INCREASING THE HAPPINESS OF INDIVIDUALS WITH PROFOUND MULTIPLE DISABILITIES: REPLICATION AND EXTENSION

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A multielement design was used to compare the effects of three treatments on the happiness of 3 individuals with profound multiple disabilities. The conditions were typical programming using materials selected by staff, presentation of preferred materials plus social interaction, and social interaction alone with no materials present. Both the presentation of the preferred items with social interaction and social interaction alone resulted in higher happiness indicators than typical programming. The combination of preferred items and social interactions was somewhat superior to social interaction alone.

DESCRIPTORS: happiness, profound disabilities, training

Most research with individuals with multiple disabilities has examined variables that affect skill acquisition, with little attention devoted to the quality of life or happiness of those individuals. One of the first studies in this area demonstrated that staff could increase the happiness of such individuals by presenting them with preferred objects (Green & Reid, 1996). In that study, systematically assessed, preferred items were presented to the participants along with social interaction. Participants' happiness (i.e., engagement in behaviors such as smiling or laughing) increased during the experimental condition compared to standard classroom conditions. These findings were replicated in a subsequent study (Ivancic, Barrett, Simonow, & Kimberly, 1997). In both studies, social interaction was provided along with the presentation of preferred items. In a study evaluating the effects of social interactions alone on happiness, Favell, Realon, and Sutton (1996) found that indicators of happiness for 1 individual with profound re-

tardation increased substantially when staff engaged in casual conversation with him. In that study, no objects were presented to the participant so it is not known whether his happiness might have increased further if a preferred item were presented along with the interaction. In the present study, we compared the effectiveness of the presentation of a preferred item with social interaction to the presentation of social interaction alone to determine which produces more happiness in individuals with profound multiple disabilities.

METHOD

Participants and Setting

Three adults with profound mental retardation participated. Jane, 32 years old, was nonambulatory and had been diagnosed with cerebral palsy, spastic quadriplegia, seizure disorder, and Hodgkin's disease. Bob, 31 years old, had scoliosis and cerebral palsy and walked with staff support. Joe, 45 years old, had been diagnosed with epilepsy and spastic quadriplegia and was nonambulatory. All required assistance with self-care tasks, used vocalizations to obtain attention, and were able to manipulate objects. Sessions were conducted in a classroom of a rehabil-

itation facility. Each classroom included 15 to 20 adults with disabilities and four or five staff. Sessions were conducted at a table at which a participant sat, typically with four other individuals with disabilities.

Preference Assessments, Response Measurement, and Interobserver Agreement

Prior to the study, each participant's preferences were identified using the systematic assessment procedures and definitions used by Green et al. (1988). Each participant approached four items during all assessments, and those items were used during the social-interaction-plus-preferences phase.

During all conditions, the definition of happiness was identical to that used by Green and Reid (1996). A 10-s partial-interval recording system was used to measure participant behavior during 10-min sessions. The percentage of intervals in which happiness occurred was the dependent measure.

Independent observations of happiness were conducted during a minimum of 67% of sessions per participant per condition. Overall interobserver agreement was calculated by dividing agreements by the sum of agreements plus disagreements and multiplying by 100%. Mean agreement for each participant in each condition was 97% to 99%.

Design and Procedure

A multielement design was used to analyze the effects of standard classroom programming, social interaction only, and social interaction plus preferences on the percentage of intervals during which happiness was observed. The order of the conditions was determined randomly. Sessions were conducted 3 to 5 days per week for each individual, with one 10-min session per day. For the final three sessions, only the condition that produced the highest percentage of happiness intervals was presented.

Standard classroom programming. Observations occurred while the participants and staff members were engaged in daily programming. During the typical classroom routine, staff presented participants with items that were used to work on goals included in participants' individualized service plans. Some items were preferred; others were nonpreferred. Limited amounts of social interaction between participants and staff occurred. No demands were placed on the participants, and instruction was rare.

