

Autism Spectrum Disorder Series

Increasing Expressive Skills for Verbal Children with Autism

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What is Communication?

Communication is a range of purposeful behavior which is used with intent within the structure of social exchanges to transmit information, observations, or internal states, or to bring about changes in the immediate environment. Verbal as well as nonverbal behaviors are included, as long as some intent, evidenced by anticipation of outcome, can be inferred. Therefore, not all vocalization or even speech can qualify as intentional communicative behavior (9).

This definition emphasizes that communication takes place within a social context. Speech/verbalization becomes communication when there is a desire or intent to convey a message to someone else. Therefore these two areas, communication and social skills, are tightly interwoven and interdependent. Unfortunately for children with autism, these are also two primary areas of difficulty. Therefore children with autism, even those who are considered "verbal", usually experience significant communication difficulties.

When referring to verbal children with autism, we are considering a broad spectrum of verbal behaviors, from minimally verbal to quite verbose, with the common area of difficulty being in how the child uses his language to communicate. As stated earlier, because communication and social skills are interdependent, the characteristics and features of autism regarding social relations contribute to the child's significant difficulty in using verbal language skills to effectively communicate (11). That is, the child's general lack of knowledge concerning other people, especially in understanding that other people have thoughts, ideas and beliefs different from his own (11), significantly interferes with his ability to communicate. If a child does not understand the general "give and take" of social relationships", he is unlikely to engage in the purposeful and intentional exchange of information that defines communication.

Language intervention programs for verbal children with autism often focus on improving the child's language form or structure skills (e.g., sentence length, vocabulary skills, and sentence structure). However, for verbal children with autism, the language intervention programs' focus should be increasing the child's knowledge and understanding of social communication skills.

It is important to note that focus on communication is not the sole responsibility of the speech/language pathologist but should be addressed on a continual and on-going basis by

everyone who comes in contact with the child. Therefore, the two-fold purpose of this article is to provide:

I. Key questions to consider in order to determine the child's current communication abilities

II. The development of a communication intervention program for the child with autism that is based on his communication needs.

I. Questions to Consider

In order to develop an appropriate communication intervention program for the verbal child with autism, the following questions should be considered to determine his current communication abilities/needs.

Does the child exhibit any Unconventional Verbal Behaviors (UVBs)? If so, does the child use these UVBs for communicative purposes? Unconventional verbal behaviors may be produced for communicative as well as non-communicative purposes. Unconventional verbal behaviors include echolalia, perseverant speech and incessant question asking.

Echolalia - Definition and characteristics:

- The most common form of unconventional verbal behaviors is echolalia (9). Echolalia is when the child repeats verbal information stated by others (e.g., people's conversational exchanges, videos, books read aloud, songs, etc.).
- Echolalia can include repetition of part of the utterance as well as an identical repetition of the entire spoken utterance, sometimes including an exact replication of the inflectional pattern used by the speaker.
 - Echolalia can be both immediate (a repetition of something they have just heard) or delayed (a repetition of information heard previously - minutes, hours, days, weeks, months, years!).
- Echolalia occurs in normal language development yet decreases as the typically developing child gains more spontaneous generative language. In children with autism, echolalia occurs with greater frequency and lasts for a longer period of time as the child with autism typically experiences significant difficulty developing spontaneous, generative language skills (9)
- Echolalia is reflective of how the child processes information. The child with autism processes information as a whole "chunk" without processing the individual words that comprise the utterance. In processing these unanalyzed "chunks" of verbal information, many children with autism also process part of the context in which these words were stated, including sensory and emotional details. Some common element from this original situation is then triggered in the current situation which elicits the child's echolalic utterance.
 - **Example:** A student with autism became upset with his teacher over completing a task. He then verbalized loudly, "Go to hell lieutenant!" His parents reported that he had been watching the movie "A Few Good Men" quite frequently. This movie contains this exact same utterance in the emotional context of anger. This child with autism was unable to spontaneously generate language to communicate "I'm upset and I don't want to complete this assignment", but could pull forth an echolalic utterance which he had processed in the context of the emotional state of anger.

