

## Bathroom hygiene: Using a total task analysis and correspondence training procedure to teach wiping skills to a young child with autism spectrum disorder

Judit Albitz, M.Sc., BCBA, & Olivia Ng, MA, BCBA

### Background

Teaching individuals with autism spectrum disorder (ASD) proper hygiene skills after toilet use can significantly improve their quality of life, impacting their health, independence, and social relationships (Byra et al., 2018; Stokes et al., 2014). Several successful toileting interventions have been reported in the behaviour-analytic literature; however, few have focused on teaching proper hygiene skills after toilet use (Byra et al., 2018).

### Purpose

The goal of this study was to teach a five-year-old boy with ASD wiping skills after toilet use, implementing a total task analysis and correspondence training. It was hypothesized that implementing a total task analysis in combination with correspondence training would result in the acquisition of proper wiping skills and their generalization to novel environments.

Preliminary results suggest a gradual increase in task performance accuracy between sessions.

### References

Byra, K. L., White, S., Temple, M., & Cameron, M. J. (2018). An approach to cleanliness training to support bathroom hygiene among children with autism spectrum disorder. *Behavior Analysis in Practice, 11*(2), 139–143. <https://doi.org/10.1007/s40617-017-0205-9>

Stokes, J.V., Cameron, M.J., Dorsey, M.F., & Fleming, E. (2004). Task analysis, correspondence training, and general case instruction for teaching personal hygiene skills. *Behavioral Interventions, 19*(2), 121-135. <https://doi.org/10.1002/bin.153>

### Method

#### Participant and Setting

The participant of this study was a five-year-old boy who had a diagnosis of Autism Spectrum Disorder (ASD). The participant was receiving 4 hours of behaviour analytic services that consisted of programs that targeted, communication, academic and self-help skills, with an emphasis on parent training and generalization of skills. Through assessment and consultation with the learner's parent, deficits in the daily living skills domain were identified, and proper hygiene skills were chosen to be targeted for the learner. The study took place at the participant's home.

#### Materials

Materials used for the bathroom hygiene program included toilet paper, toilet paper stand, chair and a brown marker. The learner received tokens on a VR2 schedule for correctly performed steps of the task analysis. When all tokens were collected, the learner was able to make a choice in reinforcer. Correctly performed steps of the task analysis were marked with a checkmark and incorrectly performed steps were marked with an x on the data collection sheet.

#### Baseline and Intervention Procedure

Baseline data were collected without the use of any prompts. The behaviour therapist provided the instruction "Show me wiping" to the learner and marked each step of the task analysis that the learner performed correctly or incorrectly with a checkmark or an x on the data sheet. Baseline data were collected for two consecutive sessions and the learner performed the task with 12.5 percent accuracy during baseline trials.

The wiping skill was broken down into eight steps and a total task presentation method was used to teach the skill. Total task analysis steps: 1. pulls 3-4 squares of TP, 2. places one hand on top of TP roll and rips off TP squares, 3. folds TP in half, 4. folds TP in another half, 5. leans forward and reaches right arm back to bottom, 6. wipes once in a front to back motion, 7. checks TP, labels it dirty or clean, and throws on the ground, 8. if TP was not clean, repeats task until TP is clean after wiping. The seventh step of the task analysis included correspondence training, as the participant was expected to discriminate between the clean and soiled toilet paper and repeat the wiping task accordingly. If the toilet paper was soiled, the learner was expected to label it "dirty" and continue the wiping task until the toilet paper was clean.

### Graph

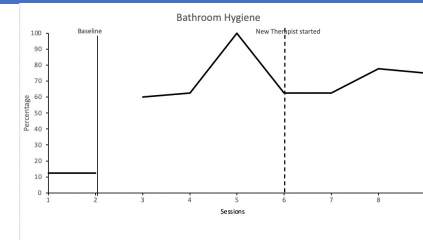


Figure. Results of the bathroom hygiene task analysis. Number of sessions is displayed on the x-axis and percentage of correct responses is presented on the y-axis.

### Results and Discussion

Results indicate an increase in task performance accuracy during the intervention phase from the baseline phase. In the fifth session the learner performed the wiping task with 100 percent accuracy. In the sixth session a new therapist was introduced to the learner's team which resulted in a slight decline in the learner's task performance. As procedural fidelity was ensured and ongoing supervision was provided during sessions, a gradual increase in the learner's skill performance could be observed.

Behavioural skills training was implemented to train parents the steps of the wiping task, prompting procedures, and data collection. One limitation of the study was that only dry wiping was implemented, as the learner did not actually need to use the washroom during sessions. Nevertheless, training continues in the home environment where natural opportunities are expected to become available.