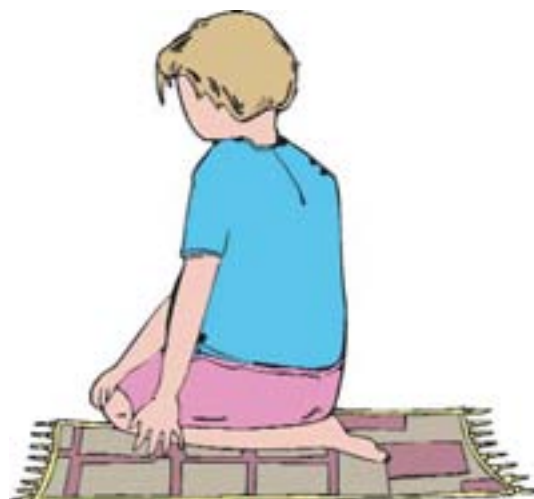


Choice Making: A Strategy for Students With Severe Disabilities

Alison M. Stafford



Joni is a 6-year-old student with severe intellectual disabilities. She has limited communication skills, and many adults do not take the time to decipher her idiosyncratic communication. When given a snack, for example, Joni frequently tosses it on the floor. On many mornings, Joni struggles and cries while her mother dresses her; however, she cooperatively assists her mother with dressing at other times. Her mother is very confused about the causes of Joni's aberrant behavior. Joni's teachers also are frustrated, because some days Joni seems unmotivated to participate in daily activities, but on other days she is eager to participate and interact with her teachers and her classmates. Joni is typical of many children with severe disabilities who have difficulty communicating their needs and desires to caregivers, teachers, and peers. And the frustrations that Joni's teachers and parents experience also are typical.

Most of us take for granted our abilities and opportunities to make choices. Being able to make choices, as well as taking advantage of opportunities to make choices, is an integral part of what makes humans able to function independently within the community. Although no one would argue against the benefits of choice making for all persons or against allowing opportunities for choice making during an individual's daily activities, minimal documen-

tation addresses methods of teaching choice making to individuals with severe disabilities (see box, "What Does the Literature Say About Choice Making?").

Choice is the action of an individual moving toward an item (Sigafoos & Dempsey, 1992); picking up an item (Parsons & Reid, 1990); or actively selecting an item (Guess et al., 1985). These definitions all imply that individuals must actively seek items in their environments to make a choice. In addition, merely looking at, touching, or interacting with an item, activity, or person can represent a choice.

But how many times can you recall a student, particularly one with severe disabilities, making such a choice only to discard or reject the selection and seek another item? If the opportunity for making a choice is new to a student, he or she may not understand what is being offered. Another possibility is that the student may not have experience with a person accepting his or her "choice" because well-meaning caregivers have "corrected" choices or provided the individual with an object or item that represented the caregiver's choice. Perhaps a student with severe disabilities who tosses an object aside is indicating that he or she first thought that he or she wanted the object, only to realize that he or she actually wanted something else. Individuals without

severe disabilities often make a choice and then change their mind and make another selection. However, when a person with severe disabilities rejects a previously selected item, others may view this behavior as inappropriate rather than as an example of a choice.

A number of strategies for teaching choice making to students with severe disabilities have appeared in the profes-

What Does the Literature Say About Choice Making?

Individuals who lack the ability and the opportunity to make choices become dependent on others to make choices and decisions for them (Guess, Benson, & Siegel-Causey, 1985). Making choices is a fundamental right that most people take for granted (Brown, Belz, Corsi, & Wenig, 1993). In addition, opportunities for choice making can have beneficial behavioral effects. These benefits include an increased engagement level (Datillo & Rusch, 1985; Parsons, Reid, Reynolds, & Bumgarner, 1990) and improved behavior (Jolivet, Wehby, Canale, & Massey, 2001; Kern, Mantegna, Vorndran, Bailin, & Hilt, 2001; see also Romaniuk & Miltenberger, 2001, for a review).

sional literature (Bambara & Koger, 1996; Beukelman & Mirenda, 1998; Lancioni, O'Reilly, & Emerson, 1996; Shevin & Klein, 1984), but little data support the effectiveness of any of these procedures. The strategy that this article describes has been effective in teaching choice-making skills to children who are 5- to 10- years old and who have severe intellectual disabilities (Stafford, Alberto, Fredrick, Heflin, & Heller, 2002). The key components of this strategy (see Figure 1) include the following:

- Preference assessments.
- A sequence of choice levels.
- Constant time delay.

