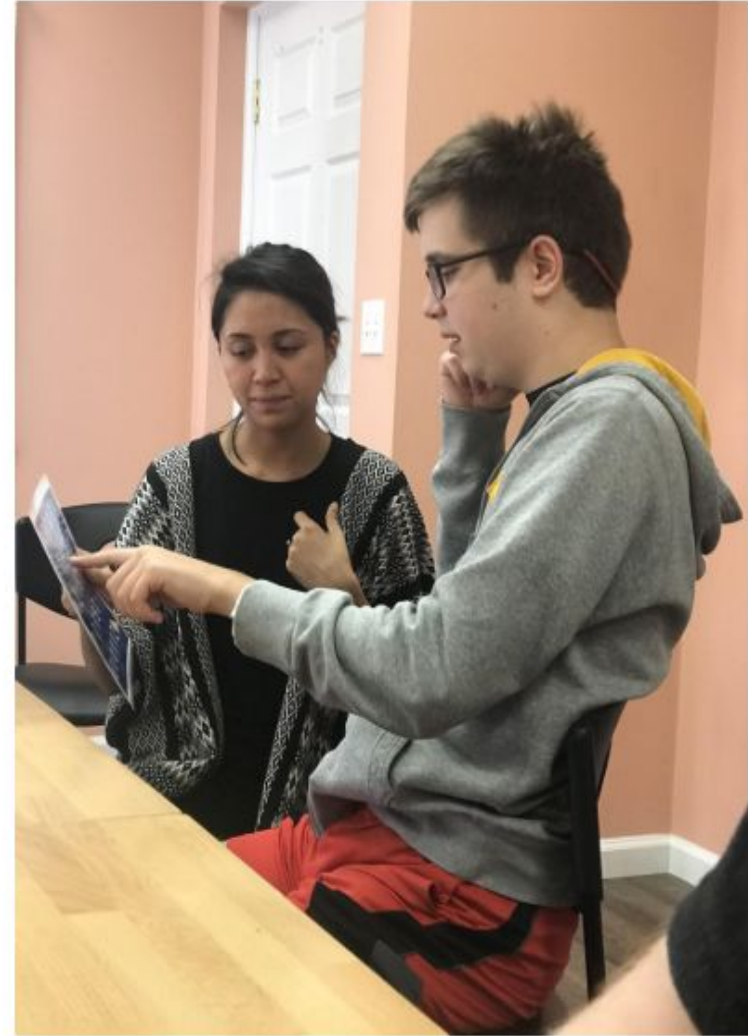


Spelling to Communicate (S2C)

A Fresh Perspective on “Non-Verbal” “Severely” Autistic Individuals

What is Spelling to Communicate (S2C)?

Spelling to Communicate (S2C) teaches individuals with motor challenges the **purposeful motor** skills necessary to point to letters to spell as an **alternative means of communication** (AAC). The goal is to achieve synchrony between the **brain and body**.



WHAT IS APRAXIA?



**Apraxia is a disconnect
between the brain & the body.**

Individuals with Apraxia know what they want to say or do. They often cannot get their body to “listen” to what their brain is telling it to say or do.

Many individuals who exhibit full-body Apraxia do not have a formal diagnosis of Apraxia
Apraxia is a common co-occurrence in those diagnosed with Autism.

