Examining the Effectiveness of an Online Training Program: Training Behavior Technicians to Implement a Task Analysis

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Proposal

INTRODUCTION

Literature:

- Behavior Skills Training (BST) is a method of competency-based training that requires training to continue until the trainee has demonstrated a set mastery level (Parsons & Rollyson, 2012; Sarakoff & Sturmey, 2004).
- When using BST, a trainer describes the target skill, provides a clear written description of the skill, accurately models the skill, and then requires the trainee to practice. Feedback is provided during practice until the skill meets criterion level (Parsons & Rollyson, 2012).
- BST has been used to teach staff various skills such as how to implement discrete trial training (Sarokoff & Sturmey 2004) and mand training (Nigro-Bruzzi et al., 2009).

Problem:

- Due to COVID-19 there are limitations to providing BST face-to-face at some organizations.
- Telehealth may be a solution: requires use of communication technology to deliver medical and behavioral health services across a distance However, face-to-face feedback may be important for complex skills, such physically implementing a task analysis.

Purpose:

- The purpose of this study will be to assess the skill acquisition of behavior technicians following an online hybrid training program to them to implement a toothbrushing task analysis. The online hybrid training program will consist of asynchronous online modules and telehealth practice sessions.

METHOD

Subjects:

- 3 newly hired behavior technicians

Setting:

- A medical treatment in facility in Massachusetts which uses Applied Behavior Analytic methodologies

Materials & Equipment:

- Videoconferencing software (Zoom)
- Training program via MoodleCloud
- Toothbrush, toothpaste, sink
- Toothbrushing task analysis; least-to-most physical prompting
- Data sheet, clipboard, pen

Experimental Design:

- Multiple probe across participants

Variables:

- Independent Variable: Online hybrid training program
- Dependent Variables: Percent accuracy of implementation of total-task analysis

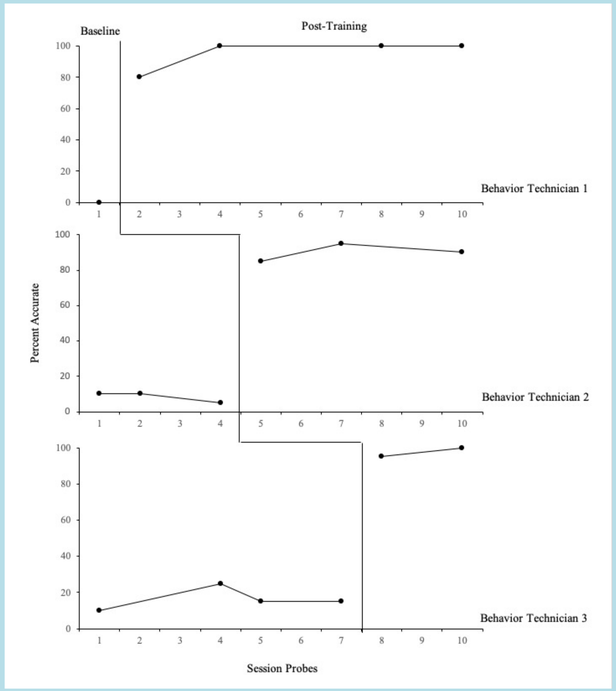

Figure 1. Percentage of accurate responding in baseline and post-training of behavior technicians following an online hybrid training program

PROCEDURE

Baseline Probes:

- Participants will conduct a toothbrushing session with trained actors

Intervention:

- Asynchronous**:**
  - Self-paced personalized system of instruction including the basics of a task analysis and rationale for least to most prompting
  - Pre-recorded video modeling
  - Quiz for competency
- Synchronous (telehealth)
  - Role play with actor until mastery criterion achieved (100%)
  - Feedback

Post-Training Probes:

- Participants will be observed implementing toothbrushing task analysis via Zoom

REFERENCES

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HYPOTHETICAL RESULTS

Data Explanation:

- See Figure 1.
- Baseline*:* It is predicted data may show a low-stable trend of percent accuracy
- Post-Training: It is predicted that data will show high-stable responding across probes.

Outcomes:

- It is predicted that percent accuracy of implementation of total-task analysis will increase after online hybrid training
- Demonstrates a functional relation

Inter Observer Agreement:

- The experimenter will record data during 35% of sessions. Total agreement will be used to determine IOA.
- Scores will be calculated by dividing the smaller total score by the larger total score and multiplying by 100%.
- Mean total agreement is predicted to be 93% with a range of 83% to 98%.

HYPOTHETICAL DISCUSSION

- Hypothetical findings are expected to demonstrate a functional relation between percent accuracy of task analysis implementation and the training program.

Limitations:

- Difficulties delivering corrective feedback via telehealth
- Technical issues and accessibility
- It is possible some trainees may require more modeling which could be difficult through telehealth.

Future Research:

- Training different skills
- Addition of forward and backward chaining task analyses, not just total task
- Vary prompting hierarchies