

About the Learner

Client A is a 5 year old male child who started IBI Therapy March of 2010. The parents disclosed that for a short time they had paid for private IBI therapy about once a week for their child.

Strengths:

When Client A entered the program he showed strong eye contact and imitation skills. He enjoys circle and can say some smaller words, such as "Up" and "Bye".

Client A also shows an interest in all forms of reinforcement; social praise and attention, numerous tangibles and edibles.

Deficit Skills:

Although Client A does have some vocals, he tends to "babble" and the words he attempts to imitate are often unclear.



Scientific Evidence and Social Validity

According to Mark Sundberg and James Partington "The first type of language to teach a nonverbal child should be a mand" and should be taught first "because the mand is a unique type of language that directly benefits the child by letting his caretakers know exactly what he wants at that particular moment." (1998) Based on the above information and because this child is an early learner and very new to the program it has been determined that there is a distinct need to develop a strong mand repertoire.

Currently if the child wants something he will reach for a person, grab them and guide them to what he wants, or he will simply take what he wants. When denied what he wants he will clench his hands, stick his tongue out, make his body rigid and on occasion cry. It has been shown that by providing this child with a functional way of communicating his needs it will lead to a reduction of problem behaviour (Gutierrez, et al., 2007), thus, by teaching and encouraging this child to mand for various items and activities, his behaviour described above should be reduced.

By providing the mand training in natural environments this "greatly increases the chance of behaviours generalizing to other settings and people." (Mancil, Conroy, Nakao, & Alter, 2006)

Because the child can verbalize various sounds and because specific words are unclear the program will focus on two concurrent acquisition skills. The child will learn to sign for reinforcers using Signed English as well as speak the name of the item working his way from approximations to the full adult form of the word.

Constraints

Modifications of the Signed English will be used if the child is unable to correctly position his hands and/or fingers due to fine motor deficits, however, the modifications are to be kept as close as possible to the original.

Because verbal approximations will be accepted, in order to correctly break the names of items and activities down and to ensure consistency among the IT's the K&K Sign and Say Verbal Language Kit will be utilized for the word shell break downs.



The Program

Task Objective: The child will ask for what he wants when the reinforcer is present using words (or vocal approximations) and a sign.

Program Mastery Criteria:

40 or more items or activities

Target Mastery Criteria:

80% or more across 7 consecutive sessions

Revision criteria:

60% or less across 7 consecutive sessions

Materials: Various highly preferred items or activities

S(d): "What do you want?" + preferred item.

Target: See mand data sheet. Child will provide a vocal response (either the word for the item/activity or an approximation of it) and a sign (Signed English).

Teaching Procedure:

Mand teaching will take place during the specified manding sessions (intensive), but mands that occur out of these sessions will be under the same contingencies (sign and vocal)

IT sits across from learner

Reinforcing item is held by the IT between them and the learner

S(d) is provided, "What do you want?"

Wait 2-3s for response and follow Error Correction, Prompting, and Reinforcement Procedures as listed

Begin with easy approximations to allow the learner to establish what is required for access to item (e.g. beginning sound of item name). The IT is required to repeat the name of the item 3 times while honoring the mand

Contrive and manipulate the EO as required, but be aware that subsequent trials or aiming for difficult approximations may ruin the EO for the learner

Use Sign and Say if possible for vocal approximation break downs

Data

Data & Graphing:

Use Approximations for Reinforcers data sheet. At the end of session, write down what the best approximation of the reinforcer was. This will be the accepted target for the next session

Use the Mand Data Sheet (recording total number of mands during session, the number of mands with vocalizations and the number of mands without vocalizations)

Use Mand Graph

REINFORCER	APPROXIMATION
Chip	"ti"
Truck	"ee-yuh"

Date/Initials	Total # of Mands in Session	# of Mands with Vocalizations	# of Mands without Vocalizations
3/30/10	240	190	50
4/1/10	199	144	55
4/5/10	204	180	24

Error Correction

Error Correction for Scrolling:

Bring learner's hands to a neutral position

Represent the item and immediately prompt the correct sign and vocalization with prompting level necessary to evoke the response

Fade prompts on subsequent trials if possible.

Prompting and Reinforcement

Prompting Procedure:

Model the sign (follow the sign topography sheet) + echoic

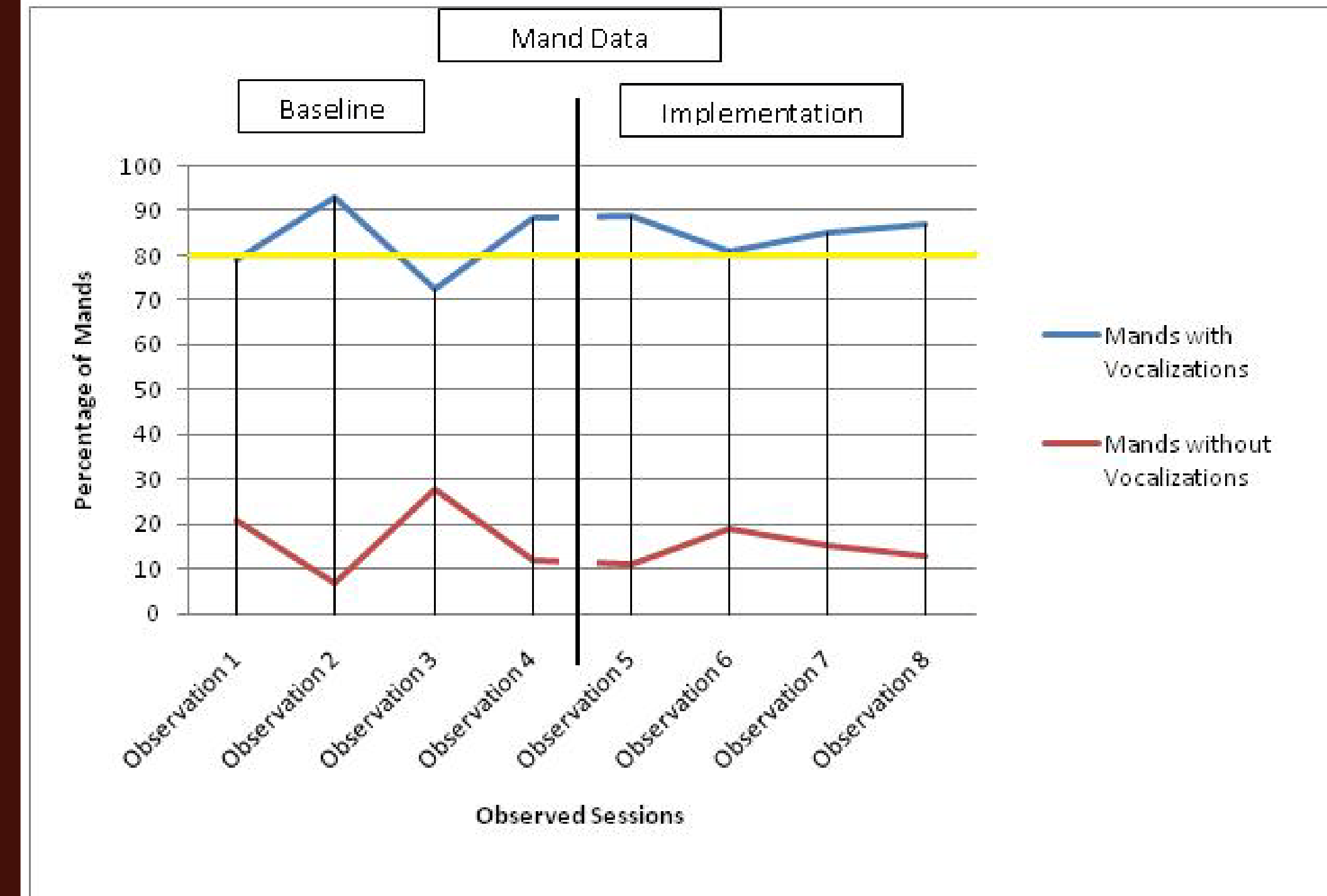
Physically prompt (partial or full) + echoic

Echoic

Reinforcement Schedule: NCR – immediately provide the requested item

Shape vocalizations through differential reinforcement

Results



Discussion

Note: During Observation 2 data was affected by the child's behaviour as on this day the child engaged in an hour and a half long acting out and the primary mand before and after the problematic behaviour had been for "chip" which the child would consistently use vocalizations for. As of Observation 3 and all subsequent Observations, the number of hours for the session dropped from 4 hours to 3 hours. During baseline data was taken on the total number of mands, the mands that included vocalizations as well as mands without vocalizations (sign only). The mands that the child used both sign and vocalizations for the most were those of the strongest reinforcers; chip, truck, book as examples. The goal was to have the child mand with vocalizations at least 80% of the time. During Observation 2 this occurred due to the fact that the child was manding for his favourite reinforcer, chip, even while acting out. The child manded for "chip" using both sign and vocalizations consistently with few exceptions. By Observation 4 the child was learning the tact and receptive identification for his reinforcers with another program and his mands were showing the increase of the combined sign and vocalizations, something that during implementation was remaining consistent and by the later observations was increasing. The most difficult part of the implementation is that the child often spoke very quietly and it was difficult to ensure that he said the correct word/approximation. In addition, this child tends to speak out of the side of his mouth and at times needs strong prompting to imitate the movement of the mouth including the teeth and tongue. With the assistance of the SLP and the suggestions she is providing this should eventually become less of an issue. Additionally, echoics are currently being introduced to work on basic sounds. Overall, the implementation went well and the child showed progress. He picked up new mands and sounds over each session and this is something that the IT's are still working on.

References

- Gutierrez, J.A., Vollmer, T.R., Dozier, C.L., Borrero, J.C., Rapp, J.T., Bourret, J.C., & Gadaire, D. (2007). Manipulating Establishing Operations to Verify and Establish Stimulus Control During Mand Training. *Journal of Applied Behavior Analysis*, 645-658.
- Mancil, G. R., Conroy, M.A., Nakao, T., & Alter, P.J. (2006). Functional Communication Training in the Natural Environment: A Pilot Investigation with a Young Child with Autism Spectrum Disorder. *Education and Treatment of Children*, 615-633.
- Sundberg, M.L., & Partington, J.W. (1998). *Teaching Language to Children with Autism or Other Developmental Disabilities*. Pleasant Hill: Behavior Analysts, Inc.