Comparing Treatment Integrity of Prompts Used During Discrete Trial Training: Paper and Electronic Data Collection Systems

Ashley Abbott, M.S., BCBA, and Paul Heering, M.A., BCBA
May Institute, Randolph, Mass.

Abstract
The purpose of this study was to evaluate the treatment integrity of prompting techniques when using paper and electronic data collection systems. The participants of this study were 2 behavior therapists working with 4 clients in the clients homes. Data were collected over 4 to 6 months. The dependent variable of the study was the staff’s data based decision of which prompting technique to use based on criteria written into the skills acquisition programs. In the paper data collection phase, staff decided at the end of every session whether to move up, move down, or to stay at the current prompt level for the next session. Criteria within the programs were identical during the electronic data collection phase. However, during this phase the computer automatically determined whether to move up, move down, or to stay at the current prompt level. A percentage of sessions conducted at the correct prompt level was calculated. The results during paper data collection phase showed 90% accuracy (ranging from 85% - 100%) while during electronic data collection phase this number was 100%. Overall, the electronic data collection system eliminated the errors related to determining the correct prompt to use, thus eliminating wasted sessions.

Method

PARTICIPANTS
- Four direct therapists and three clients participated in the study.
- A total of 43 programs, across the three clients, were evaluated.
- Two behavior analysts reviewed the pen and paper and online data sheets.

SETTING
- The homes of the families receiving consultation services.

DEPENDENT VARIABLES
- During every session a decision is made whether to move up, move down, or to stay at the current prompt level.
- The dependent variable of the study was the documentation of the correct prompt level utilized based on the corresponding skill acquisition program criteria.

INDEPENDENT VARIABLES
- During the pen and paper condition, at the conclusion of each session staff determine the correct prompt level to use for the next session based on the corresponding skill acquisition program criteria.
- During the electronic data collection condition, the computer software determined the correct prompt to use for the next session based on the corresponding skills acquisition program criteria.
- Criteria within the programs were identical during the electronic data collection phase. However, during this phase the computer automatically determined whether to move up, move down, or to stay at the current prompt level.
- In both conditions, the data sheets contained similar skill acquisition programs and prompt level criteria.

PROCEDURE
- All clients and therapists participated in both conditions.
- For all clients and therapists, pen and paper data collection was implemented for three to four months.
- After the pen and paper data collection condition, staff moved to electronic data collection for three to four months.

DATA COLLECTION
- The behavior analysts reviewed the program data sheets using the skills acquisition program criteria to determine what prompt was appropriate to use and compare this to the prompt that was documented during the session.
- Each program was scored as “correct” or “incorrect”
- A percentage of correct prompts used was calculated by dividing the number of correct prompts used by the total number of prompts used.

Results
- During pen and paper data collection staff followed the prompting procedures as written during 90% of sessions (ranging from 85% - 100% per individual).
- During electronic data collection the system followed the procedure as written during 100% of sessions.

Conclusion
- The use of an electronic data collection system can eliminate staff errors with regards to the usage of the correct prompt level in reference to the treatment programs.
- Correct implementation of the program should result in improved progress and allow for more specific evaluation of programs.
- The use of an electronic system requires a high level of detail when setting up programs. The computer will do exactly what you instruct it to calculate, therefore setting up treatment programs correctly is crucial to ensure treatment integrity related to prompt level changes.
- No data were taken on the actual implementation of the programs, only the documented prompt level. Only the permanent product (the data sheet) was examined.
- Future research should include direct observation of programs being implemented and evaluate other areas of treatment integrity improvements through the use of an electronic system.