes over the past decade. Consequently, the authors refrained from asking the participants to work or meet outside their contracted hours. Nonetheless, the positive outcomes observed were the result of collaboration and positive relationships among the school district, teachers' union, university researchers, and stakeholders.

The confidence level of the SLPs is an area of concern highlighted by the authors. Despite undergoing training, some expressed a lack of confidence in using the materials, needing more practice time, feeling unsure about reports and goal writing, or expressing a need for additional time (i.e., during the summer) to fully understand how to implement the assessment tools. Although they were introduced to enhance assessment practices and decision-making skills, some SLPs remained hesitant to integrate them into their own practices. This finding suggests the need for additional support for clinicians or more time during PLC meetings. This underscores a broader issue in the field. One possibility is that SLPs have been conditioned to rely on the results of standardized measures, despite their inherent biases. Second, SLPs may lack confidence in using DAs, given their legal responsibility for assessment and treatment plans, even though they recognize the problematic nature of the approaches they have been using.

Findings regarding the timing and location of DA training are notable. According to the initial questionnaire, only 30% ( $n = 24$ ) of the SLPs reported receiving DA training during their graduate programs. While graduate programs are not prescriptive in the content they teach, these findings suggest a potential gap in the training of future SLPs. This raises the question of how and when DA tools should be introduced in graduate programs, considering their importance in clinical practice.

Furthermore, the need for additional support and practice in sentence structure analysis and English grammar was identified by the SLPs. This underscores the importance of these fundamental skills in speech-language pathology. Without a solid understanding of language structures, SLPs may face challenges in effectively implementing DA tools, as they would need to learn about language structures while learning about DA, which could prolong and complicate the learning process. Thus, addressing these foundational skills could enhance the effectiveness and efficiency of DA training in SLPs.

An interesting finding was that several SLPs expressed the need for further practice in scoring DAs, particularly narrative assessment. This need for additional practice is consistent with the learning curve associated

with the acquisition of any new skills. Moreover, some SLPs might be accustomed to identifying a single correct score for each answer, as is typically the case with standardized test scores. However, with DA, the emphasis is less on finding a single correct and more on clinical judgment to evaluate a child's performance in light of all the evidence gathered during an evaluation.

Findings from the exit slips indicated that the participants found the combination of lectures, practice activities, and group discussions with peers effective. Additionally, support from topic experts contributed to the effectiveness of the training. This finding aligns with the literature that suggests that SLPs benefit from PD formats that go beyond tradition to one-time, lecture-based workshops. Instead, PDs that focus on critical learning and application, extend over multiple sessions, involve collaboration, and include hands-on components are more effective (Overby & Rusiewicz, 2018).

From an IS perspective, these findings indicate an effectiveness of the described approach in enhancing content knowledge and clinical evaluation skills among SLPs, which they subsequently integrated into their clinical practice. Future training initiatives could enhance these gains by providing additional skill-building opportunities, such as through case studies and online courses, aimed at bolstering SLPs' confidence in quantifying various DA approaches and refining their clinical judgment. By addressing these needs, future PDs can better support SLPs in effectively incorporating DA in their clinical practice.

### **Limitations and Future Research**

This study has several limitations. First, the reliance on self-reported practices by SLPs throughout the study limited the ability to objectively measure their growth or changes in evaluation practices. Although this approach was chosen to encourage anonymity and participation, it prevented the authors from correlating responses with involvement in virtual PDs or PLCs. SLPs who engaged more in these activities may have benefited more and felt more confident, but this could not be confirmed through self-reports alone. Additionally, the authors could not assess SLPs' understanding of scoring, interpretation of DA practices, or their actual use of DA practices within their caseloads.

Second, time is a significant issue. Many SLPs reported difficulty finding time to meet with peers in the PLC model, as well as requiring more time for individual practice and skill development. Moreover, they expressed the need for additional time to learn how to write reports and language goals using DA approaches. Despite these time constraints, SLPs indicated their intention to use DA

as an assessment tool and continued to develop their skills. From an IS perspective, this finding suggests that PDs and PLCs were effective in shifting evaluation practices in the district toward science-based approaches, including DA.

