Task Analysis

Definition:

The process of breaking down a complex task into its smaller steps or components.

Tasks with many steps or components may be divided into phases for teaching purposes.

(Alberto & Troutman, 2003)

Rationale:

Children with Autism Spectrum Disorders (ASD) may not learn some skills in the same way as their peers. It is sometimes necessary to break down a complex skill into smaller steps in order to meet the learning needs of the child. A task analysis does not need to be used for every skill but can be useful when attempting to teach a complex skill or to see with which step a child may be having difficulty (e.g. getting dressed and tooth brushing). The number of steps involved in a task analysis will depend on the child's ability. Some children may require many steps while others only a few (Alberto & Troutman, 2003).

Also Known As:

- Skill break down
- Steps involved in teaching a new skill
- Sequencing

You're already doing it by…

- Teaching the steps necessary for making a peanut butter sandwich
- Modeling the steps necessary to respond to greetings
- Following a recipe
- Teaching the steps necessary for brushing teeth

How to Develop a Task Analysis

1. Complete the task yourself or watch someone else and record the steps
2. Determine the starting point based on your child's ability
3. Identify small steps so that your child can succeed
4. Go through steps with another person (i.e. parents can complete the sequence of steps with each other). If the person can perform the skill being taught, then the skill has been successfully broken down
5. Monitor your child's performance

Use Task Analysis when:

- Teaching new multi-step skills
- When a child is not reaching independence on a skill (the child may be stuck on 1 or 2 steps of the sequence)

Chaining

After completing a task analysis for a multiple-step skill, it is important to determine which teaching method would be the most appropriate given the child and the specific skill. Many skills can be taught using forward or backward chaining. Since backwards chaining leads to immediate reward for task completion, it is generally the more effective approach.
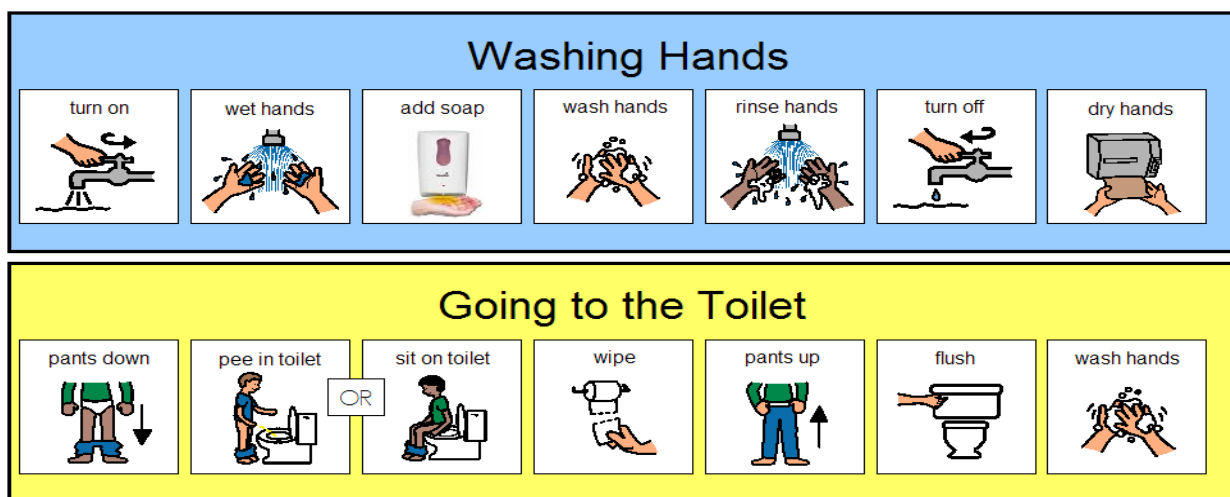
Forward Chaining

This approach involves teaching a skill **beginning with the first step**, and then teaching each successive step one at a time until the entire skill has been learned. It is particularly useful when a child has learned the early steps of a sequence, and/or it is important the skill is learned in a forward sequence. For example; if the skill is for the child to tie their shoe, the first skill to target would be to put their foot in the shoe, once that skill is acquired, your child would be expected to put their foot into their shoe, and tie the laces into a bow.

Backward Chaining

This approach involves teaching a skill **beginning with the last step**, and then teaching the immediately preceding steps one at a time until the entire skill has been mastered. One of the benefits of this method is the child is successfully and independently completing a skill which may be more intrinsically motivating and rewarding. It is important to reinforce your child upon completion of the task. Skills such as zipping up a zipper, setting a table, and learning their home phone number can all be taught using backwards chaining. With the washing hands example below the first skill to be targeted is to dry hands, and once that skill has been acquired they will start to turn off the water independently and dry their hands.

Washing Hands

| turn on | wet hands | add soap | wash hands | rinse hands | turn off | dry hands |

Going to the Toilet

| pants down | pee in toilet   OR   sit on toilet | wipe | pants up | flush | wash hands |

F.A.Q

Why do I have to write out the steps to the task?

When teaching a new task, smaller steps can be overlooked. Listing the steps prior to teaching can be helpful to determine which steps to start with, ensuring successful progress towards the goal.

A task analysis is an easy way to determine your child's current level of ability. It is important to also monitor your child's progress to ensure that learning is taking place.
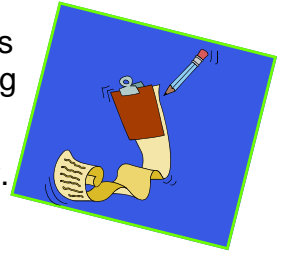
What skill or task is the best to break down?

All skills can be broken down into teachable steps. A new skill or a task that your child may be having difficulty acquiring can be a good starting point.

Where do I start when trying to teach a new skill?

Most children learn rules and routines by observing others in their environment and following the parents' instructions and cues. For children with ASD, this may not be enough.

To help a child learn the steps involved in the skill, it may be helpful to provide him/her with a visual breakdown of each step. Depending on your child's skill level he/she may require a pictorial or scripted sequence of the steps.

Determine whether the task would be best taught using forward or backward chaining and begin teaching the appropriate step. When your child is able to complete a step in the sequence/chain, teach the next sequential step, chaining with the already learned step(s). Reinforce any independent response and successful completion of the task.

Inviting a friend to play
1. Walk over to your friend
2. Stand close to your friend
3. Call your friend's name
4. Make eye contact
5. Ask your friend "Do you want to play?"

References:

Alberto, A.A., & Troutman, A.C. (2003). *Applied behavior analysis for teachers.* (6th edition).

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