



NASET's Autism Spectrum Disorder Series

Social Skills Progress Monitoring for Students with Autism Spectrum Disorder: A Practitioner's Resource

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This issue of **NASET's Autism Spectrum Disorder Series** was written by Nargiza Buranova, Ph.D., Shannon Locke, MS, CCC-SLP, and Janine Stichter, Ph.D. from the University of Missouri. Social competency is an area of skill development that is difficult to assess clearly or consistently, particularly for students with average or above cognitive abilities including students with autism spectrum disorder (ASD). Few tools are available to educators that provide the necessary sensitivity to performance useful for progress monitoring. Progress monitoring is a necessary component required to fully execute multitiered systems of support (MTSS; Utley & Obiakor, 2015) and to evaluate the effectiveness of ongoing instruction. However, there are few defensible, appropriate, or usable measures for educators to assess social competence repeatedly to demonstrate incremental progress (Brann et al., 2022; Briesch et al., 2020). The focus of this issue of NASET's Autism Spectrum Disorder Series is to describe how practitioners can model and use strategies individualized to their students, to systematically guide and regularly monitor

student progress through direct observation and engagement across multiple skills of social competence (conversational reciprocity, affect recognition, recognizing and demonstrating emotional states, and social problem solving).

Introduction

Social competency is an area of skill development that is difficult to assess clearly or consistently, particularly for students with average or above cognitive abilities including students with autism spectrum disorder (ASD). Few tools are available to educators that provide the necessary sensitivity to performance useful for progress monitoring.

Progress monitoring is a necessary component required to fully execute multitiered systems of support (MTSS; Utley & Obiakor, 2015) and to evaluate the effectiveness of ongoing instruction. However, there are few defensible, appropriate, or usable measures for educators to assess social competence repeatedly to demonstrate incremental progress (Brann et al., 2022; Briesch et al., 2020). The purpose of this manuscript is to describe how practitioners can model and use strategies individualized to their students, to systematically guide and regularly monitor student progress through direct observation and engagement across multiple skills of social competence (conversational reciprocity, affect recognition, recognizing and demonstrating emotional states, and social problem solving).

Assessing Social Skill Progress

Four constructs were identified by Stichter et al. (2012, 2023) that facilitate social skills measurement: Conversational Reciprocity, Affect Recognition, Recognizing and Demonstrating Emotional States, and Social Problem Solving (Stichter et al., 2012; Sticher et al., 2023). These

constructs were developed under the General Social Outcome Measure (GSOM, Stichter et al., 2012) and are based on an extensive literature review and analysis of valid social skills measures and social skills curriculums (Stichter, Herzog, et al., 2012; Stichter et al., 2023). In the recent psychometric study on the GSOM, the total score and each construct were examined and showed promising results (Stichter et al., 2023). According to previous studies, the GSOM captures students' progress in performance on constructs of social competency (Stichter et al., 2012). Previous results indicate the GSOM constructs are structured in a way that can accurately detect progress over time, making replication of these clearly defined measures a good model for educators to gauge student progress (Stichter et al., 2012). The total internal consistency score for the GSOM was calculated and arrived at an alpha $\alpha = .730$ (Stichter et al., 2023).

Permission to use the General Social Outcome Measure (GSOM, Stichter et al., 2012) for the purpose of the current paper was secured from the author of the tool. Educators can replicate the GSOM model for efficient progress monitoring of the social constructs described below: conversational reciprocity, affect recognition, recognizing and demonstrating emotional states, and social problem solving.

Conversational Reciprocity

Conversational reciprocity is an umbrella term for the skills needed to effectively participate in conversational exchanges (Stichter et al., 2012). It refers to the back-and-forth movement of communication between two or more individuals. Students with ASD in particular, often experience challenges during real-time opportunities to practice reciprocity in social interactions (Shulman et al., 2020).

To assess this construct, educators observe how well a student demonstrates reciprocity in conversation with an adult (Stichter et al., 2012). Reciprocating skills, such as staying on topic

or following topic shifts, sharing information, providing or eliciting information, taking turns in conversation, and using appropriate nonverbal communication are elicited and observed during a student-selected conversation (Stichter et al., 2012, Stichter et al., 2023). Appropriate nonverbal communication refers to the use of facial expressions, body posture, eye contact, and gestures that align with the social norms in the specific context (Stichter et al., 2012). Following the GSOM model, conversational reciprocity assessment starts by offering the student an opportunity to select and speak on a topic of preference (e.g., pets or school, food or travel, Stichter et al., 2012). After the student chooses the topic, the educator/examiner provides an opening comment about the topic if the student did not already initiate the conversation (see detailed example in Vignette 1). If not, note any additional prompts for monitoring comparison or as an area of continued need during activities for formative progress monitoring. Importantly, the educator should avoid asking a question to initiate the conversation. Any additional prompts required by the educator to keep the conversation going should be noted. These prompts will be deducted from the student's total score.

