Spring 4-30-2017

Aided Communication for Adults with Developmental Disabilities

Lindsay Bolding
lboldin@bgsu.edu

Follow this and additional works at: https://scholarworks.bgsu.edu/honorsprojects

Part of the Accessibility Commons, and the Speech Pathology and Audiology Commons

Repository Citation
https://scholarworks.bgsu.edu/honorsprojects/259

This work is brought to you for free and open access by the Honors College at ScholarWorks@BGSU. It has been accepted for inclusion in Honors Projects by an authorized administrator of ScholarWorks@BGSU.
Aided Communication for Adults with Developmental Disabilities

AIDED COMMUNICATION FOR ADULTS WITH DEVELOPMENTAL DISABILITIES

LINDSAY BOLDING

HONORS PROJECT

Submitted to the Honors College at Bowling Green State University in partial fulfillment of the requirement for graduation with

UNIVERSITY HONORS

5/1/17

Mrs. Christie Routel, College of Intervention Services, Advisor

Mrs. Laura Schrock, Department of Communication Sciences and Disorders, Advisor
Aided Communication for Adults with Developmental Disabilities

This honors project is a series of templates that will serve as a guide for residential facilities for individuals with autism and other developmental disabilities. What is the most effective way to facilitate communication in residential facilities for adults with developmental disabilities? While working at this type of facility during my time at Bowling Green State University, I have witnessed a need for implementation of new communication routes in the homes. While skill building such as communication is stressed in the homes, plans for staff to fulfill these skills can be lacking. The templates I have created can be used by homes such as the ones I work in so communication can become a priority for these individuals to ensure their voices are heard.

Below are three different templates that can be utilized by residential homes for individuals with developmental disabilities. The first I have created is a visual schedule which can be used to show the individuals living in these facilities who is coming in for the current day as well as the following day. This is done through both pictures and words to maximize the effectiveness of the visual schedule. The next series of templates are visual communication boards which are used to allow individuals who may not be able to physically use their voice to express what they want or need. The last template created was a way to teach staff what types of sign language are used in the homes in which they work. This includes both a list of the signs known by a particular individual as well as explanations for how each sign is used and a plan to implement a class to teach the staff American Sign Language. With the help of the templates that have been created, communication in group homes for adults with developmental disabilities will be greatly improved.
<table>
<thead>
<tr>
<th>TODAY</th>
<th>TOMORROW</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1ST SHIFT</strong></td>
<td></td>
</tr>
<tr>
<td><img src="image1" alt="Spencer" /></td>
<td><img src="image2" alt="Linda" /></td>
</tr>
<tr>
<td>Spencer: 7a-3p</td>
<td>Linda: 7a-3p</td>
</tr>
<tr>
<td><strong>2ND SHIFT</strong></td>
<td><strong>2ND SHIFT</strong></td>
</tr>
<tr>
<td><img src="image3" alt="Lindsay" /></td>
<td><img src="image4" alt="Evan" /></td>
</tr>
<tr>
<td>Lindsay: 3p-10p</td>
<td>Evan: 3p-10p</td>
</tr>
<tr>
<td><strong>3RD SHIFT</strong></td>
<td><strong>3RD SHIFT</strong></td>
</tr>
<tr>
<td><img src="image5" alt="Dylan" /></td>
<td><img src="image6" alt="Chris" /></td>
</tr>
<tr>
<td>Dylan: 10p-7a</td>
<td>Chris: 10p-7a</td>
</tr>
</tbody>
</table>

*Example 1*
*Example 2*
A visual schedule is important for many individuals with developmental disabilities, especially those on the autism spectrum. In my experience working in a group home with adults with developmental disabilities my residents have abundant anxiety about what staff is coming in next and who is spending the night at their house. Samson (2015) explains the relationship between emotions such as anxiety and how they can contribute to behaviors that limit communication for those with autism. With the goal of this visual schedule ultimately being improved communication for individuals with developmental disabilities, understanding the role anxiety plays in communication is extremely important. Hepburn (2014) elaborates this idea further, explaining the comorbidity of individuals with autism and anxiety symptoms. Anxiety can cause distress, which leads to behaviors that limit communication.