The presence of echolalia in children with autism can be a positive indicator for future meaningful language development (8). It indicates that the child is at least processing language, although at a "surface" level.

Use of echolalia for Non-Communicative and Communicative Purposes:

It is important to consider how the child is using echolalic utterances, for non-communicative and/or communicative purposes. In either case, it is important to note that, although he may be using sophisticated utterances (e.g., lengthy sentences, advanced vocabulary and grammatical forms), these echolalic utterances are generally being repeated without a clear or complete understanding of the meaning of the utterance (8).

Non-Communicative Purposes: Echolalia used without communicative intent occurs when the child does not anticipate a response to his verbalization (8). Some examples include:

- Echolalic utterances which do not appear relevant to the situation or context (e.g., a child repeats utterances from a Disney video during a group calendar activity)
- Utterances that may be triggered by something in the situation or context (e.g., a child walks into the lunchroom and begins to engage in echolalic utterances which have been heard in this context: "Everyone find a seat and start eating.")
- Utterances that may be used as self-direction for his own actions (e.g., a child produces echolalic utterances to engage in a previously taught verbal routine to wash his hands: "Turn on the water. Get some soap. Rinse hands. Turn the water off. Get a towel and dry hands.").

Sometimes, children with autism engage in echolalia when they are feeling stressed or anxious. It is important to determine whether the child's arousal level could be a precipitating factor for the presence of his echolalia.

Example: A child walks into a classroom that he attended the previous school year. He begins to engage in a variety of delayed echolalic utterances spoken by the teacher from the previous school year. This child may be exhibiting an increase in stress and anxiety because he does not understand why he is in this environment again.

Communicative Purposes: As the child's cognitive and language skills develop, his use of echolalia may become more functional and communicative (8). When echolalia is used more communicatively, the child will generally exhibit an increase in spontaneous, appropriate eye gaze and/or body orientation. Echolalia can be used communicatively for the following functions:

- Conversational turn taking: The child recognizes when he is to take a conversational turn and that some sort of response is required. However, the child lacks the spontaneous generative language to engage in the conversation, so he relies upon an echolalic utterance to take his "turn" in the conversation.
 - Example: A person says, "What did you do in gym?" The child with autism responds with "Everyone line up in your gym spots." The child takes his conversational turn by using an echolalic utterance from the gym teacher.
- **Initiation of communicative interactions:** The child is beginning to recognize and notice others. Because he lacks the spontaneous generative language skills to initiate a communicative interaction with someone, he uses an echolalic utterance.
 - **Example:** A child with autism approaches an adult, spontaneously engages in direct eye contact and says, "Susan, I think I'm going to die tonight". Upon further investigation, it

is discovered that the child has been watching the movie "Charlotte's Web". In order to initiate a communicative interaction, he uses an echolalic utterance obtained from the movie

- Requesting: The child uses echolalia to request a desired object, action or event.
 - o **Example:** The child says: "Do you want a snack?" to indicate that he wants a snack.
- Indicating affirmation in response to a previous utterance: The child uses echolalia to respond affirmatively to the previous utterance.
 - Example: Another person says, "Want to go swing?" The child responds with the echolalic response, "Want to swing?"

Perseverative speech/incessant question asking - Definition:

Perseverative speech and incessant question asking are persistent repetitions of speech or questions which can be used both communicatively or non-communicatively.

Perseverative speech/incessant question asking -Communicative purposes.

This occurs when perseverative speech or incessant questions are used to initiate or maintain a communicative interaction, and the child anticipates a response. However it is perseverative, because the child repeats the speech act either immediately or shortly thereafter, even after receiving a response.

Example: A child with autism repeatedly says, "Watch Goof Troop", and becomes increasingly anxious and repetitive until someone responds to his perseverative utterance. Even though a response is given, the child continues to repeat the utterance.