During the conversational reciprocity assessment task as the student is talking, the educator will rate the student on the following: (a) **staying on topic** - following chosen topic or shifting appropriately across related topics without introducing an irrelevant topic, (b) **sharing information** -no more than 1 prompt can be provided by the teacher, (c) **reciprocity** - responding to the educator by providing additional information beyond simple or vague comments, (d) **transitions/interruptions** - transitioning appropriately from listener to speaker role, (e) **nonverbal communication** - engaging appropriately with content specific nodding, body posture, etc., and (f) **eye contact** - degree of appropriateness of the student's eye contact with the educator/examiner (Stichter et al., 2023). It is recommended to use only open-ended questions

with students having a higher language level. Close-ended questions are suitable to initially identify the presence of conversational reciprocity, but the educator should quickly shift to open-ended questions during this task to better illustrate the student's capacity while promoting opportunities to practice and improve skill acquisition and development.

Scoring is provided for educators to identify change numerically and systematically in student performance compared to their previous performance (table 2). Scores are not standardized for comparison between students, rather they reflect a rubric for individual performance comparison to make data-based decisions on individual programming. A higher overall score indicates better performance on each particular skill and a total score indicates combined improvement in social competence overall. Table 2 provides an example scale of how practitioners can rate student's conversational reciprocity (staying on topic, transitions, etc.). In the example illustrated, the student's score progresses from three to five. The item level maximum score is five. This increase at the item level also increases the total score for the conversational reciprocity construct from the 25 to 27 indicating progress in conversational reciprocity overall. The construct level maximum total score is 30. Importantly, some constructs may be harder for students to improve; therefore, it is important to consider changes across each separate item (e.g. staying on topic, sharing information, etc.) to evaluate their progress and make planning or goal setting decision for each student.

Vignette 1 demonstrates the use for the Conversational Reciprocity subscale (Stichter et al., 2023) in the assessment with 14-year-old student, Laura, who is diagnosed with ASD and has a specific goal on her IEP to improve conversational reciprocity.

Vignette 1: Progress Monitoring Conversational Reciprocity

Laura¹ has difficulty with conversational reciprocity (i.e.: making comments relevant to the topic, taking turns in conversation, etc.). Laura is receiving social skills intervention. To monitor Laura's progress a special educator, speech and language pathologist, or psychologist may conduct the assessment before, during, and after the intervention to evaluate progress in Laura's conversational reciprocity performance (Figure 1).

Figure 1. Example of assessment script with student responses for Conversational Reciprocity.

Teacher: *“Hi Laura. Today I would like to talk about PETS or SCHOOL. Which one would you like to talk about?”*

Laura: *“Pets”*

Teacher: *“Great choice. Do you have any pets?”*

Laura: *nods in response.*

Teacher: *“Tell me about your pets?”* (example of a teacher-provided open-ended comment/prompt to initiate the conversation).

Laura: *“I have a dog and a cat. You know there are seventy-one types of cats in the world. Sokoke cat is the rarest domestic cat breed in the world.”*

Teacher: *“Wow, I did not know that. Can you tell me more about YOUR cat?”*

Laura: *“My cat is a Siamese cat. Siamese cats aren't very rare, they are thought to come from Egypt. I never had a Sokoke cat. In Egypt they have pyramids. I can draw a pyramid, it's like a triangle. (in this example the student is not demonstrating reciprocity with the teacher by continuing to talk moving across topics without giving opportunities for the teacher to respond as well as not staying on topic by digressing away from the intent of the topic specific to personal pets)*

Teacher: *What kinds of things do you do with your cat?”* (teacher may want to include a statement to redirect to the topic such as *“About your pets again, ...”*)

While engaged in this conversational task, educators should also take note of the student's nonverbal communication, pausing, and eye contact based on the scoring rubric criteria.

Vignette 1: Example Scoring. Educators can use Figure 1 as an example to follow and Table 2 to rate Laura's conversational reciprocity. The scoring rubric includes six individual items to score from the conversational reciprocity task. In this example, Laura maintains the topic in response to the teacher's questions initially; however, she also contributes comments not relevant to the topic. The rating rubric indicates when a student perseverates on a preferred topic inappropriately and doesn't follow the redirection of the teacher a score of *two* is assigned for *staying on topic* ("may come back to a topic or pause momentarily but shifts off immediately," see Table 2). Selecting a score of *four* best represents Laura's performance on the *sharing information* item as she initially shared information in the conversation but required additional prompting to stay on topic and share more information. Laura's *reciprocity* item achieves a score of *three* as she did not ask any questions of the teacher but simply provided an interjection, "okay," with no further elaboration. During the conversation, the evaluator noted that Laura used appropriate timing (waited for a teacher's pause before speaking and paused for response after speaking) AND used appropriate transitions, therefore she receives a score of *five* for the *transitions/interruptions* item. Laura was noted to occasionally provide content appropriate nonverbals such as nodding and smiling which earned her a score of *three* for *nonverbal communication*. Lastly, Laura's *eye contact* was appropriate most of the time earning her a score of *four* for this item. These item scores can then be added for a total combined conversational reciprocity score of 21 out of 30. Consistently using this rubric to score Laura's performance over time during consecutive conversational reciprocity tasks, educators can uniformly monitor

