PSYC 587  
Chaining Competency Zhen Lin  
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**Client Background Information**: E. is a 10 year old boy who was diagnosed with Down’s syndrome ten years ago and ASD eight years ago. He has below average daily life skills for his age. He is underweight (52 pounds) and has severe destructive behavior during mealtime. He had previous exposure to chaining training of dressing and taking a shower in an ABA agency for three weeks. The in-home sessions occur Monday to Friday from 6 pm to 9 pm.

**Goal and Purpose**: E.’s parents reported that E. has lost three teeth because of cavities; he has destructive behaviors (e.g., swiping the cup away) when drinking cold milk (taken from the refrigerator) at mealtime. The goal of this competency is to teach E. how to brush teeth independently in order to develop his self-care skills, potentially reduce tooth pain, and reduce destructive behaviors at mealtime. According to the report from the CDC (Children’s Dental Center), 42% of kids have cavities in their teeth. This can be prevented by brushing teeth two times a day. Having healthy teeth will increase the opportunity for E. to take in nutritious food every day. He will gain weight and have a stronger body from having more food. E.’s goal is to independently brush his teeth in 100% of naturally occurring opportunities, across one month.

**Task Analysis**:

1. Pick up toothbrush from holder
2. Pick up toothpaste from holder
3. Remove the cap of the toothpaste
4. Squeeze a small amount of paste on the toothbrush
5. Get a cup from the counter
6. Turn on water
7. Get a cup of water
8. Turn off water
9. Dampen the brush with water
10. Place brush in mouth
11. Brush the bottom teeth on the right side of mouth
12. Brush the bottom teeth on the left side of mouth
13. Brush the bottom teeth on the middle of mouth
14. Brush the top teeth on the right side of mouth
15. Brush the top teeth on the left side of mouth
16. Brush the top teeth on the middle of mouth
17. Spit foam into the sink
18. Rinse mouth with water in the cup
19. Turn on water
20. Rinse the toothbrush
21. Turn off water

**Baseline**: In baseline, each step in the task analysis that was performed independently without prompting was scored as correct. According to the baseline data, the client was not able to brush his teeth independently in naturally occurring opportunities and performed 0/21 steps of the task analysis.

**Backward Chaining**:  
Based on the baseline data, the intervention will be conducted using backward chaining. In backward training, steps 1 through 20 in the task analysis will be completed by the instructors, except for step 21 — “turn off the water.” Reinforcement will come at the end of the chain. A story time will be provided as reinforcement when E. completes the last step independently. After E. can complete the step 21 independently three consecutive sessions, he will be required to complete step 20 —“rinse the toothbrush” and step 21 “turn off water” before having the story time as reinforcement. This backward sequence will proceed until all the steps in the task analysis have been taught.