

The Use Of Bluetooth Technology To Promote Independent Responding In The Community: The Reduction Of The Stigma Of Prompting

INTRODUCTION/ABSTRACT

Community based instruction is often complicated by the stigma associated with overt and conspicuous levels of prompting. The current research study investigated a method by which the stigma associated with such overt levels of prompting could be reduced through instruction/prompting delivered through the use of a remote cell phone and blue tooth technology thereby reducing the proximity of staff and overt gestural prompting and resulting in greater levels of independence and social inclusion. In the present study, verbal prompting was implemented by utilizing a Bluetooth and remote cell phone across multiple behaviors in a single environment.

PURPOSE

To examine the extent to which the Blue tooth technology can be used in lieu of gestural prompting to reduce stigma associated with such physical prompts and the presence of one-on-one support during the community based instruction.

RATIONALE

- Community based instruction is critical to successful community integration as an adult
- The need for evidenced based plus cost effective methods of community based instruction which result in greater independent function is indicated.
- Community based instruction is often complicated by the stigma associated with overt levels of prompting and on to one support. Therefore, the need for less conspicuous methods of prompting becomes apparent.

METHOD

Participant: 16 year old male with a previously established diagnosis of moderate to severe autism who has been working on life skills in the community. Participant was considered particularly suited for this investigation given his previously documented history of prompt dependency.

Setting: All sessions were conducted and the data were collected at the local drug store. Participant had not been previously exposed to this particular store.

Design/Data Collection: A multiple baseline study was conducted wherein the frequency of physical and verbal prompts and distance between the participant and one-on-one instructor were collected over 3-week-period for three different behaviors in one consistent environment.

PROCEDURE

A multiple baseline design was used across two behaviors in the same environment to determine the effect of Blue tooth technology on independent responding in the community.

Behaviors:

- Locating an item within the aisle of the store
- Waiting in line in order to purchase the item.
- Purchase the item

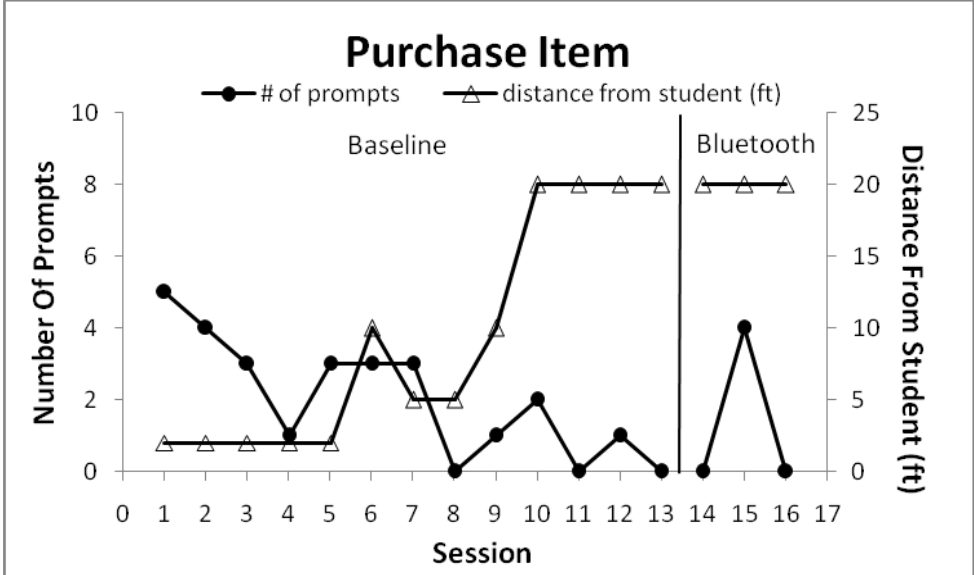
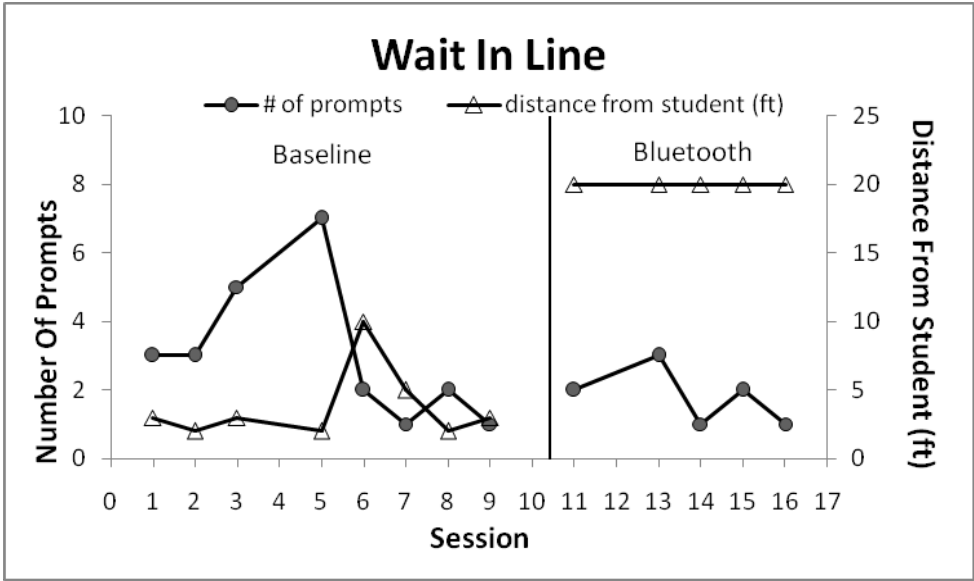
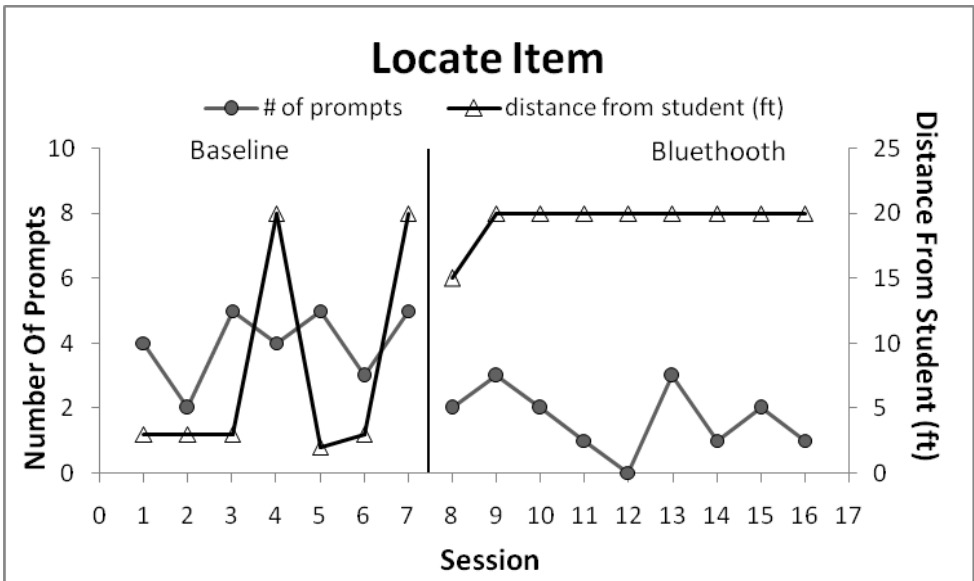
Baseline: Baseline was conducted in the community location for all behaviors. The instructor provided only light physical guidance for the participant to complete the steps of purchasing items, including locating items, waiting in the line, and paying for the items. The participant wore an activated Blue tooth on his ear and kept the paired cell phone in his pants pocket.