her progress on this social skill. Teachers can conduct the same assessment repeatedly throughout intervention as well as afterward for reliable progress monitoring of Laura's competence in conversational reciprocity.

Table 1. Conversational Reciprocity Task

Directions	Guidelines	Good examples	Poor examples
1. Read prompt to the student	Avoid asking a question to open a conversation	Tell me about school.	Do you like school?
2. After student chooses the topic provide an opening comment.	Additional prompts should be noted and deducted from score accordingly	Tell me what kind of dog you have.	Do you like dogs?
3. Discontinue conversation after lack of response to prompting.	Prompt student to provide information/ continue only one time without penalty (after 5 seconds). Avoid simple yes/no prompts		

Prompt: "Hi _____. Today, I'd like to talk about PETS or SCHOOL. Which one would you like to talk about?"

Table 2. Conversational Reciprocity Scoring Rubric

Score=1	Score=2	Score=3	Score=4	Score=5	Item
OFF TOPIC Did not speak to the teacher and /or shifted inappropriately to a topic (irrelevant comments) despite cues.	MOSTLY OFF May come back to a topic or pause momentarily but shifts off immediately	ON/OFF Maintained topic (50% of the time); gets back on topic in response to evaluator topic cue	MOSTLY ON Maintained topic with some off-topic shifting; shifted back independently.	ON TOPIC Maintained conversational topic without shifting OR shifted to a related topic independently (not in response to teacher comment)	Staying on Topic Generally following chosen topic of appropriately shifting to related topic 1 2 3 4 5
Did not share any on topic info when prompted (e.g., was essentially quiet throughout)	Shared one piece of on-topic info only when PROMPTED beyond the one occasion prompt	Independently shared one piece of info; Did not share additional info when PROMPTED beyond the one occasion prompt	Independently shared one piece of info; Shared new or additional info when PROMPTED beyond the one occasion prompt	Independently shared more than one piece of info; No extra prompts needed beyond the one allotted prompt	Sharing Information <i>frequency of independently sharing new information(I).</i> Prompt (P): beyond the one allowable 1 2 3 4 5
No Reciprocity No interjections, comments or questions to progress conversation in response to eval comments	Interjection or comment BUT with perseverative elaboration (i.e., becomes one-sided)	Interjection with no elaboration (e.g., “that’s cool,” “okay,” or other simple acknowledgment spoken)	Response or continuation with appropriate elaboration (e.g., “I like that too. My favorite is...” or “I hate that...”)	Asks evaluator a question related to the topic and/or the evaluator’s previous comment (e.g., elicits more information)	Reciprocity <i>providing or eliciting information beyond simple or vague comments/ interjections</i> 1 2 3 4 5
Inappropriate Student used verbally or physically aggressive strategies OR Student was silent	Poor Student did not share conversational space (e.g., no pause) AND used bad transition strategies (e.g., shouting, talking over)	Fair Student had poor timing (e.g., speaking on heels, awkward long pauses) AND poor transitions	Acceptable Student used appropriate timing (e.g., wait for pause before and/or after speaking) BUT used inappropriate or awkward transition (“now it’s my turn”)	Appropriate Student used appropriate timing (e.g., wait for a pause before speaking, pause after speaking) AND used appropriate transitions	Transitions/ Interruptions <i>ability to transition appropriately from listener to speaker role</i> Code based on timing of speaker/listener role and quality of transition 1 2 3 4 5

Disengaged (<10%) Student displayed almost no content-appropriate nonverbals	Poor (25%) Student rarely provided content-appropriate nonverbals (e.g., engaged minimally)	Fair (50%) Student occasionally provided content-appropriate nonverbals	Acceptable (75%) Student usually provided content-appropriate nonverbals	Engaged (>90%) Student almost always provided content-appropriate nonverbals (e.g., posture, nodding)	Nonverbal Communication <i>indication of content-specific and appropriate engagement via nodding, body posture, etc</i> 1 2 3 4 5
Inappropriate Student either gave no eye contact OR gave too much (i.e., staring)	Poor Student gave only fleeting eye contact	Fair Student gave minimal eye contact BUT seemed to look in direction of but past the examiner	Acceptable Student gave appropriate occasional eye contact (at less than a socially expected rate)	Appropriate Student gave appropriate eye contact during the conversation at a socially expected rate	Eye Contact <i>degree of appropriateness of the student's eye contact with the evaluator</i> 1 2 3 4 5