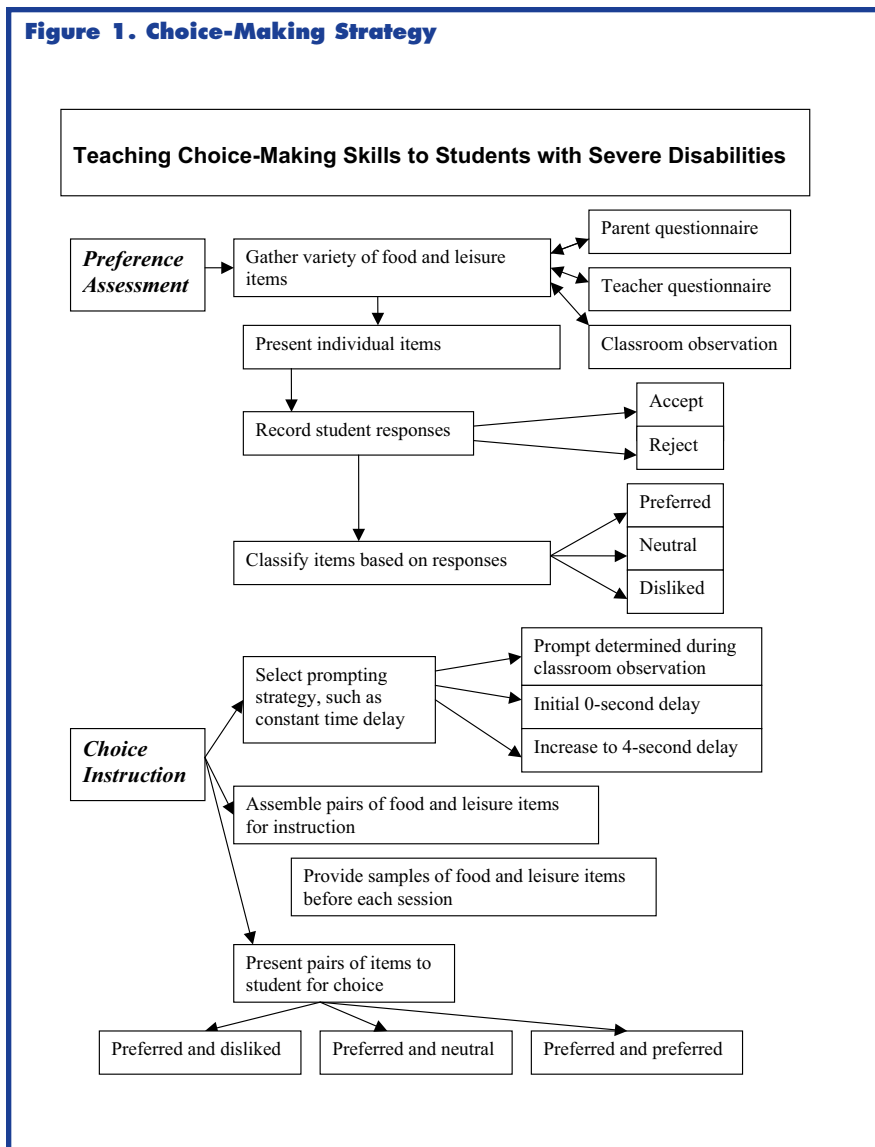
The first two components of this strategy give individuals with severe disabilities multiple opportunities to develop their choice-making abilities by offering them immediate reinforcement in the form of a preferred item. After the choice-making skill has been established, the strategy allows the individual additional opportunities to practice the skill. During these opportunities, the individual can choose between a pair of preferred items.

