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Prentke Romich Company

Access

Empowering with Access!

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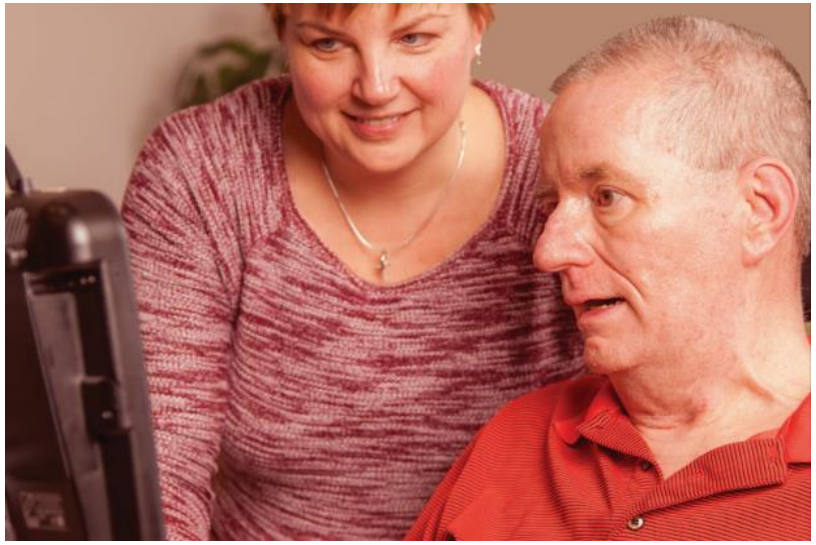
Senior Consultant, Prentke Romich Company



Your Presenter Today

LaConda is a certified speech-language pathologist (SLPA) assistant, certified therapeutic recreation specialist (CTRS) and Senior Consultant for Prentke Romich Co. (PRC).

Financial Disclosure

LaConda is a salaried employee-owner of PRC.

Non-financial Disclosure

ASHA member, ASHA SIG 12 member and American Therapeutic Recreation Association member

Learning Outcomes

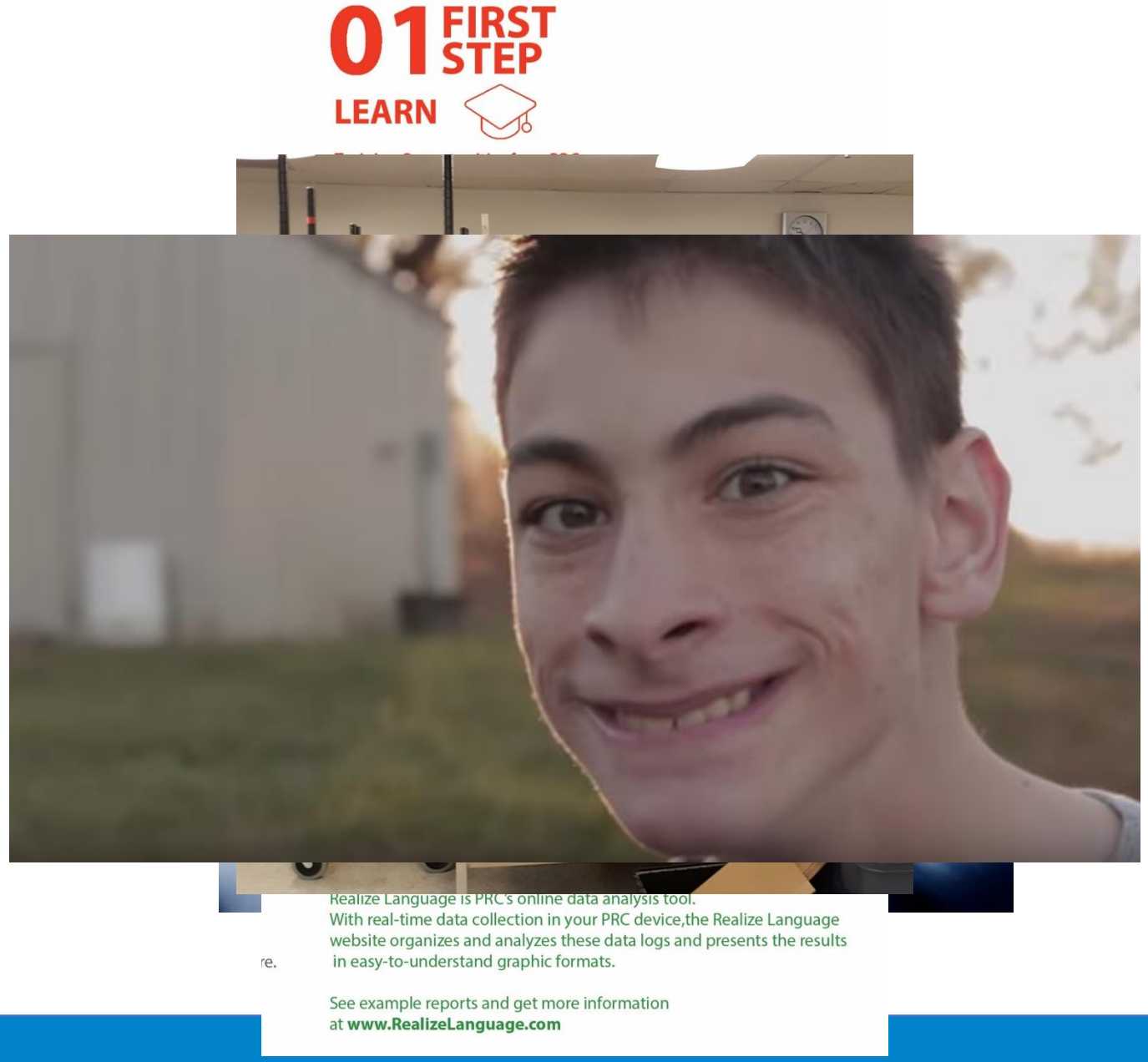
- This course should help you "imagine the possibilities…"
- After this course you will be able to:
  - Briefly describe each access method.
  - Name two software customizations that can applied when using NuPoint or Look.
  - Name two software customizations that can applied when using one or two switch scanning.

Today's Agenda

- **Introductions – PRC and you**
- Brief PRC & Language System overview – Unity, WordPower, Essence
- Asking the right questions… access assessment overview
- Exploring the major access methods
- Summary and Questions

About Us

- Brief history
- Services
  - Field support
  - Funding
  - Learn/ Teach/ Accelerate
  - Service
- Our clients



Introductions

- Who's here… and why?
- Are you thinking about a specific client?