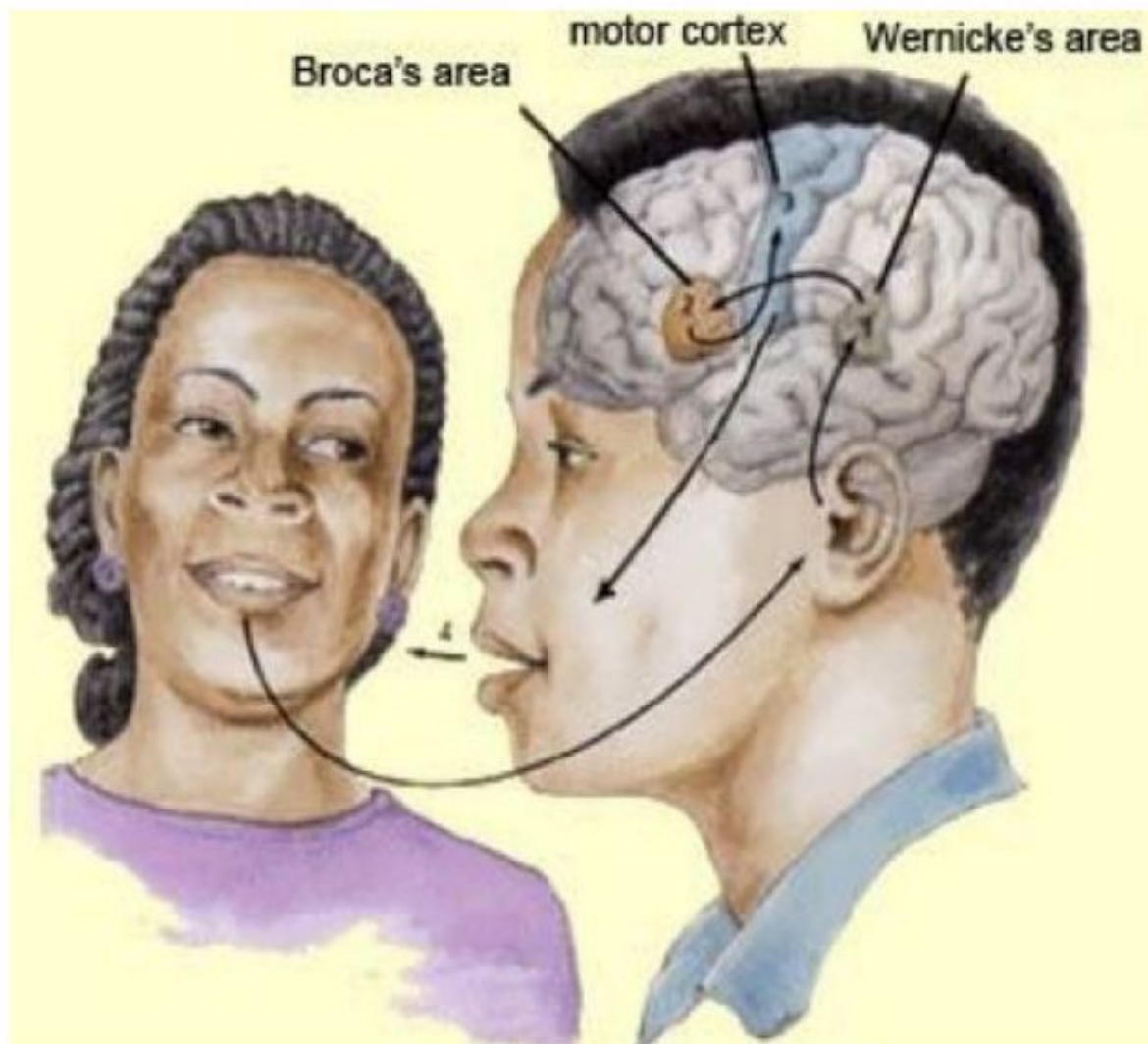
Nonspeaking vs. Nonverbal

We use the term nonspeaking vs. nonverbal.

From Latin, nonverbal means “without words.”

- Nonspeaking
- Minimally speaking
- Unreliably speaking

Speech vs. Language



Apraxia

- IT IS a breakdown in the praxis process
- IT IS a struggle to plan, coordinate, initiate and stop physical movement
- IT IS **NOT** damage to the brain
- IT IS **NOT** a sign of low intelligence
- IT IS **NOT** a sign of muscle weakness
- IT IS more of a difficulty with how the neurons are communicating with one another
- IT IS a break down with the neurons that are supposed to send signals from the brain to muscles

<http://www.asha.org/public/speech/disorders/ChildhoodApraxia/>

Shelley Carnes, OTR/L ACTS Seminar

Alphabet Example

Speaking = MOTOR CONTROL

Gestures = MOTOR CONTROL

Sign Language = MOTOR CONTROL

Writing = MOTOR CONTROL

Pointing to pictures = MOTOR CONTROL

So what now?

- If all communication requires motor skills and these individuals have significant motor challenges – how do we help them to communicate?
- Spelling to Communicate helps the individual to develop purposeful motor movements by pointing to letters on a board. As with any other speech/language goal: support is met at their current level and faded to increase independence.

A quick overview of this method is can be found here:

- [Overview of Spelling to Communicate – YouTube](#)

HOW IS S2C DIFFERENT?

S2C targets the **ROOT** of the difficulty!