This strategy includes the final component, constant time delay, because of its effectiveness as a teaching strategy for students with severe disabilities (Westling & Fox, 2004). Constant time delay provides a systematic method of teaching skills by routinely giving students prompts that enable them to learn new skills more efficiently by limiting the number of errors. (For a description of time delay procedure, see box "Constant Time Delay.")

Preference Assessment

Before implementing this strategy for teaching choice making, the educator must identify items that the individual likes or prefers. Several reasons exist for identifying these preferences. First, educators must distinguish between individuals who accept a wide variety of items only to quickly discard them and individuals who do not attempt to obtain items even when given cues or prompts. In addition, a person who does not have recent knowledge of the items that students like cannot be sure

Figure 1. Choice-Making Strategy



whether they are choosing items on the basis of their preference or for an arbitrary reason, such as the item's proximity, color, or novelty.

If students do not actively attempt to obtain items that are within their reach, how can educators justify the assumption that they are not reaching for the items because they are choosing not to do so? For example, Joni is what most adults would consider a well-behaved child. She does not grab for items in her environment but waits until someone gives them to her, whether the item is a toy, an instructional item, or food. Many who work with Joni comment on how "easy" she is to have in class because when she is around, they do not have to guard certain items. Because Joni is accustomed to receiving items from

adults, she does not attempt to obtain items that are within her reach. To some people, this behavior is evidence that Joni does not have preferences, because she does not actively attempt to obtain items that are not presented to her. Is it evidence that she does not have preferences, or has Joni been taught too well to wait? Assessing Joni's preference for specific items is therefore essential.

Is it evidence that she does not have preferences, or has Joni been taught to wait?

Constant Time Delay

Constant time delay (CTD) is an instructional strategy that has been found to be both effective and efficient when teaching individuals with severe disabilities (Doyle, Wolery, Gast, Ault, & Wiley, 1990; Gast, Ault, Wolery, Doyle, & Belanger, 1988; McDonnell, 1987; McDonnell & Ferguson, 1989). CTD works by initially pairing the instructional cue with a prompt that increases the probability of a correct response. Prior to the start of instruction, the teacher selects the prompt (verbal, gesture, model, or physical) that he or she feels will elicit the desired response. Following the presentation of the instructional cue, the teacher provides the prompt. “Time delay” refers to the delay between the presentation of the instructional cue and the presentation of the prompt. Initially a 0 second delay is used, resulting in the cue and the prompt being presented simultaneously or, in the case of a verbal prompt, the prompt immediately following the cue. Providing the prompt this quickly virtually ensures a correct response from the learner. After a predetermined number of opportunities, usually five, the delay following the instructional cue is increased. While the teacher may determine the delay, the recommended length is 4 seconds. There are five possible responses: anticipation, wait, non-waiting error, waiting error, and a no response. An anticipation indicates that the learner provided the correct response before the prompt was given, while a wait indicates that he or she provided the correct response following the prompt. While both of these responses are technically correct, only anticipations count toward criterion. The remaining three possible responses are considered errors. A non-waiting error occurs when the learner provides an incorrect response prior to the presentation of the prompt, while a waiting error indicates that an incorrect response was provided following the prompt. The final type of response, no response, indicates that the learner did not provide a response at any time during the opportunity. For a full description of the time delay procedure, readers are encouraged to see Snell and Gast (1981).

Because an individual’s preferences can change over time (Bambara & Koger, 1996; Stafford et al., 2002; Umbreit & Blair, 1996), not only must educators ascertain current preferences, but they should also repeat the preference assessments on a regular basis. For example, Stafford et al. found that the preferences of young children with severe intellectual disabilities changed at least weekly. How many times have you observed a student suddenly rejecting a favorite activity, toy, or person? Sometimes people, including children with severe disabilities, just want something different.

