Examining the Efficacy of a Self-Paced Online Training for Goal Writing

Allison Rosborough
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Examining the Efficacy of a Self-Paced Online Training for Goal Writing

Allison P. Rosborough, B.S.

Master’s Thesis submitted to the School of Medicine
at West Virginia University

in partial fulfillment of the requirements for the degree of
Master of Science in
Speech-Language Pathology

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Michelle Moore, Ph.D.,
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Department of Communication Sciences and Disorders

Morgantown, West Virginia
2022

Keywords: Individualized Education Programs, goal writing, schools, online training
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ABSTRACT

Examining the Efficacy of a Self-Paced Online Training for Goal Writing

Allison P. Rosborough

Educational goals can control critical aspects of intervention and progress monitoring for students with disabilities and as such are a central feature of Individualized Education Programs (IEPs). Despite its importance, school staff frequently report not receiving enough training or support on IEP documentation. Rosborough and Brandel (2020) investigated the quality of IEP goals written in the state of West Virginia. Findings indicated that professional development activities needed to be designed and analyzed related to immediate and long-term efficacy. The purpose of this study was to evaluate the efficacy of a self-paced, online training for goal writing. Participants were recruited by word of mouth to partake in the study. A total of 16 speech-language pathologists responded and began the training. By the end of the study, five individuals completed the surveys and training in full, which included a demographic survey, pre-assessment, seven learning modules, and a post-assessment. Each participant was evaluated on their performance on a knowledge assessment, their ability to evaluate language goals using a rubric for which they completed training on how to use, as well as their ability to compose IEP goals. Results indicated that foundational knowledge, on average, increased by 14% after the training modules were completed. Overall, the ability to rate components of goals was mixed from the pre-assessment (mean = 50%) to the post-assessment as evidenced by a post-assessment mean score of 43% (SD: 18.7). Outcomes also suggested that the majority of participants were able to effectively include more short-term goal components within self-generated IEP goals. Patterns in the data regarding ratings for each short-term goal components supported previous research findings (Farquharson et al., 2014; Rosborough & Brandel, 2020). Additional research is needed to further establish the reliability and efficacy of the online training.
Acknowledgements

I would like to thank Dr. Jayne Brandel for the wisdom, encouragement, and patience she has provided me since my undergraduate career. She has inspired me to be an ambitious thinker and an advocate for myself as well as others. Thank you for inviting me into the SALAD lab, jump-starting my passion for research, and always believing in my potential. The relationship we have developed over the past 6 years is truly cherished. I will miss the chaos.

I would also like to thank my committee members, Dr. Michelle Moore and Dr. Alexandra Hollo, for their expertise, time, and feedback. Your support and insight allowed me to refocus on the “bigger picture” when I was too consumed by specific details. I want to extend my appreciation to Allegra Cornaglia for always encouraging me to recognize my abilities and believing in me. She extended an invitation to be a part of the SALAD lab and essentially began my journey to where I am today.

Lastly, I would like to thank my family and friends for always supporting me in my endeavors, despite how crazy. All of the love and encouragement has shaped me into the person I am today.
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Chapter I: Introduction and Review of the Literature

Individualized Education Programs (IEP), mandated within the Individuals with Disabilities Education Act (IDEA, 2004), were developed to enhance the learning process for students with disabilities (Goodman, 1993). These programs serve as the guide for meeting the specific learning needs of an individual student by setting academically relevant and measurable goals. The intent of the IEP is to provide a framework to assist the student in becoming independent and acquiring skills needed to graduate. Goals within an IEP framework should be focused on intervention relative to improving curriculum outcomes and monitoring student progress regularly as mandated by federal law (IDEA, 2004).

Within clinical treatment programs, goals serve as the backbone, influencing aspects such as treatment selection, facilitation techniques utilized, and intensity of services. Creating measurable, personalized goals provides students with treatment that is student-centered and tailored to meet their needs. Despite the usefulness and importance of goal-writing, 88% of school staff reported a lack of training in IEP goal mandates (Giangrecco, 1994). It is likely that this lack of training is the reason that IEP goals and objectives have been observed to often be vague, broad, inconsistent, and ineffective in attending to students’ educational needs (Ott & Wakefield, 2016; Musyoka & Diane, 2017; Rosborough & Brandel, 2020).

Requirements of IEP Goals

To craft a measurable goal, it is important to reference the initial assessment, case history, and interviews with the client and/or family to identify the aspects of the communication disorder which are inhibiting the student’s ability to successfully access and achieve grade-level academic skills. Reviewing each of these components will aid the clinician to identify academic areas where the communication disorder is inhibiting success so that instructional planning and monitoring of progress is associated with student-specific areas of need. Hedin & DeSpain (2018) suggest that all goals should include four overarching components: learner, conditions, behavior, and criteria. Each of these areas helps to ensure the goal is objective and measurable.

Inclusion of the learner, the first requirement, suggests that all goals should include the student’s name to assure the goals are individually created for that student. The inclusion of the condition as the second requirement means that each goal should specifically state the context or activity (e.g., during circle time with peers) in which students will be evaluated in relation to their progress in meeting the goal. In addition to the specification of the activity, the context should also include the level and amount of assistance that will be provided during the activity (e.g., independently or provided verbal cues). Another aspect of IEP goals is the target behavior. This specification should be clearly stated and observable, meaning that the skill is something that can be seen and/or heard with limited subjectivity (e.g., retell a narrative with 4 of 5 story grammar elements). When writing IEP goals, it is recommended that overt verbs (i.e., open and observable verbs) are used to ensure the goal’s objectivity but also to increase the probability that those on the team agree on what the student is expected to do. The last requirement is the criterion, or level the client will achieve in order to meet the goal. This aspect can be referred to as measurability and pertains to the number of times or how often students must achieve a mastery level to demonstrate skill acquisition (e.g., in 4 of 5 opportunities or over three consecutive sessions).
To assist in the development of individualized goals, IDEA requires that IEPs be developed by a team consisting of the child, the child’s guardians, a classroom teacher, and relevant special education providers such as the speech-language pathologist (SLPs), as well as other service providers who are needed to assist the student in their academic development. Team meetings should discuss and prioritize skills most important for the student to acquire the skills being targeted within the academic setting. When selecting the skills or knowledge to address within the IEP, the team should consider the student’s strengths and needs, the learning standards, the age appropriateness, and the areas with the greatest potential impact across contexts, including home and school (Konrad, 2008; Spiel, et al., 2014). The selected behaviors are then integrated into the child’s IEP within the goals which are developed by the IEP team.

Quality of IEP Goals

Given the integral role that goals have within the student’s IEP and potential to impact the student’s educational performance, research related to the quality of goals has been completed over the past 30 years. Giangreco and colleagues (1994) examined the characteristics of IEPs written for 46 students with deaf-blindness who were educated in general education classes. The participants were from nine different states and enrolled in kindergarten through twelfth grade. Based upon the categorical coding of the students’ goals, several themes were identified regarding the characteristics of the goals included on the IEPs. The first trend observed was that the goals were frequently broad, for example, "Peter will improve communication skills.” Giangreco and colleagues (1994) also noted goals that were inconsistent and inadequately referenced to the general education context, such as "Molly will improve social skills" or "Juan will improve self-care skills.” Researchers also observed that goals were frequently related to tasks to be completed by the staff rather than a skill for the student to achieve. For instance, a goal such as “Medication will be administered to Carey during the school day” is not related to the student achieving an academic standard or skill, but rather, an activity that the school staff complete daily. These goals lacked an attainable learning outcome and individualization as they do not include information related to the specific skill being targeted associated with communication, social skill, or self-care. In addition, the lack of specification relative to the expected level of achievement and how these skills would be measured limited the ability to determine whether the goal had or had not been met. The last theme the authors identified was that most goals included in the students’ IEPs were discipline specific. Discipline-specific goals are those which are highly focused on skills valued within a professional framework such as speech-language pathology, occupational therapy, or physical therapy. These goals are often identifiable due to the frequency of professional jargon included (e.g., ...increase bilabial lip posturing, lip movement, and lateralization). Goals which are discipline specific may create a barrier between the IEP team members as those not within the discipline are not able to contribute to or participate in the work needed to be done so the student will meet the goal.

More recently, another study was conducted by Farquharson and colleagues (2014) to examine the quality of IEPs related to students with speech sound disorders. This group utilized the Revised IEP Goals and Objectives Rating Instrument (R-GORI), a rubric, to assess goal quality. The rubric included the following goal criteria: Functionality, Generality, Instructional Context, Measurability, Daily Tasks, and Clarity of Goals. Participants in this study were a subset of students enrolled in a larger study of speech-language therapy practices in public
In the larger study, the goal was to examine relations between aspects of speech-language therapy and child outcomes for primary school children with speech and language impairments. To acquire the goals that were evaluated, speech-language pathologists were recruited from public schools. Each clinician provided three to five children with speech and language impairments from their caseloads. Within the smaller study, using the R-GORI, the researchers examined the quality of IEP goals that targeted speech sound disorders, such that goals receiving higher score totals were considered to be better than those with lower scores.

Using the R-GORI, the total obtainable score for long-term goals was six and for short-term goals was seven total points. Long-term goals had an average score of 2.86 (SD = 1.96) and short-term goals had an average score of 3.32 (SD = 1.71) (Farquharson et al., 2014). When the authors examined the individual scores earned for each of the rubric’s criteria that were evaluated, there was variability. However, the authors noted that two indicators for the goals were consistently rated higher, Functionality and Generalizability, whereas Daily Tasks and Clarity of Goals were consistently rated lower.

Expanding on the previous research by Farquharson et al. (2014) which specifically focused on goals related to speech sound disorders, Rosborough and Brandel (2020) completed a similar study examining IEP goals written for students in West Virginia public schools who had language goals. A total of 240 de-identified IEP goals were collected and analyzed. A modified version of the R-GORI (Table 1) was used to evaluate the quality of goals provided. The rubric was based on two previously published studies (Notari, 1988; Farquharson et al., 2014) and was modified to focus on the utilization of academic-based IEP goals. Consequently, functionality, student’s name, context (level of assistance and environment), wording (verb choice and clarity), and timeframe were added. Generalizability, daily tasks, and clarity of goals were not included due to overlap observed in the previous definitions provided. Other modifications from the original R-GORI were the scoring method for each criterion. These previous studies had scored the features dichotomously (1=the goal is representative of that indicator, 0= the goal is not representative of that indicator), while the study conducted by Rosborough & Brandel (2020) used a 3-point scale (0, 1, 2) with zero being not present, one emerging, and two being present. This change was made to allow for differentiation of criteria that may be present but not at the highest level recommended.

Using the modified rubric, goals could earn up to 16 total points with higher total scores perceived to indicate a better-quality goal as compared to those goals with lower scores. The average score for the 240 goals that were evaluated was 10.08 (SD=2.21), although a range of total scores was observed from four to 15 (Rosborough & Brandel, 2020). The greatest percentage of goals (i.e., 74.7%) earned a rating of eight to 12, indicating that the majority of areas in each goal were rated as emerging. Clinicians consistently included client name, timeframe, and measurability in goals. However, from the goals collected, target behavior (17.7% not present & 45% emerging), context (17.2% not present & 75.1% emerging), verb choice (7.2% not present & 79.4% emerging), professional language (26.3% not present & 41.6% emerging) and functionality (2.4% not present & 96.2% emerging) were generally scored lower (Rosborough & Brandel, 2020). Results for Rosborough & Brandel (2020) were consistent with that of Farquharson and colleagues (2014) despite the goals collected pertaining to different aspects of communication (i.e., language and articulation goals). Based on these
studies, it is evident that most aspects of goal writing are emerging and there is an opportunity to improve the quality of goals with professional development activities focused on goal writing.

**Professional Development**

As part of any professional’s ongoing growth in knowledge and skills, continuing education is often completed. Speech-language pathologists (SLPs) as well as other educational professionals frequently participate in courses or other activities to meet ongoing requirements related to professional development. Professional development refers to clinically relevant, instructional activities that practicing clinicians partake in to ensure they are remaining up-to-date on current evidence-based assessments and treatment approaches. Historically, the majority of professional development opportunities have been one-day, in-service workshops, sessions at a professional conference, or online trainings. Although widely popular, these events have not been observed to be effective at facilitating the transfer of the workshop content to changes in day-to-day practice. Blank (2013) suggested that meaningful professional development should be organized differently. Multi-faceted professional learning activities completed over a longer duration of time can improve professional learning. These trainings would include follow-up activities to assist in implementation. Trainings which include a variety of learning activities with follow-up activities have been observed to be more efficacious for changing educators’ skills than the stand-alone workshop format, whether in-person or online.