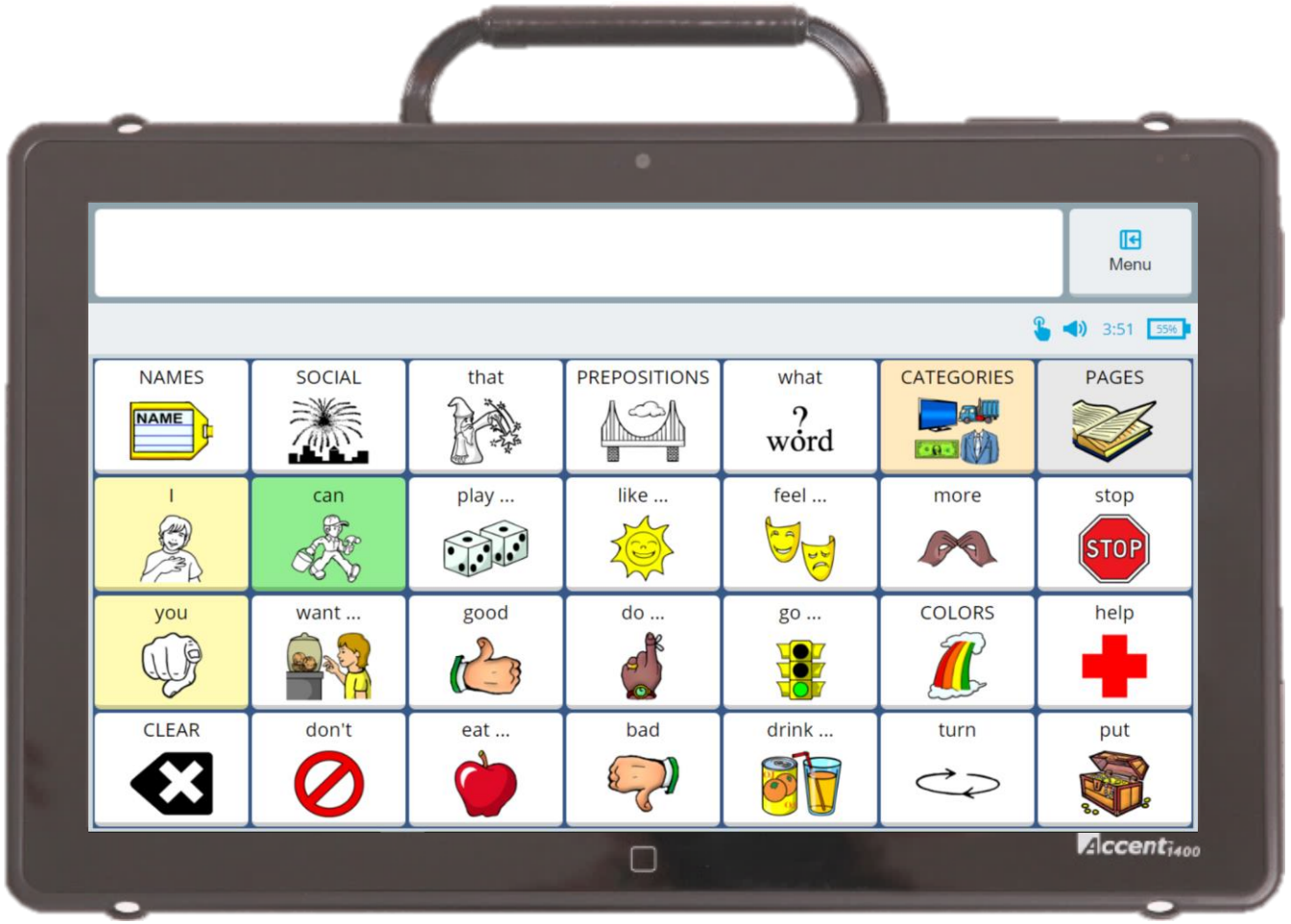
A Quick Overview – PRC Hardware

Accent™ 1400

Accent™ 1000

Accent™ 800

A Quick Overview – PRC Language Systems



Accent 1400
Unity® Configuration

A Quick Overview – PRC Language Systems

Accent 1400
WordPower™ Configuration

A Quick Overview – PRC Language Systems

Accent 1400
Essence™ Configuration

A Quick Overview – Assessment Questions

- Which device?
  - Feature matching (e.g., weight, size, etc)
- Which language system?
  - Based on SLP evaluation
- Which access method?
  - Based on team approach

For Today… ABC

Access Before Communication

- You need to understand what's available and what the customization options are in order to make an informed decision with your client about how they will effectively use an AAC device

- You need to understand how to make the appropriate adjustments to improve their experience/ increase efficiency and accuracy

Questions that are beyond the scope of this presentation

- How do you assess someone's competency with an access method?
- How do you move someone through stages of learning an access method – with an AAC device and without an AAC device?
- How do you balance someone's language needs with access needs?
- What are some in-depth troubleshooting tips for the various access methods?

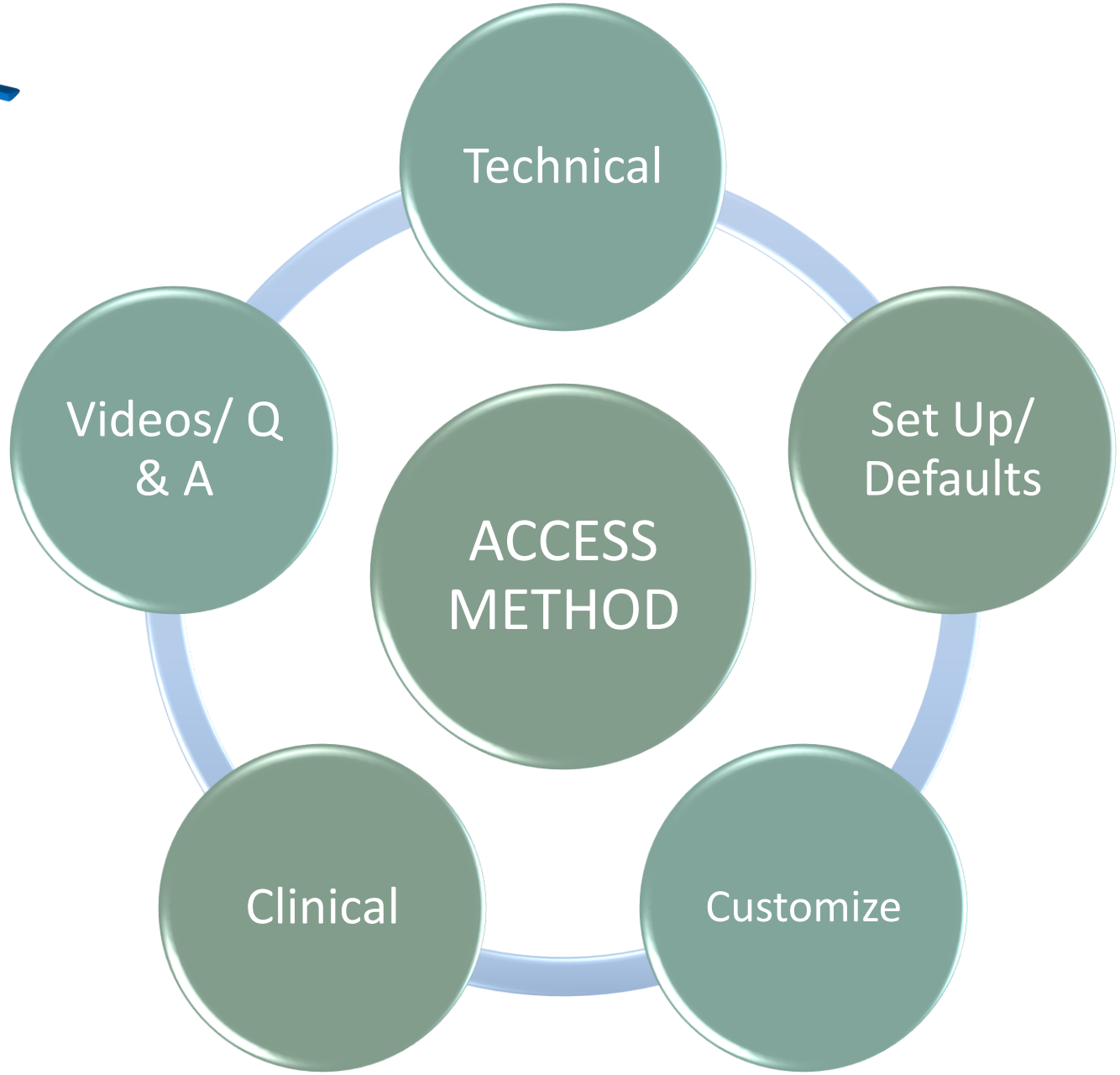
Access -

Exploring the Access Methods

First things first…

- Appearance Matters
- Regardless of what access method you're using, the visual display of the screen should:
  - Be pleasing to the client's eye
  - Assist in access
- Adjust these parameters in….
  - Vocabulary Settings

