Book 2. MOTOR IMITATION:   
Teaching a Child to Imitate   
Movements, Actions, and Tasks

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**1. WHAT THIS SKILL AREA IS ABOUT**

Please take a look at Figure 3-1 in the first book in this series---Learning Readiness. Notice all the little skills that lead to Motor Imitation in the education sequence….

We call this a **logically progressive sequence**; one skill leads to another. For example, when a child responds faster and more often to **changes** around him (sounds, movement), it makes it easier for him to learn to make eye contact and to watch other persons. When he makes eye contact and watches other persons, it is easier for him to learn to cooperate with requests, such as making “good” sounds and words, acting calm, walking with you, coming when called, and sitting. When he learns to cooperate with requests, it is easier for him to come to a teaching area and to learn with you. This makes it easier to learn Large and Small Motor skills (visually tracking or following moving objects, picking up and placing objects, jumping). A child then **uses** these motor skills to learn play skills (puzzles) and daily-life skills (such as dressing). So,   
1. All of these skills (above) that we worked on in the book on Learning Readiness) have prepared your child to learn Motor Imitation now.

2. And as your child learns Motor Imitation, it will be easier for her to learn Verbal Imitation (imitating mouth movements, sound, words, and phrases), Functional Speech (asking for things, describing, naming), and Chores and Self-help Skills, which we work on in the next books in the series.

Remember that we started working on Motor Imitation in section 7 of Chapter Fourteen, on cooperation, in the book on Learning Readiness. Please skim that section now….

“How does Motor Imitation help my child to learn Verbal Imitation, Functional Speech, and Chores and Self-help Skills?”

Let us look at how people usually learn harder skills---skills that have a lot of steps, and doing each step means using concepts (“pick up,” “softly,” “in,” “plate,” “placemat’); rules (“Hold with both hands); and movements (reaching, grasping, watching hand move towards object, grasping object). What would be the fastest way to learn to drive a car?   
Try to teach yourself *(trial and error)*?  
Someone *tells* you everything you need to know and do?   
Someone *shows you how---using model-lead-test/check-tag-reinforce improved responses and correct errors?*If you think the fastest way would be for someone to show you how and then help you to do it, you are right! If you tried the other two ways, you would make so many errors that you would give up. In fact, you might never learn how to drive unless someone showed you.

The same goes for children. Children learn many skills by *watching* what parents, teachers, and other children are doing, and then *repeating* or *imitating* what they see or hear. For example, a child learns how to talk by *watching* how his parents move their mouths, and by *listening* to the sounds his parents make when they talk. Then the child *repeats* or *imitates* what he saw (mouth movements) and heard (sounds). And when his parents *reinforce* these imitations, and if they tag-reinforce closer and closer imitations (that is, they *shape* accuracy) their child will imitate and talk more often and more accurately. In summary,

Imitation is a skill that helps a child to learn many new behaviors fast.   
 She learns by watching and then doing.

Okay, so imitation is important.

**2. FIRMING UP YOUR TEACHING SKILLS AND YOUR CHILD’S LEARNING READINESS SKILLS NEEDED TO LEARN MOTOR IMITATION.**

Are you ready to teach and is your child ready to learn Motor Imitation? Let’s review and firm your skills for teaching and your child’s skills for learning Motor Imitation. Then we’ll evaluate your child on 10 Motor Imitation behaviors, and start teaching these behaviors.

**Table 1.** **Knowledge Analysis of Motor Imitation Tells What to Review and Firm**

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| --- |
| **1. Your tools for teaching.**  1a. You need to see the skill elements that your child uses to learn Motor Imitation, so   that we can firm these up before we begin and while we are teaching.  *What to review and firm.*  Knowledge analysis. Skim Chapter Eight in the book on Learning Readiness.   See Table 8-3. We’ll list the elements of Motor Imitation in #2 below.  1b. We’ll teach using model-lead-test/check-tag and reinforce or correct.  *What to review and firm.*  Please skim   (1) Chapter Seven, section 3, Teaching With Model-Lead-Test/Check-Tag And   Reinforce Or Correct.  (2) Chapter Eleven, section 3, Quick Review of Teaching.  (3) Chapter Nine, section 1, Clear Communication; section 2,   Choosing and Using Examples; and section 3, Choosing and Using   Add-ons.  **2. Learning Readiness skill elements that your child needs/uses to learn motor   imitation.**  *What to review and firm.* 2a.Skim to remind yourself what the Learning Readiness skills are. SeeChapter   Three, Figure 3-1. Notice the sequence of skills from Learning Readiness 1 to   Learning Readiness 5. Do you see how Motor Imitation behavior uses many   skills in LR 1-5?  2b. Chapter Eleven, section 4. See the list of Learning Readiness Skills.  **3. Now we’ll make sure your child is strong on the Learning Readiness Skills   listed below, that we taught in Chapters Eleven through Fourteen.**  3a. Child makes spontaneous eye contact (LR1.2); makes eye contact on request   (LR1.3); makes eye contact to get natural rewards (LR1.4); behavior is   reinforced/rewarded by some kinds of social contact (LR1.5). Review and firm   these skills using Chapter Twelve in the book on Learning Readiness.  3b. Child is calm and quiet.  Review and firm skills (such as “quiet mouth” and “good sounds/words,” LR1.6) in   Chapter Thirteen.  3c. Child sits and learns with you.  Review and firm LR2 sitting big skills in Chapter Fifteen.  3d. Child cooperates with requests and gestures.  Review and firm LR1.7 skills in Chapter Fourteen---especially gestures (section   6) and Motor Imitation (section 7).  3e. Child looks and listens as you show the model. Child’s eyes track your movement.  Review and firm items LR3.14 to LR3.18 in Chapter Sixteen.  3f. Child moves her body in response to your model or in response to your request (“Do   this” or “Arm UP!”) plus model. We worked on simple Motor Imitation in Section 7   of Chapter Fourteen.  Make sure your child can already DO the large and small motor movements that you   want her to imitate. See these movements in Chapter Sixteen. Make sure that you   (1) Read the directions for teaching movements.   (2) Read some examples of movements to teach.   (3) Review (reteach) some of the movements you’ve already taught your child.   (4) Then teach a few **new** movements, because you’ll have to do that when we   work on Motor Imitation in this book.  3g. The child looks at (examines) objects, parts of his or her body and other   persons’ bodies, faces, and mouths, both spontaneously and on request. For |  example, you point to a picture, or you hold up the child’s hand in front of her,   or you say, “Look at my mouth.” This is item LR3.18. You can firm it up in   Chapter Fifteen. |