Lowman (2016) conducted a study to investigate the effectiveness of three different staff development mechanisms simultaneously. Forty-nine practicing clinicians in school systems participated and were randomly assigned to one of the three groups: (1) web-based instruction with no supervision, (2) workshop only, and (3) attendance at a workshop followed by online peer coaching. Each group received the same training materials and concluded the study with a review of the scoring rubric that would be used to evaluate participants’ objectives. Overall, results suggested that regardless of the delivery mechanism, training improved the quality of written objectives immediately following training. This level of performance was maintained for 2-months post-training for all cohorts. After further analysis, it was observed that the individuals in the workshop only group and peer coaching group wrote significantly higher quality objectives compared to the participants in the web-based instruction group. The online cohort’s goal writing did not improve as much, which may be explained in part to a static presentation; materials were presented in text form accessed via a password protected website. As the online material was accessed via a website, there was no opportunity for participants to ask questions or interact with others. Because of the inability for the learner to engage actively with the presentation, the clinician may have had more difficulty transferring the content to clinical practice due to the asynchronous delivery mechanism and types of activities included.

**Learning**

In recent years, research related to adult learning has identified key concepts which result in learning that is more efficient and effective. Integrating these concepts or underpinnings in the design of instructional activities can guide effective learning for adults. Strategies to include are repetition, distribution, and rehearsal. Repetition is the recurrence of a stimuli, meaning that information is presented multiple times throughout the materials. In learning, repetition and
excitement can reinforce the quality and quantity of neuronal connections and, ultimately, the retention of information and skills (Mahan & Stein, 2014). By continuously activating neuronal pathways, the cortex will begin to recognize the pathway as automatic and therefore make it more efficient. Researchers have also stated that when learning opportunities are distributed over time, there is an increase in the effectiveness of adult learning because of the ongoing immersion which occurs over time (Trivette et al., 2009). Therefore, based upon these studies professional development activities that actively engage the adult learner and are distributed over a longer period would increase retention.

The last component for effective adult learning recommended to include is rehearsal. Visualization and mental rehearsal are other neurobiological markers of effective learning to integrate into adult learning activities. These markers are implemented when students or professionals use imagined scenarios or cases to facilitate cognitive modifications. This process has associated patterned activation of neural circuitry pathways in the brain and thus can be attributed to significant increases in the efficiency and effectiveness of the learning process (Mahan & Stein, 2014). Trivette and colleagues (2009) conducted a study that further supports the efficacy of visualization and mental rehearsal. Findings from the study suggested that a combination of real-life application, role-plays, and problem-solving tasks was the most effective method for engaging learners in the use of the newly learned knowledge. Neurobiologists have also demonstrated that when learning involves multiple domains (e.g., cognitive, affective, psychomotor), stronger and longer effects are noted (Mahan & Stein, 2014). Hence, when teaching adult learners, including activities that involve learning functions from multiple domains tend to yield stronger, positive results.

Another aspect to consider when designing adult learning activities is explicit application of the new information to activities within their daily activities. This is referred to as transfer of learning and is the intentional application of newly acquired knowledge or skills to real-world scenarios. There is strong evidence that transfer of learning can be enhanced through attention to affective context, focus on future assessment requirements, and reflection on connections during the learning experience (Mahan & Stein, 2014). Based upon this information related to adult learning, effective professional development activities for speech-language pathologists should be repetitive, distributed over a period of time, include activities to practice or rehearse the learned skill, and explicitly address how the skill would be integrated into their daily clinical practice within the schools.

**Professional Development & IEPs**

Specific to the IEP process, trainings are often organized for school-based special education providers. Based upon IDEA (2004), goals within the school setting should be academically relevant, meaning that the targeted skill or behavior can be tied to the academic standards for that student. Recently, the Common Core State Standards (2010) or the state’s academic standards have provided an opportunity for alignment between IEP goals and the academic expectations of students. However, due to the ever-changing status of IEP goals and the state standards, the full integration of these specific expectations has been impeded. In 2015, 88% of school staff reported a lack of training in IEP goal mandates (Ott & Wakefield, 2016). Even though these mandates were required, the majority of practicing professionals lacked the necessary training
for integration into practice to occur. To date, goal writing is a task that clinicians struggle with and may benefit from having specific training to improve the quality of goals included in IEPs (Farquharson et al., 2014; Giangreco et al., 1994; Musyoka & Clark, 2017; Rosborough & Brandel, 2020).

Chapter II: Present Study

Purpose

Goal writing is the cornerstone for effective treatment. The behaviors or skills that a client will work to improve, the context in which the behavior or skill should be done, and how progress will be documented are outlined within a well-written IEP goal. However, research has observed that many goals lack the specificity needed to provide this structure for treatment and progress monitoring (Farquharson et al, 2014; Pretti-Frontcak & Bricker, 2000; Rosborough & Brandel, 2020). Therefore, the purpose of this study was to assess the quality of a training program designed to train practitioners to use a tool for evaluating IEP goals using online, self-paced training modules. The specific research questions asked were:

1. Do clinicians demonstrate an improved ability to evaluate goals using a rubric after completing online, self-paced learning modules?
2. Are there differences in the quality of goals written after completing the online, self-paced learning modules?

Predictions

In Rosborough & Brandel’s (2020) study, the majority of goals analyzed (i.e., 74.7%) earned ratings of 8 - 12. These scores indicate that the majority of components in each goal were rated as emerging. Based on these results, it was expected that pre-training goals for the current study would receive a total score of 10 and be considered emerging in most goal components. Specifically, target behavior, context, verb choice, professional language, and functionality were expected to be scored lower.

Based on previous research findings, the training outcomes were predicted to be similar to those of the Pretti-Frontcak & Bricker (2000) and Lowman (2016) studies. Specifically, post-training goals were expected to be higher quality than pre-training goals. Lowman’s study (2016) also specifically investigated the effectiveness of three different staff development mechanisms simultaneously: web-based learning, workshop only, and workshop coupled with peer coaching that was conducted online. Results indicated that the workshop-only group and peer coaching group wrote higher quality objectives. Therefore, due to the interactive nature of the online modules in the current study, it was expected that post-training goals would have better outcomes than in the previous work.

Chapter III: Methods

This study involved the participation of practicing, school-based clinicians in self-paced online training modules, the completion of two surveys, and the completion of a pre-training and post-training assessment. As such, the Institutional Review Board (IRB) classified this research as Not Human Subjects Research (NHSR) / Flex.
Participants

Practicing speech-language pathologists (SLPs) in the State of West Virginia were recruited through word of mouth and social media platforms to participate in the research study. Criteria to qualify as a participant were that SLPs needed to be: (a) currently working in a West Virginia school, (b) willing to participate in a self-paced online training, and (c) willing to provide self-written goals pre- and post-study.

A pre-written message and cover letter was sent to SLPs who had previously participated in the focus group to share with their professional acquaintances. Of the 16 SLPs who began to participate in the research study, fifteen completed the pre-training assessment, and 11 initiated the first training module. Of the 11 who initiated the training modules, five school-based SLPs completed the pre- and post-assessment and all of the training modules in their entirety. The remainder of this paper will examine the results of these five SLPs.

All five participating SLPs had completed their master’s degree in speech-language pathology between 2013 to 2021 and had been working in a school setting from less than a year to eight years (Table 1). The average caseload size was 47.5 students (range = 40 to more than 90 students) after adjusting the caseload for the one SLP who was working part-time. Three of the five SLPs reported having training for goal writing. One had participated in in-person tutorials (e.g., conference), and two had instruction within their graduate school program. To assist with their goal writing, one SLP reported using the SMARTER goal book (Ott & Wakefield, 2016) and two used a goal bank. The remaining SLPs did not indicate using additional or resources when writing goals for the students on their caseload.

Table 3.1. Participant Demographics

<table>
<thead>
<tr>
<th>Participant</th>
<th>Completion of Graduate Degree</th>
<th>Years of Experience</th>
<th>Caseload Size</th>
<th>Previous training on goal writing</th>
<th>Tools used for goal writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2021</td>
<td>&lt;1 year</td>
<td>55</td>
<td>No</td>
<td>SMART Goals</td>
</tr>
<tr>
<td>B</td>
<td>2016</td>
<td>5 years</td>
<td>60+</td>
<td>Yes</td>
<td>None reported</td>
</tr>
<tr>
<td>C</td>
<td>2020</td>
<td>1.5 years</td>
<td>20</td>
<td>Yes</td>
<td>Online goal bank</td>
</tr>
<tr>
<td>D</td>
<td>2018</td>
<td>4 years</td>
<td>90+</td>
<td>Yes</td>
<td>Online goal bank</td>
</tr>
<tr>
<td>E</td>
<td>2013</td>
<td>8 years</td>
<td>75</td>
<td>No</td>
<td>None reported</td>
</tr>
</tbody>
</table>

Professional Development Training Activities

The study consisted of a pre-post design where participants completed an assessment of knowledge and skills regarding effective goal writing (Appendix A). The pre-training data collection included two components: a demographics survey and a knowledge and skills exam. A demographics survey was completed to gather information regarding years of experience, caseload size, participating in previous trainings on goal writing, and collection of three IEP goals the participant had written themselves. The knowledge exam (Appendix A) was administered to each participant to assess baseline knowledge of goals, ability to rate IEP goals,
and to compose a goal for four cases (one case each with a speech, language, fluency, or voice disorder).

Following the completion of the online knowledge assessment, the participants completed the seven interactive training modules (Appendix B). Each participant completed the trainings at their own pace using the online application Pear Deck (www.peardeck.com). Upon completion each participant was prompted to fill out a post-training assessment. The survey included questions asking participants for feedback on the training modules, their confidence in relation to goal writing, comprehension questions, the quality of the opportunities to rate provided goals, the activities to write goals for four cases (one from each area of speech-language), and questions designed to collect three re-written goals from their caseload.

**Instructional Tools**

*Rubric for Evaluating Goals*

The training modules for this study were anchored in the use of the R-GORI rubric, which has been used to evaluate speech and language goals in previous research. The present project utilized the modified R-GORI rubric (Table 3.2) curated by Rosborough & Brandel (2020). This rubric included 10 criteria to examine goal quality including functionality, measurability, student’s name, target behavior, measurability, context (level of assistance and environment), wording (verb choice and clarity), and timeframe. A 3-point rating scale (0, 1, 2) was used to allow for differentiation of criteria that were emerging but not fully present. Based upon the rubric, goals could earn up to 16 total points with higher total scores considered to be a better-quality goal as compared to those with lower scores.
<table>
<thead>
<tr>
<th>Component</th>
<th>2 Points Present</th>
<th>1 Point Emerging</th>
<th>0 Points Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client/Student</td>
<td>Client/Student name provided in goal.</td>
<td>Description: Timeframe is clearly stated with a month, day, and year.</td>
<td>Description: Timeframe is not present or specific.</td>
</tr>
<tr>
<td>Timeframe</td>
<td><strong>Description</strong>: Timeframe is clearly stated with a month, day, and year.</td>
<td></td>
<td>Component(s) of timeframe (month, day, year) is missing.</td>
</tr>
<tr>
<td>Context (a) Environment/Activity</td>
<td><strong>Description</strong>: Specifically states the environment or context in which the client will be evaluated on progress and it is understandable to the reader.</td>
<td>Description: Information is provided but is incomplete or vague resulting in inconsistency in monitoring of progress.</td>
<td>Description: No information provided about where or how to complete task to monitor progress.</td>
</tr>
<tr>
<td>Example: Provided a passage, Mary will circle the noun in each sentence with one-word cues in 9 out of 10 opportunities by October 20, 2019 (ELA.1.40).</td>
<td>Example: During a reading activity, Mary will circle the noun in each sentence with one-word cues in 9 out of 10 opportunities by October 20, 2019 (ELA.1.40).</td>
<td>Example: Mary will circle the noun in each sentence with one-word cues in 9 out of 10 opportunities by October 20, 2019 (ELA.1.40).</td>
<td></td>
</tr>
</tbody>
</table>