Today's Framework



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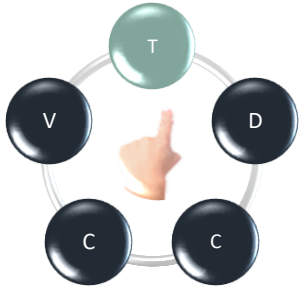
Access - Touch

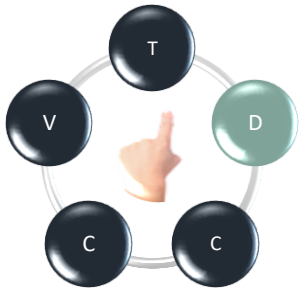
Touch- Technical

- Capacitive Screen reacts on contact
- Additional hardware accessories:
  - Keyguard
  - Touchguide
  - Stylus



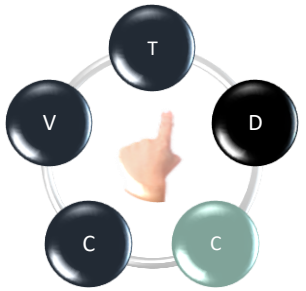
Touch– Defaults

- Use device with touch defaults
- When might defaults not work?



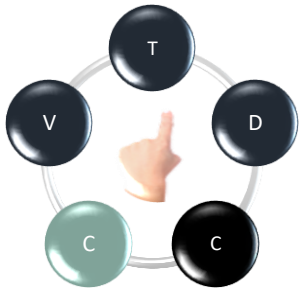
Touch– Customizations

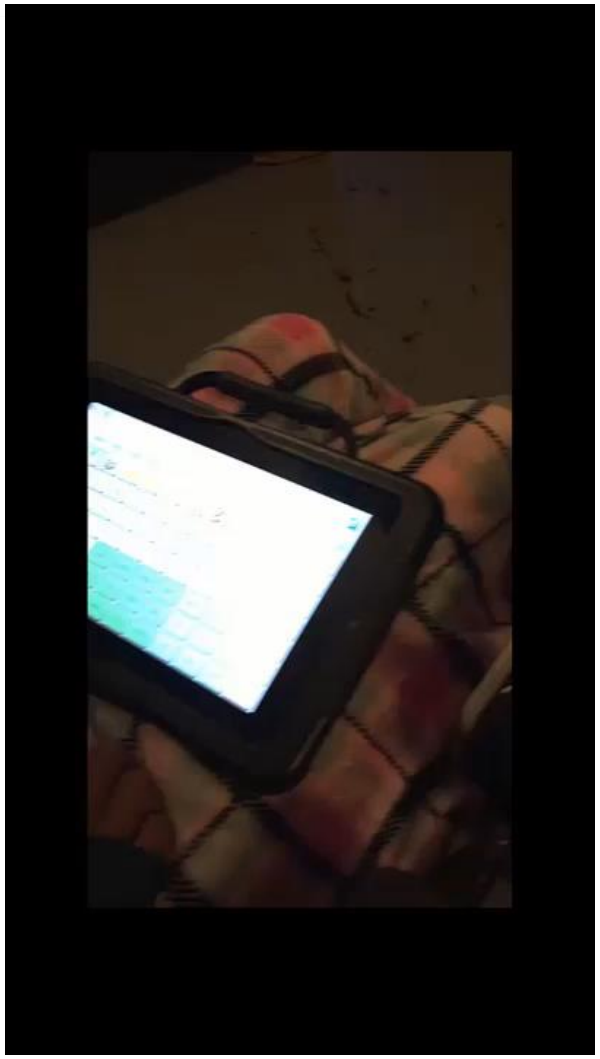
- Button Selection Time
- Next Button Selection Delay
- Button Selection Type
  - When Pressed
  - When Released
- Repeat Delay



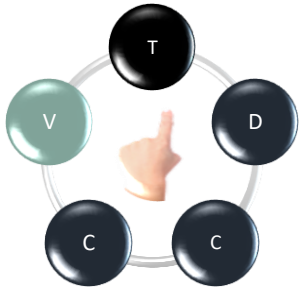
Touch– Clinical Considerations

- Reduce the inclination to use large buttons “to make it easier.”
- Use the **smallest sized button** an individual can touch
  - Consider vocabulary builder to reduce # of buttons on the display and allow for learning
- **Size of the device** matters
  - Larger screen = more buttons that are larger
  - This may be a balance between amount of vocabulary & portability
- Encourage use of hands for **other activities** with targets that are similar size as buttons

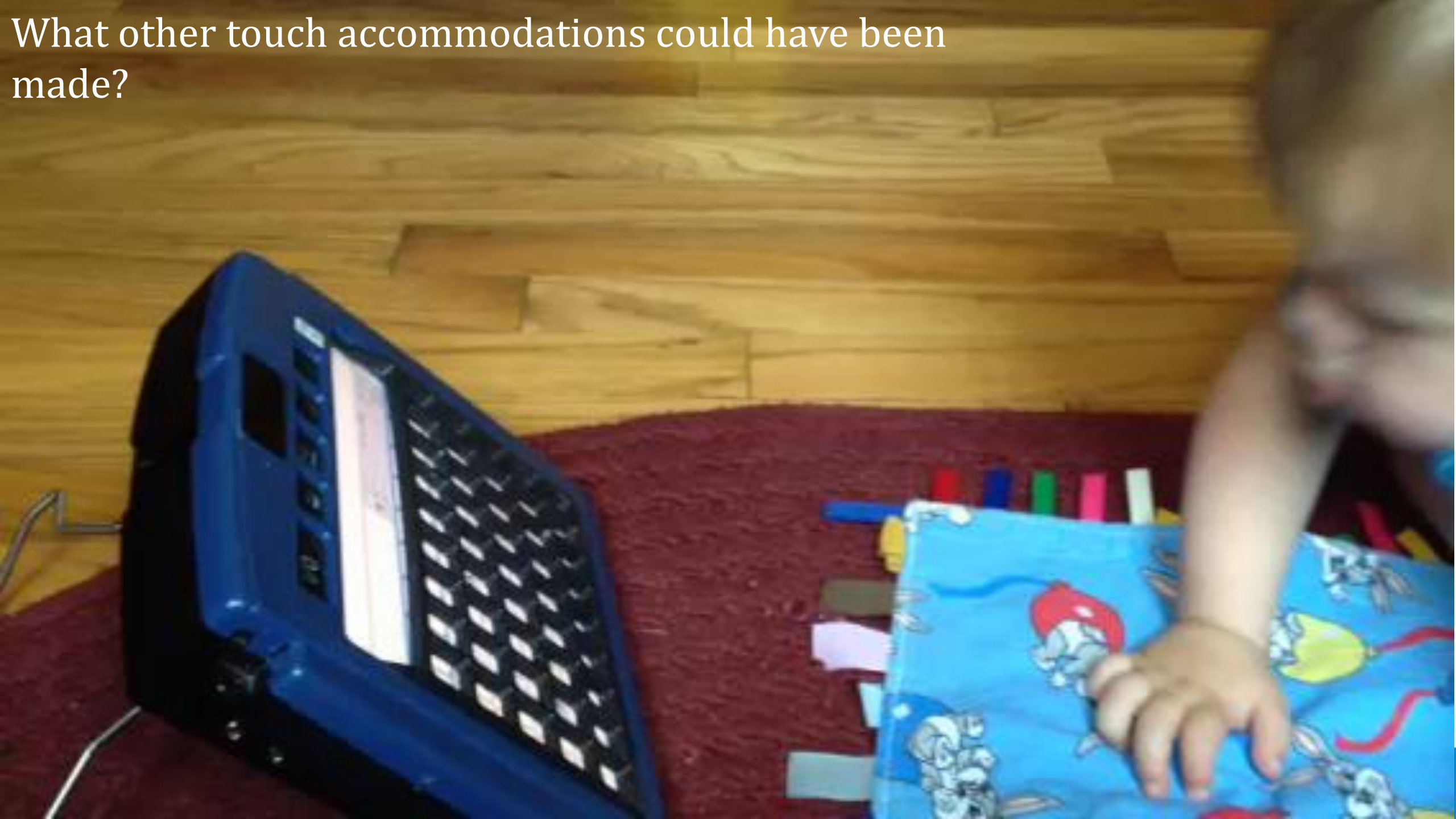




- Imagine her access without a stylus – would it have been as fast/ efficient?
- What other touch accommodations could have been made?