Affect Recognition

Individuals with ASD have demonstrated difficulties recognizing the affect basic facial expressions represent which makes it challenging to build social relationships and participate in expected communication exchanges (Stichter et al., 2012). Affect recognition is an important element of social communication. It is the ability to understand the emotions of other people based on their facial expressions. Students with ASD may have difficulties with facial affect recognition that could impact their social performance (Nagy et al., 2021; Gross, 2004). For this reason, an assessment for affect recognition is included in which the student is instructed to match and name different emotions depicted in photos (e.g., happy, sad, confused, angry, fearful, etc.). The student is then asked to provide a rationale for their choice. For example, the student may answer that the person in the picture is sad because his mouth is turned down. By including the follow up question to the task, the assessor can determine how the student interprets facial expressions of other people through their description of the relevant facial features such as eyes,

mouth, eyebrows, etc. Tasks from the *Affect Recognition* construct could be replicated by various school personnel. The school psychologist or counselor, who often address emotions, a speech and language pathologist, who addresses expression and receptive comprehension of concepts such as emotions, or a special education or general education teacher would all be appropriate administrators of this affect recognition task. Conducting an affect recognition assessment could also be a valuable component to establish a student's present level of academic achievement and functional performance for determination of Individual Education Plan (IEP) goals as well as used for ongoing progress monitoring. Similarly, the affect recognition scoring protocol could also be used to determine student progress on recognition of peer emotions or emotions of other in real time when watching videos or actual photographs of themselves or classmates. Vignette 2 below provides an example of assessing affect recognition.

Vignette 2: Progress Monitoring Affect Recognition

Peter² has trouble reading facial expressions and understanding emotions of other people. Peter is eligible to receive special education services through the autism category. He has goals to address social skill development during intervention. One of the Peter's IEP social competence goals is to match facial expressions to corresponding emotions. To monitor Peter's progress a special educator regularly conducts the affect recognition assessment before, during, and after interventions (Figure 2).

Figure 2. Example of Assessment Script with Student Responses for Affect Recognition.

² The vignette is a fictionalized account drawn from the research literature, not based on actual people or events the authors observed.

Teacher: *“Peter, I am going to show you some photos of faces and ask you some questions about them. Tell me which person along the bottom [point to row of photos of people with different emotions] feels the same as the girl at the top? [point to photo in Figure 3]”*

Peter: Photo 4.

Teacher: *“Thank you. What is this girl feeling?”* (The teacher is showing the picture to the student (figure 3). The target answer is surprised, plausible answers are fearful, excited, or happy.)

Figure 3. What is this girl feeling?



Peter: *“The girl is happy.”*

Teacher: *“What about this girl’s face tells you that she is feeling happy?”*

Peter: *“Her mouth is wide open; the eyes are wide open too. She looks happy.”*

Vignette 2: Example Scoring. Affect recognition is scored on a three-point scale (from 0 to 2). One point is given for correct matching the photo with another photo depicting a similar emotion, one point for identification of the emotion, and one point for correctly describing what facial features provided clues to the emotional state given (see Table 3). In this example, Peter

provided a correct response for matching the photos, plausible answer for identifying emotion (happy), and a correct rationale for his answer. He is awarded four points for this task: one point for correct match of photos, one point for identifying the plausible emotion (happy) and two for providing the correct description (wide open eyes and mouth, table 3). Alternatively, if Peter had not matched the photos appropriately, provided a reasonable explanation for naming “happy” or if he provided an inappropriate emotion such as “sad”, he would receive zero points. Hence, progress can be quantified with real data on subsequent assessments. Pictures should be selected to represent additional basic emotions such as sad, angry, disgust, surprise, fearful, calm, etc. The scripted pattern of questions and scoring is then repeated, generating response data that can be used to compare with the same individual’s future responses to monitor their progress. Once basic emotions have been mastered, images of more challenging emotions can follow the same scoring protocol.

