

How to teach a skill one step at a time.

What it is. A **task analysis** is a skill broken into small steps, written in order, each one something you can see a person do. **Chaining** is how you teach those steps so they link together, until finishing one step is the cue for the next.

Why it matters. “Wash your hands” is really about nine small steps. A child who “can’t wash their hands” can usually do most of them and is stuck on two or three. A task analysis shows which ones, so you teach those steps instead of repeating the whole instruction louder.

HOW TO DO IT YOURSELF

How to write a task analysis yourself, in five steps.

1. **Do the skill yourself, slowly, and write down every move.** Or watch someone who does it well. Start each step with a verb and make it something you could see: “Turn on the water,” not “Get ready.”
2. **Size the steps to the learner.** Fewer, bigger steps for someone who has most of the skill; more, smaller ones for a beginner. The stranger test: could someone who has never met the learner follow your list and score it?
3. **Take a baseline before you teach.** Give the instruction once (“Wash your hands”) and mark each step: + done alone, – not done or needed help. Either stop at the first – (the *single-opportunity* way: quick, and no teaching sneaks into the test), or do the missed step for them and let them try the next one (the *multiple-opportunity* way: slower, but it shows every step they already have).

4. **Pick a way to chain it.** Forward, backward or total task, below. Help goes only where the baseline showed a –.
5. **Score every session.** Steps done alone $\div$ all steps $\times$ 100. Put it on a graph and watch the line.

FORWARD CHAINING

Teach step 1 until they do it alone, then steps 1 and 2, then 1 to 3. The reward comes right after the newest step. It fits when the first steps are the ones missing.

BACKWARD CHAINING

You do every step except the last; they do the last one and get the finish: clean hands, the snack, out the door. Then the last two, then the last three. Every practice ends with them finishing. It fits when the end is what's missing, or when the finish is itself the reward.

TOTAL-TASK CHAINING

They do every step, every time, with only as much help as each step needs, and the help fades. It fits when they can already do most of the steps, or the chain is short.

Which one is best? Nobody has found one that wins for everyone. In a study where children learned several tasks with both forward and backward chaining, all of them learned, neither method was faster for every child, and how a child did on a short task didn't predict a long one (Slocum & Tiger, 2011). So pick the one that fits the learner and the task, graph it, and change the plan if the line stays flat.

WORKED EXAMPLE

Nine steps to clean hands.

Made-up example. The child, the steps and the marks below are invented to show the method.

Ava is seven. Her teacher writes nine steps, says “Wash your hands” once, and marks the baseline the multiple-opportunity way. Then Ava practices the whole chain every day with help only on her – steps.

STEP	BASELINE	SESSION 5
1. Turn on the water	+	+
2. Wet both hands	+	+
3. Pump the soap once	–	+
4. Scrub for 20 seconds	–	–
5. Rinse off the soap	+	+
6. Turn off the water	–	+
7. Take one paper towel	+	+
8. Dry both hands	+	+
9. Throw the towel in the bin	–	+
Done alone	5 of 9 = 56%	8 of 9 = 89%

Ava already had five of nine steps, so total-task chaining fits. She does all nine every time, and help goes only to steps 3, 4, 6 and 9. By session 5 only the 20-second scrub still needs help. That is the one step to teach on purpose next, with a timer or a song, instead of reteaching handwashing.

MISTAKES TO AVOID

Ways a task analysis quietly fails.

- Steps nobody can see. "Get ready" or "Brush well" can't be scored. If a stranger couldn't mark it + or –, split it.
- One size of step for everyone. A learner with most of the skill drowns in thirty tiny steps; a beginner falls through nine big ones.
- Teaching during the baseline. Help given during the test makes the starting point look better than it is.
- Help that never fades. Plan from the first day how the help gets smaller, or the helper becomes a step in the chain.
- No finish worth reaching. The last step should end in something they like: the natural result, praise, or what comes next.

TRY IT

One question, then the answer.

A made-up case: Leo puts his coat on by himself every time but always stops before the zipper, the last step. Which kind of chaining fits, and why?

▼ Show the answer, and why

Backward chaining. The missing step is the last one, so that is where teaching starts: Leo does the steps he has, you help only with the zipper, and going outside comes right after his step. Every practice ends with him finishing the chain, which is exactly the part he's missing.

SOMETHING TO KEEP

Build your step sheet, then print it.

DRAGEN ACADEMY · TASK ANALYSIS DATA SHEET

· DRAGEN.CLOUD

SKILL	INSTRUCTION, SAID ONCE	CHAINING: FORWARD / BACKWARD / TOTAL TASK

STEP · SESSION	1	2	3	4	5	6	7
1. Turn on the water	+						
2. Wet both hands	+						
3. Pump the soap once	–						
4. Scrub for 20 seconds	–						
5. Rinse off the soap	+						
6. Turn off the water	–						
7. Take one paper towel	+						
8. Dry both hands	+						
9. Throw the towel in the bin	–						
Done alone	56%						

+ done alone · – not done or needed help · Score = steps done alone ÷ all steps × 100

WHERE DRAGEN HELPS

From the sheet to the report.

Session scores only help if someone graphs them and reads the line.

DRAGENprogress drafts the data half of a six-month progress report: starting level, current level, trend and graphs. What the results mean stays yours to write and sign.

S O U R C E

Where this comes from.

Cooper, Heron & Heward, *Applied Behavior Analysis* (3rd ed., 2020), the chapter on chaining: writing a task analysis, the single- and multiple-opportunity baselines, and the three ways to chain. Slocum & Tiger (2011), *Journal of Applied Behavior Analysis*, 44, 793–805: forward and backward chaining compared.

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