What other touch accommodations could have been made?



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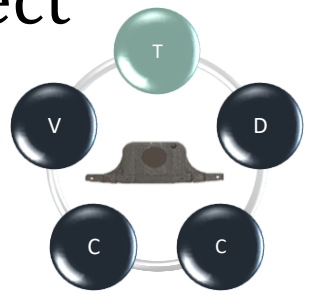
Access - NuPoint

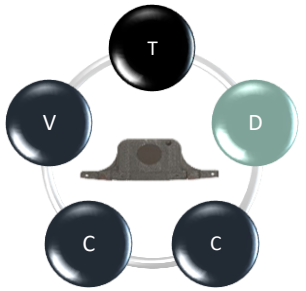
NuPoint - Technical

- “Head Mouse”
- Uses optical sensors to track someone’s head movement in order to make on-screen selections
- Small, reflective dot is placed on forehead, glasses, etc
- Calculates how light reflects off the dot to detect head movement – on screen cursor moves the same directions as the head
- Button selections are made by dwelling or using a switch to select
- Can be used on Accent 800, 1000 and 1400



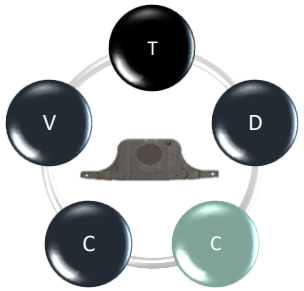
NuPoint – Setup & Defaults

- Attach reflective dot
- Access Method Menu
- Change to Head Tracking
- Work with Defaults
- What difficulties are you having? What defaults might need to be changed?



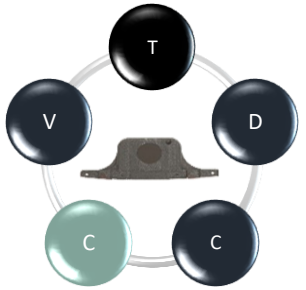
NuPoint – Customizations

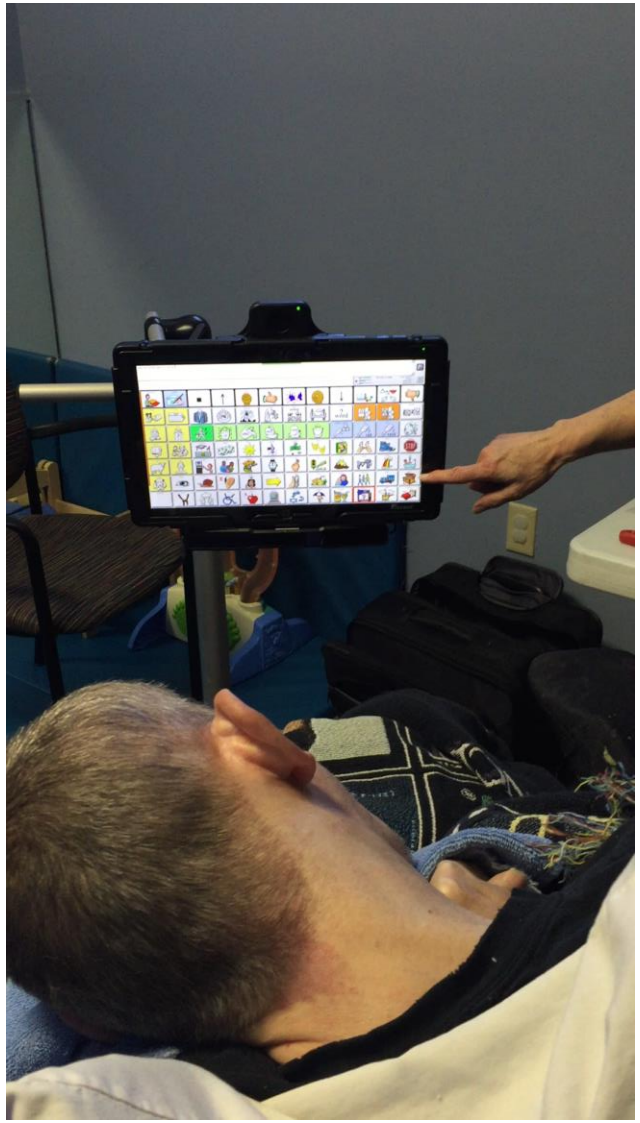
- Dwell time
- Smoothing
- Horizontal/ Vertical adjust
- Cursor/Dwell/Selection Settings



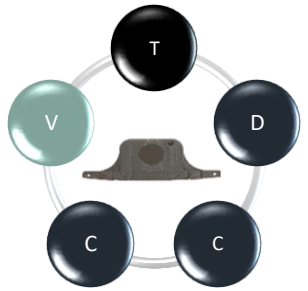
NuPoint – Clinical Considerations

- Client needs to understand that head movement (not eye gaze) moves cursor
- Practice with low tech – laser pointer on hat for choice making and art
- Use the smallest size button that your client can access independently… BUT be aware that accuracy increases with practice, so don't get too attached to one vocabulary.
- As accuracy with this access method increases, can slowly increase the number of buttons on a screen.





- Note that device does not need to be parallel to face – NP can adapt to positions.
- Where do you think the Smoothing number might fall – on the higher or lower side?
- Would you make any adjustments to horizontal/ vertical adjust? How?



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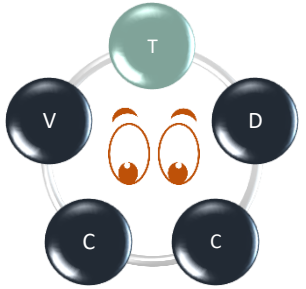
Access - Look

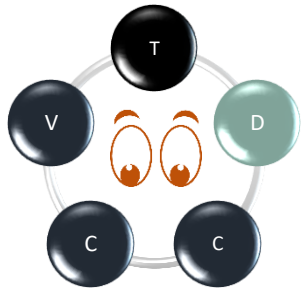
Look - Technical

- Eye tracking module calculates where your pupils are focused on the screen
- Calibration ensures that device is sensitive to unique properties of your eyes
- Set up/ positioning is most crucial component to success
- Key selections can be made by dwelling, blinking or activating a switch (less common)
- Can be used on Accent 1000 and 1400



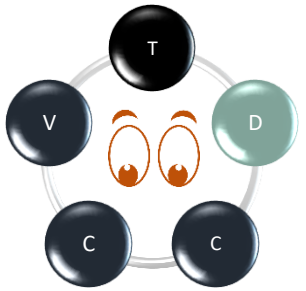
Look – Set Up

- Step 1: Set Access method to Eye Tracking
- Step 2: Positioning
- Step 3: Calibration
  - Many calibration adjustment options… but for today's purposes let's look at number of calibration points
  - MANY things can affect calibration. Common influences may include:
    - Patient movement during calibration
    - Medication (can cause changes in visual motor, perception, acuity, attention)
    - Dry eyes



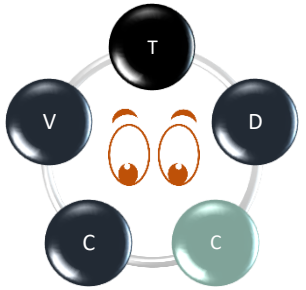
Look – Defaults

- What difficulties are you having? What defaults might need to be changed?



