Single vs. Multiple Movement Frequencies: How Many Times Should We Measure?

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The purpose of this chart share is to look for more efficient ways of monitoring a learner's progress. I decided to compare progress records based on a single opportunity to complete a complicated task with a progress record based on multiple opportunities to compare the same task.

The learner, Sam, was an 8-year-old boy with autism who was fully integrated into a regular 2nd grade classroom. The goal of this intervention was to teach Sam how to put on his coat independently. To begin, a 12-step task analysis was created and the method of most-to-least prompting selected. During the course of the program, a picture script of the task analysis and peer modeling methods were also used. Instruction took place during naturally occurring school opportunities to put on his coat (e.g., preparing to go outside for recess, preparing to go home for the day). Sam's parents also worked with him at home using the same task analysis.

Three methods of monitoring the learner's progress (Figure 1) were implemented throughout the program: (1) Single-movement frequencies involved charting a single opportunity to complete the task each day. Time to completion was recorded and additional prompts were counted as errors.

For the Single Movement Frequency:

\[
\text{Correct Frequency} = \frac{1}{\text{Time Required to Complete the Task Once}}
\]

\[
\text{Error Frequency} = \frac{\# \text{ of Extra Prompts}}{\text{Time Required to Complete the Task Once}}
\]

For the Multiple Movement Frequency:

\[
\text{Correct Frequency} = \frac{3}{\text{(the number of times the task was completed)}}
\]

\[
\text{Error Frequency} = \frac{\# \text{ of Extra Prompts}}{\text{Cumulative Time Required to Complete All 3 Trials}}
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Figure 1: Three methods of monitoring the learner's progress.