Shire (2014) outlines why family involvement is important when working on communication for those with autism. A residential group home is not a traditional family, but for many individuals who live there, their staff and housemates are the closest thing to family that they know. This article aids our research because the dynamic of family is similar to the residential home and will help guide communication techniques used in the group homes. Since staff can feel like family for the individuals living in the group homes, it is extremely important for them to know who is coming in and what time they will do so. Gillespie-Smith (2014) describes why people with Autism Spectrum Disorder (ASD) understand faces more than words or pictures of objects.

A visual schedule with both pictures and words will help to reduce anxiety in the individuals living in the group homes. The first example above is a document example of how to set up a simple visual schedule. In this example, each shift is denoted by 1st, 2nd, and 3rd. Many of the individuals living in group homes that have anxiety about staff coming have reading capabilities, so they would
Aided Communication for Adults with Developmental Disabilities

be able to understand the shifts and time the staff is coming in. If individuals are unable to read the visual communication board, it can be useful for individuals to have the visual of the person’s picture and can then ask the staff that is currently working what time that person is coming in. In order to make the board more accessible, I have added an alarm clock to denote the morning shift and a moon to denote the overnight shift. This will help eliminate confusion for those who may not understand the times listed on the board.

The second example above is what the visual schedule would look like in the home. In this version, I created the schedule on a 16-inch by 20-inch white board that can be found at any store which sells office supplies. I then typed the text seen on the schedule and printed it out, laminating it so it lasts longer. From there any group home can customize the schedule as they wish, adding extra staff names and times where needed and changing the staff pictures. The staff pictures can be printed and laminated as they are shown in the example, and they would be changed most easily by attaching a magnet to the back of the pictures. Dry erase markers can be used to write the staff’s name next to their picture.
Aided Communication for Adults with Developmental Disabilities

Activity Board

Watch TV

Puzzle

Swim

Go Out to Eat

Play Cards

Play Basketball

Go to the Store

Play Video Game

Read Books

Go for a Walk

Movie Theater

Color
Aided Communication for Adults with Developmental Disabilities

Activities

- Watch TV
- Puzzle
- Swim
- Go Out to Eat
- Play Cards
- Play Basketball
- Go to the Store
- Play Video Games
- Read Books
- Go for a walk
- Movie Theater
- Color
Breakfast Board

- Milk
- Water
- Bacon
- Banana
- Fruit Punch
- Toast
- Eggs
- Yogurt
- Orange Juice
- Waffle
- Apple
- French Toast
Breakfast

Milk
Water
Bacon
Banana
Fruit Punch
Toast
Eggs
Yogurt
Orange Juice
Waffle
Apple
French Toast
Individuals with ASD can have little to no verbal communication skills, which is why alternative and augmentative communication (AAC) and American Sign Language (ASL) are commonly used for expressive communication. Picture communication boards are often an AAC device used to help nonverbal individuals communicate their wants and needs. These boards are much more cost effective than a digital version of the same idea. If resources are limited, these do-it-yourself communication boards can aid communication immensely in group homes for adults with developmental disabilities. Thiemann-Bourque (2016) explains how picture communication can be extremely effective for functional communication. Picture communication is effective because the communication is direct and simple. Pointing to pictures of what someone wants or needs makes it more likely that there will be no barrier to accomplishing the task.

The boards shown above, the activity board, breakfast board, and lunch/dinner board, are all examples of what picture communication boards can look like in a template format. For each board, there is a corresponding board that has been created using poster board, markers, and printed pictures of the desired items. These boards can be customized depending on what is needed for a specific individual. There are many different boards that can be created other than the three listed above. The three listed can also be customized based on individual’s preferences. Those who know the individual best can help create a useful board to aid in communication.
American Sign Language Alphabet and Numbers 1-9:

*The American Sign Language alphabet is used throughout the list of signs known. For example, when referencing a “c” hand, it is using the ASL sign for the letter “c.” The same is true for any letter referenced in parentheses throughout the descriptions.
List of Signs Known:

- **Mom**
  - Place the thumb of right open hand (fingers spread) in middle of chin.

- **Baby**
  - Cradle an imaginary baby in arms, the right arm lying on top of the underside of the left arm.