Perseverative speech and incessant question asking may be related to the child's processing difficulties and/or his emotional state.

Example: A child with autism is very anxious about where he will be going after school as the destination changes frequently. He says repetitively throughout the day, "Go to grandmas?"

Perseverative speech/incessant question asking - Non-communicative purposes:

Perseverative speech and incessant question asking may also be non-communicative in that the child repeats the utterances/questions without anticipating a response from someone. In this case the verbal repetitions may be calming or pleasurable to the child.

Example: A child says the words, "New Haven Coliseum", repeatedly throughout the day for no communicative purpose, yet exhibits a big smile. He also engages in repetitive motor movements while saying the word.

Does the child understand and/or use the following nonverbal social communication (discourse) behaviors?

- Gestures: Uses gestures such as pointing, "come here", gesturing for size and distance, etc.
- **Eye gaze:** Establishes eye contact prior to initiating communication, looks at the speaker when listening, or uses "gaze checks" to signal attention to the speaker.

- Facial expression: Understands and uses a variety of facial expressions for communication of emotions and feelings (e.g., reads and comprehends a look of confusion on the face of a listener, and makes adjustments in his expressive communication to assist the person in clearly understanding his message).
- Body language/posture: Understands and uses appropriate body posture (i.e., faces the communicative partner) and body language to communicate various emotions and feelings (e.g., understands that a listener who has his arms crossed might be upset or anxious).
- Physical space: Understands and uses appropriate physical space when communicating (e.g., does not stand too close to the communicative partner, thus invading his personal space).
- **Vocal features:**
 - Vocal volume: Some children with autism may have difficulty modulating their own vocal volume, either speaking too loudly or too softly. Additionally, they may not understand that volume can be part of a communicative message.(i.e. may not understand that "anger" may be expressed through vocal loudness).
 - Inflection: Some children with autism speak in a monotone, rather than using varied inflectional patterns to communicate questions, emotions, feelings, etc.
 - Rate: Some children with autism may speak very rapidly, thus decreasing the overall intelligibility of their speech.

Does the child exhibit an understanding and/or use of the following verbal-social communication (discourse) skills?

- Attending: Does the child attend to the communicative partner? This is demonstrated by the child's ability to secure the attention of the listener prior to communicating.
 - **Example:** A verbal child with autism begins talking to his teacher who is across the classroom, not realizing that he needs to call or secure the teacher's attention prior to communicating.
- **Conversational turn taking:** The child can/cannot take part in communicative exchanges across several conversational turns as both speaker and listener. He asks contingent questions, allows the communicative partner to complete a conversational turn without interrupting, follows the communicative partner's turn with an appropriate utterance, and allows the communicative partner to take a turn in the conversation.
 - **Example:** Some verbal children with autism engage in one-sided conversations. They speak at length about a specific high interest topic and do not engage in actual conversational turn taking because they don't allow anyone else to speak. The listener never has a conversational turn.
- **Initiating conversations:** Is the child able to introduce or establish varied and appropriate conversations or topics with others?
 - **Example:** A child with autism uses the same joke when initiating conversations with others. Another verbal child with autism grabs toys away from other children and runs away, or pushes peers on the playground, because he is not able to appropriately initiate a conversation.
- Maintaining conversations: The child acknowledges comments made by others, questions appropriately, gives appropriate amounts of information, signals a topic shift, requests clarification, and responds to clarification requests. Some verbal children with autism have difficulty maintaining topics initiated by others, unless it pertains to a high interest area of theirs.
- Terminating conversations: Does the child end conversations appropriately? Often a child with autism will walk away when he is finished speaking, without terminating the conversation appropriately for the benefit of his communicative partner. The communicative partner is therefore unaware that the conversation has ended.