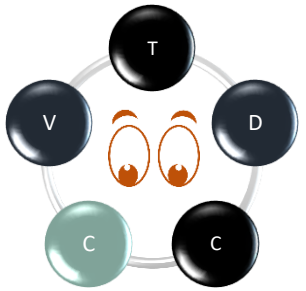
Look - Customizations

- Dwell time
- Selection type
- Smoothing



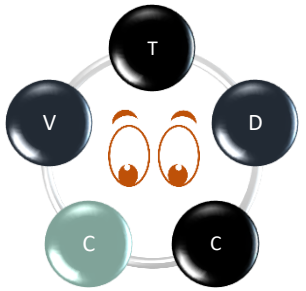
Look – Clinical Considerations

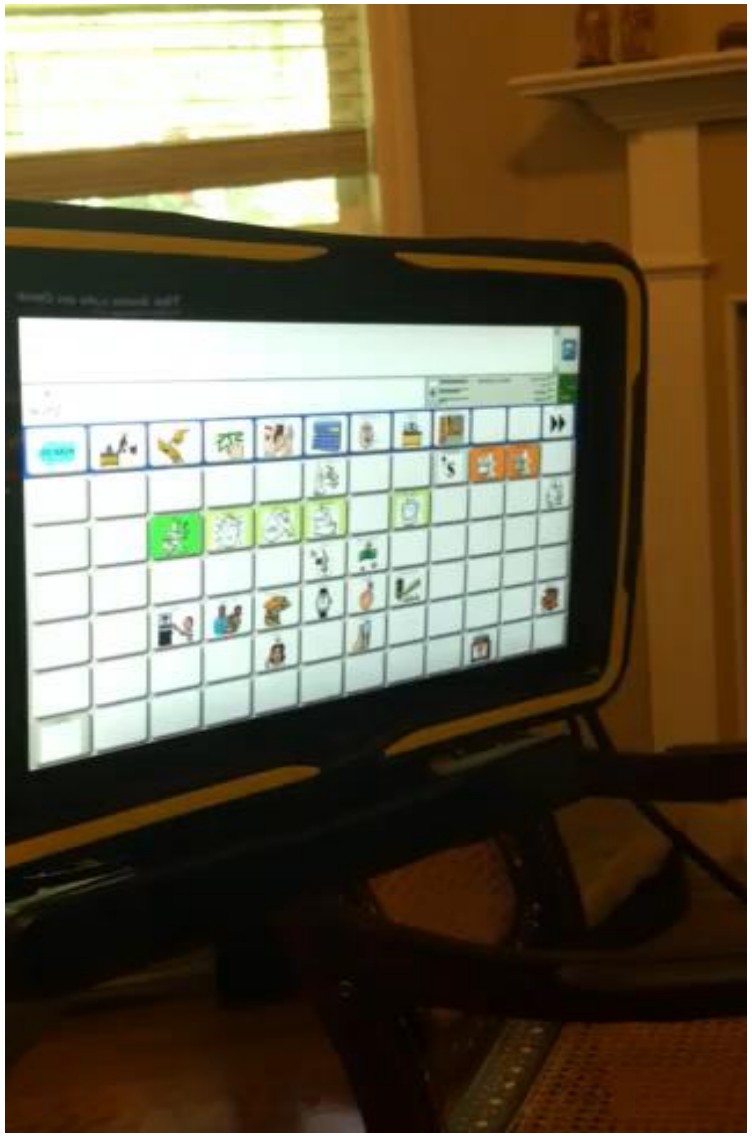
- Client needs to understand that eye movement (not head) moves cursor.
- Practice with low tech – use eyes as “darts” to “choose” items or people.
- Use consistent terminology – “Your eyes showed me that…”
- Use the smallest sized button that your client can access independently… BUT be aware that accuracy increases with practice, so don’t get too attached to one vocabulary.
- Be aware of eye fatigue… and plan accordingly



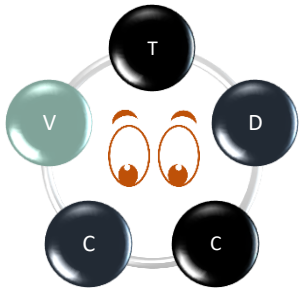
Look – Clinical Considerations (con't)

- Help your client use his/ her eyes in a variety of ways throughout the day, not just for communication.
- Watching videos
  - Talk about where her eyes are going on screen ("I see you looking at Dora – she's having fun, isn't she?!)
- Use eye gaze games
  - Timocco on Accent
  - Look to Learn

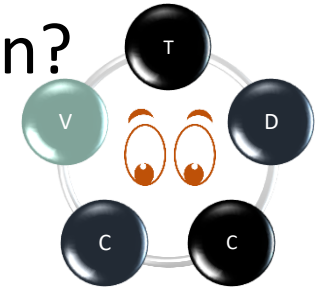




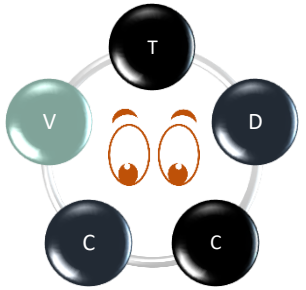
- Comments about Dwell time? Do you think she could speed it up? What might be the risks/ benefits?
- As a clinician, what other adjustments might you make?



- Watch difference in accuracy & motivation as number of buttons goes from 15 to 45
- How might you structure a session incorporating games and communication?



- Great example of low tech eye gaze
- Observe how adult models choices before asking child to make a choice



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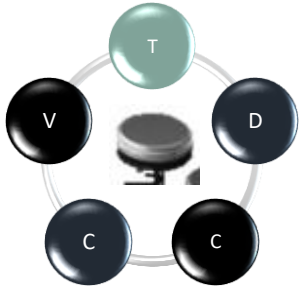
Access –
Switch Scanning

Switch Scanning – Technical Info

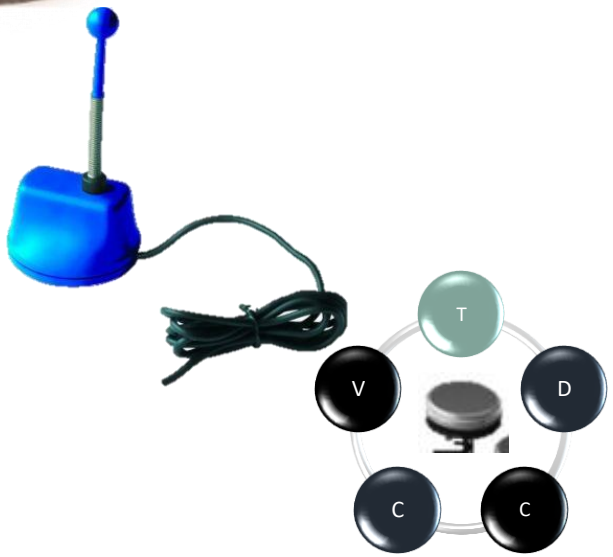
- Type of switch
- Types of scan
- Scan Pattern