Gathering an Array of Items and Sorting Them

Before you begin to assess your students’ preferences, you must gather an array of items. Several ways of selecting these items are possible.

- You can initially spend time observing students to note items that con-

sistently engage their interest or items that they consistently reject or ignore.

- You can interview teachers and other professionals in the school setting to ascertain their observations regarding the student’s preferences.
- You can gain information from parents, either through informal conversations or by requesting that parents complete a choice questionnaire.

An additional consideration when assessing preferences is whether the choice items are age-appropriate for a specific student. To obtain this information, teachers can observe students of the same chronological age who do not have disabilities or ask them about their preferences.

After you have assembled a number of items that you believe are possible items of preference for your students with severe disabilities, include in your array other items that you either know or suspect that the students dislike. Doing so will furnish you with a group of items that includes both preferred

and disliked items from which the students can develop their choice-making skills (Lohrmann-O’Rourke, Browder, & Brown, 2000).

Next, sort the items according to individual students’ likes and dislikes, and be certain that you have included enough items. You want to have a sufficient number of items to enable you to determine preferred, neutral, and disliked items for each student. After you have identified such items for specific students, you can begin to carry out the choice-making instructional strategy.

Assessing Students’ Responses

Many individuals with severe disabilities use atypical responses to indicate preferences (see box, “What Does the Literature Say About the Ways That Students With Severe Disabilities Express Their Preferences?”). Joni, for example, does not talk. This inability is very frustrating for her family and teachers because they are often unable to interpret her attempts at communica-

What Does the Literature Say About the Ways That Students With Severe Disabilities Express Their Preferences?

Students with severe disabilities may express their preferences with facial expressions, vocalizations, and body language (Siegel & Wetherby, 2000). In addition, many individuals with severe disabilities have idiosyncratic responses. These responses, whether typical or atypical, have meanings that are unique to the individual (Sigafoos & Dempsey, 1992; Westling & Fox, 2004). However, the teacher should not assume that a response given by one student with severe disabilities has the same meaning as a similar response given by another student. An important reason for noting students’ atypical or idiosyncratic responses is to avoid the possibility of overlooking or misinterpreting responses (Brown, Gothelf, Guess, & Lehr, 1998; Butterfield & Arthur, 1995; Westling & Fox, 2004).

tion. However, Joni is able to make a wide range of facial expressions and sounds. Although her family and teachers try to respond in ways that they believe are appropriate, Joni frequently does not appear satisfied with their responses.

When conducting preference assessments, the teacher should look for two basic responses: accept and reject. Stafford et al. (2002) defined *accept* as follows:

- For food items, the consumption of the item within 5 seconds.
- For leisure items, the student showing interest in or manipulating the item within 5 seconds of presentation, as well as maintaining his or her interest or manipulation for an additional 5 seconds.

This definition of accept presents another challenge; namely, how can the teacher decide whether the student is interested? Possible indications of interest include positive facial affect, such as smiling or looking at the item, or positive vocalizations. A student rejects an item by throwing it aside, spitting it out of his or her mouth, exhibiting negative facial affect or vocalizations, or showing no interest. Until you have a good idea of the responses that your students will use to indicate acceptance or rejection of an item, you should provide enough trials that you can rule out any misinterpretation of your students' responses. At the beginning of the preference assessment, each student should have 10 opportunities to sample each of the items. However, after you are comfortable with your assessment of the idiosyncratic responses of your students, you may find that you can complete the preference assessment for a particular item following the acceptance or rejection of an item after only four or five presentations. For a description of a way of abbreviating these time-consuming preference assessments, see box, "How to Shorten the Preference Assessment Process."

If you are using food items to determine preference, preparing single portions ahead of time will enable you to have one portion of food available.

Using portion cups, such as those used in restaurants and cafeterias, allows you to put aside a tablespoon or so of yogurt or to have bite-sized pieces of cookies readily available. When selecting an array of leisure items, check the appropriateness of specific items both for the environment in which you will use them and for the age of the student. Likewise, use the actual item, not a picture or some other representation. Using the item is critical, since you are teaching choice making and not symbolic representation.