- Seeking information from others: Does the child ask questions of others to seek personal information such as, "Did you do anything fun over the weekend?" This can be a very difficult social communication skill for the verbal child with autism, because he does not understand that other people have different experiences from his own.
- Breakdown and repair: Due to their significant difficulties in successfully communicating, children with autism may experience frequent occurrences of communication breakdowns as both listeners (when asked to respond) and speakers (expressively communicating). For instance, some verbal children with autism have difficulty recognizing and interpreting nonverbal social communication behaviors such as looks of confusion or inattentiveness. Thus they do not communicatively "readjust", which can lead to a breakdown in communication. Therefore, it is important to determine if the child has developed, or is able to use, any communication repair strategies for both receiving and expressing communicative messages.
 - **Example:** The child says, "I don't understand", or, "Please say that again" when a breakdown occurs in receiving information.

Because verbal children with autism have some expressive communication skills, it is often assumed that they have adequate comprehension skills. Frequently this is not the case. Poor understanding of verbal messages is a common source for communication breakdowns in verbal children with autism.

- Figurative language: Does the child understand metaphors, idioms, jokes, teasing and multiplemeaning words?
 - **Example:** A verbal child with autism is told by his mother to "Stop back-talking me". The child responds, "I'm sorry Mom, I'll talk to your front." A middle school child with autism does not understand when students on the bus tell jokes and tease others. He interprets the teasing very literally, and thus becomes guite upset.
- Social-language sensitivity: This refers to the child's ability to regulate his communication relative to the particular listener. This includes the child's ability to:
 - Adjust his speaking style or information to be shared, according either to the listener's age or familiarity. For example, a child with autism might give very complex information on the solar system to a 3 year old.
 - Use appropriate politeness markers and forms such as, "Please", "Thank you", "Excuse
 - Avoid socially inappropriate topics and remarks (i.e. "You have a big pimple on your face!").

Does the child communicate about past and future events?

An indicator of more advanced communication skills is the ability to use language to refer to past and future events (9). It is much easier for the child with autism to communicate about events in the immediate environment, because he can use the environment's visual context. Communication about past or future events places more symbolic and representational requirements upon the child, as he cannot use the immediate contextual environment for support (9). It is important to consider if there are discrepancies in the child's communicative abilities due to difficulties in relating information about past and future events as compared to relative ease when communicating about current events.

Does the child use his language to express and/or regulate varied emotional states?

Although children with autism experience varied emotions, they may have difficulty identifying (understanding and labeling) these emotional states both in themselves and in others. Therefore verbal regulation of these emotional states can also be extremely challenging.

Example: When experiencing great distress, a verbal child with autism continually asks others for monitoring of his emotional state "Am I under control yet?" He has limited awareness of when he is calm versus extremely upset. In another instance, the child is laughing, inappropriately, when others are hurt, embarrassed, etc. Another child, with Asperger's Syndrome, physically manipulates his face when requested to exhibit various emotional states.

Does the child exhibit verbal reasoning skills?

Many verbal children with autism have difficulty using their language to verbally problem-solve, as this is a more abstract skill. Verbal reasoning skills can include:

- Making and explaining inferences: The child is, or is not able to make inferences and explain them.
 - Example: While looking out the window watching the rain fall, a child with autism is asked, "How do you know it's raining outside today?" The child responds, "Because I came on the bus", which the child rides everyday, rain or shine.
- Identifying problem situations: Can the child identify specific problems in his environment?
 - Example: The child with autism wants to swing on the playground, but the swings are broken. The child cannot recognize or identify the problem situation (broken swings). As a result, he becomes quite upset because he cannot swing.

Identifying solutions for problem situations: Can the child resolve problems effectively in his environment?

Example: A middle school child with autism breaks his pencil in a regular education class. Instead of asking the teacher if he can sharpen his pencil, or asking a classmate if he can borrow a pencil, the child asks if he can return to his resource program classroom to get a different pencil. The child is able to tell the resource program teacher, "I broke my pencil", but still is not able to solve the problem effectively.

- Identifying causes for problem situations: Cause and effect is a difficult concept for children with autism. Therefore they are often unable to identify even relatively simple causes when problems arise.
 - **Example:** A child with autism has a flat tire on his bicycle from riding over broken glass. He is not able to identify what might have caused this problem situation (flat tire).