Just stating ‘one verbal cue’ is not specific enough to allow the reader a clear understanding, as this may mean different things for each clinician.
<table>
<thead>
<tr>
<th>Context (b) Level of Assistance (Cues or Prompting)</th>
<th><strong>Description:</strong></th>
<th><strong>Description:</strong></th>
<th><strong>Description:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level of assistance needed when completing task is clearly stated (e.g., independently or cueing hierarchy to be used or prompting that will be done).</td>
<td>Level of assistance is addressed but vague (i.e., cues mentioned but not specified).</td>
<td>No indication provided relative to the level of assistance needed when monitoring client progress.</td>
</tr>
<tr>
<td><strong>Example:</strong></td>
<td>Provided one-word cues Anda passage, Mary will circle the noun in each sentence in 9 out of 10 opportunities by October 20, 2019 (ELA.1.40).</td>
<td><strong>Example:</strong> Provided verbal cues and a passage, Mary will circle the noun in each sentence in 9 out of 10 opportunities by October 20, 2019 (ELA.1.40).</td>
<td><strong>Example:</strong> Provided a passage, Mary will circle the noun in each sentence in 9 out of 10 opportunities by October 20, 2019 (ELA.1.40).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target Behavior</th>
<th><strong>Description:</strong></th>
<th><strong>Description:</strong></th>
<th><strong>Description:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One clearly stated, observable, specific behavior that has been selected to change is stated.</td>
<td>More than one specific target behavior is stated per goal. OR The behavior being worked on is not clearly or specifically identified.</td>
<td>The target behavior is broad and unable to be objectively measured.</td>
</tr>
<tr>
<td><strong>Example:</strong></td>
<td>Provided one-word cues and a passage, Mary will circle the noun in each sentence in 9 out of 10 opportunities by October 20, 2019 (ELA.1.40).</td>
<td><strong>Example:</strong> Provided one-word cues and a passage, Mary will circle the noun in each sentence and state what each noun means in 9 out of 10 opportunities by October 20, 2019 (ELA.1.40).</td>
<td><strong>Example:</strong> Working on expressive language, receptive language, improved speech, etc.</td>
</tr>
</tbody>
</table>

*Included observable because RGORI says it must be seen or heard.*
<table>
<thead>
<tr>
<th></th>
<th>Measurability</th>
<th>Wording</th>
<th>Verb Choice</th>
<th>Clarity (Professional Language)</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>The unit of measurement matches the target behavior and aligns with a clear data collection system that is appropriate.</td>
<td><strong>Description:</strong></td>
<td>Specific, observable verb that correlates with the target behavior.</td>
<td><strong>Description:</strong></td>
<td><strong>Description:</strong></td>
</tr>
<tr>
<td><strong>Example:</strong></td>
<td>In the classroom, Johnny will write a narrative when provided with a single one-word cue with 5 of the 6 story grammar elements by October 15, 2019 (ELA.4.22).</td>
<td><strong>Example:</strong></td>
<td>Draw, state, read aloud</td>
<td><strong>Description:</strong></td>
<td><strong>Description:</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Description:</strong> The criterion is stated but is unclear/too complex or does not align with the target behavior.</td>
<td><strong>Example:</strong></td>
<td>Create, produce, identify</td>
<td><strong>Description:</strong></td>
<td><strong>Description:</strong></td>
</tr>
<tr>
<td></td>
<td>In the classroom, Johnny will write a narrative when provided with a single one-word cue with 80% accuracy by October 15, 2019 (ELA.4.22).</td>
<td><strong>Example:</strong></td>
<td>Metacognitive verbs: Engage in, think about, understand</td>
<td><strong>Description:</strong></td>
<td><strong>Description:</strong></td>
</tr>
<tr>
<td></td>
<td>No specific criteria are stated.</td>
<td><strong>Example:</strong></td>
<td>Words and phrases are used that are unprofessional (e.g., a lot, more, some).</td>
<td><strong>Description:</strong></td>
<td><strong>Description:</strong></td>
</tr>
<tr>
<td></td>
<td>In the classroom, Johnny will write a narrative when provided with a single one-word cue by October 15, 2019 (ELA.4.22).</td>
<td><strong>Example:</strong></td>
<td>Target a skill or task is not related to academic performance or activities completed within the normal curriculum.</td>
<td><strong>Description:</strong></td>
<td><strong>Description:</strong></td>
</tr>
</tbody>
</table>
Training Modules

Prior to initiating the project, an advisory panel comprised of practicing school-based clinicians completed the pre- and post-assessment activities as well as the training modules. The advisory panel completed the six original modules and were asked to consider the importance of goals and training on goals. During the meeting, the panel was asked to provide feedback on content and presentation for the modules. Overall, feedback from the clinician-based panel was positive regarding the topic of goal writing as well as the manner in which the information was presented. The pace and applied activities were reported as being effective in providing the new information as well as providing opportunities for application. Two primary recommendations for changes were made. First, the clinicians recommended that the case study used throughout the series of modules be modified to more clearly reflect a school-aged student. Therefore, the primary case was changed from a two-year-old child to 4-year-old Kindergarten student. Second, the SLPs encouraged the authors to develop an additional module to be added as the final module which would directly link the content in the original modules to real-world IEP documentation in West Virginia. This additional module was added and is described below.

The training modules (Appendix B) used in this study were created based on findings from Rosborough & Brandel (2020) to provide a review of all aspects of IEP goals. Modules also provided focused instruction on the elements that earned consistently low ratings in the prior study. Approximately 75% of the goals from the 2020 study earned ratings of 8 - 12 points out of the possible 16 points. Overall, the goals received were objective but also observed to be inefficient and vague related to methods for monitoring progress and the target behavior. An example of this common pattern in the goals provided was noted in the goal, ‘the STUDENT will demonstrate sufficient classroom discourse skills for producing and comprehending information using a variety of modalities to be able to interact appropriately with teacher(s) and peers and to do passing work academically.’ This goal lacks specificity in the target behavior because “sufficient classroom discourse skills” does not clearly identify what skill needs to be developed. There are also two behaviors present because both production and comprehension are expected to improve within the same goal. Last, methods for monitoring progress would lack reliability and validity because the goal specifies evaluating progress in a variety of modalities with teachers and peers with the broad and unmeasurable criteria of “passing” academic work. Hence, the training modules focused on creating functional, measurable goals with a single target behavior that is specific to the client.

A total of seven training modules were created, each of which focused on a specific requirement for goal writing. Based on findings from Rosborough & Brandel (2020), components that consistently scored high were combined in a single module to review, while lower scoring components had individual modules. Since these trainings were developed for school-based SLPs, the seventh and final module provided instructions related to application of the rubric to goal writing within IEPs. This module contained completed examples, guided examples, and independent practice for participants. This provided an opportunity to apply knowledge learned from previous modules to real-world documentation commonly used in school systems. Module seven specifically addressed visualization, active engagement, and reward aspects of learning, which all have strong, positive associations with learning.
Data Analysis

Due to the limited number of participants, descriptive statistics were used to depict the quality of the IEP goals included in the study for the cumulative goal score as well as the individual ratings for each component prior to and after completion of the study. Raw scores and percent correct responses describe pre- and post-scores on the knowledge assessments as well as the ratings assigned to provided goals. Finally, means and standard deviations were used to explain any differences in goals written for each of four main areas of speech and language before and after completion of the training modules. No official interrater or inter-rater reliability was established and blinding was not included in this study.

Chapter IV: Results

Question 1: SLP Evaluation of Goals
Foundational Knowledge and Skills Assessment

Each participant completed foundational knowledge questions in the pre-assessment as well as the post-assessment (Appendix A). These questions overlapped in content to assess the growth in shared knowledge for each participant. Of the five participants, four had increases in scores from pre-assessment to post-assessment (Table 4.1). For the pre-assessment quiz, scores across participants ranged from 33% to 83% accuracy with an average of 60% accuracy. After completing the training modules, the average participant score increased to an overall average of 74% (range = 67-100%). One participant earned a lower post-assessment score with an initial score of 83% and 67% after completing the modules.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Q6</th>
<th>TOTAL SCORE</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>TOTAL SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>50%</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>67%</td>
</tr>
<tr>
<td>B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>33%</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>67%</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>83%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>83%</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>67%</td>
</tr>
<tr>
<td>E</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>50%</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>67%</td>
</tr>
</tbody>
</table>

Note. A score of 1 signifies the participant answered the question correctly. A score of 0 indicates that the participant did not answer the question correctly.

When examining specific questions on the pre- and post-assessment, SLPs continued to miss some questions more frequently than others. None of the SLPs were able to identify all components of a goal prior to the training modules and four of these continued to be unable to list the components following the completion of the training modules. Other questions which overlapped in content from the pre- to post-assessment were identifying the purpose of a goal and distinguishing between covert and overt verbs. All SLPs were able to provide accurate definitions of covert and overt goals on the pre and post assessment. Two SLPs identified the purpose of a goal correctly prior to the training modules and all five did so after the modules.
Performance on Formative Assessments of Knowledge in Training Modules

Each training module (Appendix B) included embedded formative assessment questions to monitor the progress of all participants. Module 1 focused on introducing short-term goals. Of the five participants, four achieved 100% accuracy on the questions, while one SLP scored a 50% (Table 4.2). When examining specific questions from the module, all SLPs were able to identify the purpose of a short-term goal and four of the participants were able to determine how short-term goals should be written (i.e., behaviorally). The second module introduced functionality as it relates to short-term goals. Scores for rating functionality in a provided goal had an average of 50% and ranged from 0% to 100% over the course of the module (Table 4.2).

Target behavior and verb choice were the two components reviewed in Module 3. Scores across participants ranged from 58.33% to 66.67% accuracy with an average of 65% accuracy (Table 4.2). When analyzing specific questions from the module, identification of target behavior and verb choice in goals remained a strength with four of the five participants. Four of the five participants accurately rated target behavior in a provided goal, while one participant accurately rated verb choice.

Module 4 (Table 4.2) was dedicated to context related to the environment/activity, as well as the level of assistance to provide the client during progress monitoring. An average of 68.33% of the questions were answered correctly (range = 33.33% to 91.67%) by participants within this module. Three of the five participants accurately identified context components in a provided goal. Of the five participants, four accurately rated environmental context, while only three were able to correctly rate context in regard to assistance level.

Measurability of short-term goals was presented in module 5 (Table 4.2). Scores for the embedded questions across the participants ranged from 63.3% to 90% accuracy with an average of 78.32% accuracy. Prior to training, three of the five participants were able to effectively identify three components (i.e., measurability, timeframe, student name) within a provided goal. When provided a second opportunity to accurately identify three components, all SLPs were able to do so. Within this module on measurability, individuals also rated four different components (i.e., measurability, timeframe, student name, and clarity) within provided goals. Four of the five SLPs accurately rated measurability and after being provided justification for the first score, all participants accurately rated measurability. Similarly, all participants were unable to correctly rate timeframe, but after hearing an explanation for the first rating, accuracy was 100%. Rating the student name component continues to be a strength for participants as evidenced by 100% accuracy. Of the five participants, one was able to accurately rate clarity on the initial presentation. When the opportunity was presented again, four of five SLPs were able to rate the component correctly.

Module 6 was created to provide holistic practice opportunities for participants. Within the module, each SLP is tasked with rating all components of a short-term goal. The average accuracy for accurately rating each component is 57.04% (range = 48.15% to 70.37%) (Table 4.2). The average accuracies for each short-term goal component indicate that student name, timeframe, functionality and verb choice were consistently present for all goals as evidenced by their higher averages. Target behavior, measurability, and clarity were components rated around
the median, indicating inconsistency and emergence (Table 4.3). Based on averages, context and clarity were constantly rated lower.

The final module in the training provided instruction for application of the information to school-based services. Participants were required to correctly sort and place goal components onto a West Virginia IEP form. The overall accuracy for this task was 86% (range = 70% to 100%). When further examining accuracies for each component, it was noted that timeframe, measurability, and target behavior were correctly placed by all 5 or 4 SLPs (Table 4.3). Environmental context and context related to assistance level continued to be more challenging as evidenced by lower accuracies by the participants on these tasks (Table 4.4).

