

ABSTRACT

The aim of this study was to observe the effect of the presence of anthropomorphic toys during play on verbal operants emitted by children with an autism spectrum disorder compared to non-anthropomorphic toys. There were two participants in the study; one 9 year old male and one 9 year old female. Both had been diagnosed with an autism spectrum disorder, had listener and speaker repertoires, delayed speech and language development and associated difficulties with social communication and play and were attending a CABAS® School in Surrey, England. The study used an AB design. The number of verbal operants emitted by each participant was monitored during free play sessions: during baseline conditions the participants were provided with Playdoh and during the treatment condition they were provided with anthropomorphic toys. Data showed that the presence of anthropomorphic toys increased verbal operants emitted by both participants. The study suggests that with further research the presence of anthropomorphic toys could be used to encourage spontaneous language in children with an autism spectrum disorder

LITERATURE REVIEW

Skinner (1957) - Language is important for the independence of an individual.

Ross, Nuzzolo, Stolfi & Ntarelli (2006) - Typically developing children tend to show signs of joint attention, imitation and toy play from age 6.

Toth, Munson, Meltzoff and Dawson (2006) - by 12 months old joint attention is present in typically developing children.

Lodhi and Greer (1989) - explored the use of anthropomorphic toys for increasing verbal operants emitted by children through observing the use of both vocal and nonverbal responses when playing with anthropomorphic and nonanthropomorphic toys.

Shabani, Katz, Wilder, Beauchamp, Taylor and Fischer (2002) - used tactile prompts, in the form of vibrating pagers, as a cue for social interaction.

METHOD

Definition of behaviour

Independent variable - the types of toys (anthropomorphic or non-anthropomorphic) available during each session.

Dependent variable - number of verbal operants emitted by each participant during a 5 minute play session.

Verbal operants were recorded as: **Mands** - an individual request for something which was then reinforced by another in the form of receiving the item, only recorded for the individual who requests. **Tacts** – a single statement that functions to name something e.g. "It's cold". **Sequels** – a single exchange by a speaker and a listener, recorded for both listener & speaker. **Conversational unit** – when two individuals both act as speaker & listener on a single subject, recorded for both.

Procedure

The study was carried out using an AB design. The data was collected during 5-minute (timed) long activity time sessions during regular school hours, recorded on an iPhone then transcribed. The verbal behaviour of both participants was then coded and then recorded as a tally and graphed for each participant. Verbal operants with teachers were not included & participants were redirected back to activity. The participants were informed they had five minutes of activity time and were asked to sit down at the central table in the classroom. During baseline conditions the table had Playdoh and tools. During the treatment conditions the table had anthropomorphic toys laid out.

RESULTS

During baseline no verbal operants emitted by either participants. During the anthropomorphic toys phase Participant 1 emitted 16 verbal operants during the session and Participant 2 emitted 10 verbal operants. A breakdown of the different verbal operants recorded for each participant is summarised in Table 1. The data are also displayed in Figures 1 and 2.

	Mands	Tacts	Sequels	Conversational Units
Participant 1	0	7	6	3
Participant 2	2	1	4	3

Table 1. Table to show the number of verbal operants emitted by each participant during the anthropomorphic toys sessions.
(NB Data for non-anthropomorphic condition is not shown as the results were zero for all verbal operants across participants.)

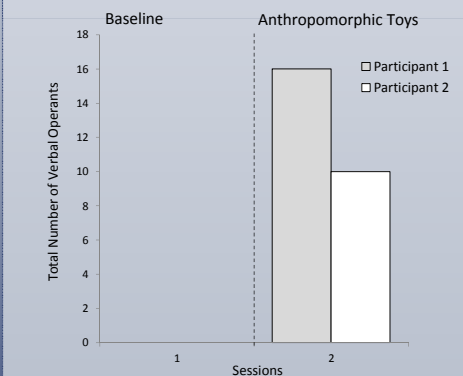


Figure 1: Bar graph to show total verbal operants across both participants.

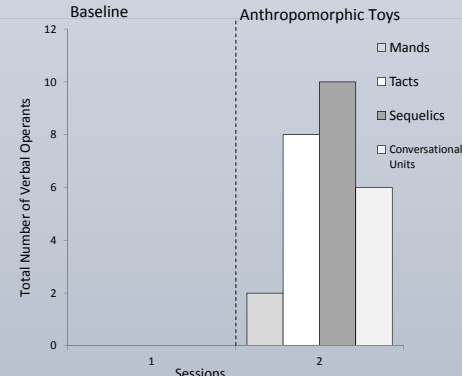


Figure 2: Bar graph to show mands, tacts, sequels and conversational units across both participants.

PARTICIPANTS

Participant 1: male, aged 9, diagnosed with learning difficulties, delayed speech & language development & associated difficulties with social communication, play, independence and self-help skills. Listener & speaker behaviours as well as emergent reader & writer behaviours.

Participant 2: female, aged 9, delayed speech and language development & associated difficulties with social communication, play, independence and self-help skills. Listener, speaker & reader behaviours in repertoire & emergent writer.

SETTING

The study took place at a CABAS® School in Surrey, England. The schools opening hours are 9.30am to 4pm Monday to Friday. The school operates across three terms per academic year, each term having a one week half term break. The school teaches on a 1:1 pupil to teacher ratio. The study took place in the participant's classroom where two participants, one additional pupil (non-participant) and three teachers were present. All participants were sat at a central table for the duration of the play sessions.

REFERENCES

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