Table 3. Affect Recognition Scoring Rubric

		Scoring Rubric		
		Score = 0	Score = 1	Score = 2
A	Incorrect match		Correct match	N/A
B	Implausible emotion		Plausible emotion	Target emotion
C	No/incorrect identification of a changed facial feature AND No/incorrect descriptor	Correct identification of a changed facial feature BUT No/incorrect descriptor		Correct identification of a changed facial feature AND Correct descriptor
Feature: E = Eye M = Mouth EB = Eyebrow HT = Head Tilt F = Forehead O = Other				
		Prompt	Student Response	Score
<i>I'm going to show you some photos of faces and ask you some questions about them.</i>				
a)	<i>Tell me which person along the bottom [point to row of photos] feels the same as the girl at the top? [point to top photo]</i>		1 2 3 4	0 1
b)	<i>What is this girl feeling?</i>	Target: surprised Plausible: fearful; happy	[put student's answer from here in prompt c]	0 1 2
c)	<i>What about this girl's face tells you that he is feeling _____?</i>	E	EB F	0 1 2
<i>For example, if the child is sad then we could say that his mouth is turned down.</i>				

Recognizing and Demonstrating Emotional States

Students with ASD also experience challenges with recognizing and demonstrating emotions that impede their social communication (Kuusikko et al., 2009; Uljarevic & Hamilton, 2013). These difficulties are recognized as part of the social communication challenges of ASD (APA, 2013). Recognizing facial expressions and affect are just one component to interpreting the emotions of others. Fully understanding other's emotional states as well as displaying ones'

own emotions in a way that is understandable requires additional interpretation of body, language, and speech characteristics in relation to a specific context (Zager et al., 2012). Further, individuals must presuppose what others are experiencing and/or thinking to deduce their emotional state or to generate an appropriate emotional response for the situation. These are skills that commonly contribute to the social communication difficulties experienced by many individuals with ASD (Shulman et al., 2020). Interpreting and demonstrating emotional states takes both receptive and expressive emotional understanding (Stichter et al., 2012) requiring competence with both recognizing and demonstrating emotions.

To assess the construct of demonstrating emotional states, a student is asked to demonstrate a given emotion (e.g., surprised) at three levels of intensity (see figure 4 and table 4) and the teacher takes photos when student demonstrates emotions after each prompt for scoring.

To assess the construct of recognizing emotional states, scenario is described to the student. Based on this scenario the student is asked to name the character's emotional state, match that emotional state to a photo, and explain why they selected that emotion.

Examples of recognizing and demonstrating emotional states tasks are illustrated below.

Vignette 3: Progress Monitoring of Demonstrating and Recognizing Emotional States

Cassandra³ has difficulty recognizing the emotional states of other people and expressing her own emotions in a way that others understand. Cassandra is eligible to receive special education services through the autism category. She has goals to address social skill development during intervention. Cassandra's has IEP goals to identify her feelings and recognize emotions of

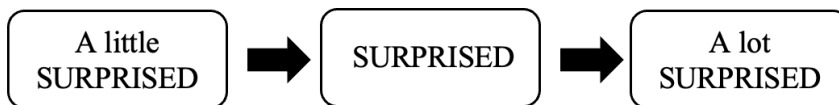
³ The vignette is a fictionalized account drawn from the research literature, not based on actual people or events the authors observed

other people. To monitor Cassandra’s progress a special educator regularly conducts the following assessment before, during and after interventions.

Figure 4. Example of Assessment Script with Student Responses for Demonstrating Emotional States.

Teacher: “People experience different levels of emotions at different times. I want you to think of a time when you were A LITTLE SURPRISED ((Figure 5). Show me what A LITTLE SURPRISED looks like, and I’ll take your picture on the count of three...1. 2..3.” [Take Photo].

Figure 5. Demonstrating Emotional States



Student: demonstrates the emotion.

Teacher: “Great. Now I want you to think of a time when you were SURPRISED. Show me what SURPRISED looks like, and I’ll take your picture on the count of three...1.2..3.” [Take Photo].

Student: demonstrates the emotion.

Teacher: “Thank you. Now I want you to think of a time when you were A LOT SURPRISED. Show me what A LOT SURPRISED looks like, and I’ll take your picture on the count of three...1.2..3. [Take Photo].

Student: demonstrates the emotion.

Vignette 3: Example Scoring of Demonstrating Emotional States. Based on the student’s demonstrations, a score of 2 is earned if the target emotion with correct intensity is performed, a score of 1 is earned when the target emotion is showed, but the intensity is not

accurate, and a score of 0 is earned when the emotion and intensity are inaccurate. The teacher/administrator of the assessment takes a photo when student demonstrates emotions after each prompt, for future scoring and potentially for future reflection and analysis of the progress (Table 4).

