

Teaching children with autism to engage in play-related talk

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The core features of the autism spectrum disorders include deficits in communication, socialization, and restricted interests including deficits in imaginative play. Specific deficits in play-related behavior include repetitive and stereotypic, non-functional, manipulation of play materials (for example, repeatedly spinning the wheel of a toy car), reduced flexibility in choice of activities, and limited generative and imaginative play. Perhaps related to deficits in communication, some children with autism also initiate play on a limited basis and infrequently talk about their play (for example, giving narrative descriptions of actions). When viewed as a compound skill, typical play consists of many component behaviors including manipulating play materials and toys appropriately, remaining on-task during play, and using play related talk.

For the current project, a fluency-based procedure that would lead to children using play-related talk during actual play with toys was designed to build fluent component play skills for two children with autism. The goal was to produce skill stability, which authors have defined as performance under highly distracting conditions (Johnson & Layng, 1992; Fabrizio & Moors 2002; Fabrizio & Schirmer, 2002; Fabrizio & Moors, in press). The procedure for both children involved developing play-related statements relevant to a theme-based toy such as a Fisher Price™ Car Wash by building the use of those statements through the Hear/Say learning channel in one-to-one sessions. Number of words repeated by the learner per minute was counted and charted. Checks for stability (Free/Say) were conducted approximately twice per week using the targeted theme-based toy. During stability checks, the number of context relevant words spoken per minute was counted and charted. Stability checks entailed leading the learner to the theme-based toy and instructing him to play with it. No other prompts were given during these checks.

The learner in Figure 1, Thomas, was a 3-year-old boy with autism. He was verbal, with

some spontaneous phrase speech, and had acquired some brief, appropriate toy manipulation in the absence of context-relevant talk. As depicted in Figure 1, Thomas' performance during the Hear/Say practice sessions accelerated by X1.3. During the initial 2-minute stability checks (Free/Do Say), 0 play related statements were emitted per minute. However, subsequent stability checks revealed a X2.6 celeration in the spontaneous use of context relevant play statements. Although not depicted in the figure, anecdotal observations included increased durations of on-task play behavior, increased use of play related talk with novel theme-based toys, stability, and adduction demonstrated with play materials in a novel community setting, and the elimination of stereotypic behavior with the targeted theme-based toy.

The learner in Figure 2, Peter, was a 5-year old boy with autism. He was verbal with spontaneous phrase speech, and demonstrated limited appropriate manipulation of toys accompanied by some non-contextual talk such as unintelligible vocalizations. Peter also repetitively manipulated theme-based toys. For example, he often repeatedly rolled a train back and forth on a track over and over again. As shown in Figure 2, Peter's performance during the Hear/Say practice sessions celerated by X1.2. Unfortunately, the stability checks only yielded a celeration of X1.0, which caused us to modify the existing learning channel that we used during Peter's practice sessions. The modified practice sessions consisted of a HearoSee/DooSay (Hear and See then Do and Say) learning channel in which Peter not only had to repeat play statements, but also had to concurrently imitate play actions with items pulled from the theme-based toy. During these practice sessions, both the number of words spoken and actions imitated per minute were counted and charted. Performance during the HearoSee/DooSay practice sessions accelerated by X1.5. Peter's spontaneous use of context-relevant talk during the stability checks with the reassembled toy accelerated at X3. According to anecdotal report, Peter also began using novel and varied play-related statements during the 5-minute stability checks. The repetitive use of the targeted play materials and non-contextual vocalizations were eliminated.

This project supports Carl Binder's (1996) argument that the accumulation of dysfluent skills may well be the greatest contributor to student failure. These data demonstrate the affect of dysfluent play skills on the ability to apply a component skill to a compound skill in situations in which the behavior should naturally occur. These data also demonstrate the efficacy of using yoked learning chan-

nels for some students as a powerful teaching intervention. This reminded us to heed Elizabeth Haughton's (2003) admonishment to be creative and flexible in our selection and use of learning channels.