- **Home**
  - Use a closed right hand, all four fingers touching the thumb, to touch the right side of the face, first at the chin and a second time on the right cheek bone near the ear.
Aided Communication for Adults with Developmental Disabilities

- **Work**
  - Tap the right "s" hand on the back of the left "s" hand.

- **Store**
  - Touch fingertips and thumbs of both hands held slightly in front of the body. Then move hands forward twice as if dispensing money across a sales counter.

- **Car**
  - "c" hand hovers over left fist, then moves up imaginary steering column of car
• Finish
  o Hold open hands (fingers spread) in front of chest, palms facing inward. With a sudden movement, rotate wrists so that palms face outward.

• Hot
  o “c” shape cupped open toward face at chin level. With a sudden movement rotate hand away from face and move out and down. “Take the hot (food) out of your mouth and drop it!”

• Cold
  o Two clenched fists 'shivering' about shoulder high.
- **Hamburger**
  - Shape an imaginary hamburger patty in your hand. First right hand on top then left hand on top.

- **Hot Dog**
  - Squeeze hands with each move outward as if you are shaping each individual link

- **Eggs**
  - Touch "u" hands, the right middle finger resting gently on the left index finger. Then move hands outward and down as if cracking an egg and letting the contents spill into an imaginary bowl.

- **Apple**
  - Curl your right index finger to touch your thumb. Twist or rotate, your arm, tipping the knuckle towards your mouth, then back again.
• Banana
  o Make an imaginary banana by holding a left "and" hand with fingers pointed upward and touching. Then use the right hand to pantomime peeling the banana. ("and" sign is folding the hand upward where all finger tips are touching)

• Grapes
  o Lightly touch the fingertips of a right curved hand (fingers spread) several times on the back of a left curved hand, palm turned down. Note: The movement represents clusters of grapes.

• Bacon
  o Start with "u" hands facing each other about an inch apart. Move hands outward, wiggling the fingers slightly in a wavelike motion to simulate bacon frying.
• **Cheese**
  - Move a right "c" hand from side to side while touching the right wrist against the left wrist, palm turned slightly upward.

• **Chips**
  - Touch the thumb of a right "c" hand to the index finger of a left "d" hand that is held slightly in front of the body, palm down.

• **Cookie**
  - Using a cupped, "c" hand as a cookie cutter, twist out a cookie on the counter of your extended left hand.
• Ice Cream
  o Move a right "s" hand from the lips downward and across the chin as if eating an ice cream cone.

• Salad
  o Using curved open hands, palms upward, mimic tossing a salad.

• Cereal
  o Pantomime scooping cereal with the right hand from an imaginary bowl in the palm of the upturned left hand.
- **Water**
  - The letter "w" signed at chin level.

- **Hungry/Eat**
  - Closed “c” motion toward mouth.

- **Sleep**
  - Hold a semi-open hand in front of your eyes, then close them gradually as you bring them down, to mimic closing your eyes.
• Happy
  o Touch chest with closed fingers of both hands in a forward circular motion, as if "stirring" emotions of joy.

• Angry
  o Hold the right hand in front of the face, palm facing in. Bend and unbend fingers twice. Make an angry face as your hands make the sign.
Aided Communication for Adults with Developmental Disabilities

- **Sad**
  - Spread fingers and place hands several inches in front of the face, palms in. Move hands in a downward position to indicate a flow of tears.

- **Sick**
  - Middle fingers, both hands, point to head (right) and chest (left) at the same time.
• Please
  o Use right hand, flat, fingers together. Rub in a circular motion mid-chest.

• Thank you
  o With open hand, touch lips, and then extend hand outward, keeping palm facing the face (as if throwing a thank-you kiss).
Aided Communication for Adults with Developmental Disabilities

- **Stop**
  - Left hand open facing up with right hand in chopping motion down to left hand

- **More**
  - Hold both hands in a loose cup with fingertips close and pointing at each other. Some signers actually touch the fingertips of both hands together.

- **Blue**
  - Slight shake a right "B" hand as you hold it to the right of the body.

- **Green**
  - Slightly shake a right "g" hand.
- **Yellow**
  - “y” shape rotated back and forth as many times as necessary.

- **Red**
  - Touch a right "d" hand to the lips, glancing the top and then the bottom lip in a downward motion.