Table 4. Demonstrating Emotional States Scoring Rubric

Scoring Rubric		
Score = 0	Score = 1	Score = 2
Photo does not represent target emotion AND Intensity is incorrect	Photo represents target emotion BUT Intensity is incorrect	Photo represents target emotion AND Intensity is correct
Prompt		Score
a)	<i>I want you to think of a time that you were <u>A LITTLE SURPRISED</u>. Show me what <u>A LITTLE SURPRISED</u> looks like, and I'll take your picture on the count of three...1..2..3. [Take Photo].</i>	0 1 2 0 1 0 1
b)	<i>Now I want you to think of a time that you were <u>SURPRISED</u>. Show me what <u>SURPRISED</u> looks like, and I'll take your picture on the count of three...1..2..3. [Take Photo].</i>	0 1 2 0 1 0 1
c)	<i>Now I want you to think of a time that you were <u>A LOT SURPRISED</u>. Show me what <u>A LOT SURPRISED</u> looks like, and I'll take your picture on the count of three...1..2..3. [Take Photo].</i>	0 1 2 0 1 0 1

Vignette 3: Example Assessment Script for Recognizing Emotional States. To assess recognizing emotional states, stories about diverse social situations are read to the student followed by questions to identify whether the student has correctly interpreted the characters' emotions as well as their ability to link character emotions appropriately to the story context and to the photo that demonstrates a correct emotion (Figure 6).

Figure 6. Example of Assessment Script for Recognizing Emotional States.

Teacher: “Cassandra, I am going to read you several stories and ask some questions about them. The first story is about Carla. Carla has been looking forward to seeing a movie with her friend all week. On the day they are supposed to see the movie, her friend calls and says that she can’t go because she must work late. What emotion is this woman feeling?”

Cassandra: “Carla is feeling upset”.

Teacher: Tell me which photo demonstrates what she is feeling (and shows photos with different emotions to student, one of the photos demonstrates emotion related to the scenario described).

Cassandra: “Photo 2”.

Teacher: “Good! Based on the story, give me a reason *Why* she would feel upset?”

Cassandra: “Mmmm, because her friend can’t go to movies with her now”.

Teacher: “Nice reasoning!”

This process can be repeated with additional stories/social situations having diverse emotions or levels of complexity to assess student interpretation and understanding of others’ emotions related to specific contexts.

Vignette 3: Example Scoring of Recognizing Emotional States. For the assessment describe above, a score of 2 is earned for correct interpretation of emotions, correct choice of the photo with related emotion, and correct reasoning (answering the question “Why?”) linking the selected emotion to the story context. A score of 1 is earned when the interpretation of emotion is correct, but the reasoning is not correctly related to the story context, and a score of 0 is earned

when both interpretation and reasoning are incorrect. More details about scoring are presented in Table 5.

Table 5. Recognizing Emotional States Scoring Rubric

Scoring Rubric			
	Score = 0	Score = 1	Score = 2
A	Implausible emotion	Plausible emotion	Target emotion
B	Incorrect match	Correct match	N/A
C	Interpretation of emotion (PART A COULD be a 0, 1, or 2) AND Justification linking emotion to story context is incorrect or absent	Interpretation of emotion (PART A COULD be a 0, 1, or 2) AND Justification linking emotion to story context is loosely tangential	Interpretation of emotion (PART A MUST be a 1 or 2) AND Justification linking emotion to story context is plausible
	Prompt	Student Response	Score
	<i>Carla has been looking forward to seeing a movie with her friend all week. On the day they are supposed to see the movie, her friend calls and says she can't go because she has to work late.</i>		
a)	<i>What emotion is this woman feeling?</i>	Target: sad Plausible: angry	0 1 2
b)	<i>Tell me which photo demonstrates what she is feeling.</i>	1 <u>2</u> 3 4	0 1
c)	<i>Based on the story, give me a reason WHY she would feel _____.</i> [use student's answer from prompt a]		0 1 2

Social Problem Solving

The fourth area assessed by the model GSOM is social problem solving (Stichter et al., 2012). To assess this area of social competence, the enactive role-play method (Bierman & Welsh, 2000) is used. This approach enables examiners to measure a student's ability to deal with social problems during a role-play activity in a predictable and duplicable manner. This method is more consistent and feasible than attempting to observe students as they encounter and navigate real-life social problems. These analog situations are alternatives to natural situations making observation of the student's behavior in response to specific problematic social situations

possible. Analog situations such as these have been shown to represent social situations that are challenging and require student’s reaction (Cummings et al., 2008; Olswang, 2001; Greenslade, 2021).

For this task, problem situations are presented to the student followed by two questions: “what would the student do next” and “if the situation presented was problematic and why”. The student is also asked to offer a solution with a specific plan of action if a problem is identified. The vignette for social problem-solving assessment is provided below.

Vignette 4: Progress Monitoring of Social Problem Solving

Owen⁴ is a 5th grade student who is eligible for special education services under the autism category. One of his IEP goals focuses on problem solving in social situations. The teacher uses analog situations initially to assess Owen’s current level of social problem solving, setting a baseline for comparison, and later repeated across regular intervals to monitor progress and assist in planning interventions or changes based on subsequent results (Figure 7).

Figure 7. Example of Assessment Script with Student Responses for Social Problem Solving.