This study offers several implications for future research. It would be valuable to examine how SLPs use DA materials and engage with stakeholders at the school level over an extended period. Additionally, measuring SLP confidence in DA tasks and changes in caseload numbers or eligibility criteria could provide future insights into clinical practice and caseload management.

Many SLPs expressed the need for more confidence in using DA approaches, suggesting a potential role for additional support or mentoring programs. Additionally, some SLPs have reported challenges in analyzing sentence structures in language samples, indicating the need for targeted training in this area. Ways to increase confidence and skills in the future might include providing clinicians with opportunities to reflect on their practices and establishing volunteer mentoring programs in which experienced SLPs can support those seeking additional guidance.

Finally, the findings of this study can inform administrators on how to set up and manage future professional training programs for SLPs in their districts. School districts may benefit from identifying specific needs and focusing on them for extended periods. For example, additional training may be necessary to address linguistic and cultural diversity among students on their caseloads, ensuring that assessment approaches are less biased and more evidence-based. Importantly, regular communication among stakeholders is crucial to ensure that training initiatives align with the district's realities and constraints. Nonetheless, from an IS perspective, this project was successful in promoting the adoption of EBP assessment approaches among SLPs, thereby highlighting the importance of ongoing PD and collaboration in the field.

### **Data Availability Statement**

The data sets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

### **Acknowledgments**

Funding was provided through the Multicultural Grant through the American Speech-Language-Hearing Association.

