

Successful Adaptations for Learning to Use Touch Effectively

[Articles](#)
[Information Sheets](#)
[What We've Learned](#)

COMMUNICATION SYMBOLS

There are many different types of symbols to support the communication skills of individuals who do not use speech and are deaf-blind. Although Project SALUTE is primarily interested in tactile means of communication, we recognize and support the use of additional modes that involve vision and hearing as well. The fields of linguistics and alternative and augmentative communication have identified the relationship between a symbol and what it represents as **arbitrary** and **entirely learned** (Venkatagiri, 2002). The literature on augmentative and alternative communication with children who are deaf-blind has used the term "symbol" to mean "representation" and so photographs and objects have been included in symbol systems. This information sheet presents a list of abstract to concrete symbols that may be considered in developing an individualized alternative communication system. Individuals may use certain types of these symbols for expressive communication and different ones for receptive communication. Most individuals will probably use a combination of these symbols depending on their abilities, needs, motivation, and the demands of the communicative setting. While the following list is not intended to impose a strict continuum from abstract to concrete symbols, the purpose of this information is to facilitate the selection and development of the most efficient communication systems for individual students.



Most Abstract

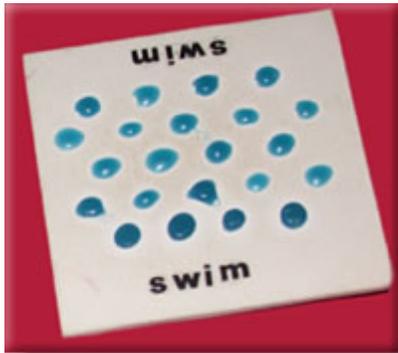
1. Traditional orthography or braille



Traditional orthography (print) for those who see and braille (for those who don't have functional vision) are standardized and abstract symbol systems comprised of letters formed by a unique visual (lines) or tactile (dots) character. Stringing a series of these characters together creates words, which in turn stand for a very specific referent. The string of characters (whether visual or tactile) does not resemble their referent and are considered abstract in their

representation. For example, the written word, "cup" has no visual relationship to its meaning.

2. Textured symbols



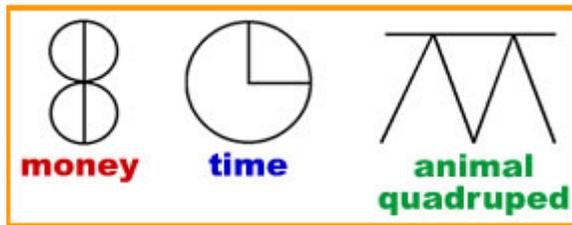
Textured symbols are individually created for students reading a tactile and static system. A given texture such as cotton, leather, plastic, dried glue dots, are affixed to cards and used by the student to indicate desired items, people or activities. The majority of textured symbols will have no relationship to what they represent and are therefore considered to be an abstract communication system (e.g., a pattern of glue dots represents "going for a swim"). Occasionally, an effort is made to have the texture more closely resemble what it is meant to represent. For example, a small piece of tile means a desire to go to the bathroom. When texture symbols closely resemble what they represent they are less abstract and more iconic. The more iconic textures may be easier for the student to learn their meaning.

3. Manual signs



Manual signs can be a visual or tactile means of communicating, borrowing vocabulary from ASL. Signs are made with 1 or 2 hands and include a specific hand shape, position in space, and movement. Each sign represents a word or words that convey meaning. Although usually presented visually at a distance from the receiver, when used tactilely, the signer signs under the hands of the communication partner who does not see or hear. The majority of signs (borrowed from ASL) does not resemble their referent and are considered abstract (e.g., MOTHER). However, several signs look similar to their referent (e.g., BABY, DRINK, CUP, LOOK) and are considered to be iconic. Other signs bear a resemblance to one or more aspects of their referent and are considered to have greater iconicity than completely abstract signs (e.g., DOG, TREE, SPIDER, HATE, FISH). The more iconic signs may be easier for the student to learn. However, the student must have adequate physical dexterity to form the manual signs needed for this system. Modified signs that meet the cognitive and physical needs of the user may also be easier to learn and use, but harder for others to perceive and understand.

4. Blissymbols



Blissymbols, developed by Charles Bliss, contain primarily abstract visual symbols that serve as an alternative to traditional orthography. Based on a logical system that allows the user to create any

message, visual markers are added to symbols to change syntax and pragmatic functions. While many Blissymbols are quite abstract, several are iconic and therefore, easier to understand. For example, the shape of a heart can represent the noun, heart. When an arrow pointing up is placed next to the heart shape, the word conveyed is happy. If the arrow points down, the word becomes sad. As shown in the examples, the Blissymbols for money, clock and animal resemble an aspect of their referent. While primarily visual, Blissymbols can be designed to be tactile as well. The logical nature of the system, plus its iconicity are believed to students learn their meaning.

