Using Task Analysis:
The Key to Successful Learning

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Objectives

✓ Participants will be given a basic overview of task analysis and learn how to break a concept into smaller parts.

✓ Participants will learn what skills can be appropriately taught using task analysis.

✓ Participants will be learn three main procedures for teaching behaviors in a chain.

Task Analysis

Process of breaking a skill down into smaller, more manageable steps in order to teach a skill

Wong, Odem, Hume, Cox, Fettig, Kucharczyk, Brock, Plavnick, Fleury, & Schultz (2014). *Evidence-based Practices for Children, Youth, & Young Adults with ASD*. Autism Evidence-based Practice Review Group. Frank Porter Graham Child Development Institute, University of North Carolina at Chapel Hill.

Task Analysis

- The sequence of behaviors that one person might have to perform may not be identical to what another person needs to achieve the same outcome.

- The task analysis should be individualized according to age, skill level, and prior experience of the person in question.

(Cooper and Heron, 2007)

Why use task analysis?

- Effective way to plan for what skills need to be formally taught

- Can teach skills in more manageable sections

- Can then "chain" smaller skills together to complete a more complex task

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Who can benefit?

ANYONE!

Research specifically documents that children and youth with Autism Spectrum Disorders can benefit (preschool, elementary, and middle school age)

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What settings can Task Analysis be used in?

ANY---Home, community and school

The more settings the skills are practiced in, the more likely generalization is to occur.

Getting Started...

Step 1: Determine the target skill

- Academic skills (Writing)
- Adaptive/Self-help skills (Getting dressed)
- Life skills (Shopping for groceries)
- Communication skills (Starting a conversation)
- Social skills (Playing with a peer)

The target skill should consist of a series of chained discrete steps—not a single independent skill.

Chained Vs. Discrete Tasks

- **Chained Task** – a number of responses must be performed in a certain sequence in order to complete a complex task.

- **Discrete Task** –It is a task that requires only <u>one</u> response. Often taught in a "massed trial" or "multiple responding" format.

Step 2: Determine what prerequisite skills are needed

Collect baseline data—

helps to determine what portion of the task the student can already do

For example, Does my student have the fine motor skills required to hold a pencil if I want them to learn to write their name?

Step 2: Determine what prerequisite skills are needed

Provide a list of materials that will be needed to teach the target skills

Example: When teaching how to purchase items with money, will actual coins need to be used or will fake coins (or pictures of money) be sufficient?

Step 2: Determine what prerequisite skills are needed

If too many prerequisite skills are missing, it may be necessary to choose another target skill to task analyze.

Step 3: List out each step of the target skill

- Helpful to have another professional or parent look over steps to ensure accuracy
  - Sometimes others see things you may not!
- It is possible that you may have to break down certain steps farther

Brushing Teeth

1. Obtains materials
2. Takes cap off toothpaste
3. Puts paste on brush
4. Replaces toothpaste cap
5. Wets brush
6. Brushes left outer surfaces
7. Brushes front outer surfaces
8. Brushes right outer surfaces
9. Brushes lower right chewing surfaces
10. Brushes lower left chewing surfaces
11. Brushes upper left chewing surfaces
12. Brushes upper right chewing surfaces
13. Brushes upper right inside surfaces
14. Brushes upper front inside surfaces
15. Brushes upper left inside surfaces
16. Brushes lower left inside surfaces
17. Brushes lower front inside surfaces
18. Brushes lower right inside surfaces
19. Rinses toothbrush
20. Wipes mouth and hands
21. Returns materials

(Matson et al., 1990)

ZOOM +

Setting the Table

1. Puts down the placemat
2. Places the large plate in the center of the placemat
3. Puts the small plate in the upper left hand side of the placemat
4. Puts the butter knife on the small plate
5. Places the napkin to the left of the large plate
6. Puts the knife and spoon to the right of the large plate
7. Puts the fork to the left of the large plate on the napkin
8. Puts the dessert spoon and fork horizontally at the top of the large plate
9. Puts the glass to the upper right of the large plate near the tip of the knife

(Goodson et al., 2006)

ZOOM ⊕

Play Activity with Trains

1. Asks peer to play
2. Tells peer, "Let's play trains"
3. Gives peer at least two tracks
4. Tells peer, "Let's make a train"
5. Asks peer for train pieces
6. Puts train pieces together with peer's pieces
7. Asks peer for animals to put on train
8. Moves train around track
9. Tells peer, "Your turn!"
10. Tells peer, "That was fun!"

(Liber et al., 2008)

ZOOM ⊕

Step 4: Determine how the skill will be taught

Considerations:

- What are the students interests and learning preferences?

- What are some developmental and/or age appropriate activities or materials I can use?

- Under which conditions will the child yield the most success?

- What reinforcement should I use and how often?

- What prompt hierarchy should I use?

Step 4: Determine how the skill will be taught

What procedure will you use?

- Total Task Presentation

- Backward Chaining

- Forward Chaining

Total Task Presentation

- The learner receives training on each step in the task analysis during every session.

- Trainer assistance is provided with any step the child is unable to perform independently.

- The chain is trained until the child is able to perform all the behaviors independently.

(Cooper and Heron, 2007)

Backward Chaining

Involves all the behaviors identified in the task analysis are prompted, except the last behavior in the chain. The child completes the last behavior. Then contacts reinforcement.

(Cooper and Heron, 2007)

Backward Chaining

Example

When teaching a child to tie shoes, they will be prompted throughout the sequence and then required to complete the last step of 'pulling the loops together snug.' When they complete this step they contact reinforcement.

(Cooper and Heron, 2007)

Forward Chaining

Involves the child completing the first step independently, then contacting reinforcement. The other steps are then prompted by the trainer.

(Cooper and Heron, 2007)

Forward Chaining

Example:

A child learning to tie their shoes would be reinforced for the first step which is "pinch lace" and the other steps in the sequence are prompted.

(Cooper and Heron, 2007)

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Step 4: Determine how the skill will be taught

What other Evidence Based Practices could I use?

- Visual Supports
- Video Modeling
- Social Narrative
- Discrete Trial Teaching
- Time Delay

Task Analysis for Washing Hands

1. **WET**

2. **SOAP**

3. **WASH** 20 SECONDS

4. **RINSE**

5. **DRY**

6. **TURN OFF WATER WITH PAPER TOWEL**

Step 5: Teach the skill and monitor progress

- Crucial to analyze the student's progress to ensure growth is occurring

- If not, ask yourself why:

  – May need more intense teaching on one specific aspect of the skill

  – May need more repetition of the skill

  – May need to choose a different method to teach the skills if not progressing with current method

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