

ADAPTATION OF THE PECS PROTOCOL TO THE INTRODUCTION OF AN AAC DEVICE: A PILOT STUDY



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INTRODUCTION

- There are different tools and effective teaching methods to establish communication repertoires for non-vocal individuals (Bondy & Frost, 2001; Shillingsburg et al., 2019), including Picture Exchange Communication Systems (PECS), speech-generating devices (SGD), and augmentative and alternative communication (AAC) devices.
- PECS is an effective communication program that helps individuals communicate functionally with others. The first step in training PECS is to teach the individual to mand because it is an important communication skill that must be built upon as communication develops (Bondy & Frost, 2001).
- While PECS is an effective teaching protocol for functional communication, when the protocol is used in conjunction with a speech-generating device (SGD), there is also success in increased communication skills (Wendt et al., 2019).
- This current study piloted an adaptation of the initial phases of the PECS protocol (Bondy & Frost, 2001) with an SGD to evaluate target mands, with additional generalization probes for spontaneous mands.

METHODS

Participant:

- A ten-year-old male diagnosed with autism who attended a residential school. Prior to the current study, the participant had not received any training or exposure to an SGD device.

Dependent Variable:

- The dependent variable was the percentage of correct responses in each session.

Design:

- This study utilized reversal design with the single participant.

PROCEDURES

Baseline

- Two 15-minute sessions were conducted before the modified PECS procedure's onset. Return to baseline was completed following both the first and second phases of the PEC procedure.
- Preferred items were placed in the environment but out of reach for the participant.
- The participant's speech-generating device was on and accessible.
 - If the participant reached toward the item, he was blocked from the item.
 - If the participant used his SGD to request the item, it was delivered for 5-s if it was a toy or activity.

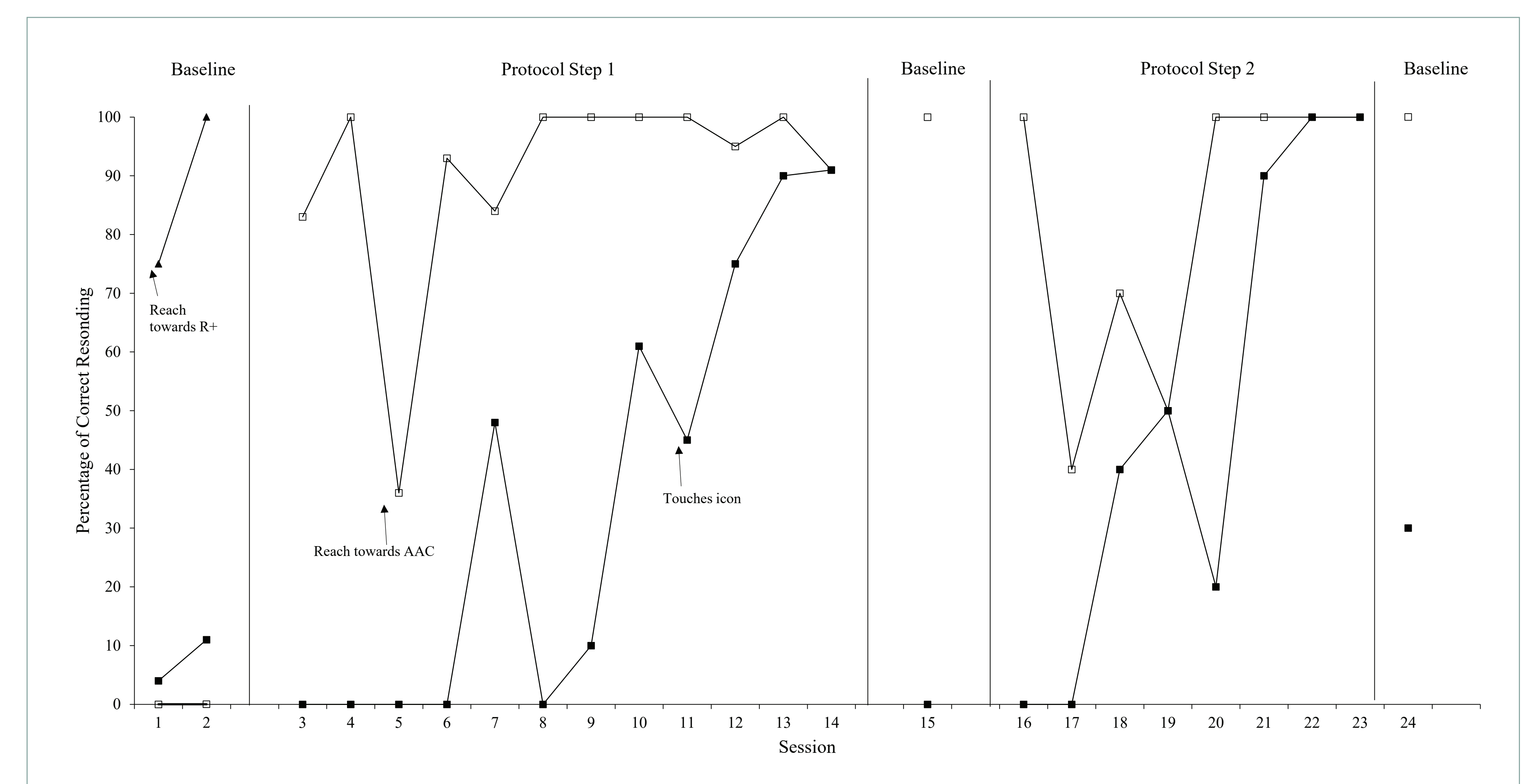
Phase 1 & 2 Modified PECS Procedure

- Each 10-trial session consisted of the participant, one prompter, and one communicative partner.
 - The prompter stood behind the participant, with his SGD accessible on the table in front of them.
- Each trial began with the communicative partner holding out two preferred items and asking, "What do you want?"
 - After the participant made a choice, the communicative partner selected the correct page on the SGD.

- When the participant gestured/reached for the item, the communicative partner immediately provided either a full physical, partial physical or gestural prompt toward the device.
 - Most-to-least prompting was used during Phase 1 of the Modified PECS Procedure.
 - Mastery criteria were used during Phase 2 of the Modified PECS Procedure to progress to a less restrictive prompt was two sessions at least 90% accuracy for prompted or independent responses.
 - Mastery of a step was at least 90% accuracy for independent responses.

RESULTS

- Baseline data for the participant averaged 7% independent responding when pressing the icon on the SGD. The participant met mastery criteria for touching the icon after 23 sessions. They failed to maintain their rates of correct responses during the generalization probes.
- The participant averaged 87% independent responding during the baseline condition, reaching toward the reinforcer. The participant met mastery criteria with reaching toward the device after 10 sessions. They maintained their rates during the generalization probes.



DISCUSSION

- The participant was able to learn how to reach toward the SGD and make a request by pressing the icon. They were unable to maintain the skill of pressing the icon in a new location.
- Limitations of the study included a delay between sessions due to SGD and student availability.
- Future research may explore generalizing the skill to multiple settings and discriminating between icons on the AAC device screen.