Table 4.2. Average Percent Correct on Foundational Questions in Each Module

<table>
<thead>
<tr>
<th>Participant</th>
<th>Mod 1 Intro to STG</th>
<th>Mod 2 F</th>
<th>Mod 3 TB and VC</th>
<th>Mod 4 C in STGs</th>
<th>Mod 5 M in STGs</th>
<th>Mod 6 PIT</th>
<th>Mod 7 IEP App</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>50%</td>
<td>0%</td>
<td>58.33%</td>
<td>66.67%</td>
<td>78.3</td>
<td>48.15%</td>
<td>70%</td>
</tr>
<tr>
<td>B</td>
<td>100%</td>
<td>50%</td>
<td>66.67%</td>
<td>66.67%</td>
<td>90.00%</td>
<td>48.15%</td>
<td>100%</td>
</tr>
<tr>
<td>C</td>
<td>100%</td>
<td>100%</td>
<td>66.67%</td>
<td>91.67%</td>
<td>80.00%</td>
<td>70.37%</td>
<td>100%</td>
</tr>
<tr>
<td>D</td>
<td>100%</td>
<td>50%</td>
<td>66.67%</td>
<td>83.33%</td>
<td>80.00%</td>
<td>59.26%</td>
<td>80%</td>
</tr>
<tr>
<td>E</td>
<td>100%</td>
<td>50%</td>
<td>66.67%</td>
<td>33.33%</td>
<td>63.30%</td>
<td>59.26%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Table 4.3. Average Accuracy of Rating in Module 6 – Putting It Together

<table>
<thead>
<tr>
<th>TB</th>
<th>VC</th>
<th>F</th>
<th>C-E</th>
<th>C-A</th>
<th>TF</th>
<th>M</th>
<th>SN</th>
<th>CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>50.00%</td>
<td>60.00%</td>
<td>66.67%</td>
<td>33.33%</td>
<td>33.33%</td>
<td>86.67%</td>
<td>53.33%</td>
<td>93.33%</td>
<td>40.00%</td>
</tr>
</tbody>
</table>

Note. TB (target behavior); VC (verb choice); F (functionality); C-E (environmental context); C-A (assistance level context); TF (timeframe); M (measurability); SN (student name); C (clarity)

Table 4.4. Module 7 Data: Average Accuracy for Each Component

<table>
<thead>
<tr>
<th>TF</th>
<th>M</th>
<th>C-E</th>
<th>C-A</th>
<th>TB</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.00%</td>
<td>90.00%</td>
<td>70.00%</td>
<td>70.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Note. TF (timeframe); M (measurability); C-E (environmental context); C-A (assistance level context); TB (target behavior)

Evaluation of Provided Goals

Participants were required to rate goal components in the pre- and post-assessment for the training. Scores across participants ranged from 33% to 67% for the pre-assessment with an average of 50% accuracy. After the training was completed, the overall average for accuracy decreased from 50% to 43% (range = 33% to 50%). Two participants earned a higher post-assessment score, while accuracy for the other three participants decreased (Table 4.5).

When examining short-term goal components on the pre- and post-assessments, there were patterns in participant responses. Four of the SLPs were unable to accurately rate verb choice in
a provided goal prior to the training modules and four of the participants continued to be unable to rate the component following the completion of the training modules. Post-assessment accuracy for measurability, clarity, and environmental context all decreased from the pre-assessment scores. Prior to training completion, two participants accurately rated the measurability component in provided goals. After training, only one SLP rated the component correctly. Similarly, the amount of SLPs to accurately rate clarity decreased by 20% from pre-to post-assessment (Pre: 80% & Post: 40%). Four participants were able to accurately rate target behavior after completing the training modules, which is an increase when compared to the pre-assessment (1 individual accurately rated TB). Context in regard to level of assistance remained a strength as evidenced by all SLPs accurately rating the component in the pre- and post-assessments. This increase in accuracy differs for environmental context as evidenced by no participant accurately rating the component in the post-assessment, while 2 SLPs were able in the pre-assessment.

**Table 4.5. SLP’s Rating of Goals Provided in Pre- and Post-Assessment**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Training</th>
<th>TB</th>
<th>VC</th>
<th>M</th>
<th>C</th>
<th>EC</th>
<th>AC</th>
<th>Total Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Pre-Training</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td>Post Training</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>B</td>
<td>Pre-Training</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Post Training</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>50%</td>
</tr>
<tr>
<td>C</td>
<td>Pre-Training</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>67%</td>
</tr>
<tr>
<td></td>
<td>Post Training</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>50%</td>
</tr>
<tr>
<td>D</td>
<td>Pre-Training</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Post Training</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>E</td>
<td>Pre-Training</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>Post Training</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>50%</td>
</tr>
<tr>
<td>Average</td>
<td>Pre-Training</td>
<td>20%</td>
<td>20%</td>
<td>40%</td>
<td>80%</td>
<td>40%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post Training</td>
<td>80%</td>
<td>20%</td>
<td>20%</td>
<td>40%</td>
<td>0%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

*Note. A score of 1 indicates the participant rated the goal component accurately and a score of 0 points means the participant did not rate the goal component accurately.*

**Question 2: Goal Writing**

To evaluate the application of the training modules to the SLP’s own ability to create goals, participants provided self-generated goals from two different tasks. The first task occurred within the pre- and post-assessment by providing the SLPs four case studies at each time. From these case studies, the participant was instructed to create a goal. The second manner for examining their application of knowledge was through the evaluation of goals the SLPs had generated on actual IEPs, both prior to training and after the training was completed.

**Goal Writing from Case Studies**

To further assess the effectiveness of the online training during the post assessment, each participant generated four goals based on case studies for specific speech domains: morphosyntax, pragmatics, articulation, and fluency. Prior to completing the training modules, the average score achieved across all domains was 9.9 (range = 9.4 – 10.8). These scores
increased in the post-assessment as evidenced by an average score of 12.6 (range = 11.6 – 13.85) (Table 4.6).

**Table 4.6.** Overall Average Rating of SLP Goals Written from Case Studies

<table>
<thead>
<tr>
<th>Speech/Language Domain</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphosyntax</td>
<td>9.6</td>
<td>11.6</td>
</tr>
<tr>
<td>Fluency</td>
<td>10.8</td>
<td>13.85</td>
</tr>
<tr>
<td>Articulation</td>
<td>9.4</td>
<td>12.2</td>
</tr>
<tr>
<td>Semantics and Pragmatics</td>
<td>9.8</td>
<td>12.6</td>
</tr>
</tbody>
</table>

*Note. The total possible points a goal can achieve is 18.*  
*Note. The values in this table are averages across all participants.*

The average ratings for pre-assessment goal components (Table 4.7) indicated that student name and clarity were consistently rated present for all goals with respective scores of 2 and 1.65. In contrast, context (level of assistance), target behavior, measurability, verb choice and functionality all had average ratings slightly above or below one, indicating that these components were not as consistent within the goals. Within the goals submitted prior to training, timeframe and context (environmental) scored lower with respective scores of 0 and 0.7. Several of the goal components earned higher scores in goals submitted after the training was completed. The exceptions to this are measurability and functionality; these components can be considered stagnant as they decreased slightly in score (difference is 0.1 to 0.25). This indicates that the components are not commonly included in goals and were resistant to change after completing the training modules.

**Table 4.7.** Overall Average Rating of Goal Categories for SLP’s Written Goals

<table>
<thead>
<tr>
<th>Goal Component</th>
<th>Pre-Assessment Averages</th>
<th>Post-Assessment Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>SN</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>TF</td>
<td>0</td>
<td>1.3</td>
</tr>
<tr>
<td>C-E</td>
<td>0.95</td>
<td>1.6</td>
</tr>
<tr>
<td>C-A</td>
<td>0.7</td>
<td>0.85</td>
</tr>
<tr>
<td>TB</td>
<td>1.15</td>
<td>1.7</td>
</tr>
<tr>
<td>M</td>
<td>1.3</td>
<td>1.05</td>
</tr>
<tr>
<td>VC</td>
<td>0.95</td>
<td>1.65</td>
</tr>
<tr>
<td>CL</td>
<td>1.65</td>
<td>1.9</td>
</tr>
<tr>
<td>F</td>
<td>1.2</td>
<td>1.1</td>
</tr>
</tbody>
</table>

*Note. The values in this table are averages across participants and goals.*  
*Note. TB (target behavior); VC (verb choice); F (functionality); C-E (environmental context); C-A (assistance level context); TF (timeframe); M (measurability); SN (student name); C (clarity)*

**IEP Goals Written by the SLPs**

All participants submitted three goals written on an IEP before completing the training modules and another set of goals after the modules were done. Based upon the author’s ratings of these goals using the modified R-GORI (Table 3.2), four of the five SLPs had an increase in their average overall score following the training modules (Table 4.8). The average score earned for
the goals submitted prior to training was 10.24 out of a possible 18 points (Range = 7 to 12). Post-assessment scores increased to an average earned rating of 11.84 (range = 9.6 to 13). Examining the changes across the five participants, four of the participating SLPs earned higher average scores after completing the modules. The average change from pre-assessment to post-assessment scores is 1.6 (range = 0 to 3.4).

Prior to the SLPs completing the training modules, student name, target behavior, and clarity components were consistently evaluated as being present (average earned scores 1.55 to 2.00). In contrast, evaluation of the goals’ context (level of assistance), measurability, and verb choice had an average rating slightly above or below one, indicating that these components were not consistent within the goals. The lowest scoring components from pre-training goals were timeframe, context (environmental), and functionality (Table 4.9). Data collected from the post-assessment indicates that student name, target behavior, and clarity remained present within goals while context (level of assistance) and verb choice increased in ratings. Components that had slightly lower scores compared to pre-training goals were context (environmental) and measurability. When compared to pre-assessment ratings, measurability remained stagnant demonstrating its resistance to training. However, environmental context was able to improve and earn an average rating, suggesting the component is emerging. The lowest scoring components remained timeframe and functionality which implies these components are resistive to the current training modules (Table 4.9).

### Table 4.8. Overall Rating of IEP Goals Provided by the SLPs

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre-Training Scores</th>
<th>Average Score</th>
<th>Post-Training Scores</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>10</td>
<td>6</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>B</td>
<td>11</td>
<td>11</td>
<td>13</td>
<td>11.6</td>
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<tr>
<td>C</td>
<td>11</td>
<td>9</td>
<td>8</td>
<td>9.6</td>
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<tr>
<td>D</td>
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<tr>
<td>E</td>
<td>12</td>
<td>10</td>
<td>NA</td>
<td>11</td>
</tr>
</tbody>
</table>

*Note. The total possible points a goal can achieve is 18.*

### Table 4.9. Overall Average Rating of Goal Categories for IEP Goals Provided by SLP

<table>
<thead>
<tr>
<th>Goal Component</th>
<th>Pre-Assessment Averages</th>
<th>Post-Assessment Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>SN</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>TF</td>
<td>0.00</td>
<td>0.47</td>
</tr>
<tr>
<td>C-E</td>
<td>1.00</td>
<td>1.45</td>
</tr>
<tr>
<td>C-A</td>
<td>0.78</td>
<td>0.85</td>
</tr>
<tr>
<td>TB</td>
<td>1.63</td>
<td>1.53</td>
</tr>
<tr>
<td>M</td>
<td>1.22</td>
<td>1.25</td>
</tr>
<tr>
<td>VC</td>
<td>1.08</td>
<td>1.40</td>
</tr>
<tr>
<td>CL</td>
<td>1.55</td>
<td>2.00</td>
</tr>
<tr>
<td>F</td>
<td>0.83</td>
<td>1.00</td>
</tr>
<tr>
<td>Totals</td>
<td>9.47</td>
<td>10.33</td>
</tr>
</tbody>
</table>

*Note. The values in this table were calculated by averaging each participant’s 3 IEP goals and then averaging the totals for all participants.*
Chapter V: Discussion

The purpose of this research was to examine the efficacy of an online, self-paced training focused on goal writing, as well as evaluate differences between pre- and post-assessments. Overall, the participants who completed the training modules demonstrated knowledge gains on aspects of goal writing that should be included in IEPs as well as their reliability in evaluating goals using the R-GORI. Additionally, the SLPs demonstrated improvements in their ability to create goals which were rated higher on average for clarity, functionality, and measurability after completing the modules. However, despite these gains in some aspects of goal writing, there were areas (i.e., timeframe and context – level of assistance) that were not improved as a result of the training modules.

These results align with those of Pretti-Frontcak & Bricker (2000), as an online training offered helped increase goal quality for clinicians. Different instructional tools were used in the mentioned studies, however, both yielded improvements in goal writing quality. Meanwhile, the results varied in Lowman’s 2016 study which indicated that online training yielded minimal improvement, especially when compared to an in-person training (i.e., one-day conferences) or an in-person training accompanied with mentoring. This difference can be contributed to the interactive nature of the present study’s content. The Lowman study utilized a web page to organize information for training, which provided a static learning opportunity. In the current study, interactive slides containing voiceover, examples, and individualized practice were provided and used for training purposes. The training modules included in this study also provided feedback to further target the reward aspect of learning. Application-based opportunities with real-world documentation were also included to further support professional adult learning.