Intervention: The instructor provided verbal prompts by speaking into a cell phone connected to the participants. The participant via the Blue tooth worn by the participant received prompts. If the participant did not respond to the verbal prompts, the instructor provided light physical guidance for the participant to complete the steps of purchasing items. The proximity if the instructor was gradually increased (faded) such that prompts were delivered to the participant via the blue tooth without the instructor being physically proximate to the participant.

IOA (Total Agreements/ Agreements + Disagreements *100)

Result

Prompt frequency decreased immediately after the implementation of Bluetooth for “Locating Item”. However, the number of prompts for “Wait in Line” and “Purchase Item” decreased more gradually throughout baseline and intervention.



DISCUSSION

- The use of blue tooth technology to decrease physical and gestural prompting in community based instruction appears to be a potentially effective intervention.
- The use of Blue tooth technology allows prompting to be delivered from increasingly greater distances.
- Reduced levels of physical and gestural prompting can lead to greater independent functioning and reduction of stigma thereby promoting greater levels of social acceptance within the community.

The following factors also need to be considered to interpret the result.

Bi-product/Limitation

- Through repeated practice, the participant may have improved the skills. This may have affected the decreased number of prompts.
- The length of the line at the store has also affected the result. The participant required increased light physical guidance to wait in line in addition to verbal prompts via Bluetooth, where the line was increased in length.
- The cashiers at the store started to provide prompts for the sequences of “Purchase Item” after they became familiar with the participant. However, it is to be noted that as an adult, familiarity with and assistance from his “nuclear community” can also promote greater independent functioning and social acceptance.
- The participant frequently exhibits non-contextual vocalization across settings. The implementation of the Bluetooth disguised his vocalization as functional communication. Therefore the stigma was reduced
- The use of the Bluetooth requires pre-acquired skills such as receptive language and level of compliance.

FUTURE IMPLICATIONS

- Study should be replicated across a greater number of individuals and over a more diverse skill set.
- Social validity data needs to be collected to establish that the use of blue tooth technology is perceived as less stigmatizing than close proximity of instructors or the use of physical and gestural prompting.