Can the child use his language to engage in narrative discourse skills?

Many children with autism have difficulty using their language to retell movies, books, T.V. shows, etc. in a coherent and sequential manner. Due to the features and characteristics of their autism, they may have overly focused on the insignificant details, and missed the general theme

of the story. Therefore when retelling the story, they tend to relate this trivial information, which makes it very difficult for the listener to understand the narration. They may also not understand and use basic language concepts, such as beginning, middle and end, needed to appropriately sequence information. In addition, the verbal child with autism may not yet be able to consider another person's perspective as different from his own. The child may leave out relevant background information when relating a story, because he does not understand that the listener needs that information for the story to make sense. The child will relate the story solely from his perspective, leaving out information which he already knows, but that the listener does not.

II. Developing an Intervention Program for the Verbal Child with Autism

After considering the above questions, an intervention program can then be developed to address the child's verbal communicative needs.

Addressing Unconventional Verbal Behaviors (UVBs):

After determining if the child is using UVBs for non-communicative and/or communicative purposes, the following intervention strategies can then be tried:

Non-Communicative Purposes:

- Modify situations that might be stressful or anxiety producing for the child, thus resulting in the occurrence of UVBs
 - Example: A child consistently exhibits an increase in UVBs during gym class, possibly because gym is a less structured environment with unclear expectations. The use of visual support strategies such as a gym class schedule, visual boundaries marked off with floor tape, etc., can increase the child's comprehension of this environment and thus reduce overall feelings of stress/anxiety. This may result in a decrease in the occurrence of UVBs.
- Simplify verbal messages given to the child. It is easy to overestimate a child's language comprehension abilities when considering the length and complexity of some echolalic utterances used by the child. Although the child may echo 8-10-word grammatically complex sentences, this is not a true reflection of the child's overall language abilities. In fact, the child's ability to comprehend language may be significantly impaired. Without realizing it, many people may use language too complex for the child with autism to understand. As a result, some children may show an increase in the occurrence of UVBs due to stress/anxiety associated with auditory information overload. Avoiding excessive talking and using simple, concrete sentences can assist the child in more readily understanding verbal messages, and thus decrease the occurrence of UVBs.

Communicative purposes:

• Replace the UVB with a more appropriate form to express the same language function.

This could be accomplished in two ways: through providing a more appropriate verbal model, and by using visual support strategies, such as pairing a visual symbol with written words that the child can use.

Example: A child uses this echolalic utterance to request to go to the bathroom: "Do you have to go to the bathroom, Mark?". The teacher provides a more appropriate verbal model for the child to echo, such as "I have to go to the bathroom", in order to demonstrate a more appropriate phrase. For another child, a picture symbol of a toilet with the written words, "I have to go to the bathroom," is positioned in close proximity to the child. Initially the child is physically prompted to pick up this card and "read" the words/picture to assist in making an appropriate verbal request.

- Always respond to UVBs which are produced with communicative intent; that is, when the child anticipates a response to his UVB utterance. If the communicative partner responds verbally, he should use language skills comparable to the child's true language level (i.e., a simplified verbal response) as well as emphasize a relationship between the child's UVB and environmental referents such as objects, actions people (9).
 - **Example:** A child uses the echolalic utterance, "Are you ready for some football?" (from the Monday Night Football theme song) to request to play football. The adult responds by saying, "Let's play football!" and hands the child a football.

Sometimes the communicative partner may need to respond to the child, using a visual support strategy that the child readily understands, rather than using only a verbal response.

Example: A child with autism goes to different locations after school. He perseverates, stating, "Go to Grandma's?" to ask about that day's location. The school staff develops a daily visual schedule representing the locations the child is scheduled to go to after school. When the child perseverates, "Go to Grandma?", he is referred to his visual schedule, which he readily comprehends.