The initial IEP goals collected from the pre-assessment broadly aligned with multiple studies that have been conducted over the past 30 years, all of which stated that goals were broad, inconsistent, and ineffectual (Farquharson et al., 2014; Giangrecco et al., 1994; Pretti-Frontcak & Bricker, 2000; Rosborough & Brandel, 2020). The clarity of goals was consistently rated lower than other required goal components throughout studies. However, the average rating for clarity in the pre-assessment indicated an emerging concept in goals submitted. The post-assessment average of clarity increased to hit the ceiling of total possible points, suggesting the component can be influenced by training. Functionality is another aspect of goal writing that previous studies indicate is typically absent. Rosborough & Brandel’s (2020) findings indicated that goals were unlikely to be functional, which is supported by two other studies (Giangrecco, 1994; Pretti-Frontcak & Bricker, 2000). This contrasts with Farquharson and colleagues (2014) findings which suggested that most goals provided were functional and generalizable. The variation in results could be a consequence of variations in the methods of each study. Other aspects of goals like verb choice, measurability, environmental context were commonly rated higher. Despite the few differences in results, there are numerous similarities of goal writing
within all of these studies over a 26-year gap. This demonstrates that practice has not changed greatly, in that, similar elements of goal writing are still found to be ineffective.

Components previously considered lower scoring in other studies were observed to improve. Functionality increased in rating from pre- to post-assessment, placing it amongst other emerging aspects. Clarity was also examined closely as it is frequently considered absent from goals. In the current project, ratings of clarity increased from pre- to post-assessment. The average indicated that clarity is always present among goals. The difference from previous research may be due to a change in the wording on the modified R-GORI. In previous research clarity was rated regarding having a well-defined direction; the aspect was rated highly if it was clear to the reader. In the newest version of the modified R-GORI, the element is rated on word order and punctuation, which could account for a higher scoring. Of the 9 rating categories, one decreased from pre- to post-assessment, target behavior. Based on the post-assessment average score for target behavior, it is still considered an emerging to present element as the average is between a rating of 1 and 2 (post-average = 1.53). Meanwhile, other components that previous studies initially observed to be poorer, such as context (level of assistance) remained a lower rated aspect. Timeframe also remained one of the lowest scoring components. This suggests that context regarding levels of assistance and timeframe may be resistant to the training modules created.

All of the training modules utilized in this project were created based on findings from previous studies, as well as the neurobiological underpinnings of adult learning. A total of seven training modules were created, each of which focused on a specific requirement for goal writing. A single training module was dedicated for each component that consistently rated lower in Rosborough & Brandel’s study (2020), while higher scoring elements were combined into a single module. Based on the data collected, timeframe and context (level of assistance) remained low scoring components after the training was completed. Consequently, those modules need to be re-evaluated for future research to determine what aspects of the modules need adjusted in an effort to improve learning. Alterations could include incorporating more practice opportunities, more instruction, or adding both.

Blank (2013) suggests that meaningful professional development should be organized to include multi-faceted activities that utilize the neurobiological underpinnings of learning. Consequently, each module included in the online trainings considered and implemented the neurobiological underpinnings of learning, including repetition, distribution of practice, rehearsal, and transfer of learning. Repetition was built into the training modules through constant reiterations of content in the voiceover audio, multiple practice examples, and displaying content (i.e., the rubric for rating goals) numerous times within each module. The effects of distribution during learning were also considered. Hence, the training was self-paced to allow for dispersal of content over time. This was also to increase motivation, decrease stress, and accommodate time constraints often experienced by working professionals. Rehearsal and visualization were incorporated into the modules by combining explicit content with opportunities to problem solve, answer questions, and rehearse skills. The last consideration when creating these modules that was intentionally incorporated was to specifically address the need for carryover and maintenance of the new skills and knowledge into their daily clinical practice. The sixth module focused solely on application of the newly acquired skills and
knowledge associated with the goal rubric to real-world documentation. Extended application of concepts and skills, as well as follow-up are missing from this training. These are two aspects of adult learning that have been proven to yield better results and should be capitalized on in future research (Mahan & Stein, 2014).

**Limitations and Future Research**

The low number of participants in the current project is certainly a limitation. The attenuation rate is particularly concerning: although 16 SLPs began training, only five completed all of the modules. In the future, there would need to be incentives for SLPs to complete the project in its entirety so as to fully examine the quality of the professional development activities. Future research may consider expanding inclusion criteria for participants to include those in surrounding states (i.e., Maryland, Virginia, and Pennsylvania). This may be an effective way for the authors to expand the pool of participants. If this is done, there will need to be considerations on how to effectively adapt the seventh module (i.e., IEP application) to generalize to other states. Another strategy for increasing participation is offering monetary incentives for each module completed with increasing payouts at the conclusion of the study. Continuing education credits may also be offered to those who complete the training in its entirety.

The current study’s findings should be interpreted with caution as there are various limitations regarding assessment of participants. The first of which being that more pre and post assessment general comprehension questions should be included in the surveys to better assess their knowledge prior to and after training. The general comprehension check questions should also be the same in both surveys but presented in a random order to permit the ability to directly assess learning.

The preassessment and post assessment utilized for this study included a goal rating portion to assess the participant’s ability to effectively evaluate the quality of goals. However, each component rated was from a different goal, which could have impacted the ability for individuals to demonstrate their knowledge in that there was not consistency of the goal when rating a specific aspect. This could have distracted from the actual task. With future training assessments before and after the instruction, it is advised that participants be provided the opportunity to evaluate all aspects of the one goal.

Another aspect that may have impacted the findings of the present project was that, within the pre and post assessments, participants were tasked with composing goals based on case studies. This task was intended to assess if quality of goals generated by the SLPs after the training changed. However, the current assessments used different case studies for the pre and post assessment. It is possible that the case study impacted the goal that was written rather than the SLPs knowledge and skill related to goal writing. Including the same case studies in the pre- and post-assessments would limit the cognitive load required of each individual, thus taking away from the demand of understanding a new case each time. Future research may consist of the same and new case studies in the post-assessment to evaluate foundational knowledge and generalization of skills learned.
The research related to adult learning and clinical training emphasize the importance of frequent and multiple opportunities to practice (Mahan & Stein, 2014). Based on the data for specific aspects of the rubric, modules targeting functionality, measurability, and context should include more opportunities for practice. Although there were various author-led examples, there were fewer self-led opportunities for practice. By including more practice trials, the modules may support the neurophysiology of learning given that repetition has been shown to reinforce the quality and quantity of neuronal connections and, ultimately, the retention of information and skills (Mahan & Stein, 2014). Another aspect that should be considered in future studies is providing handouts to participants for each module, such as the rubric being used to evaluate goals. Providing handouts and the rubric may assist participants in active listening and note taking for future reference within and outside of the study. Providing individual links to each module also would be beneficial, to improve navigation, ensure continuous access to the training and decreases the risk of participants losing their work. To further support adult learning, touch points should be included within each module. These “touch points” will suggest if a participant is ready to move on or should review the module.

One final aspect that could improve the instructional materials in future iterations of this professional development program would be to create an eighth Pear Deck module that is a dedicated review for all information covered throughout the training. This module would include additional goals that are evaluated as well as opportunities for the SLP to write goals, evaluate their goal using the rubric, and then make modifications in the goal based upon the ratings.

Conclusion

Educational goals serve as the backbone for treatment and provide clinicians the information needed to track student progress. Creating measurable, personalized goals assists in addressing the need for individuals to receive tailored material and provides guidance as to how to monitor progress. The data collected from Rosborough & Brandel’s (2020) study indicated a need for improved consistency across SLPs in the content included in a goal as well as the manner in which the goal is written. The current study implemented training modules focused on improving the knowledge of SLPs related to goal writing as well as providing them a tool to use when writing goals for clients on their caseload. Results from the study should be interpreted with caution, but suggest that the self-paced, online training is effective in increasing foundational knowledge, evaluation of goals, and composition of measurable goals.
References


APPENDIX A: SURVEYS AND ASSESSMENTS
Initial Survey

Start of Block: Block 1

Q17 Hello!

Thank you for your interest in the current study. The purpose of this study is to examine whether self-paced modules effectively increase SLP knowledge of the components of well-written IEP goals, improves the SLP’s ability to utilize a rubric for evaluating the quality of goals, and whether goals written after the completion of the modules are improved relative to the aspects included in the training modules.

As a participant, you will be asked to complete a demographics survey, pre-assessment, the online training modules, and a post-assessment. All of these steps will be self-paced at the participant's discretion.

If you are willing to continue, please select yes. If you no longer wish to participate, please select no.

  ○ Yes (1)
  ○ No (2)

Skip To: End of Survey If Hello! Thank you for your interest in the current study. The purpose of this study is to examine... = No

End of Block: Block 1

Start of Block: Default Question Block

Display This Question:
  If Hello! Thank you for your interest in the current study. The purpose of this study is to examine... = Yes

Q1 In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother's maiden name, (2) mother's birth month, and (3) your birth year. (Example: Brown_January_1998)

________________________________________________________________

Q18 Please enter your email address here for updates and reminder for this study. The email address provided will be stored in a password protected excel file, which will only be accessible to
the administrator. Other than reminders to complete the survey, the email address will never be used in the study.

End of Block: Default Question Block

Demographics and Initial Goals

Start of Block: Default Question Block

Q1 In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother's maiden name, (2) mother's birth month, and (3) your birth year. (Example: Brown_January_1998)

Q2 When did you earn your Master's degree?

Q3 How many years have you been a practicing clinician since graduating with a Master's degree?

Q4 How many years of experience do you have working in schools?

Q5 What grade levels do you work with?

Q6 What is your caseload size?

Q7 Do you work full-time or part-time?
Q8 How many students are in your school district?

________________________________________________________________

Page Break

Q9 Have you had previous training for goal writing?

☐ Yes (1)

☐ No (2)

Q10 If you selected yes, please choose all of the trainings you have participated in.

☐ Online tutorials (1)

☐ In-person tutorials (2)

☐ Conferences (3)

☐ ASHA certified course (4) _____________________________________________

☐ Other (5) _____________________________________________

Page Break

Q11 Rate your confidence in goal writing.

0 10 20 30 40 50 60 70 80 90 100

Click to write Choice 1 ()

Q12 Please provide the last 3 goals you have written.

________________________________________________________________
Q13 What, if anything, are you using to help you write goals?

- Online goal bank (1)
- SMART goals (2)
- GORI or R-GORI (3)
- Other (4) ________________________________
- Nothing (5)

Q14 What software system do you use for goal writing and IEPs?

- Click to write Choice 1 (1)
- Click to write Choice 2 (2)
- Click to write Choice 3 (3)

Page Break

Q15 To better help you navigate the training modules, please watch this short tutorial on how to use PearDeck.

https://www.youtube.com/watch?v=OW8qAQ61dRU

Q17 Now that you have finished the demographics portion of this survey, you will now be redirected to the pre-training assessment.

End of Block: Default Question Block
Pre-Training Assessment

Start of Block: Default Question Block

In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother’s maiden name, (2) mother’s birth month, and (3) your birth year. (Example: Brown_January_1998)

End of Block: Default Question Block

Start of Block: Block 1

Q2 What is the purpose of a goal?

- To direct intervention (1)
- To permit 3rd party reimbursement (2)
- To measure client progress (3)
- All of the above (4)

Q3 In your own words, define functionality.

Q4 Please list all of the necessary components that belong in a short-term goal.

Q5 What type of verb should be used when writing observable, measurable goals?

- Overt verbs (1)
- Covert verbs (2)

Q6 What could happen if a target behavior is not clearly stated?
Q7 What does context refer to?

- Cues given to the client (1)
- Location of the activity (2)
- Activity completed (3)
- Only B and C (4)
- All of the above (5)

End of Block: Block 1

Start of Block: Block 2

Q8 Rate the target behavior to the best of your ability (higher scores = higher quality)

Sarah will participate in turn-taking with the therapist for 5 turns per opportunity with a minimum of 5 opportunities across 3 data collections.

- 1 (1)
- 2 (2)
- 3 (3)

Q9 Rate the verb choice to the best of your ability (higher scores = higher quality)

Given 15 sentences with “bumpy” or “smooth” speech, Sarah will identify if the clinician’s speech is “bumpy” or “smooth” with 80% accuracy in 4 out of 5 opportunities.

- 1 (1)
- 2 (2)
- Click to write Choice 3 (3)
Q10 Rate the measurability to the best of your ability (higher scores = higher quality)

Given 20 words and a verbal model, STUDENT will articulate the sound of /f/ at the syllable level with 80% accuracy in 4 out of 5 opportunities.