## References

- Active Implementation Research Network.** (n.d.). Retrieved April 8, 2024, from <https://www.activeimplementation.org/frameworks/implementationdrivers>
- Alonzo, C., Komesidou, R., Wolter, J., Curran, M., Ricketts, J., & Hogan, T.** (2022). Building sustainable models of research-practice partnerships within educational systems. *American Journal of Speech-Language Pathology*, 31(3), 1–13. [https://doi.org/10.1044/2021\\_AJSLP-21-00181](https://doi.org/10.1044/2021_AJSLP-21-00181)
- American Speech-Language-Hearing Association.** (2023). *Code of ethics* [Ethics]. <http://www.asha.org/policy/>
- Bamford, C. K., Masso, S., Baker, E., & Ballard, K. J.** (2022). Dynamic assessment for children with communication disorders: A systematic scoping review and framework. *American Journal of Speech-Language Pathology*, 31(4), 1878–1893. [https://doi.org/10.1044/2022\\_AJSLP-21-00349](https://doi.org/10.1044/2022_AJSLP-21-00349)
- Barragan, B., Castilla-Earls, A., Martinez-Nieto, L., Restrepo, M. A., & Gray, S.** (2018). Performance of low-income dual language learners attending English-only schools on the Clinical Evaluation of Language Fundamentals—Fourth Edition, Spanish. *Language, Speech, and Hearing Services in Schools*, 49(2), 292–305. [https://doi.org/10.1044/2017\\_LSHSS-17-0013](https://doi.org/10.1044/2017_LSHSS-17-0013)
- Burns, F. A., de Villiers, P. A., Pearson, B. Z., & Champion, T. B.** (2012). Dialect-neutral indices of narrative cohesion and evaluation. *Language, Speech, and Hearing Services in Schools*, 43(2), 132–152. [https://doi.org/10.1044/0161-1461\(2011/10-0101\)](https://doi.org/10.1044/0161-1461(2011/10-0101)
- Castilla-Earls, A., Bedore, L., Rojas, R., Fabiano-Smith, L., Pruitt-Lord, S., Restrepo, M. A., & Peña, E.** (2020). Beyond scores: Using converging evidence to determine speech and language services eligibility for dual language learners. *American Journal of Speech-Language Pathology*, 29(3), 1116–1132. [https://doi.org/10.1044/2020\\_AJSLP-19-00179](https://doi.org/10.1044/2020_AJSLP-19-00179)
- Charmaz, K.** (2014). *Constructing grounded theory* (2nd ed.). SAGE.
- Crowley, C.** (2014). Parent/caregiver critical questions and the teacher interview. <https://www.leadersproject.org/2015/03/18/the-critical-questions/>
- Crowley, C.** (2019). *School-Age Language Assessment Measures: SLAM guidelines for analysis*. <https://www.leadersproject.org/2020/12/03/slam-guidelines-for-analysis/>
- Crowley, C.** (2020). *School-Age Language Assessment Measures: Scoring parameters for all SLAM materials*. <https://drive.google.com/file/d/1B-pRDFTBeUzVx7WxQaUHuDht93PeAMUc/view>
- Crowley, C.** (2021). Evidence-based practice in disability evaluations. <https://www.leadersproject.org/ceu-courses-2/evidence-based-practice-in-disability-evaluations-asha-0-6-ceu-self-study-course/>
- Crowley, C., & Baigorri, M.** (2019). Distinguishing a true disability from “something else”: Part I. Current challenges to providing valid, reliable, and culturally and linguistically appropriate disability evaluations. In E. Ijalba, P. Velasco, & C. Crowley (Eds.), *Language culture and education: Challenges of diversity in the United States* (pp. 31–47). Cambridge University Press. <https://doi.org/10.1017/9781139976725>
- Crowley, C., & Grossman, C.** (2014). *Grammar fundamentals for a pluralistic society*. <https://www.leadersproject.org/ceu-courses-2/grammar-fundamentals-for-a-pluralistic-society/>
- Crowley, C., Valenti, D., Ji Yan Tsang, G., & Guest, K.** (2020). Advanced grammar fundamentals for a pluralistic society. <https://www.leadersproject.org/ceu-courses-2/advanced-grammar-fundamentals-for-a-pluralistic-society-asha-0-3-ceu-self-study-course/>
- Davis, K. J.** (2013). Exploring virtual PLCs: Professional development for the busy practitioner. *Perspectives on School-Based Issues*, 14(2), 28–32. <https://doi.org/10.1044/sbi14.2.28>