5. Lexigrams or logos



Lexigrams and logos are primarily visual symbols, but can be designed to be 3-D and therefore, tactilely perceived. Lexigrams or logos are shapes (with or without color) that represent different referents. While considerably abstract, many of these shapes can closely resemble referents (e.g., the universal logos for male and female restrooms resemble the silhouette of a man

or woman). As shown in the example, the logo indicating access or parking for individuals with disabilities represents a person sitting in a wheelchair. A circle logo meaning, "eat" somewhat resembles a plate—a relationship that could be perceived visually or through touch. The less the logo resembles what it refers to the more abstract the symbol. The more it resembles its referent, the more iconic it is. Furthermore, what may closely resemble its referent visually may not do so at all tactilely.

6. Line drawings (pictures)



Line drawings are black and white or color drawings of people, activities, animals, or items that visually refer to what they represent. While closely resembling what they represent, they do not have to be realistic and can be somewhat abstract depending on the message conveyed. A drawing of a cake to represent cake can be quite concrete and iconic, especially if it is exactly the same kind of cake. Adding a specific color to a drawing (e.g., a red apple versus a green apple) increases its visual similarity to the object it represents. A drawing of two hands to represent help is considerably more

abstract. Drawings can be commercially made or homemade. The closer the picture is to resembling what it represents the more iconic or concrete it is considered.

7. Photographs (black and white)



Can I have a drink?

Black and white photographs very closely resemble what they represent, except for the absence of color.

Photographs of single items representing that item can be very concrete (e.g., photographs of cup to represent drink). Photographs that contain a great deal of visual information may be more abstract (e.g., a photo of several children and teacher and aide with background stimuli to represent singing) because

they resemble their referent less clearly. The example shows one type of water fountain. This photograph is more concrete for a student who has used this kind of water fountain than for a student who has never seen one like this.

8. Miniatures



Can I have a drink?

Miniatures are very small items that are designed to visually represent certain referents (e.g., a small elephant means elephant). As items they can be handled and therefore, have a tactile element. However, while they may closely approximate what they represent visually (a tiny house for home or a plastic animals for real animals), they are often quite abstract when perceived tactilely. Therefore, while they may be very concrete representations for those who have adequate vision, they can be meaningless and unlike their referent for

those without functional vision. This critical consideration should help to determine their appropriateness for certain students versus others. The example shows a small wooden bottle that is twice the length of a 25-cent piece. While it looks like a bottle, it would be difficult to recognize tactilely.

9. Photographs (color)

Color photographs can very closely resemble what they are meant to represent and so are considered quite visually concrete in their representation. A color photograph of a child's favorite toy visually reflects the same shape and color of the desired items so that the relationship is clear. However, when photographs contain multiple



Wash hands

bits of information or when they only tangentially refer to the referent, they may be more abstract (e.g., a photo of a corner of the room with chairs, table, pictures, toys, etc. to mean centers or a photo of a disk being put into a computer to mean computer time). As shown in the example, a row of sinks, soap dispensers, mirrors, and the tile on the wall make the photograph more visually complex than a photograph of a single sink

and faucet. Photographs with the same subject (e.g. dog) can be taken from different visual perspectives and may be more challenging for some children to identify. Vision is required.

10. Parts of objects



Can I have a drink?

Parts of objects can visually and tactilely resemble their referent very closely and are considered concrete symbols as a result. For example, a piece of a straw can represent drink if the child typically uses a straw to drink. Similarly, using this bottle top to indicate "drink" will only be meaningful if the child has drinks from bottles with the type of top that is shown in the example. Parts of objects as communication symbols can be large or small, however, the smaller the object

part, the easier it will be to display and take where needed. Parts of objects that are to be recognized visually should be selected based on clearly representative visual information (e.g., the streamers hanging from the bike handles can be used to represent the bicycle visually). Parts of objects that are to be recognized tactilely should be based on meaningful tactile information from the child's perspective (e.g., part of the handles from the bike can be used to represent bike because that's what the child feels when riding the bike). Parts of objects that are not easily seen or felt by the child will be more abstract and the relationship less clear.

11. Objects

Whole objects are clearly concrete representations of their referent. A cup is used to mean drink, a bottle for milk, a toy ball for playing ball, etc. The object may or may not be used in the activity it represents. However, the association to the referent is very clear and therefore, may be easier to learn. As shown in the example, the computer disk is clearly connected to "working on the computer" but is not used in the activity.



Most Concrete

Source

***Communication Symbols* represents a synthesis of information from Project SALUTE's focus groups, National Advisory Committee, staff activities, and a review of relevant literature such as the following bibliography.**

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Description

What We've Learned

Selected Resources

Getting Input

Photo Gallery

FAQs

Links



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