Presenting the Items

For each trial of the preference assessment, present an item to the student and then state the student's name and the name of the item. If the student is able or seems to be willing to take the item independently, then permit him or her to do so. Otherwise, you may need to provide physical assistance so that the student can sample the item. After

How to Shorten the Preference Assessment Process

Providing 10 trials per item during the preference assessment can be somewhat time-consuming; however, shortening this process is sometimes possible. If the student accepts or rejects 4 out of the first 5 presentations of an item, the teacher can end the preference assessment of that item, since the acceptance or rejection rate is 80%. If, however, the student's acceptance or rejection response is lower, only 3 out of 5, for example, completing the 10 trials originally planned is advisable.

The rationale for this modification is that if an individual has accepted—or rejected—an item 4 out of 5 times, he or she would have to consistently reject—or accept—the item during the next 5 trials to move the item into the neutral category.

Although no studies have verified the validity of this modification to the preference assessment procedure, this shortcut will certainly save the classroom teacher precious instructional time.

the student samples the item, you should observe the student's reaction to the item and record her or his response on a data sheet. Repeat this procedure for all items in the array; your goal is to allow 10 trials per item. The literature documents this method of individual presentation as an effective way to assess the preferences of individuals with significant disabilities (Goode & Gaddy, 1976; Green et al., 1988; Pace, Ivancic, Edwards, Iwata, & Page, 1985), because presenting items in pairs or groups permits educators to assess preferences in individuals who have not demonstrated their ability to choose (Lohrmann-O'Rourke et al., 2000).

Classifying the Items

After you complete the preference assessment, classify the items as preferred, neutral, or disliked. To classify the items, calculate the percentage of acceptance for each item. Categorize items that the student accepts at 80% or more of the presentations as preferred, categorize items that the student accepts at 40% to 60% of the presentations as neutral, and categorize items that the student accepts at 20% or less of presentations as disliked. Identifying neutral items is critical to the choice-making strategy. Including items that the student likes "some of the time" shapes the choice-making ability of the student by gradually moving him or her toward the type of choice that is most common in real situations: two or more preferred options. The box entitled "Assessing Responses and Categorizing Items" summarizes the definitions of the terms *accept*, *reject*, *preferred*, *neutral*, and *disliked*.

Some of the items that you present will not fit into a category. Joni, for example, accepted a book about horses 3 out of 10 times. That 30% acceptance ratio was too high for the book to fall in the disliked category but too low for it to fall in the neutral category. This strategy only considers items that clearly fall into the preferred, neutral, or disliked categories; omitting items that do not clearly meet the criteria for those categories allows the teacher to have greater confidence in pairing items during the

Assessing Responses and Categorizing Items

Since students with severe disabilities may use atypical responses to indicate preferences, use the following guidelines to define *accept* or *reject*:

- *Accept*: consumes food item within 5 seconds; shows interest in or manipulates item within 5 seconds and maintains interest (showing positive facial affect such as smiling or looking at the item, using positive vocalizations, or manipulating the item for an additional 5 seconds; manipulation need not be appropriate, since student's preference, not the ability to appropriately use the item, is important).
- *Reject*: throws item aside, spits out (for food items), exhibits negative facial affect, emits negative vocalizations, or otherwise shows no interest.

After conducting the preference assessment, calculate the percentage of acceptance for each item. Use the following criteria for categorizing the items as preferred, neutral, or disliked:

- *Preferred*: Items accepted for at least 80% of presentations.
- *Neutral*: Items accepted for 40% to 60% of presentations.
- *Disliked*: Items accepted for 0% to 20% (rejected at least 80%) of presentations.

choice-making instruction phase. Joni, for example, accepted a Barbie doll 6 out of 10 times (60%, neutral), a brightly colored necklace 9 out of 10 times (90%, preferred), and a book about baseball only 1 out of 10 times (10%, disliked) during a preference assessment.