- Dietrich, S., & Hernandez, E.** (2022). *Language use in the United States: 2019*. <https://www.census.gov/content/dam/Census/library/publications/2022/acs/acs-50.pdf> [PDF]
- Dixon, D.** (2013). Professional learning communities, real experiences of school based SLPs. *Perspectives on School-Based Issues*, 14(2), 33–34. <https://doi.org/10.1044/sbi14.2.33>
- Dollaghan, C., & Campbell, T. F.** (1998). Nonword repetition and child language impairment. *Journal of Speech, Language, and Hearing Research*, 41(5), 1136–1146. <https://doi.org/10.1044/jslhr.4105.1136>
- Douglas, N. F., & Burshnic, V. L.** (2019). Implementation science: Tackling the research to practice gap in communication sciences and disorders. *Perspectives of the ASHA Special Interest Groups*, 4(1), 3–7. [https://doi.org/10.1044/2018\\_PERS-ST-2018-0000](https://doi.org/10.1044/2018_PERS-ST-2018-0000)
- Fixsen D. L., Blase K. A., Metz A., & Van Dyke M.** (2013). Statewide implementation of evidence-based programs. *Exceptional Children*, 79(3), 213–230. <https://doi.org/10.1177/001440291307900206>
- Fixsen, D. L., Van Dyke, M. K., & Blase, K. A.** (2019). *Improvement cycles: An example*. Active Implementation Research Network. <http://www.activeimplementation.org/resources>
- Fulcher-Rood, K., & Castilla-Earls, A.** (2023). Differences in child language assessment practices between school-based and non-school-based speech-language pathologists: Results from a nationwide survey. *Language, Speech, and Hearing Services in Schools*, 54(4), 1117–1135. [https://doi.org/10.1044/2023\\_LSHSS-22-00185](https://doi.org/10.1044/2023_LSHSS-22-00185)
- Fulcher-Rood, K., Castilla-Earls, A. P., & Higginbotham, J.** (2019). Diagnostic decisions in child language assessment: Findings from a case review assessment task. *Language, Speech, and Hearing Services in Schools*, 50(3), 385–398. [https://doi.org/10.1044/2019\\_LSHSS-18-0044](https://doi.org/10.1044/2019_LSHSS-18-0044)
- Glaser, B. G., & Strauss, A. L.** (1967). The discovery of grounded theory: Strategies for qualitative research. *Nursing Research*, 17(4), Article 364. <https://doi.org/10.1097/00006199-196807000-00014>
- Green, L. W.** (2008). Making research relevant: If it is an evidence-based practice, where's the practice-based evidence? *Family Practice*, 25(Suppl. 1), i20–i24. <https://doi.org/10.1093/fampra/cmn055>
- Hall-Mills, S., Ireland, M., Flynn, P. F., & Hoffman, L.** (2023). School-based speech-language pathologists’ engagement with evidence-based practice: An update with implications for implementation research. *Language, Speech, and Hearing Services in Schools*, 54(4), 1155–1164. [https://doi.org/10.1044/2023\\_LSHSS-22-00170](https://doi.org/10.1044/2023_LSHSS-22-00170)
- Hopf, S. C., Crowe, K., Verdon, S., Blake, H. L., & McLeod, S.** (2021). Advancing workplace diversity through the Culturally Responsive Teamwork Framework. *American Journal of Speech-Language Pathology*, 30(5), 1949–1961. [https://doi.org/10.1044/2021\\_AJSLP-20-00380](https://doi.org/10.1044/2021_AJSLP-20-00380)
- Horton-Ikard, R., & Weismer, S. E.** (2007). A preliminary examination of vocabulary and word learning in African American toddlers from middle and low socioeconomic status homes. *American Journal of Speech-Language Pathology*, 16(4), 381–392. [https://doi.org/10.1044/1058-0360\(2007/041\)](https://doi.org/10.1044/1058-0360(2007/041)
- Individuals with Disabilities Education Improvement Act of 2004, 20 U.S.C. § 1400.** (2004).
- Kolb, D. A.** (1984). *Experiential learning: Experience as the source of learning and development*. Prentice Hall.
- Levey, S., Cheng, L. R. L., & Almodovar, D.** (2020). Developing evidence-based assessment to prevent over- or underidentification of disorders for new language learners. *Perspectives of the ASHA Special Interest Groups*, 5(4), 1026–1038. [https://doi.org/10.1044/2020\\_PERSP-19-00115](https://doi.org/10.1044/2020_PERSP-19-00115)