- 1 (1)
- 2 (2)
- 3 (3)

Q11 Rate the clarity to the best of your ability (higher scores = higher quality)

Nolan will state a logical answer to what another person might be feeling based about a social situation with 80% accuracy for 3 data collections.

- 1 (1)
- 2 (2)
- 3 (3)

Q12 Rate the environmental context to the best of your ability (higher scores = higher quality)

Given a communication partner, Brad will spontaneously make a request or greet a peer or teacher using augmentative symbols or device with 80% accuracy in 4 out of 5 opportunities.

- 1 (1)
- 2 (2)
- 3 (3)

Q13 Rate the assistance/prompting context to the best of your ability (higher scores = higher quality)
Given a story read aloud, Hannah will select the picture of the verb that tells the action with 80% accuracy in 4 out of 5 opportunities.

- 1 (1)
- 2 (2)
- 3 (3)

End of Block: Block 2

Start of Block: Block 3

Q14 Cohen has been receiving speech-language intervention since he was three years of age. He is now 8 years and 2 months. Cohen demonstrates mild, generalized deficits in semantics, morphosyntax, and oral and written narrative skills. His parents expressed that their main goal is wanting their son to begin using more grammatical sentences so he 'sounds more grown up.'

Please write a short-term goal based on the case provided.

________________________________________________________________

Q15 A 14-year-old male (John) presents with a 10-year history of stuttering. In addition to increased speech disfluencies (repetitions, prolongations, and blocks), he also exhibits avoidance of words and speaking situations and has a difficult time starting conversations with people. He limits his participation in social and academic settings. He exhibits increased physical tension and secondary behaviors (e.g., eye blinking, head nodding, hand tapping, etc.) during stuttering episodes.

Please write a short-term goal based on the case provided.

________________________________________________________________

Q16 Sophie was referred by her preschool teacher at age five years. Outside-the-family listeners were understanding about 50 per cent of what she said, well below the norm of 100 per cent understandable speech by age four years. Sophie was making mistakes on the early developing speech sounds “k, g, f, as well as others. Her mistakes were errors of substitution, so that she used a “p” for “f,” a “t” for “k,” and a “d” for “g.” Sophie was making these mistakes in all parts of words, so that “fun” was “pun,” ‘office” was ‘opice,” and “leaf” was “leap.”
Q17 Brett is a 7-year-old boy. Upon evaluation, you notice that his speech is extremely literal and characterized by a monotonic voice quality and an occasional pronoun reversal. Brett's parents explain that he does speak and is able to make his needs known; however, his language is odd and the others do not usually play with him. Brett pursues activities that he can do on his own and remains isolated. During group activities, he often does not say anything and avoid eye contact.

Please write a short-term goal based on the case provided.

---

End of Block: Block 3
Post-Training Assessment

Start of Block: Default Question Block

Q23 In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother's maiden name, (2) mother's birth month, and (3) your birth year. (Example: Brown_January_1998)

Page Break

Q1 Rate your confidence in goal-writing after completing the trainings.

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<tr>
<th></th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
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</tbody>
</table>

Click to write Choice 1 ()

End of Block: Default Question Block

Start of Block: Block 1

Q2 Please provide 3 goals you have re-written after the trainings.

End of Block: Block 1

Start of Block: Block 1

Q3 What did you like about the online training?

Q4 What could be improved in the online trainings?

End of Block: Block 1

Start of Block: Block 1

Q5 Rate your learning from the online trainings.

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</table>

Click to write Choice 1 ()

End of Block: Block 1
Q6 What is the purpose of a goal?
   ○ To direct intervention (1)
   ○ To permit 3rd party intervention (2)
   ○ To measure client progress (3)
   ○ All of the above (4)

Q7 List the necessary components that belong in a short-term goal.

Q8 Please provide the definition of an overt verb as well as an example.

Start of Block: Block 3

Q9 Rate the target behavior in this goal (higher scores = higher quality)

Given a picture and two verbal prompts, Clarissa will use regular past tense -ed with 80% accuracy by September 20, 2021.

   ○ 1 (1)
   ○ 2 (2)
   ○ 3 (3)

Q10 Rate the verb choice in this goal (higher scores = higher quality)

   By October 30, 2022, Nicole will independently and appropriately respond to wh-
questions with 80% accuracy in the classroom.

- 1 (1)
- 2 (2)
- 3 (3)

Q11 Rate the measurability in this goal (higher scores = higher quality)

By December 5 2021, Tom will imitate a target model of voiceless /th/ in initial position of CVC words with 80% accuracy in consecutive sessions.

- 1 (1)
- 2 (2)
- 3 (3)

Q12 Rate the context (environmental) in this goal (higher scores = higher quality)

Given 1 verbal cue, Thor will combine 2 symbols to make requests or comments in 70% of opportunities during a semi-structured activity (e.g. Mr. Potato Head).

- 1 (1)
- 2 (2)
- 3 (3)

Q13 Rate the context (level of assistance/cues) in this goal (higher scores = higher quality)

When given a multiple-meaning word, Isaac will state two different meanings of the word
provided one verbal cue with 80% accuracy over three consecutive sessions.

1 (1)
2 (2)
3 (3)

Q14 Rate the clarity in this goal (higher scores = higher quality)

By February 2nd 2022, Joe will independently share stuttering facts with a peer from school during recess or class.

1 (1)
2 (2)
3 (3)

End of Block: Block 3

Start of Block: Block 4

Q15 Jessica was referred by her parents to a local university speech and hearing clinic that served as a training site for speech-language pathology students. At this time Jessica was 10 years, 3 months of age and enrolled in the fourth grade. After you complete your evaluation, the working diagnosis for Jessica is SLI.

Create a short-term goal based on the case presented.

Q16 You are working with a 4-year-old boy, DeShawn, using a direct therapy approach. He is demonstrating significant negative reactions toward his speech including walking away and hiding from his siblings because they tease him about his speech. Parents are not 100% on board with direct therapy and would prefer stuttering not be mentioned.

Create a short-term goal based on the case provided.

Q17
Brandon is a 7-year-old male that was just added to your case load. His parents wanted him seen
by a SLP due to a phonological process. During your evaluation you noted deaffrication during sentences and connected speech. He has become withdrawn from class activities and his peers.

Create a short-term goal based on the case provided.

Q18
Sierra is a 10-year-old female who has been diagnosed with Autism Spectrum Disorder. Sierra engages in conversation with family and friends, but is often unable to maintain it for long. Upon your evaluation, you note this and also observe that Sierra has difficulty with understanding social cues during play with her mother. When family/friends do not understand, Sierra becomes extremely frustrated and stops communicating.

Create a short-term goal based on the case provided.

End of Block: Block 4

Start of Block: Block 5

Q20 Would you be willing to submit 3 new goals in 3 months?

○ Yes (1)
○ No (2)

Display This Question:
If Would you be willing to submit 3 new goals in 3 months? = Yes

Q21 Thank you for your willingness to provide 3 new goals in 3 months. Is the administrator allowed to use your email to contact you after the 3-month period?

○ Yes (1)
○ No (2)
Q19 Do you want to participate in an online social media group that focuses on various aspects of goal writing?

○ Yes (1)
○ No (2)

Display This Question:
If Do you want to participate in an online social media group that focuses on various aspects of goal writing... = Yes

Q22 We are excited to include you in our social media community!

Within this social media page, professionals who have completed the training are able to openly talk about goal writing and work together to create more functional, observable goals. Here is the link for our page: ______.

See you in there!

End of Block: Block 5
APPENDIX B: TRAINING MODULES
Module 1: Introduction to Short-Term Goals

In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother’s maiden name, (2) mother’s birth month, and (3) your birth year. (Example: Brown_January_1998)

Learning Objectives

- Describe: Describe the purpose for writing short-term goals
- Identify: Identify key components of goal writing
- Analyze: Analyze the completeness and functionality of short-term goals

Big Picture

- Individualized and Client-centered
- Address impairment and/or participation
- Measure progress
- Reflect EBP intervention
- Include accountability for 3rd party reimbursement

<table>
<thead>
<tr>
<th>Behavior</th>
<th>2 Points Present</th>
<th>1 Point Emerging</th>
<th>0 Points Not Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Behavior (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekly Choice (2)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Functionality (3)</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Behavior</th>
<th>2 Points Present</th>
<th>1 Point Emerging</th>
<th>0 Points Not Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context (4a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Assistance (4b)</td>
<td></td>
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</tbody>
</table>

Example: Provide a passage, Mary will circle the noun in each sentence with one word in 5 out of 10 opportunities by October 23, 2019 (SLA 1.40).

Example: Provide a passage, Mary will circle the noun in each sentence with one word in 5 out of 10 opportunities by October 23, 2019 (SLA 1.40).
What is the Purpose of a Goal?

All of the above

- To direct intervention
- To permit 3rd party reimbursement
- To measure client progress

How are short-term goals written?

- Should be individualized, and client centered.
- Address impairment and/or participation.
- Direct therapeutic activities and interventions.
- Measure client progress.
- Include accountability for third party reimbursement.
- Reflect evidence-based intervention.

Short-term goals are written behaviorally. This means that they should be objective and measurable.
Module 2: Functionality and the Short-Term Goal

In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother’s maiden name, (2) mother’s birth month, and (3) your birth year. (Example: Brown, January, 1998)

Learning Objectives

- Define what is meant by a functional short-term goal.
- Explain the four components of determining goal functionality for the individual client.
- Identify the functional component of the short-term goal.

Big Picture

- Facilitates skill development
- Supports individual activity participation
- Helps maintain a skill needed for activity participation
- Is a high priority to the client or family

The ICF Framework

- Developed by the World Health Organization
- A framework for understanding functioning and disability from a health condition on an individual’s life, activities, and participation

Application of ICF in Short-Term Goals

- This framework gives us the big picture and allows us to make short term goals that are person-centered and functional.
- To determine functionality:
  - Interviews
  - Contextual factors
  - Activities of daily living being affected
  - Application of assessment results
  - Structure
  - Participation information
  - Confirm priority with client and client and/or family
By August 21, 2021 Tommy will independently greet a peer during structured group time by using physical proximity and eye contact in at least 4 out of 6 opportunities (SE.PK.13 & SE.PK.7).

By August 21, 2021 using readings from class-assigned novels, Steve will accurately, verbally explain metaphors in 3 out of 5 opportunities during structured teaching activities with 1 verbal cue (ELA.4.40).

Evaluating Goals for Functionality

<table>
<thead>
<tr>
<th>Behavior</th>
<th>2 Points Present</th>
<th>1 Point Emerging</th>
<th>6 Points Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functionality (3)</td>
<td>Includes skills or tasks that will increase independence. The skill can be utilized across a variety of settings and targets the client’s activity and participation.</td>
<td>Targets a skill or task that is or could be considered functional but must be interpreted or applied by the reader.</td>
<td>Targets a skill or task that is not related to academic performance or activities completed within the normal curriculum.</td>
</tr>
</tbody>
</table>

Using his AAC device, John will independently request help in the classroom during activities of daily living in 90% of opportunities by October 15, 2021 (SE.PK.4).

By February 12, 2021 Samantha will correctly place her electrolarynx while reading single words aloud in 9 out of 10 opportunities with 1 verbal cue.

By February 12, 2021 Samantha will correctly place her electrolarynx while reading single words aloud in 9 out of 10 opportunities with 1 verbal cue. This goal would be rated a 2 because it supports individual activity and participation in everyday activities.

By February 12, 2021 Samantha will correctly place her electrolarynx while reading single words aloud in 9 out of 10 opportunities with 1 verbal cue. This goal would be rated a 1 because although it is working on correct placement for communication, people don’t typically speak in single words.
Rate the **Functionality** of this Goal

By August 12, 2021 Maya will verbally answer one question during circle time at school for 3 consecutive days, independently (SE.PK.18 & ELA.K.35).

Rate the **Functionality** of this Goal

By August 12, 2021 Maya will verbally answer one question during circle time at school for 3 consecutive days, independently (SE.PK.18 & ELA.K.35).

Rate the **Functionality** of this Goal

By April 20, 2021 Xavier will independently produce initial consonant clusters in single words during book reading with his family in 10 out of 15 opportunities (ELA.PK.IV).

Rate the **Functionality** of this Goal

By April 20, 2021 Xavier will independently produce initial consonant clusters in single words during book reading with his family in 10 out of 15 opportunities (ELA.PK.IV).