- Use alternative communication strategies to facilitate expressive communication. The use of alternative communication strategies, such as picture communication symbols or written words, may help the child, who primarily uses UVBs for expressive communication, to communicate in a more appropriate manner. These visual alternatives also provide a "backup" in more stressful, anxiety-producing situations (9).
 - o **Example:** A child uses, "Want a snack?", throughout snacktime to indicate that he wants more to eat or drink. A picture exchange communication system is implemented to teach the child how to request specific snack items, rather than relying upon the generic echolalic utterance of, "Want a snack?".

Developing/Increasing nonverbal social communication (discourse) skills:

The child's ability to both understand and use various nonverbal social communication (discourse) behaviors should be addressed (See previous listing of various nonverbal social communication behaviors). The following interventions strategies are suggested.

> Understanding nonverbal social communication behaviors: Various strategies such as audio-taping, video-taping, role-playing, etc. can be used to increase the child's ability to understand nonverbal social communication behaviors. For example an audio-tape can be used to teach the child to initially recognize varied vocal volumes, rates of speech and inflectional patterns both in his own speech and in that of others. Once the child is able to recognize these vocal features auditorilly, a video-tape might be used as the next step to teach the child to understand what these vocal features might mean in different contexts. This would be helpful in teaching the child that he needs to use multiple cues to appropriately understand and respond to these behaviors. For instance a raised vocal

- volume can indicate anger, a warning for danger, a call for attention, etc. Additional contextual features, such as the immediate environment and the person's facial expression or body language, must also be taken into consideration to appropriately interpret the raised vocal volume.
- Using nonverbal social communication skills: Strategies such as modeling, role playing audio-taping, video-taping, Social Stories (5), Comic Strip Stories (4), etc., can be used to teach the child to use nonverbal social communication behaviors.
 - Example: A child is taught to gesture, "come here", through modeling, role playing and video-taping. Another child is taught to identify and monitor different vocal inflections, both in his own speech and in others', through the use of an audio-tape. A Social Story (5) and video-taping can be used to teach a child to maintain acceptable physical space and exhibit appropriate body language when communicating with others.

Visual support strategies can also be effective in teaching the child to use appropriate nonverbal social communication skills. One such strategy is to print nonverbal social rules on a card the size of a business card. The child keeps the card in his pocket for an easy visual-rompt reference in social situations: "Look at the person who I am communicating with"; "Stand about 2 feet away from the person"; "Am I talking too loudly or not loudly enough? ", etc.

Developing/Increasing verbal social communication (discourse) skills:

Typically children develop social communication skills with relative ease. However children with autism need specific and direct instructions in this area, as they do not usually exhibit a natural tendency to engage in social communicative interactions (11). Strategies to focus on increasing a child's verbal discourse skills should be implemented through specially designed activities, particularly those which are highly motivating to the child, as well as through feedback during naturally occurring conversational exchanges (9) & (11). For example if the child is highly interested in "Pokeman", set up activities to focus on social communicative interactions revolving around this theme. When teaching verbal social communication skills, it is important to consider the discourse skills of, and interests of typically developing peers, including topics of discussion. While "Pokeman" might be a high interest topic for a middle school student with autism, this would not be an appropriate theme to use to teach social communication skills with middle school peers. The following strategies can be used to address various verbal social communication (discourse) skills:

- **Develop dialogue scripts (11):** Dialogue scripts are used to visually script for the child each communicative partner's "lines" for a communicative exchange
 - Example: Partner 1: "Did you see the movie Chicken Run?" Partner 2: "Yeah, it was really funny. I liked the part when the chickens got in a big fight. What part did you like?" Partner 1: "I liked the part where the chickens were trying to learn how to fly".

Depending on the individual child, dialogue scripts can be visually represented by written words, pictures, picture symbols, etc.. Dialogue scripts can be used regarding normally occurring routines/activities, as well as in contrived situations designed to increase the child's social communication skills in a structured context (11).