- Mahowald, M., & Rentmeester-Disher, J.** (2019). An exploratory study of the impact of professional development on speech-language pathologists' literacy knowledge and practices. *Perspectives of the ASHA Special Interest Groups*, 4(5), 1110–1120. [https://doi.org/10.1044/2019\\_PERS-SIG16-2019-0022](https://doi.org/10.1044/2019_PERS-SIG16-2019-0022)
- Maxwell, J. A.** (2013). *Qualitative research design: An interactive approach*. SAGE.
- Nair, V. K., Farah, W., & Cushing, I.** (2023). A Critical analysis of standardized testing in speech and language therapy. *Language, Speech, and Hearing Services in Schools*, 54(3), 781–793. [https://doi.org/10.1044/2023\\_LSHSS-22-00141](https://doi.org/10.1044/2023_LSHSS-22-00141)
- Núñez, G., Buren, M., Diaz-Vazquez, L., & Bailey, T.** (2021). Bilingual supports for clinicians: Where do we go from here? *Language, Speech, and Hearing Services in Schools*, 52(4), 993–1006. [https://doi.org/10.1044/2021\\_LSHSS-20-00176](https://doi.org/10.1044/2021_LSHSS-20-00176)
- Oretting, J., & Maleki, T.** (2024). Transcription decisions of conjoined independent clauses are equitable across dialects but impact measurement outcomes. *Language, Speech, and Hearing Services in Schools*, 55(3), 870–883. [https://doi.org/10.1044/2024\\_LSHSS-23-00180](https://doi.org/10.1044/2024_LSHSS-23-00180)
- Ogiela, D., & Montzkaa, J.** (2021). Norm-referenced language test selection practices for elementary school children with suspected developmental language disorder. *Language, Speech, and Hearing Services in Schools*, 52(1), 288–303. [https://doi.org/10.1044/2020\\_LSHSS-19-00067](https://doi.org/10.1044/2020_LSHSS-19-00067)
- Orellana, C. I., Wada, R., & Gillam, R. B.** (2019). The use of dynamic assessment for the diagnosis of language disorders in bilingual children: A meta-analysis. *American Journal of Speech-Language Pathology*, 28(3), 1298–1317. [https://doi.org/10.1044/2019\\_AJSLP-18-0202](https://doi.org/10.1044/2019_AJSLP-18-0202)
- Overby, M. S., & Rusiewicz, H. L.** (2018). Impact and perceived benefits of a problem-based learning workshop for continuing education in speech-language pathology: A pilot study. *Teaching and Learning in Communication Sciences & Disorders*, 2(1). <https://doi.org/10.30707/TLCSD2.1Overby>
- Paradis, J., Emmerzael, K., & Duncan, T. S.** (2010). Assessment of English language learners: Using parent report on first language development. *Journal of Communication Disorders*, 43(6), 474–497. <https://doi.org/10.1016/j.jcomdis.2010.01.002>
- Petersen, D. B., Chanthongthip, H., Ukrainetz, T. A., Spencer, T. D., & Steeve, R. W.** (2017). Dynamic assessment of narratives: Efficient, accurate identification of language impairment in bilingual students. *Journal of Speech, Language, and Hearing Research*, 60(4), 983–998. [https://doi.org/10.1044/2016\\_JSLHR-L-15-0426](https://doi.org/10.1044/2016_JSLHR-L-15-0426)
- Petersen, D. B., Tonn, P., Spencer, T., & Foster, M.** (2020). The classification accuracy of a dynamic assessment of inferential word learning for bilingual English/Spanish-speaking school-age children. *Language, Speech, and Hearing Services in Schools*, 51(1), 144–164. [https://doi.org/10.1044/2019\\_LSHSS-18-0129](https://doi.org/10.1044/2019_LSHSS-18-0129)
- Trainor, A. A., & Graue, E.** (2014). Evaluating rigor in qualitative methodology and research dissemination. *Remedial and Special Education*, 35(5), 267–274. <https://doi.org/10.1177/0741932514528001>
- Waltz, T. J., Powell, B. J., Fernández, M. E., Abadie, B., & Damschroder, L. J.** (2019). Choosing implementation strategies to address contextual barriers: Diversity in recommendations and future directions. *Implementation Science*, 14(1), Article 42. <https://doi.org/10.1186/s13012-019-0892-4>
- Ward, C., Ihlo, T., Ryan Jackson, K., & Farmer, S.** (2023). Effective implementation capacity to impact change within state education systems to support students with disabilities. *Journal of Disability Policy Studies*, 34(2), 104–114. <https://doi.org/10.1177/10442073221096392>
- Washington, K. N., Westby, C., Fritz, K., Crowe, K., Karem, R. W., & Basinger, M.** (2021). The narrative competence of bilingual Jamaican Creole- and English-speaking preschoolers. *Language, Speech, and Hearing Services in Schools*, 52(1), 317–334. [https://doi.org/10.1044/2020\\_LSHSS-20-00013](https://doi.org/10.1044/2020_LSHSS-20-00013)
- Wijnen-Meijer, M., Brandhuber, T., Schneider, A., & Berberat, P. O.** (2022). Implementing Kolb's experiential learning cycle by linking real experience, case-based discussion and simulation. *Journal of Medical Education and Curricular Development*, 9. <https://doi.org/10.1177/23821205221091511>