Social interaction. One experimenter provided social interaction to the participant for the entire 10-min observation period, with an interaction initiated by the experimenter every 10 s. Social interaction consisted of talking animatedly with the participant about a variety of topics. No items were present during this condition.

Social interaction plus preferred item. The experimenter provided social interaction as described above while presenting the participant's preferred items one at a time in random order for up to 2.5 min. If the participant displayed unhappiness (as defined by Green & Reid, 1996), the item was replaced with the next preferred object during the following interval. If the participant did not display happiness or unhappiness for three consecutive intervals, the next preferred object was presented during the following interval.

RESULTS AND DISCUSSION

Figure 1 shows the percentage of intervals during which the 3 participants displayed happiness during each condition. For all participants, the percentage of intervals in which happiness indicators occurred was substantially higher during social interaction and social interaction plus preferences than in the standard classroom condition, with all showing more happiness during the combined condition.
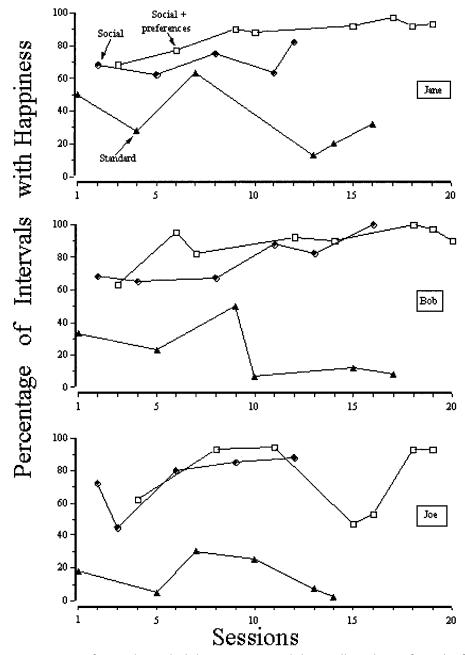
Figure 1. Percentage of intervals in which happiness occurred during all conditions for each of 3 participants.

The results of this study replicate the finding of Green and Reid (1996) that showed that happiness can be increased by the presentation of preferred items and social interaction. In addition, it supports the contention of Favell et al. (1996) that social interaction alone can increase happiness. Results of our comparison of the two conditions suggest that both result in substantial improvements in happiness when compared to a typical classroom condition. Results also suggest that the combination procedure pro-

duces higher indicators of happiness than social interaction alone.

Future research should examine strategies for implementing and maintaining these procedures under typical classroom conditions. In this study, individuals were engaged on a one-to-one basis and interactions were provided every 10 s, which may be at a higher rate than is practical for staff in a direct-care setting. It also seems important to evaluate the impact that an intervention designed to increase happiness has on habilitative programming. In this setting, because few demands or instructional interactions occurred, there was little educational cost. In other settings in which more educational activities occur, it may be important to determine if happiness comes at the cost of skill acquisition.

REFERENCES

Favell, J. E., Realon, R. E., & Sutton, K. A. (1996). Measuring and increasing the happiness of people with profound mental retardation and physical handicaps. *Behavioral Interventions, 11,* 47–58.

Green, C. W., & Reid, D. H. (1996). Defining, validating, and increasing indices of happiness among people with profound multiple disabilities. *Journal of Applied Behavior Analysis, 29,* 67–78.

Green, C. W., Reid, D. H., White, L. K., Halford, R. C., Brittain, D. P., & Gardner, S. M. (1988). Identifying reinforcers for persons with profound handicaps: Staff opinion versus systematic assessment of preferences. *Journal of Applied Behavior Analysis, 21,* 31–43.

Ivancic, M. T., Barrett, G. T., Simonow, A., & Kimberly, A. (1997). A replication to increase happiness indices among some people with profound multiple disabilities. *Research in Developmental Disabilities, 18,* 79–89.