Lots of Decisions



Switch Scanning – Type of Switch

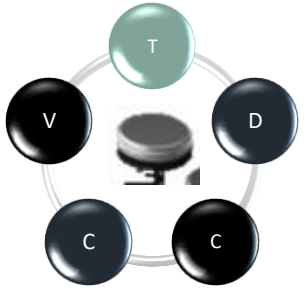
- Mechanical – requires pressure to activate
- Electronic – requires no pressure



Switch Scanning – Types of Scans

- AUTO Scan – the device moves the pointer, user activates switch when the target is highlighted

- STEP Scan –
  - 1 Switch- the user moves through choices by activating a switch, cease activation to select
  - 2 Switches- the user moves through choices by activating a switch, activate a 2nd switch to select

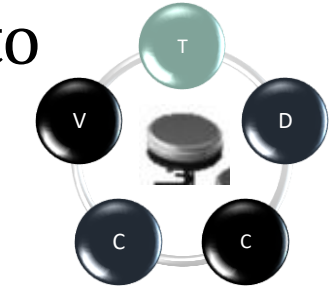


Switch Scanning – Scan Patterns

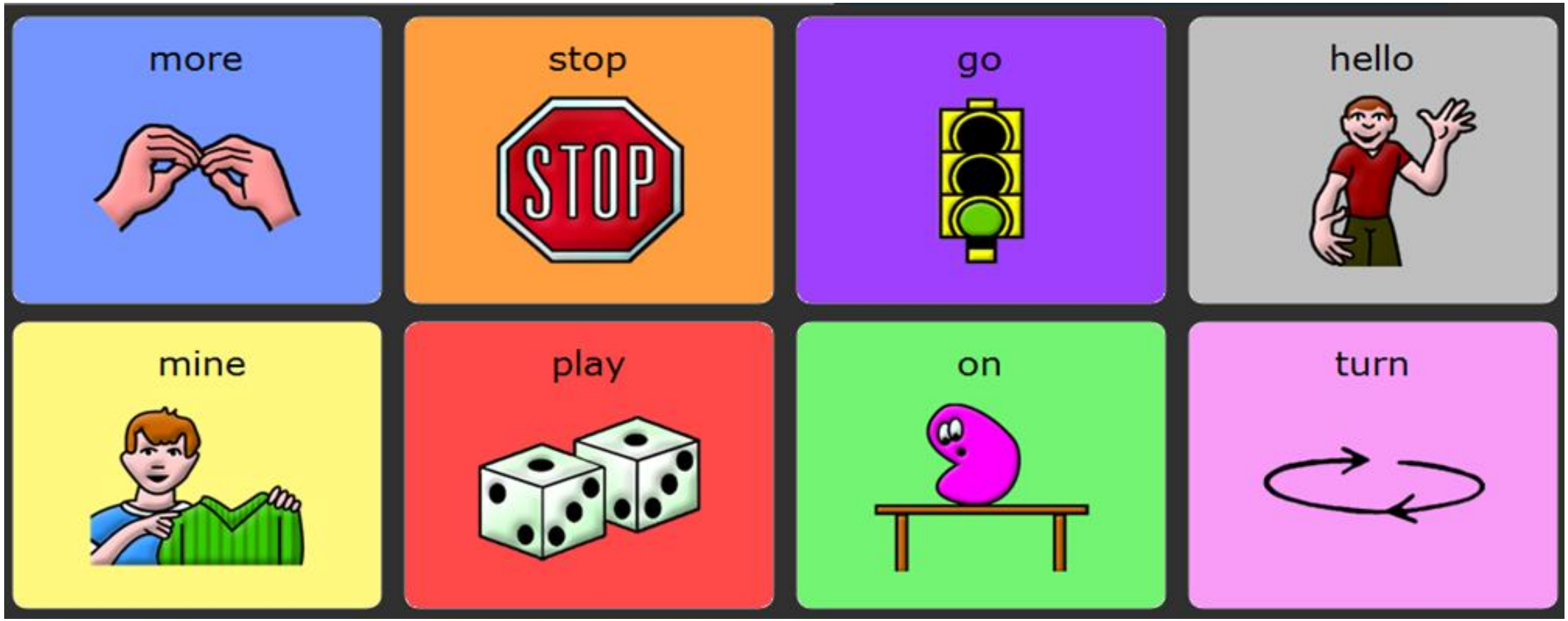
- Linear Scan – the device moves one button at a time from upper left to lower right

- Row/Column Scan – The device first scans down each row. Once a row is selected it scans across the row from the left column to the right.

- Column/Row – The device first scans across the columns. Once a column is selected it scans down the column from the top row to the bottom.



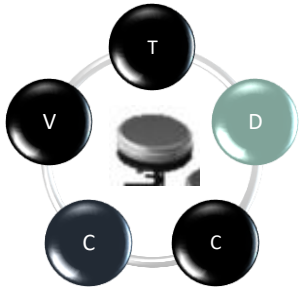
Switch Scanning – Low Tech Demo



Switch Scanning – 1 switch Setup

- Scanning Speed
- Acceptance Time
- Release Time
- Auto Restart
- Rescans
- Highlight Settings
- Different types of scan patterns

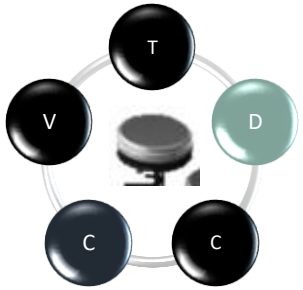
- What might you want to change? Why?



Switch Scanning – 2 switch Setup

- Acceptance/Release Time
- Cancel time
- Highlight Settings
- Scan Patterns

- What might you want to change? Why?



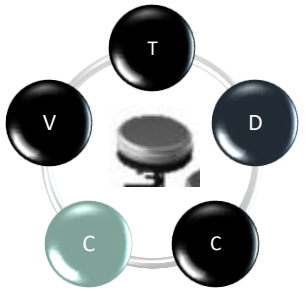
Switch Scanning – One switch vs. two

One Switch Scanning

- Only one switch site is needed
- Minimal movement required
- Client needs to be able to anticipate timing of scan to activate switch.