- **Brown**
  - Draw a right "b" hand across the right cheek, starting at the right side of the nose and ending at the bottom of the mouth.
- **Cat**
  - Index finger and thumb trace a cat's whiskers from the cheek outwards.

- **Dog**
  - Snap your fingers, hand at your side.

- **Bird**
  - Place the right "g" hand at the right side of the mouth with fingers pointing forward, as if to create a bird's beak. Open and close the finger and thumb once or twice to emulate the movement of a bird's beak.
• Horse
  o Touch the right temple with the thumb of an "h" sign and move the "h" several times, as if the horse's ear is twitching.

• Cow
  o Touch the right temple with the thumb of a "y" sign to illustrate a horn.

• Sheep
  o Using the back of a right "v" hand, pantomime cutting wool on the left forearm
Aided Communication for Adults with Developmental Disabilities

- Pig
  - Tap the chin twice with the back of a right "p" hand.

- Snake
  - With a curved "v" hand (illustrating the fangs of the snake) move forward from the chin, slightly rotating the hand.

- Elephant
  - Using a right curved "b" hand, trace an imaginary elephant's trunk from your nose outward.
- **Lion**
  - Hold a cupped open-fingered right hand at the forehead's hairline. Then move the hand backward across the curve of the top of the head, illustrating the lion's mane.

- **Books**
  - Start with hands in “praying” position and open to the outside.
Moving from a picture communication board to American Sign Language (ASL), if possible, is a step to take for individuals who have the physical capability of using sign language. Couper (2014) compares the use of picture communication systems and manual signs, such as ASL. This comparison will help decide the best route to move from picture communication boards to ASL for individuals for which it is appropriate. Having a list of signs known by an individual will aid staff in group homes because the base knowledge of what someone already knows is the only place to start when working on communication. This list, along with pictures and descriptions of how to do the signs, will be for reference in the group home for staff to see whenever they can. Although an individual knows these signs already, it is important to practice the signs in order to maintain the skill of ASL. Having a reference will also help staff practice the signs on their own so they can use ASL in communication with their residents in every type of situation.

It is also important to note many individuals who use sign language have their own “home” signs, which may not be used anywhere else. The home supervisor should know what these signs are and can communicate to the staff what they are and how they are used. A class, accompanied by this list, would be most useful in teaching the staff of group homes these signs as well as home signs. While working in group homes, there are mandatory skills classes such as CPR, first aid, and emergency safety. For homes with individuals who use ASL, a course on the language could be incorporated into a mandatory style such as the other classes. It can be renewed once a year in order for staff to stay up to date on their signing, and can be taught by someone who is certified in American
Sign Language. Having a class is the best way for individuals to learn these signs, as a book of signs in the home isn’t enough to help someone learn a new language.

This list of signs known is simply an example of what one individual may know. A template such as this should be used to make an individual list of signs known for every person who utilizes ASL in their lives. Each person who uses ASL living in group homes should have their own list that the staff can reference at any point while on the job. Along with an individualized list, the classes should be tailored to what signs are used in a specific home in which someone will be working. This will guarantee the competence of ASL in an environment where it is frequently used.

While these templates have not been implemented in a group home, they could easily be put into an everyday routine. With research to support the templates, I believe this project would be successful in decreasing anxiety and increasing communicative effectiveness in group homes for individuals with developmental disabilities. The visual schedule, visual communication board, and the list of signs known by an individual could be used in conjunction with one another or individually. With the help of these templates in group homes, I believe individuals with disabilities will have increased communication with their staff and the world.
Couper, L., Van der Meer, L., Schafer, M.C.M., McKenzie, E., McLAY, L., O’Reilly, M.F.,
Acquisition of and Preference for Manual Signs, Picture Exchange, and Speech-Generating Devices in Nine Children with

Autism: Evidence from Eye Tracking Research. *Augmentative and Alternative Communication, 30*, 160-171. doi:
10.3109/07434618.2014.905635

Psychiatric Comorbidity of Treatment-Seeking Youth With Autism Spectrum Disorder and Anxiety Symptoms. *Journal of


Schneider, E.E. (September 30, 2002). *American Sign Language (ASL)*. Retrieved from
http://www.lessontutor.com/eesASLdictionarylinks.html