Teacher: “Owen, I will read you some short stories, and then I will ask you “What would you do next?” after I finish reading.”

Owen: “Ok”.

Teacher: “You let your friend borrow your cell phone and he lost it. What would you do next?”

Owen: “Mmm, I will get mad and yell at my friend.”

⁴ The vignette is a fictionalized account drawn from the research literature, not based on actual people or events the authors observed

Vignette 4: Scoring. A score of 2 is earned when the student describes a specific plan of action that is beneficial and practical (helps to solve the problem), a score of 1 is earned when the student describes an action that is unhelpful or impractical/illogical, and a score of 0 is earned if the student does not articulate the scenario as a problem and no solution is provided (Table 6) . In this example, Owen would earn a score of 1 as he recognized the situation was a problem and described a plan of action that, while potentially accurate, is not helpful and will not solve the problem.

Table 6. Social Problem-Solving Scoring Rubric

Scoring Rubric		
Score = 0	Score = 1	Score = 2
Did not articulate scenario as a problem AND/OR No solution is provided	Describes a plan of action that is: a) Unhelpful/ intensifies the problem OR b) Impractical/illogical in the specified context OR c) Too vague to determine whether solution is helpful or unhelpful, practical or impractical	Describes a <i>specific</i> plan of action that is: a) Beneficial/ helpful to solving the problem AND b) Practical/ logical in the specified context
Prompt		Score
<i>You let your friend borrow your cell phone and he lost it. What would you do next?</i>		
0	1	2
<ul style="list-style-type: none"> • Do nothing • Don't know • No solution • Not a problem • _____ • _____ 	<ul style="list-style-type: none"> • Cry/throw a tantrum • Yell/attack your friend • Take your friend's phone • Console friend • Don't let your friend borrow your phone again • _____ • _____ 	<ul style="list-style-type: none"> • Ask your friend to buy you a new phone or give you money to replace it • Talk to parents about a new phone • Buy another cell phone • _____ • _____
		0 1 2

Teachers are encouraged to develop additional analog situations based on individual student interests and environments that will promote student participation and provide opportunities to practice social problem-solving skills. Results from these analog assessments should guide intervention and indicate when students are able to identify and resolve selected

relevant social problems. Activities such as this can increase in complexity as students mature through grades and settings.

Conclusion

When collecting data on student progress and making decisions regarding intervention effectiveness, it is important for practitioners to remain consistent in their assessment activities. By repeating the same or conceptually equivalent tasks and using a systematic scoring rubric or protocol during each progress monitoring session, educators can reliably make determinations of progress. Based on student results, educators can make decisions on whether to continue the present intervention, change the intervention, or stop the intervention. Decisions about shifting or discontinuing interventions can be made based on appropriate data if pre and post assessments measure the same skills consistently.

It is important to also remember that the strategies presented here are simply a systematic way to elicit and monitor progress on specific skills relevant to a student's overall social competency. Following the strategies offered in this article will enable educators to make these data-based decisions, ultimately improving the efficacy and effectiveness of their interventions.

Social competency remains a subjective construct difficult to objectively assess for the purpose of showing progress on established social skill goals. The example vignettes and scoring suggestions in this article provide a framework to assess and reassess student progress on several pivotal social skills: conversational reciprocity, affect recognition, recognizing and demonstrating emotional states, and social problem solving. Educators can find value in using the rubric and scoring guidelines provided to consistently quantify a student's performance on any or all of these constructs relevant to student IEP goals or areas for improvement.

References

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. VA: American Psychiatric Association.
- Bierman K. L., Welsh J. A. (2000). Assessing social dysfunction: The contributions of laboratory and performance-based measures. *Journal of Clinical Child Psychology*, 29, 526–539.
https://doi.org/10.1207/S15374424JCCP2904_6
- Brann, K. L., Daniels, B., Chafouleas, S. M., & DiOrio, C. A. (2022). Usability of social, emotional, and behavioral assessments in schools: A systematic review from 2009 to 2019. *School Psychology Review*, 51(1), 6-24.
<https://doi.org/10.1080/2372966X.2020.1836518>
- Briesch, A. M., Chafouleas, S. M., Nissen, K., & Long, S. (2020). A review of State-level procedural guidance for implementing multitiered systems of support for behavior (MTSS-B). *Journal of Positive Behavior Interventions*, 22(3), 131–144.
<https://doi.org/10.1177/1098300719884707>
- Chafouleas, S. M., Riley-Tillman, T. C., & Christ, T. J. (2009). Direct behavior rating (DBR) an emerging method for assessing social behavior within a tiered intervention system. *Assessment for Effective Intervention*, 34(4), 195-200.
<https://doi.org/10.1177/1534508409340391>
- Christ, T. J., Riley-Tillman, T. C., & Chafouleas, S. M. (2009). Foundation for the development and use of Direct Behavior Rating (DBR) to assess and evaluate student behavior. *Assessment for Effective Intervention*, 34(4), 201-213.
<https://doi.org/10.1177/1534508409340390>