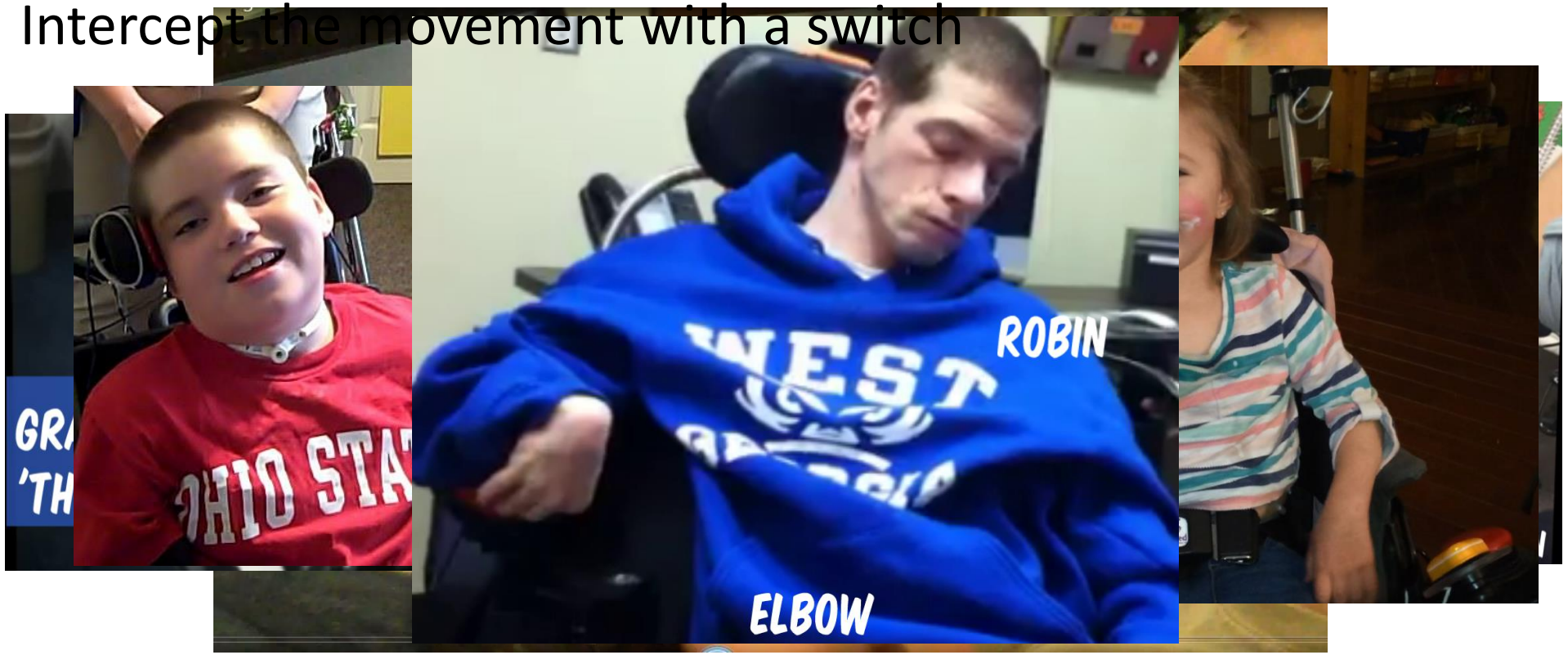
Two Switch Scanning

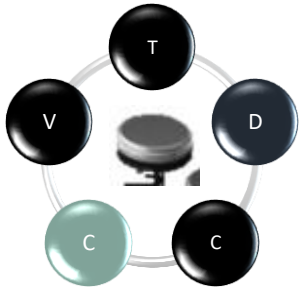
- Two switch sites are needed
- More movement required – need to ensure this doesn't cause pain/ discomfort
- No timing constraints – client can move through choices at own pace



Switch Scanning – Switch Placement

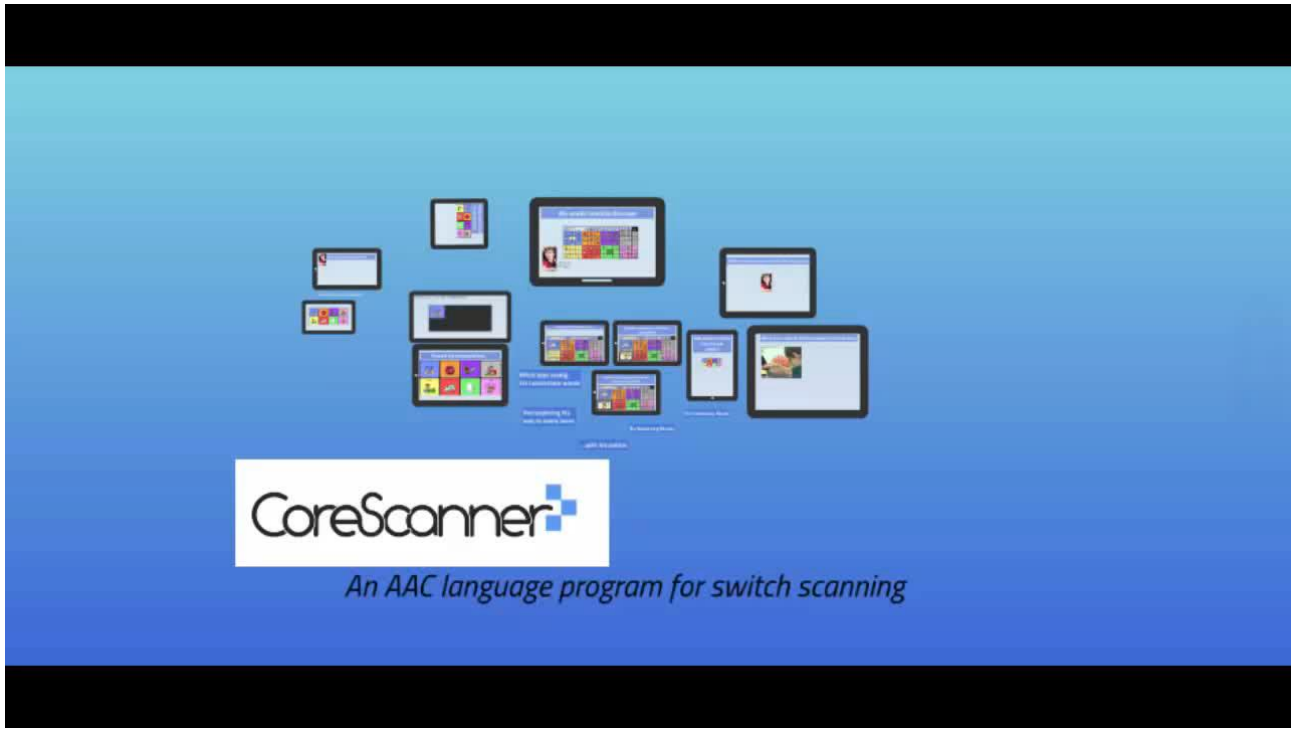
- Use natural, frequent and deliberate movements
- Intercept the movement with a switch





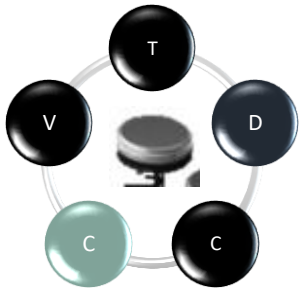
Switch Scanning – Clinical Considerations

- CoreScanner is the only AAC language system available developed specifically for children learning to use switch scanning

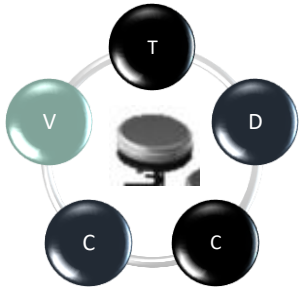


Switch Scanning – Clinical Considerations

- Client needs to have a movement that they can repeat frequently and without pain/ discomfort
- Body positioning and support has a significant impact on access
- Consider having PT/ OT/ wheelchair vendor involved when looking at positioning for access
- Aim for multiple opportunities to use switches – not just communication (games, ECU, low tech, etc)
- Look at low tech, partner-assisted auditory scanning (video)