Purposeful Motor Skills



THEY DON'T UNDERSTAND



THEY DON'T WANT TO



THEY'RE IN THEIR OWN LITTLE WORLD



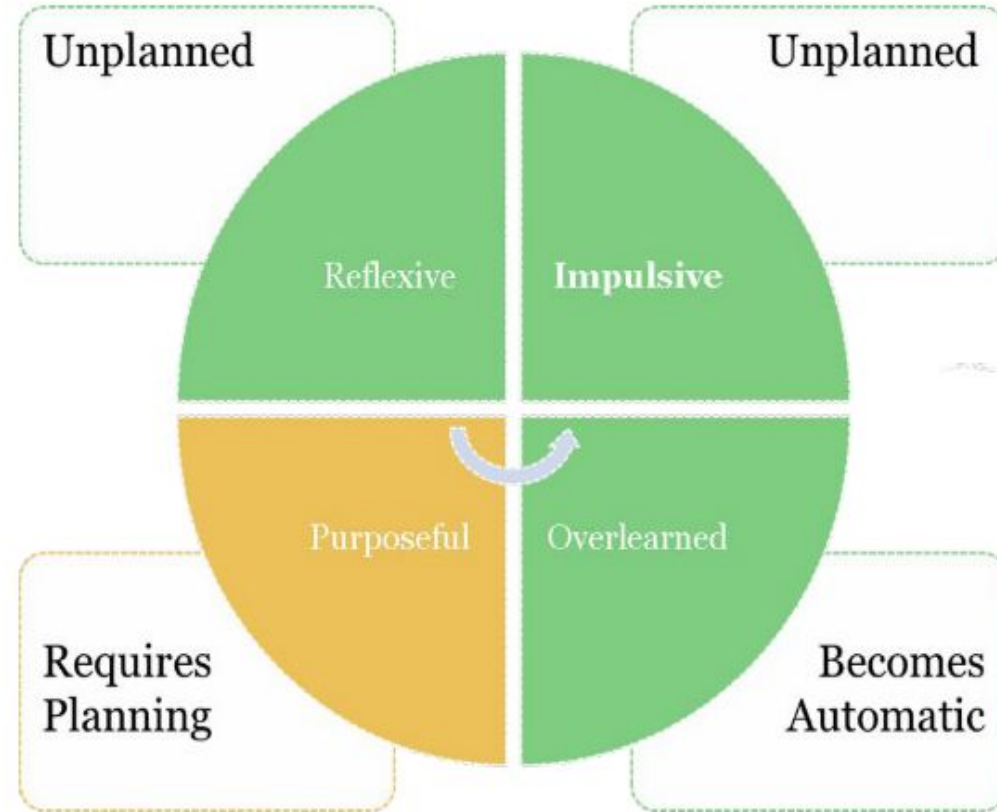
THEY CAN'T GET THEIR BODY TO DO WHAT
THEY ARE TELLING IT TO DO.

Motor

PRAXIS

"The ability to execute chains of smooth motor movements."