---

## **Appendix A (p. 1 of 2)**

### **Initial Questionnaire**

---

#### **Demographic Questions**

1. How long have you been practicing as a speech language pathologist?  
a) CFY b) 1–5 years c) 6–10 years d) 11–15 years e) 16–20 years f) 21–25 years g) more than 25 years
2. What populations do you mainly work with? (check all that apply)  
a) early childhood b) K–5 grade c) 6–8 grade d) high school e) transition f) assessment team
3. What kinds of services do you provide? (check all that apply)  
a) inclusion b) push-in c) pull-out d) ELL e) bilingual transition
4. What is your highest level of education?  
a) master's degree (MA, MS, etc.) b) PhD or EdD c) SLPD d) other advanced degree\_\_\_\_\_

#### **Assessment Questions**

5. How confident do you feel in your ability to differentiate language disability from disorder? (Likert scale)

##### **1 Not Confident 5 Very Confident**

6. About how many assessments do you complete in a school year?
7. What other materials do you use to supplement standardized testing? (Check all that apply)  
a) language samples b) ethnographic interviews c) dynamic assessment d) teacher interview e) classroom observation f) play samples g) curriculum-based assessments
8. If yes, If so, can you describe how you typically analyze these language samples? (Check all that apply)  
a) non-applicable b) calculate MLU c) calculate T-units d) syntax e) Systematic Analysis of Language Transcripts (SALT) f) other\_\_\_\_\_
9. Do you typically collect language samples?  
a. yes b. no
10. a) yes b) no If you answered "yes" in question, can you describe how you typically analyze these language samples? (Check all that apply)  
a) non-applicable  
b) calculate MLU  
c) calculate T-units  
d) syntax analysis  
e) developmental sentence scoring (DSS)  
f) vocabulary analysis  
g) number of different words  
h) type–token ratio  
i) language assessment  
j) expository language analysis  
k) pragmatic language analysis  
l) Systematic Analysis of Language Transcripts (SALT)  
m) Sampling Utterances and Grammatical Analysis Revised (SUGAR)  
n) CLAN (Computerized Language Analysis)/Child Language Exchange System (CHILDES)  
o) Other
11. Do you currently use dynamic assessment when assessing your students?
12. If yes, where were you trained to use dynamic assessment?  
a) graduate program b) inservice c) professional development d) other e) non-applicable

---

## **Appendix A (p. 2 of 2)**

### Initial Questionnaire

---

13. Describe what types of dynamic assessments you use when assessing your students (check all that apply)
    - a) narrative
    - b) fast mapping
    - c) nonword repetition
    - d) incidental word learning
    - e) similarities of function
    - f) NA
  14. What has been your biggest challenge when assessing students?
- 

---

## **Appendix B**

### Final Questionnaire

---

Please rate the quality of the training using the following using the Likert scale:

**Poor Okay Good Excellent**

1. The overall organization of the program
2. How well did the program help you to create a network of clinicians?
3. How well did the program provide instruction and guidance for incorporating dynamic assessment into your practice?
4. How well did the program encourage participation and interaction with peers?
5. How well did the program cover relevant materials for assessment?

**Questions:**

6. How many trainings were you able to attend?  
a) 0 b) 1 c) 2 d) 3
  7. How many PLC meetings were you able to attend?  
a) 0 b) 1 c) 2 d) 3
  8. How many dynamic assessments have you completed over the course of the year?
  9. How often have you used the non-word repetitions tasks?
  10. How often have you used the SLAM materials during your evaluations?
  11. What additional trainings do you need to gain expertise in dynamic assessments?
- 

---

## **Appendix C**

### Exit Slips

---

1. Describe in a few sentences how the dynamic assessment PLC has been going for you. What has been going well for you? What are some of the challenges you have faced?
  2. Consider the training sessions you have attended thus far. How have you been able to use the information provided to you in order to support the students, families, and staff that you work with?
  3. How has your involvement in the dynamic assessment PLC thus far may or may not be impacting your own knowledge, understanding, or skills working with children?
-