• Engage in joint activity routines: Joint activity routines are familiar, highly predictable routines established with the child through repetition. These may include food-making routines, such as making Kool-Aid or chocolate milk; symbolic play routines involving play themes, such as eating in a restaurant, sports activities, etc. These routines also incorporate familiar, repetitive

communicative interactions, providing an effective language learning strategy for children with autism (a strength feature of autism is a preference for routines (11)). Joint activity routines allow for the child and adult to engage in meaningful, natural social communicative interactions within the routine of an activity. An additional positive outcome in using joint activity routines is that they teach the child that he can share experiences with others through communication (2).

• Use of visual support strategies: Various visual support strategies can be used to teach the child verbal social communication skills, as exemplified by the following:



"Turn-taking Card"

Turn-taking cards: A visual turn-taking card is a card with "my turn" printed on it (a graphic symbol can also be used depending on the child's ability to understand various visual representation systems). The turn-taking card is passed back and forth between communication partners to visually represent each conversational partner's turn in the conversation.

Games: Social communication games can be created involving various social communicative directives printed on cards, such as, "Initiate a new topic", "End the current topic", "Ask someone a question related to the current topic", etc. The cards are then placed face down on the table and the students take turns drawing cards and following the communicative direction.

Topic ring: Various appropriate topics to initiate are printed with either graphics, or written words, on a collection of cards (approximately 3" by 2") attached by a metal ring (e.g., "What have you been doing this summer?"; "Have you seen any good movies lately?"). The child can keep these cards in his pocket or attached to his belt loop for a visual prompt regarding appropriate topics to initiate with others. Typically these topics have first been taught in a small group setting, prior to having the child use this visual support strategy in less structured settings.

"Conversational rules" business cards: Conversational rules, such as "Get the person's attention before speaking to him"; "Let the other person have a turn to talk", etc., can be written on small cards for the child to keep in his pocket. These cards serve as visual prompts to help the child engage in appropriate verbal social interactions.

- Act out children's stories (11): Familiar stories can be acted out using manipulatives such as puppets, flannel board props, etc.. Initially the adult can teach the familiar story, using the props. The child can then be encouraged to "act out" certain characters of the story beginning with a character that has repetitive lines, if possible, such as the Big Bad Wolf in the "Three Little Pigs". Use of this strategy teaches the child verbal conversational turn-taking skills through an easily understood, visually motivating activity.
- **Encourage replica play (11):** Miniature toys such as dollhouses, farm sets, airport sets, etc. can be used to act out social communicative interactions. Initially repetitive and familiar communicative routines are taught. Gradually the familiar routine dialogues can be altered, to allow for more spontaneous, generative communicative interactions to occur.
- **Use of videos:** Videotaping social communicative interactions can be a very effective strategy to address social communication difficulties. The child can view videos of peers or others engaging in appropriate social communicative interactions as well as videos of himself in similar

situations. Videos of the child with autism engaging in social communicative interactions, are beneficial for increasing the child's self-awareness and self-monitoring skills.

Developing/Increasing communication about past and future events:

- Establish familiar and recurring routines: A child's ability to refer to past and future events occurs first within the context of familiar and recurring routines (9). The child is able to rely upon the support of the immediate, familiar, and highly predictable context to internally represent and recall events (9).
 - Example: A routine is established in music: the group first plays instruments and then blows bubbles. At the end of the class, the teacher asks the child, "What did we do in music class?"
- **Visual support strategies:** Various visual support strategies can be used to assist the child in discussing past and future events. The visual information which is required to communicate about past and future events provides support and assistance for the child when he may be experiencing difficulty recalling or representing events internally, . The following visual support strategies can be used to provide assistance in relating past and future events:



"Visual Schedule"

Schedules can represent daily activities and events.

Calendars are used to represent special events or recurring events, such as swimming lessons, holidays, etc.

