

## **The Application of Backward Chaining in Tooth Brushing Mastery in Children with Moderate Intellectual Disabilities**

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### **Abstract**

In general, the researches on mastery skills of brushing teeth still uses the total task presentation method, while the research of brushing teeth using backward chaining method has not been found. This study aims to determine the application of backward chaining in tooth brushing mastery of children with moderate intellectual disabilities. The participants consist of two children with moderate intellectual disabilities with Down syndrome who attend the Special School for disabled children, Serpong. They were trained to brush their teeth using backward chaining method. Tooth brushing behavior was defined into seven continuous steps that formed a chain. This training used the backward chaining method that taught every step one by one starting from the final step that had not been mastered by the participants. The training includes the most to least prompting until eventually prompting would be eliminated when the participant has reached the mastery. The result shows that participants who were initially only able to perform two of the seven brushing steps, increased the ability to independently perform all the brushing steps without assistance on the 12<sup>th</sup> and 18<sup>th</sup> session. The ability of the participants to brush the teeth completely and independently appeared in two consecutive sessions after the 20<sup>th</sup> and 23<sup>rd</sup>. When the participants were in different settings, they were still performing the same behavior. The application of backward chaining method in this study could prove to be the model for teachers, parents, and other interested parties to improve the mastery of daily living skills in children with moderate intellectual disabilities.

Keywords: Backward chaining, disabilities, tooth brushing