Case Study Practice

**Case Study**

You have been assigned to treat Keisha in therapy. Keisha is a 4-year-old female recently evaluated in the clinic. Keisha’s receptive language skills have been determined to be within normal limits for her age. However, she demonstrates delays in her expressive language skills. Currently, she is saying fewer than 10 words. Keisha uses simple gestures to make her needs known to her parents. She often is frustrated when they don’t understand what she wants.
What are the activities Keisha participates in every day?

- Keisha must communicate during meal times (requesting her food, asking for assistance, rejecting food). She needs to communicate during her daily routines: getting out of the car, diaper changes, getting dressed, playing with her toys, finding items.
- Keisha’s normal day is in a preschool classroom and daycare setting. She has to ask for toys from other kids, answer in circle time, explore at the art table, communicate during meal time.

What is the family reporting as the most important activity or daily difficulty?

- Family identifies high frustration around food and play activities. She knows exactly what she wants and will scream until the specific item is found. She does not have the language to describe what she wants. They want to enjoy mealtimes and play at home and reduce tantrums.

What are the personal factors and social systems around Keisha?

- Keisha is outgoing and assertive. She is the youngest of 4 children. Her dad stays at home part time. Family members are both college educated and highly motivated to work with her. Older siblings tend to avoid her tantrums.

Does the short term goal’s target behavior address functional needs?

- A goal that could help her acquire more words to request food and toys would help during meal and play activities. It is also important to the family.

Does the short term goal’s context address functional needs?

- It would have to address language development during the times of feeding and play. Otherwise, if she adds words to her vocabulary, but they are only used to label animals in books- then that doesn’t change her ability to participate in an activity of daily living (meal time).
Functional Activities for Keisha

- Requesting during meal time
- Indicates wants during play
- Answer in circle time at preschool

Functional Short Term Goals Should...

- Facilitates skill development.
- Supports individual activity participation.
- Helps maintain a skill needed for activity participation.
- Is high priority to the client or family.

References

- https://www.asha.org/slp/id/
- www.ecta.org
Module 3: Target Behavior and Verb Choice

In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of (1) mother’s maiden name, (2) mother’s birth month, and (3) your birth year. (Example: Brown_January_1998)

Learning Objectives
- Define: Define the purpose of the target behavior in short term goals.
- Evaluate: Evaluate effectiveness of verb selection for describing a target behavior.
- Explain: Explain two ways to “test” the observability of a target behavior.
- Identify: Identify the target behavior within written short term objectives.

Big Picture
- Individualized and important for the client to achieve
- Observable and measurable
  - Seen, heard, felt, etc.
  - Specific enough that another clinician can recognize the action and collect data on that one skill

Big Picture
- Short-term objectives ALWAYS include a target behavior component.
- The target behavior component must serve to achieve the long term goal, reflecting the expected outcomes.
- Because the targeted behavior is observable, patients, other clinicians, and family members know expectations and when a goal is met.
- Third party payers also have an observable measure to determine payment.

Verb Choice:
- Observable Verbs (OVERT)
  - Point
  - Say
  - Recite
  - Read aloud
  - Bite
  - Place
  - Label
  - Write
  - Reach

- Unobservable Verbs (COVERT)
  - Understand
  - Enjoy
  - Know
  - Learn
  - Use
  - Respond to
  - Taste
  - Recall
  - Discriminate
Target Behavior and Carryover

- The target behavior description must be specific enough so that another clinician can recognize the action.
- Check on the observability of the written target behavior
- Act out the behavior as it is written
- Try and make a data sheet
- Could you explain what it looks like or sounds like to a parent or patient

Rating Target Behavior and Verb Choice

<table>
<thead>
<tr>
<th>Behavior</th>
<th>2 Points Present</th>
<th>1 Point Emerging</th>
<th>0 Points Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Behavior (3)</td>
<td>One clearly stated, observable, specific behavior that has been selected to change. Example: Provided a novel case study and a resource. Mary will apply the skills to each sentence in 6 out of 7 opportunities by October 28, 2019 (ELA.1.10).</td>
<td>More than one specific behavior per goal. The behavior is somewhat clearly or specifically identified. Example: Provided a novel case study and a resource. Mary will apply the skills to each sentence in 6 out of 7 opportunities by October 28, 2019 (ELA.1.10).</td>
<td>The target behavior is broad and unable to be objectively measured. Example: Working on expressive language, receptive language, improved speech, etc.</td>
</tr>
<tr>
<td>Verb Choice (2)</td>
<td>Specifically observable verb that correlates with the target behavior. Example: Direct verbs. Data, time, and detail.</td>
<td>Activity verb that either doesn’t align with the target behavior or is ambiguous. Example: Increases, decreases, identifies.</td>
<td>A vague, nonobservable verb that does not correlate with the target behavior. Example: Cautious, introspective, Verbs vague or indirect, understood.</td>
</tr>
</tbody>
</table>

Finding and Rating the Target Behavior

What is the Target Behavior?

By September 5, 2021 Misty will imitate /i/-initial in single CVC words from her school book when given a clinician model, in 27 out of 30 trials over two consecutive sessions (ELA.PK.IV).

Rate the Target Behavior?

By September 5, 2021 Misty will imitate /i/-initial in single CVC words from her school book when given a clinician model, in 27 out of 30 trials over two consecutive sessions (ELA.PK.IV).
Rate Verb Choice?
By September 5, 2021 Misty will imitate /f/-initial in single CVC words from her school book when given a clinician model, in 27 out of 30 trials over two consecutive sessions (ELA.PK.IV).

What is the Target Behavior?
Sam will independently, enjoy playing a turn taking game with a peer in 8 out of 10 of opportunities by October 21, 2021 (SE.PK.15).

Underline the Target Behavior and Circle the Verb
Toby will produce final /k/ spontaneously at the sentence level with 90% accuracy while retelling a story to his peers over three consecutive sessions by August 4, 2021 (ELA.1.IV).

How would you rate the target behavior?
Toby will produce final /k/ spontaneously at the sentence level with 90% accuracy while retelling a story to his peers over three consecutive sessions by August 4, 2021 (ELA.1.IV).

How would you rate the verb choice?
Toby will produce final /k/ spontaneously at the sentence level with 90% accuracy while retelling a story to his peers over three consecutive sessions by August 4, 2021 (ELA.1.IV).

Answer...
Toby will produce final /k/ spontaneously at the sentence level with 90% accuracy while retelling a story to his peers over three consecutive sessions by August 4, 2021 (ELA.1.IV).
Case Study

You have been assigned to treat Keisha in therapy. Keisha is a 4-year-old female recently evaluated in the clinic. Keisha’s receptive language skills have been determined to be within normal limits for her age. However, she demonstrates delays in her expressive language skills. Currently, she is saying fewer than 10 words. Keisha uses simple gestures to make her needs known to her parents. She often is frustrated when they don’t understand what she wants.

What is Keisha’s long-term goal?
- Age appropriate communication

What is age appropriate communication for 30 mo?
- Using phrases and small sentences for a variety of purposes

What is a possible targeted behavior?
- Increasing single word approximations, like verbal requests

Keisha’s long-term goal is age appropriate communication skills.

A short term goal for Keisha is: Keisha will make verbal requests

Is this a targeted behavior? Is it a functional skill?

Keisha’s short-term goal is verbally requesting.

Is this an observable target behavior?
- Yes, I can act this out.
- I can hear it.

Is it a functional skill?
- Yes, the family wants her to request using words and it will help with her behavior.

Target Behaviors Should be...

- Individualized and important for the client to achieve
- Are observable and can be seen/heard/felt and be measured
- Are specific enough that another clinician can recognize the action and collect data on that one skill
Module 4: Context of Short-Term Goals

In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother’s maiden name, (2) mother’s birth month, and (3) your birth year. (Example: Brown_January_1998)

Context of Short-Term Goals

Learning Objectives

1. Identify
2. Evaluate
3. Match
4. Identify

- Identify at least three questions to use to guide decision making for which context component to include in a short-term objective.
- Evaluate the necessity of including a context component.
- Match an appropriate context statement to the target skill.
- Identify the types of contexts within a short-term goal.

Big Picture

- Is individualized and specific to the target behavior
- Reflects client baseline performance and expected outcomes
- Are specific enough another clinician can replicate the conditions allowed
- Can be manipulated for a variety of purposes

Context Component

- Reflects individual client baseline performance.
- Individualized to the short-term goal.
- Variety of context component:
  - Level of assistance: Cueing and prompting, supports or independently/spontaneously
  - Environmental: activities, location, communication partners

Context

Beth will produce initial /s/ in CVC words modeled by the clinician with 90% accuracy on two sets of twenty trials each, over two consecutive sessions by October 4th, 2021 (ELA.PK.IV).

While picking up attendance sheets, Ben will say hello to teachers and office staff independently on at least 4 of 5 presented opportunities, over three consecutive school days by September 15th, 2021 (SE.PK.13).
Rating Context

<table>
<thead>
<tr>
<th>Context</th>
<th>Environment Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Product</td>
</tr>
<tr>
<td>Medium</td>
<td>Product</td>
</tr>
<tr>
<td>Low</td>
<td>Product</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Level of Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extra assistance</td>
</tr>
<tr>
<td>Minimal assistance</td>
</tr>
</tbody>
</table>

Let's practice together

Given a clinician model, Misty will correctly imitate /f/-initial single words (in three 10-word sets) with 90% accuracy over two consecutive sessions (ELA.PK.IV).

Let's practice together

Given a clinician model, Misty will correctly imitate /f/-initial single words (in three 10-word sets) with 90% accuracy over two consecutive sessions (ELA.PK.IV).

Rate the Context

Given a clinician model, Misty will correctly imitate /f/-initial single words (in three 10-word sets) with 90% accuracy over two consecutive sessions (ELA.PK.IV).

How would you rate the context for environment/activity?

Toby will produce final /k/ at the sentence level with 90% accuracy while retelling a story to his peers over three consecutive sessions by January 12th, 2021 (ELA.1.IV).
How would you rate the context for level of assistance?

Toby will produce final /k/ at the sentence level with 90% accuracy while retelling a story to his peers over three consecutive sessions by January 12th, 2021 (ELA.1.IV).

Results?

Toby will produce final /k/ at the sentence level with 90% accuracy while retelling a story to his peers over three consecutive sessions by January 12th, 2021 (ELA.1.IV).

Case Study

You have been assigned to treat Keisha in therapy. Keisha is a 4-year-old female recently evaluated in the clinic. Keisha’s receptive language skills have been determined to be within normal limits for her age. However, she demonstrates delays in her expressive language skills. Currently, she is saying fewer than 10 words. Keisha uses simple gestures to make her needs known to her parents. She often is frustrated when they don’t understand what she wants.

Reviewing Keisha’s Case

- **Long term goal**: Our long-term goal is for Keisha to demonstrate age-appropriate communication skills.
- **Target Behavior**: We know our target behavior is for her to verbally request objects.
  - This goal is functional, as it is important to the parents for Keisha to be able to express wants and needs.
- **Context**?

Planning Context

- What environments are important for her to use the target behavior?
- Who does she need to be able to verbally request the object to?
- How much support does she need to use the target behavior?
- Is the activity or context available to us for measuring progress?
A short term goal for Keisha is:
In an unstructured play setting, Keisha will independently make verbal requests to her mother for objects (food, clothes, toys) in 9 out of 10 opportunities by August 30th, 2021 (SE.PE.4).

What is the context? What is the functionality?

Reviewing the Context Component

- Individualized and specific to the target behavior.
- Reflects client baseline performance and expected outcomes.
- Are specific enough another clinician can replicate the conditions allowed for measuring the target skill as acquired.
- Can be manipulated for a variety of purposes.
Module 5: Timeframe, Measurability, Client Name, and Clarity in Short-Term Goals

In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother’s maiden name, (2) mother’s birth month, and (3) your birth year. (Example: Brown, January, 1998)

Learning Objectives

- Identify at least three ways to establish a criterion for a short-term goal.
- Match an appropriate criterion measurement to the target skill.
- Identify criterion measures written in short-term goals.
- Identify the timeframe written in short-term goals.
- Evaluate the goal quality for aspects of measurability, timeframe, client, and clarity.

Big Picture

- Amount of time expected for a student to demonstrate competence/achievement
- Clearly stated with month, day, and year

Timeframe

Reflects the amount of time that you expect will be required in order for the client to achieve and stabilize the short-term goal.

Individualized to client performance on other goals.

May be mandated by your agency (e.g., IEP, IFSP)
Time Frame

Beth will produce initial /s/ imitatively in CVC words modeled by the clinician with 90% accuracy on two sets of twenty trials each, over two consecutive sessions by July 20, 2020 (ELA.PK.IV).