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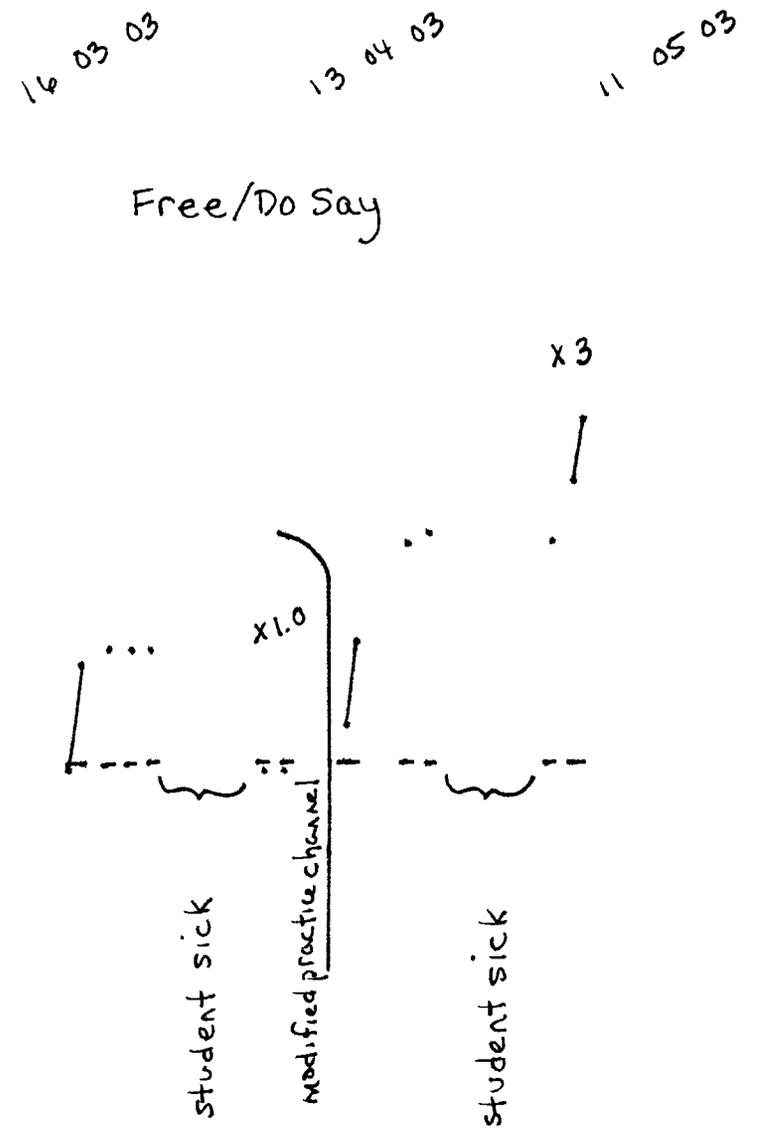
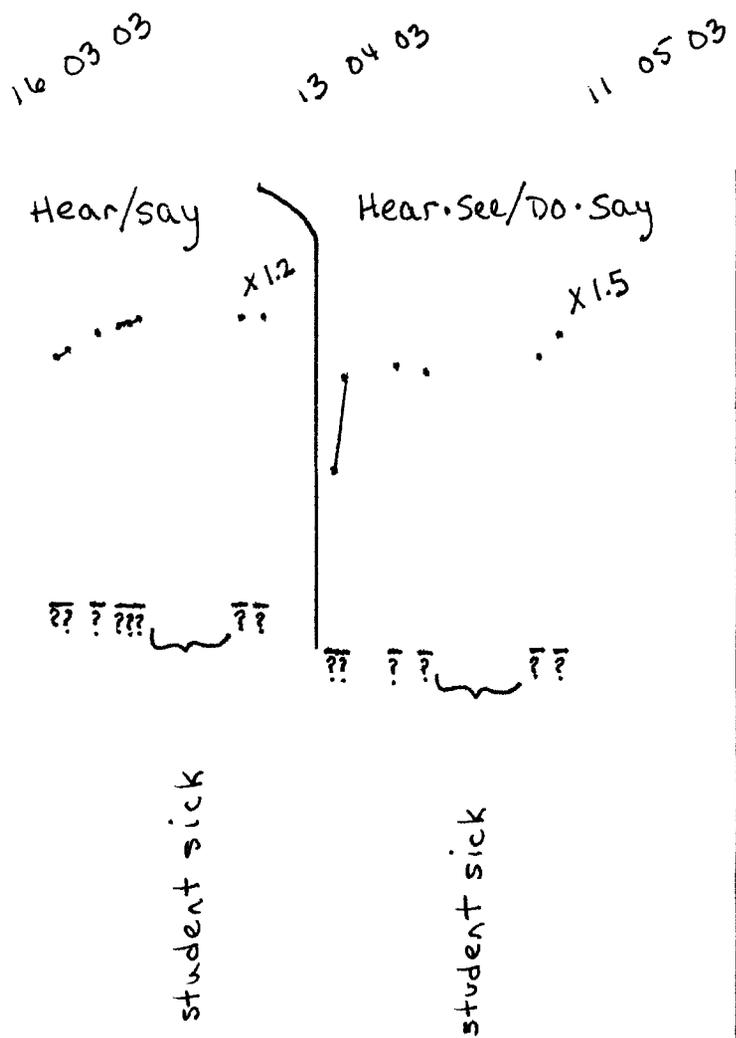
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Kevin C Liz B Jen S

SBSLG

Jen S Jen S

Peter 5 Play statements and actions

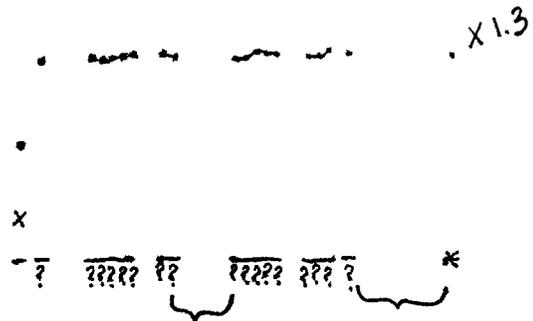
Jen S

16 03 03

13 04 03

11 05 03

Hear/say



student sick

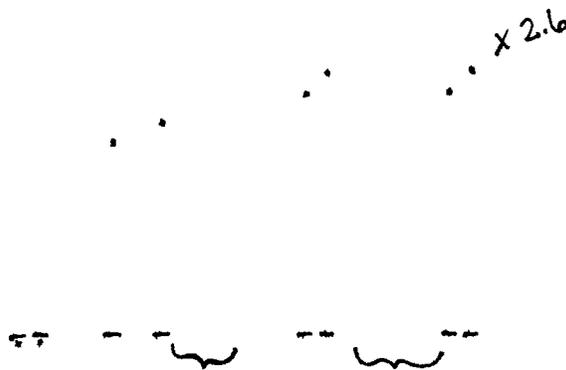
student sick

16 03 03

13 04 03

11 05 03

Free/Do Say



student sick

student sick

Kevin C

L12 B

Jen S

Thomas

3.3 Hear/say,

SBSLG

Jen S

Jen S

Jen S

Free/Do Say
Play statements