The Hussman Institute for Autism, 2015¹

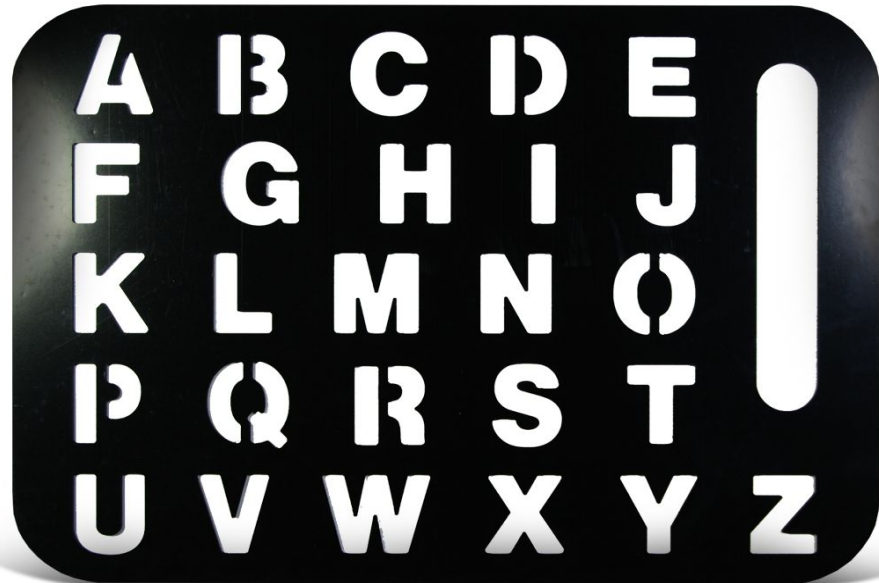


¹Hansen, Sarah. (December 10, 2015). Praxis and autism bridging the gap between intention and action. The Hussman Institute for Autism. Retrieved on June 10, 2016 from: <http://www.hussmanautism.org/praxis-and-autism-bridging-the-gap-between-intention-and-action/>

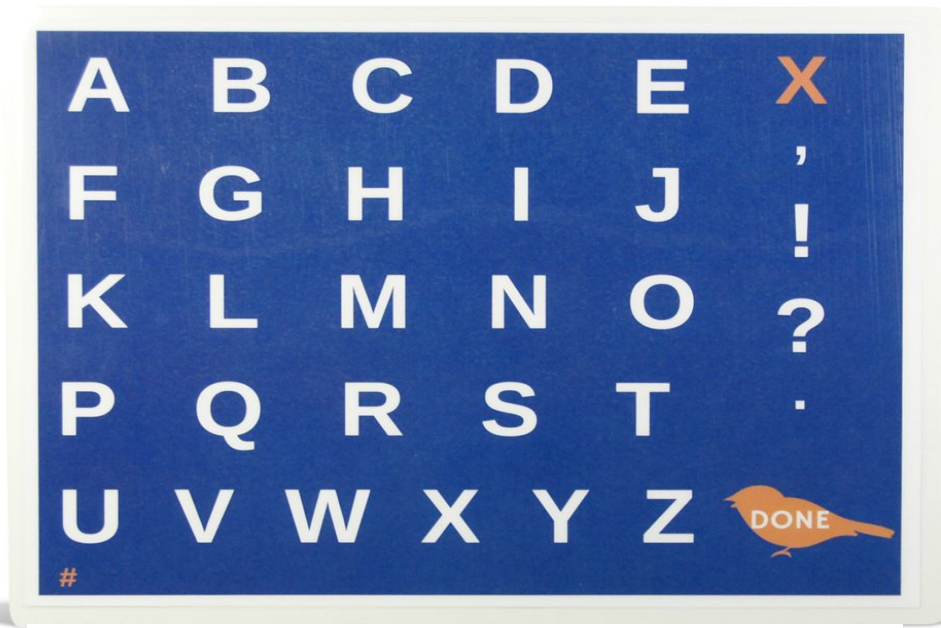
Letter Board Progression:



#1: 3 letterboards (bigger letters = less fine motor, less letter on board = less visual scanning)



#2: 26-letter stencil board



#3: Laminated 26 letter-board



#4: Bluetooth Keyboard

Building Independence

- We work with the spellers by reading age-appropriate lessons to them on a variety of topics, which are followed up with questions about what was read.
 - Is this hard to believe? I understand that because these individuals are unable to effectively communicate, it is easy to assume they have severe deficits in receptive and expressive language (their thoughts) but this is a dangerous assumption. I would challenge you to think of why you might assume this and venture to say it's because they have not completed a motor task that would “prove” to you that their language is in tact.
- There are a variety of words to spell and “known” questions that are asked in early stages:
 - E.g., “Let’s spell DELICIOUS”
 - What is this lesson about? ICE CREAM
- This way, the clinician knows how to support the speller (giving verbal and gestural prompts) as the answer is already known. Open-ended questions come when the speller becomes more fluent and independent with spelling.

Letterboard Progression

<https://youtu.be/PdCH0mlPLGs>



Why can't we immediately ask any open-ended question?

MOTOR



COGNITIVE



What we hear from parents of future Spellers:

"My child has an intellectual disability and I know this because of standardized assessments."

"My child has a receptive language disorder evidenced by the fact that they can't follow directions."

"My child is in their own little world. They don't play with toys in a typical way, they don't use gestures, they don't respond to their name."

"My child does not know how to spell."

"My child doesn't listen. They don't do what I ask or participate when prompted."

"My child has difficulty a Talker (iPad)...this won't be any different."