Toby will produce the singular auxiliary verb /is/ to describe action pictures with 90% accuracy on two sets of 10 trials each, over two consecutive sessions by December 31, 2020 (ELA.K.36).

Measurability

Big Picture

- Is individualized
- Reflects client baseline performance and expected outcomes
- Can be written in several different forms

Measurability Practice

Measurability Practice

While picking up attendance sheets, Ben will say hello to teachers and office staff on 4 of 5 presented opportunities, over three consecutive school days by September 15th, 2021 (SE.PK.13).

With two or fewer prompts, Jimmy will point to his meal choice on the lunch menu within 30 seconds of the server’s question on 3 of 5 lunch meals during the week ending July 3, 2020 (SE.PK.4).
**Rating Timeframe, Measurability, Client/Student, Clarity**

<table>
<thead>
<tr>
<th>Behavior</th>
<th>2 Points Present</th>
<th>1 Point Deeper</th>
<th>0 Points Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timeliness</td>
<td>The end of measurement matches the behavior being targeted and aligns with a clear data collection system that is appropriate for the target behavior.</td>
<td>The endpoint is missed, but it is clear that measurement complex or does not align with the target behavior.</td>
<td>The endpoint is not present or included.</td>
</tr>
<tr>
<td>Measurability</td>
<td>The specific criteria are provided.</td>
<td>The specific criteria are not provided.</td>
<td>The specific criteria are not provided.</td>
</tr>
<tr>
<td>Client/Student</td>
<td>The client/student name is provided.</td>
<td>The client/student name is not provided.</td>
<td>The client/student name is not provided.</td>
</tr>
<tr>
<td>Clarity</td>
<td>The wording is clear and understandable related to the learning, sentence structure used, and organization of items.</td>
<td>The wording is somewhat confusing or organization of goal is confusing.</td>
<td>The wording is clear and understandable related to the learning, sentence structure used, and organization of items.</td>
</tr>
</tbody>
</table>

**Practice**

**Underline measurability component**

Given a clinician model, Misty will correctly imitate /f/-initial single words (in three 10-word sets) with 90% accuracy over two consecutive sessions by August 2020 (ELA.K.IV).

**Circle the timeframe**

Put a square around the client’s name

**Put a square around the client’s name**

**Now Let’s Rate the Measurability of the Goal**

Given a clinician model, Misty will correctly imitate /f/-initial single words (in three 10-word sets) with 90% accuracy over two consecutive sessions by August 2020 (ELA.K.IV).

**Now Let’s Rate the Timeframe**

Given a clinician model, Misty will correctly imitate /f/-initial single words (in three 10-word sets) with 90% accuracy over two consecutive sessions by August 2020 (ELA.K.IV).
Now Let’s Rate the Client

Given a clinician model, Misty will correctly imitate /f/-initial single words (in three 10-word sets) with 90% accuracy over two consecutive sessions by August 2020 (ELA.K.IV).

Now Let’s Rate the Clarity

Given a clinician model, Misty will correctly imitate /f/-initial single words (in three 10-word sets) with 90% accuracy over two consecutive sessions by August 2020 (ELA.K.IV).

What are the Ratings?

Given a clinician model, Misty will correctly imitate /f/-initial single words (in three 10-word sets) with 90% accuracy over two consecutive sessions by August 2020 (ELA.K.IV).

Underline the measurability component

Circle the timeframe

Put a square around the client’s name

Will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions when presented with groups of objects by October 31, 2020 (ELA.K.36).

Let’s Rate the Measurability

Will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions when presented with groups of objects by October 31, 2020 (ELA.K.36).
Let's Rate the Timeframe

Will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions when presented with groups of objects by October 31, 2020 (ELA.K.36).

Let's Rate the Client/Student Name

Will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions when presented with groups of objects by October 31, 2020 (ELA.K.36).

Let's Rate the Clarity

Will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions when presented with groups of objects by October 31, 2020 (ELA.K.36).

Case Study

You have been assigned to treat Keisha in therapy. Keisha is a 4-year-old female recently evaluated. Keisha’s receptive language skills have been determined to be within normal limits for her age. However, she demonstrates delays in her expressive language skills. Currently, she is saying fewer than 10 words. Keisha uses simple gestures to make her needs known to her parents. She often is frustrated when they don’t understand what she wants.
**What is Keisha’s Long-Term Goal?**
- Age appropriate communication

**What is Keisha’s target behavior?**
- Make verbal requests

**What context will be used?**
- An unstructured play setting

**Is this functional?**
- Yes, Keisha’s parents want her to be able to request needs and wants

**When will she achieve this goal?**
- By September 30, 2020

**When or how will we measure progress?**
- Number of verbal attempts

**What is the task we will use in the short-term goal to begin the process of achieving the long-term goal?**
- Need incentives in Keisha’s environment that will motivate her to use verbal requests

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**In an unstructured play setting, Keisha will independently make verbal requests to her mother for objects (food, clothes, toys) in 9 out of 10 opportunities by September 30th, 2020 (SE.PK.4).**

<table>
<thead>
<tr>
<th>Measurement Component</th>
<th>Timeframe</th>
<th>Client Name</th>
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<tbody>
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</table>

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**In Review...**
- Is individualized (client name).
- Reflects client baseline performance and expected outcomes.
- Can be written in several different forms.
- Are well organized
Module 6: Examination of Goals

In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother’s maiden name, (2) mother’s birth month, and (3) your birth year. (Example: Brown_January_1998)

Learning Objectives

- Analyze: Analyze goals using the rubric.
- Describe: Describe how the rubric can facilitate goal writing.
- Discuss: Discuss how goals align with the quality of intervention provided.

Remember

- Individualized
- Address impairment and/or participation barriers
- Measure progress
- Reflect IEP intervention
- Include accountability for 3rd party reimbursement

Table:

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Rubric</th>
<th>Progress</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Behavior (T)</td>
<td>Rubric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functions (F)</td>
<td>Rubric</td>
<td></td>
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</tr>
<tr>
<td>Consequences (C)</td>
<td>Rubric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment (E)</td>
<td>Rubric</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example:

- Target Behavior: "Teaches students to improve reading comprehension".
- Functions: "Improves reading skills".
- Consequences: "Increased reading comprehension".
- Environment: "Reading materials in the classroom".

Example:

- Target Behavior: "Teaches students to improve reading comprehension".
- Functions: "Improves reading skills".
- Consequences: "Increased reading comprehension".
- Environment: "Reading materials in the classroom".

Example:

- Target Behavior: "Teaches students to improve reading comprehension".
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Example:

- Target Behavior: "Teaches students to improve reading comprehension".
- Functions: "Improves reading skills".
- Consequences: "Increased reading comprehension".
- Environment: "Reading materials in the classroom".
Case Study

Keisha’s Goal

In an unstructured play setting, Keisha will independently make verbal requests to her mother for objects (food, clothes, toys) in 9 out of 10 opportunities by September 30th, 2020 (SK.P.K).
How Would You Rate The Timeframe?

When presented with groups of objects, Tomas will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions by March 1, 2021.

Students choose an option

How Would You Rate The Measurability?

When presented with groups of objects, Tomas will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions by March 1, 2021.

Students choose an option

How Would You Rate The Client/Student?

When presented with groups of objects, Tomas will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions by March 1, 2021.

Students choose an option

How Would You Rate The Clarity?

When presented with groups of objects, Tomas will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions by March 1, 2021.

Students choose an option

How Did We Rate The Goal?

When presented with groups of objects, Tomas will use the plural marker /s/ spontaneously with 80% accuracy over two consecutive sessions by March 1, 2021.

- Target Behavior: 2
- Verb Choice: 1
- Functionality: 1
- Context (Environment): 1
- Context (Assistance): 2
- Timeframe: 2
- Measurability: 2
- Client/Student: 2
- Clarity: 2

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.

Students choose an option

How Would You Rate The Target Behavior?
How would you rate the verb choice?

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.

How would you rate the functionality?

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.

How would you rate the context (environment/activity)?

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.

How would you rate the context related to level of assistance?

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.

How would you rate the timeframe?

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.

How would you rate the measurability?

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.
How would you rate the client/student?

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.

How would you rate the clarity?

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.

How Did We Rate The Goal?

By November 2021, using expansions provided by the clinician, John will verbally imitate the mature production 7 out of 10 times.

- Target Behavior: 2
- Verb Choice: 2
- Functionality: 1
- Context (Environment): 0
- Context (Assistance): 1
- Timeframe: 1
- Measurability: 2
- Client/Student: 2
- Clarity: 1

How Would You Rate The Target Behavior?

Given 3 verbal cues, Brooke will identify letter-sound relationships with 80% accuracy by August 7th, 2021.

How Would You Rate The Verb Choice?

Given 3 verbal cues, Brooke will identify letter-sound relationships with 80% accuracy by August 7th, 2021.

How Would You Rate The Functionality?

Given 3 verbal cues, Brooke will identify letter-sound relationships with 80% accuracy by August 7th, 2021.
How Did We Rate the Goal?

Given 3 verbal cues, Brooke will identify letter-sound relationships with 80% accuracy by August 7th, 2021.

- Target Behavior: 1
- Verbal Choice: 1
- Functionality: 2
- Context (Environment): 0
- Context (Assistance): 1
- Timeframe: 2
- Measurability: 1
- Client/Student: 2
- Clarity: 2

Taking It to the Next Level

1. Review the client's file
2. Identify the client and/or family's goal(s)
3. List the 9 parts of the rubric
4. Apply each part to your client
5. Put the 9 pieces together into a short-term goal
6. Review your goal (rate it)
Module 7: Application of Goal Writing for IEPs

In order to keep your personal information anonymous throughout the process, we ask that you create a personalized ID code consisting of your (1) mother's maiden name, (2) mother's birth month, and (3) your birth year. (Example: Brown_January_1998)

Application of Goal Writing for IEPs
Module 7

Learning Objectives

- Identify specific goal components on an IEP form
- Complete an IEP form with all required goal components
- Utilize goal writing rubric to assess work

Taking It to the Next Level

- Review the client's file
- Identify the client and/or family's goal(s)
- List the 9 parts of the rubric
- Apply each part to your client
- Put the 9 pieces together into a short-term goal
- Review your goal (rate it)

Rubric Components

- Timeframe
- Behavior
- Context (assistance & environment)
- Measurability
- Student Name
- Word Choice
- Functionality
- Clarity
Case Study Example

In an unstructured play setting, Keisha will independently make verbal requests to her mother for objects (food, clothes, toys) in 9 out of 10 opportunities by September 30th, 2020 (SE.PK.4).

<table>
<thead>
<tr>
<th>Critical Skill</th>
<th>Timeframe</th>
<th>Condition</th>
<th>Behavior</th>
<th>Evaluation Procedure with Criteria</th>
<th>Mastery/Progress Codes (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>By December 20, 2021</td>
<td>unstructured play setting with her mother independently</td>
<td>Keisha will make verbal requests for objects (i.e., food or toys) in 9 out of 10 opportunities</td>
<td></td>
<td>(SE.PK.4)</td>
</tr>
</tbody>
</table>

Let's Practice

By January 31, 2022 Brooke will independently, verbally generate a narrative with 7 out of 7 necessary macrostructure components (MISL) in the classroom.

<table>
<thead>
<tr>
<th>Critical Skill</th>
<th>Timeframe</th>
<th>Condition</th>
<th>Behavior</th>
<th>Evaluation Procedure with Criteria</th>
<th>Mastery/Progress Codes (optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>By January 31, 2022</td>
<td>independently in the classroom</td>
<td>Brooke will verbally generate a narrative with 7 out of 7 necessary macrostructure components (MISL)</td>
<td></td>
<td>[Optional]</td>
</tr>
</tbody>
</table>
By February 20, 2022 Toby will spontaneously and correctly say final /k/ while telling a story to his friends with 75% accuracy over three consecutive sessions (ELA.1.IV).

Critical Skill | Timeframe | Condition | Behavior | Evaluation Procedure with Criteria | Mastery/Progress Codes (optional)
--- | --- | --- | --- | --- | ---
By February 20, 2022 | spontaneously while telling a story to his peers | Toby will correctly say final /k/ during conversation | 75% accuracy; over three consecutive sessions | (ELA.1.IV) |  

In Conclusion
Holistic approach to treatment begins with goals
Goals are the backbone to treatment
Application of all necessary goal components allows clinicians to create functional, individualized, and measurable goals

Now that you have completed all training modules, please paste the link below into your web browser to begin the post-training assessment.
https://www.qualtrics.com/jq/form/SV_26xQBoYFVwPnbA