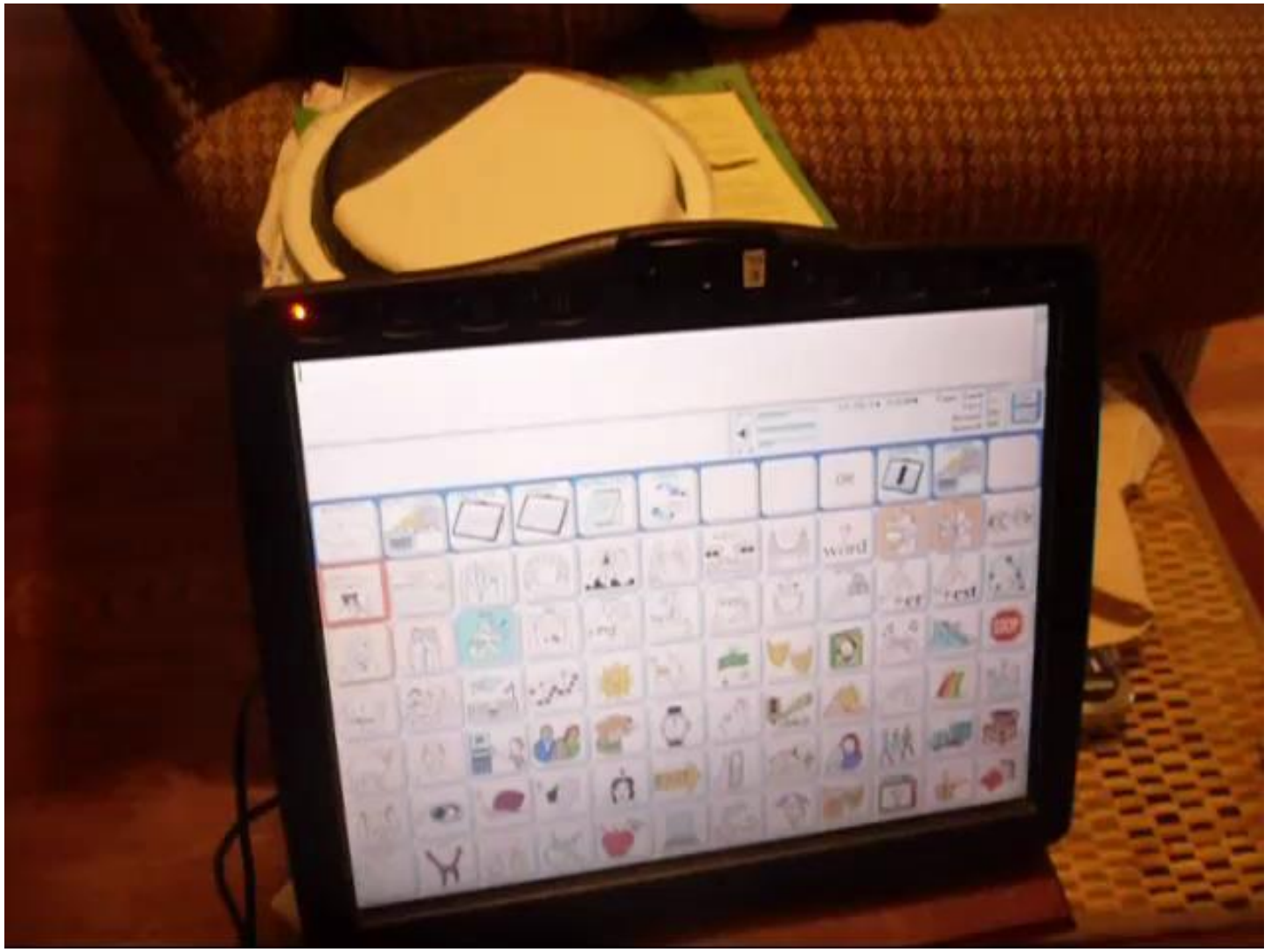
- Partner-assisted auditory scanning
- Listen for her low tech “switch click.” What else could be used?



- 1-switch, auto scan
- Customized pattern

- Why do you think she's using the pattern she is?

- We saw Kyleigh using eye gaze earlier – what are the differences between her use of switch/ eye gaze?

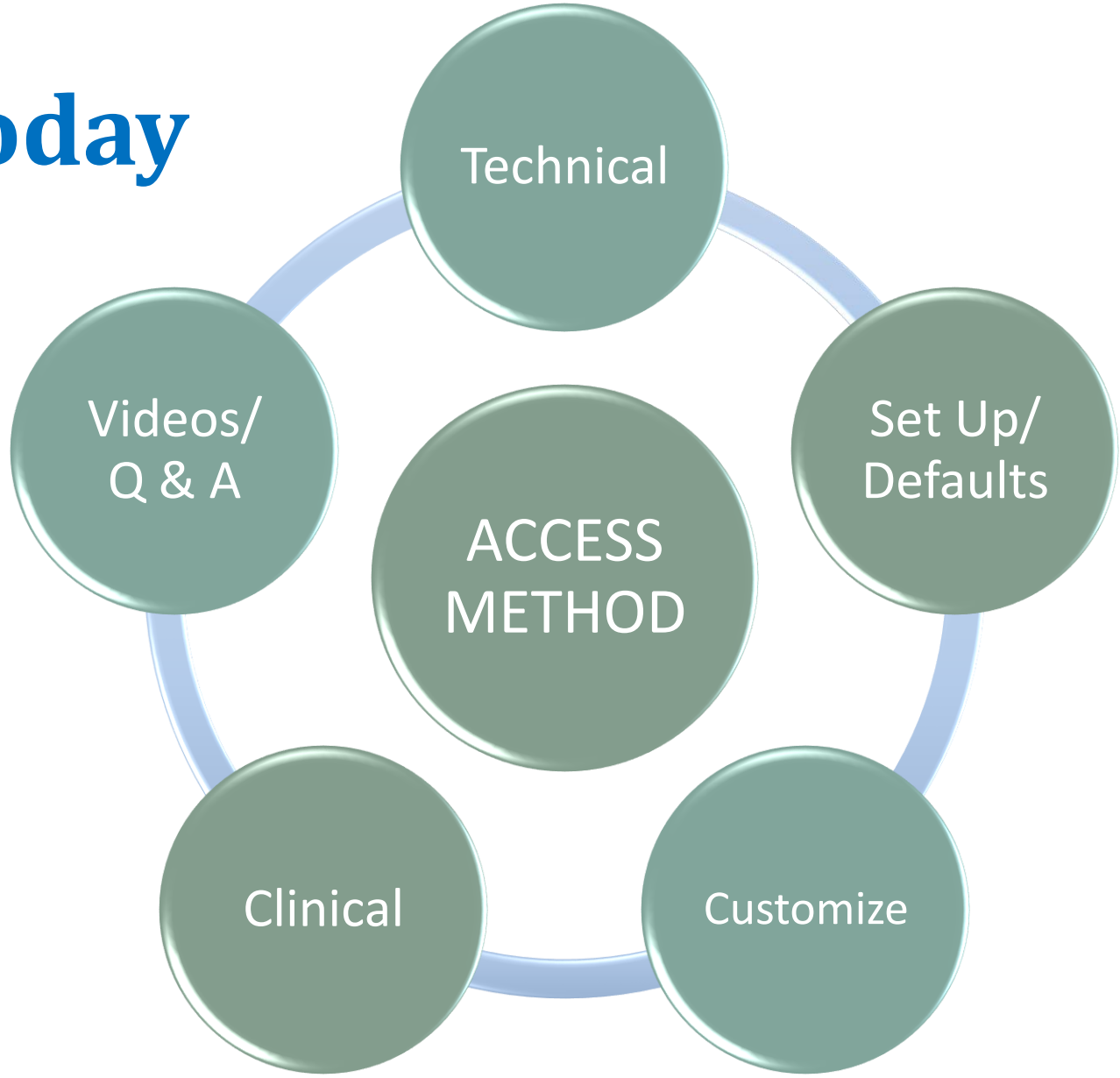


Access

Wrap Up & Next Steps

Review from today

For each major access method, we reviewed…



Where to from here?

- Having an understanding of the access methods, and how they can be customized should give you a framework for assessment
- Access assessment is NOT a checklist – should be based on clinical judgment of client and available options. Now you have both!
- Use Resources –
  - Other participants from this area
  - Your friendly PRC Consultant
  - YouTube videos & PRC website
- Attend an Access Master Class!!

Before we go…

- Think about that client that you mentioned earlier …
  - What's one thing you learned today that will be useful?
- Specific questions/ comments?