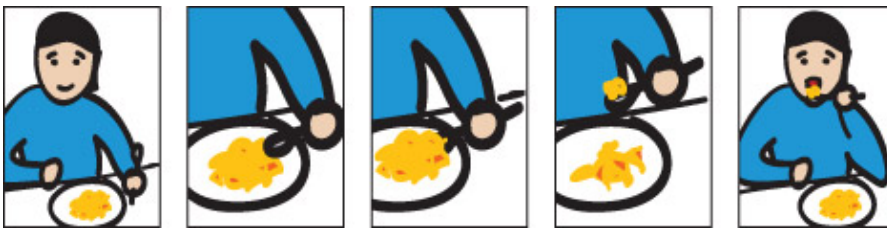


What do the terms mean?

Any skill can be thought of as a chain of small steps. These small steps are identified by completing a **Task Analysis**. Each step, or link in the chain, serves as a cue to do the next step. By building one step onto another learned step in the sequence, a strong chain can be created. This is called **CHAINING**. There are two kinds of chaining, forwards and backwards, and you'll learn more about these later.

Here's an example: Simithy doesn't like to wait for you to serve the other children and then spoon-feed her. She often cries and throws her bowl. You decide that it would be helpful to teach her to use a spoon to feed herself. A task analysis is completed and five steps in the spoon-feeding chain are identified.



1. pick up the spoon
2. put spoon into the food in the bowl
3. Scoop food onto the spoon
4. lift spoonful of food from the bowl
5. put the food into the mouth.

As Simithy begins to learn the steps, each one prompts the next one. When she has the spoon in her hand it helps her to know that the next step is to put it in the bowl. The spoon in the bowl prompts her to scoop the food. The food on the spoon prompts her to lift the food, and holding a spoonful of food prompts her to put it in her mouth. Of course the big pay off is the spoonful of her favourite food.

The actual steps in the task are taught through **SHAPING**. This is where the child is rewarded for approximating or getting close to the steps that we want to see in the end. Like playing "Hot and Cold", you reward any movement that takes the child closer to the prize—doing the step correctly. If the prize is under the couch and the player is moving toward the couch, every time the player takes a step toward the couch, you are yelling "hotter" (reinforcing the behaviour). If the player moves away from the couch, you would say "colder" (not reinforcing). In shaping a skill, the child is rewarded when part of the skill is done well. Initially, if Simithy touches the spoon you might reward her with praise. Gradually, that will not be good enough to receive praise, and praise will only be given when the step of picking up the spoon is done a little bit

better. The rule for giving reinforcement, changes as you expect more independence and greater accuracy.

As mentioned earlier, there are two kinds of chaining - forwards and backwards. The difference between the two is the point at which you begin teaching the steps in the chain. With forwards chaining, you would start by teaching Simithy to pick up the spoon. With backwards chaining, you would begin by teaching her to put the food in her mouth. Both are perfectly good approaches in this case.

It is best to teach the sequence of steps from the beginning to the end (forwards chaining) when:

- The child understands the final end product. (e.g., Simithy understands that she will end up with a spoonful of food in her mouth.)
- The child is somewhat motivated to learn the new skill (e.g., She really wants the food, and now!)
- The child displays little resistance to following instruction and can tolerate possibly being prompted through several steps of the task analysis.

In some cases, it is best to use backwards chaining (e.g., teach the child the last step first, then the second last step, etc.) You might choose to use this when:

- **The child does not understand the final end product** (e.g., a mouthful of food) and needs to be quickly taken to the end result.
- **Motivation to learn the new skill is initially low** and the child needs to very quickly receive an effective reward for cooperation and completion of the step. This will help to draw an association with the end product. Over time, as the child is required to complete more steps, she learns to tolerate delays in being rewarded.
- **The child shows resistance to instruction, prompting, etc.** and needs the instruction sessions to be very short, initially, so that she can experience a quick reward for her efforts. This will reduce future resistance, as the child understands that rewards are coming soon.

Simithy is motivated to learn this new skill, understands what a spoonful of food in her mouth feels like, and is cooperative while being instructed. Forward chaining might work well in this case.

You will want to teach either the:

- **Whole Task** - Prompting and rewarding Simithy throughout most or all five steps in the task analysis, or
- **Partial Task** – Prompting and rewarding only a single step until it is mastered and doing the rest yourself. You will start by modeling and prompting Simithy to pick up the spoon and then complete the final four steps yourself. Using the shaping technique, you will reinforce increasingly-closer approximations until she is able to pick up the spoon independently. Once she can do this on her own without reward, you'll move on and

have her put the spoon in the bowl. Only reward her for approximating this new step in the chain. Over time, she will have to do more and more steps to get rewarded. Finally, the reward (praise, etc.) is only given when the whole new skill is completed as independently as Simithy's abilities allow.

Gradually reduce the amount of assistance needed in each step until it is learned. As each small step is mastered, stop rewarding it and only reward the new steps that still need some work. Over time, the amount of assistance needed on each step will be reduced. Eventually the reward will come only when the whole skill has been completed independently.

Minimize frustration, mistakes, and the need for correction:

- Don't go through the steps too quickly or the child will start to make a lot of mistakes and might get frustrated.
- Gradually reduce the amount of prompting and assistance needed to master the step. Always use the LEAST amount of assistance needed so the child does not become dependent on your prompts.

Maximize acceptance of instruction, motivation, and accuracy in performing the steps:

- Give instruction clearly, and simply using visual supports where necessary.
- Model the steps.
- Find the right rewards for the child.
- Gradually reduce and delay the rewards given for completing the steps.
- Provide some encouragement when learning the newest steps. Remember *the biggest reward occurs at the end*, once the child has demonstrated the learned steps independently.

Children need to know that a new skill can be applied in many places, with many people, and under many conditions. For some children, learning to feed themselves at the child care centre does not necessarily mean that they are going to demonstrate this skill at home (with spoons other than those used during instruction, or with anyone other than the care provider who taught them).

To promote the use of new skills in as many ways as possible, a few tips include:

- Use similar but different items to teach the same skills (e.g., several different types of spoons and bowls).
- Have other caregivers teach the same skills BUT be certain that there is communication as to what strategies are being used to teach the skill, and what steps have been mastered, and what steps are being taught.
- Teach the skill in several different locations around the childcare centre and at home.
- Teach the skill during different times of the day, where appropriate.

With a little practice, you will find that chaining and shaping are quite easy and useful techniques for teaching all children new skills.