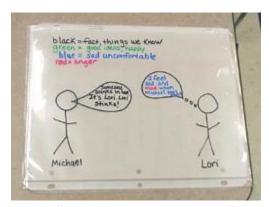
Sequential representation of activities is a visual sequence of activities or steps within an activity. For example, the steps to complete "making Kool-Aid" can be visually represented to provide assistance in recalling what steps just took place (past event) and what steps are about to take place (future event).

An exchange of information between home and school to visually represent past activities which took place at home or school.

Developing/increasing the ability to understand and express varied emotions and use of self-regulation:

The following strategies may be helpful for focusing on the expression and regulation of various emotional states in the verbal child with autism:

- Development of vocabulary to share emotional states and experiences with others: The child must first learn the vocabulary for varied emotional states in order to be able to exhibit emotional self-regulation skills. Vocabulary focus should begin with basic emotions (happy, sad, mad, scared) and progress to more abstract emotions, such as embarrassed or proud. The child can be taught in a variety of ways how to identify (recognize) and appropriately label varied emotional states first in others, and then in themselves. Photos, mirrors, video-taping and role playing are tools which can be used to teach the child these skills. For example a child looks at various photos of people expressing emotional states, and labels the emotions.
- Using contextual information to assist in determining the emotional state of others, and why those emotions are being expressed. After learning to label various emotional states, the child will need to be taught to use contextual information to assist in determining the emotional states being expressed by others, as well as why that emotional state is being expressed. For instance a child is running across the street without looking, and a parent yells in a loud voice, "Stop!" Due to the context, the parent is probably expressing the emotional state of being scared, rather than being angry, because she fears her child will get hurt. Video-taped clips of various movies or T.V. shows can also be used quite successfully in teaching the child these skills.



"Comic Strip Cummunication"

Social Stories (4) and Comic Strip Conversations (4) have also proven quite successful in teaching the verbal child with autism these skills.

Teaching the child to identify why he is feeling various emotional states and the use of self-regulation strategies: Difficult skills for the verbal child with autism is to understand (a) why he is feeling a certain way, and (b) how to use self-regulation strategies to help control the escalation of certain emotional states. It is important for the child to learn verbal strategies, which might prevent the escalation of negative emotions. For instance if the child is feeling anxious because he doesn't understand something, he should be taught to verbalize, "I don't understand". It is important to note that although the child may be verbal, he may not possess the language skills necessary to spontaneously communicate emotional states. Strategies such as Social Stories (5), Comic Strip Conversations (4), role-playing and videotaping have been used quite successful in teaching children these skills.

• Verbal reasoning:

To address any of the verbal reasoning difficulties listed under question number six in "Questions to Consider", the following teaching strategies can be used:

- o **Role-Playing:** Various problem situations, which the child has experienced, can be acted out through role-playing, or using puppets/dolls.
- Visual support strategies: Photos, pictures, and/or written information depicting problem situations can be used to teach the child to identify problem situations, possible causes and possible solutions.
 - Example: A problem situation is depicted by a picture of a boy's bike with a flat tire lying on the ground, or with a large piece of glass lying on the road. A discussion then revolves around identification of the problem a flat tire; causation for the problem the piece of glass; and possible solutions.
- Video-taping: Videotaped clips of various movies or T.V. shows can be used quite successfully in teaching the child verbal reasoning skills.
 - **Example:** A 3-5 minute clip from a movie is shown to the child. A discussion then arises regarding what problem situations were shown, possible causes for the problems and possible solutions.

• Narrative discourse skills:

Use of visual support strategies, such as story mapping, can be used to focus on the child's narrative discourse skills. Even if the child is able to read (decode) at an advanced level, when initially teaching narrative discourse skills (retelling), it is better to use very simplified stories.

Conclusion:

Although the verbal child with autism has acquired some verbal language skills, this does not always mean that he can effectively communicate at all times and in all situations. There are many factors which can adversely affect the child's ability to effectively communicate, including the immediate context or environment, feelings of stress or anxiety, unfamiliar communicative partners, etc. It is important for anyone who frequently communicates with the child to have a good understanding of the child's communicative strengths and weaknesses

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