Choice Instruction Strategy

The next component in the choice-making strategy is presenting students with a pair of items. The sequence of pairings is as follows:

- Preferred–disliked.
- Preferred–neutral.

- Preferred–preferred.

Begin choice instruction with pairs consisting of one preferred item (accepted at 80% or more of presentations) and one disliked item (accepted at 20% or less of presentations). For example, the results of Joni's preference assessment indicate that her teacher might pair the brightly colored necklace (a preferred item) with the book about baseball (a disliked item). The rationale for the initial pairing is that presenting a preferred item with a disliked item results in an obvious response and allows for immediate reinforcement of a student's action, thereby allowing the student to experience natural consequences (Beukelman & Mirenda, 1998). A teacher who began instruction with two preferred items would not know whether the student selected an item because of a preference or whether he or she selected it for some other reason. The subsequent pairings of preferred items with neutral items and preferred items with preferred items help students practice and improve their choice-making abilities, with the final pairings more similar to those found in naturally occurring choice opportunities.

For the first pairings in the sequence, use 10 pairs of items, with each pair consisting of a preferred item and a disliked item. Be sure to include a variety of items, and be certain to vary the order in which you present them. In other words, balance the preferred and disliked items so that you do not always present the preferred item first. At this point, as well as before all instructional sessions, each student should have an opportunity to sample the items so that he or she can make an informed choice.

For each trial, you should present the pair of items to the student along with the verbal cue "(Student), I have (first item) and (second item). Do you want (first item) or (second item)?" For example, when giving Joni a choice between the necklace and the book about baseball, the teacher would say, "Joni, I have a book about baseball and a necklace. Do you want the book or the necklace?" Record the item that the student chooses, and repeat this procedure until the student has reached the criterion that you have set. Stafford et al. (2002) estab-

lished a criteria of 80% for three consecutive sessions before moving to the next phase. This criteria enabled the students to demonstrate their ability to make a choice at each level before the choice options became more complex. If a student is not making progress and/or appears to be making random selections, the teacher should return to a 0 second delay for at least one full session before again implementing a 4 second delay.

After the student has reached the criterion with the initial pairings, present pairings consisting of a preferred item and a neutral item. At this level, one of the pairs for Joni might be the necklace (preferred) with the Barbie doll (neutral). Present each pair in the same manner as the previous pairings. When the student has reached the criterion with the pairs of preferred and neutral items, assemble pairs of preferred items and follow the same procedure that you used with the preferred–disliked pairs and the preferred–neutral pairs. This final type of pairing parallels many of the choices that people encounter every day: a choice between items that they prefer relatively equally. Although that type of pairing is a more realistic choice format, the strategy includes the preferred–disliked and preferred–neutral pairings to offer students opportunities to make choices that will be more reinforcing to them. Students need to learn about natural consequences; although people sometimes make poor choices, they must accept the choices that they make.

At this stage, if the student "chooses" items that the preference assessment classified as disliked (during the first group of pairings) or neutral (during the second group of pairings), conduct another preference assessment. As previously indicated, preferences can and do change over time, and the preferences of students with severe disabilities are no exception. Regularly scheduled preference assessments will enhance the effectiveness of this strategy.

Final Thoughts

Choice making is an integral part of the daily lives of all people. The strategy that this article presents for teaching choice-making skills provides practitioners and family members with a method of ensur-

ing that those with severe disabilities can take advantage of choice-making opportunities. This instruction will benefit not only the individual with a severe disability but also his or her family and other caregivers because it results in improved participation in daily life, improved behavior, and less dependence on others.

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Alison M. Stafford (CEC Chapter #112), Assistant Professor, Department of Special Education and Speech Language Pathology, University of West Georgia, Carrollton.

Address correspondence to Alison M. Stafford, University of West Georgia, 1601 Maple Street, Carrollton, GA 30118. (e-mail: astaffor@westga.edu)

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