ASHA Statement

It is the position of the American Speech-Language-Hearing Association (ASHA) that use of the Rapid Prompting Method (RPM) is not recommended because of **prompt dependency** and the lack of scientific validity. Furthermore, information obtained through the use of RPM should not be assumed to be the communication of the person with a disability.

-As with all therapy goals, prompts are faded over time. Hand over hand is not used.



It is important to find a Practitioner that has received certification through I-ASC and is actively adhering to the ethical and procedural standards taught in the S2C training.

Research

[Eye-tracking reveals agency in assisted autistic communication | Scientific Reports \(nature.com\)](#)

This research article was published May 2020, with results showing that the individual spelling focused on the letter half a second before pointing to it on the letterboard:

[Literacy in nonspeaking autistic people - Vikram K Jaswal, Andrew J Lampi, Kayden M Stockwell, 2024 \(sagepub.com\)](#)

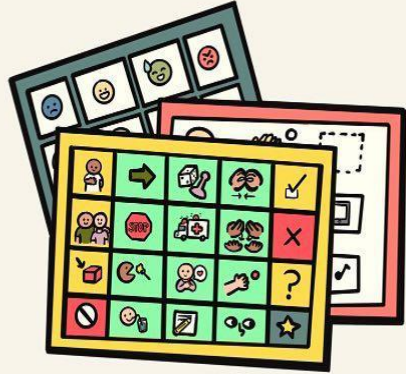
These findings suggest that nonspeaking autistic people can acquire foundational literacy skills. With appropriate instruction and support, it might be possible to harness these skills to provide nonspeaking autistic people access to written forms of communication as an alternative to speech.

Anecdotal Evidence from families & professionals: Over 150 peer-reviewed articles supporting spelling methodologies that lead to typing can be found here:

[UCC-Supportive-Research-Compilation-Version-6-012221.pdf \(unitedforcommunicationchoice.org\)](#)



“Talker” Spelling

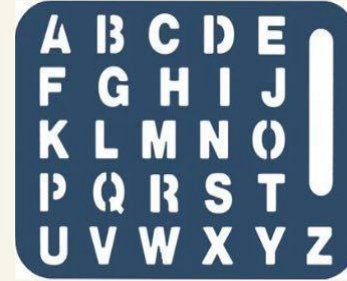


Aims to teach cognitive concepts/vocabulary

If you push “more water” you’ll get more water!

Could have thousands of icons/pictures (i.e., thousands of motor plans to learn) and still not have the word the individual wants to express.

Expression is limited to what pictures the adult chooses to add to the device.



Teaches motor control, presuming age appropriate vocabulary is understood.

Follows a motor hierarchy, going from 8-9 letters on a board to having all 26 letters on a board (i.e., 26 motor plans to learn).

**26 letters = infinite possibilities!
Any word they’re thinking, they’ll be able to express!**

The Least Dangerous Assumption

-Ann Donnellan

It is important that individuals are properly trained to refrain from influence over the spellers communication. With that, even if there's an ounce of skepticism, I want you to think of which is the least dangerous assumption:

-We assume the child does **not** understand and does not want to communicate when they really do. What damage might this cause?

-We assume the child understands and wants to communicate but they really don't. What damage might this cause?

Let's not make an assumption that could deprive someone of effective communication.

Presume Competence

Nonspeaking people and people with disabilities *can* and *want* to learn

Learn More!

www.I-ASC.org to find certified practitioners near you!

Locally:

Beyond Speech Therapy Center in Munroe Falls, integrating therapeutic backgrounds of SLP & OT.

email: info@beyondspeechtherapycenter.com with any questions or to receive a list of funding opportunities. Ask about opportunities for free sessions or sessions at a reduced rate!

Access S2C in Mayfield Heights also offers S2C services.



Free on Youtube!

A promotional graphic for Beyond Speech Therapy Center. At the top is the logo 'BEYOND SPEECH THERAPY CENTER' with a brain icon. Below it is the text 'SCAN HERE TO LEARN MORE' in large bold letters, followed by 'about Spelling to Communicate' in orange. A hand is shown holding a smartphone displaying a QR code. At the bottom, there are three images of keyboard layouts: a standard QWERTY keyboard, a keyboard with large letters, and a keyboard with large numbers. The bottom of the graphic has an orange bar with the address '37 S. Main St. Munroe Falls 44262' and the phone number 'Call/Text 330-299-5121'.