- Greenslade, K.J. (2021). Using analog tasks to assess children's social communication skills. *Perspectives of the ASHA Special Interest Groups*, 6(1), 39 - 54.
https://doi.org/10.1044/2020_PERSP-20-00155
- Cummings, K. D., Kaminski, R. A., & Merrell, K. W. (2008). Advances in the assessment of social competence: Findings from a preliminary investigation of a general outcome measure for social behavior. *Psychology in the Schools*, 45(10), 930–946.
<https://doi.org/10.1002/pits.20343>
- Gross, T.F. (2004). The perception of four basic emotions in human and nonhuman faces by children with autism and other developmental disabilities. *Journal of Abnormal Child Psychology*, 32, 469–480. <https://doi.org/10.1023/B:JACP.0000037777.17698.01>
- Klingbeil, D., Bradley, T., McComas, J. (2016). Progress monitoring for students receiving intensive academic intervention. In: Jimerson, S., Burns, M., VanDerHeyden, A. (eds) *Handbook of Response to Intervention*. Springer. https://doi.org/10.1007/978-1-4899-7568-3_20
- Kuusikko, S., Haapsamo, H., Jansson-Verkasalo, E., Hurtig, T., Mattila, M-L., Ebeling, H., Jussila, K., Bölte, S., Moilanen, I. (2009). Emotion recognition in children and adolescents with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 39, 938–945. <https://doi.org/10.1007/s10803-009-0700-0>
- Lane, K. L., Oakes, W. P., Menzies, H. M. (2018). Comprehensive, integrated, three-tiered (CI3T) models of prevention: The role of systematic screening to inform instruction. *Handbook of Response to Intervention and Multi-Tiered Systems of Support*. Routledge.
- NASPonline.org (08-09-2023). National Association of School Psychologists. ESSA and Multitiered Systems of Support for Decision-Makers.

- Nagy, E., Prentice, L., Wakeling, T. (2021). Atypical facial emotion recognition in children with autism spectrum disorders: Exploratory analysis on the role of task demands. *Perception*, 50, 819–833. <https://doi.org/10.1177/030100662110381>
- Olswang, L. B., Coggins, T. E. & Timler, G. R. (2001) Outcome measures for school-age children with social communication problems. *Topics in Language Disorders*, 22(1), 50-73
- Salvia, J.A., & Ysseldyke, J.E. (2004). *Assessment in Special and Inclusive Education* (9th ed.). Houghton Mifflin.
- Shulman, C., Esler, A., Morrier, M. J., & Rice, C. E. (2020). Diagnosis of autism spectrum disorder across the lifespan. *Child and Adolescent Psychiatric Clinics of North America*, 29(2), 253–273. <https://doi.org/10.1016/j.chc.2020.01.001>
- Stichter, J. P., Buranova, N., Stormont, M. (2023). An exploration of a general social outcome measure. *Focus on Autism and Other Developmental Disabilities*. <https://doi.org/10.1177/10883576231221747>
- Stichter, J. P., Herzog, M. J., O'Connor, K. V., & Schmidt, C. (2012). A preliminary examination of a general social outcome measure. *Assessment for Effective Intervention*, 38(1), 40–52. <https://doi.org/10.1177/1534508412455213>
- Stichter, J. P., Herzog, M. J., Visovsky, K., Schmidt, C., Randolph, J., Schultz, T. and Gage, N. (2010). Social competence intervention for youth with asperger syndrome and high-functioning autism: An initial investigation. *Journal of Autism and Developmental Disorders*, 40, 1067-1079. <https://doi.org/10.1007/s10803-010-0959-1>

Uljarevic M, Hamilton A. (2013). Recognition of emotions in autism: a formal meta-analysis.

Journal of Autism and Developmental Disorders, 43, 1517–1526.

<https://doi.org/10.1007/s10803-012-1695-5>

Utley, C., & Obiakor, F. (2015). Special issue: Research perspectives on multi-tiered system of support. *Learning Disabilities: A Contemporary Journal*, 13(1), 1-2.

Zager, D., Wehmeyer, M., Simpson, R. (2012). *Educating students with autism spectrum disorder*. Routledge.

Zamzow, R. M., Ferguson, B. J., Stichter, J. P., Porges, E. C., Ragsdale, A. S., Lewis, M. L., & Beversdorf, D. Q. (2016). Effects of propranolol on conversational reciprocity in autism spectrum disorder: A pilot, double-blind, single-dose psychopharmacological challenge study. *Psychopharmacology*, 233(7), 1171–1178. <https://doi.org/10.1007/s00213-015-4199-00>