**How to review and firm the above Learning Readiness skills.**

1. Identify target skills to work on. For example, eye contact on request.  
2. Observe how your child does them. “She makes eye contact on request about 50% of the time. Not enough!”  
3. Decide if she needs to do the behavior more often, with more skill, for a longer time, more quickly, or with less prompting. “We need to increase how often she makes eye contact on request, to about 80% of requests.”  
4. Decide if you will (a) run short sessions on the behavior; and/or (b) give opportunities, and tag-reinforce the behavior many times during the day; and/or (c) give opportunities and tag-reinforce the behavior during everyday activities.  
5. Improve the behavior using the same methods you used earlier when you taught the behavior. See the relevant sections and chapters listed in #3 above.  
6. You can review and firm several behaviors at once.  
7. Keep track of improvements. “After two days, her eye contact on request has gone up. So, now we’ll add work on sitting with us for a longer time, and on cooperation with requests such as responding to gestures.”  
8. Start working on Motor Imitation, in this book, when your child’s Learning Readiness Skill elements (listed in #3) have improved. Keep tagging- reinforcing these behaviors during sessions on Motor Imitation and when your child does these behaviors at other times.

Okay…..

**3. LET’S EVALUATE MOTOR IMITATION SKILLS**

We have ten items---MI1-10. The items are listed starting with items that seem easier to learn (fewer steps and fewer knowledge elements IN each step), and therefore are taught earlier. The first six are about different kinds of models your child can learn to imitate. Many of these large and small motor movement models and object placements are in Chapter Sixteen of the first book in the series, on Learning Readiness. The evaluations, below, tell if we need to teach a child how to DO the movements before we teach the child to imitate the movements. So, use the methods in Chapter Sixteen FIRST, if you have to teach your child just to DO the movements.

You can evaluate your child two ways.  
1. Think about times you have tried to get your child to imitate your movements. Or times that you’ve noticed that your child is trying to do what someone else is doing. Does she imitate certain movements? Does she sometimes try to imitate, but uses the wrong movements? Does she watch your models?

2. Give short sessions, as you did when you first worked on Motor Imitation in section 7, Imitating Simple Movements, in Chapter Fourteen, in the book on Learning Readiness. Which motor models did you work on? Which models did your child learn to imitate? Okay, here we go. Use your information to answer the following questions.

**MI1. THE CHILD CORRECTLY IMITATES (REPEATS) SIMPLE *LARGE* MOTOR MOVEMENTS (MODELS) SHOWN TO HIM**, such as holding arms over his head, jumping, bending over, or swinging his leg (may be prompted by saying, “Do this”). (Circle as many as apply, and underline.)

a.How many simple Large Motor models can/does the child correctly imitate? (just about any; more than ten; between five and ten; between one and five; none)

Please list the models that the child imitates or tries to imitate. Maybe you already worked on these in section 7, Imitating Simple Movements, in Chapter Fourteen, in the book on Learning Readiness. **We’ll start teaching with these.**

b. Child (usually; sometimes; rarely; never) tries toimitate simple Large Motor movements.

c.Child usually needs (no prompting; a little prompting; a great deal of prompting)torepeat the movements (models) he is shown.

d. Child usually (watches the model; cooperates when we show the model and say “Do this” or “Raise your arm”; makes a half-hearted try; ignores us; puts up a fuss) when we try to get him to imitate. We will firm these Learning Readiness elements if they are weak,

**MI2. THE CHILD CORRECTLY IMITATES (REPEATS) SIMPLE *SMALL* MOTOR MOVEMENTS**; for instance, touching an object you are touching, tapping his fingers on the table, wiggling his nose, or clapping his hands (may be prompted by saying, “Do this”). (Circle as many as apply and underline.)

a. How many simple Small Motor models can/does the child correctly imitate? (just about any; more than ten; between five and ten; between one and; none)

Please list the Small Motor models that the child imitates or tries to imitate. Again, maybe you worked on these in section 7, Imitating Simple Movements, in Chapter Fourteen, in the book on Learning Readiness.

The last item is another very important behavior.

**MI10. THE CHILD IMITATES MOTOR MODELS OF MANY PERSONS**. Note that, no matter how well or how often your child imitates, he must learn to imitate the behavior of many people---more than just parents or teachers. The more people he imitates (other children, for example), the faster he will learn new behaviors. (Underline.)

a. Child will/does imitate Large Motor movements of (just about anyone; most persons; only certain persons; does not imitate these movements yet).

b. Child will/does imitate Small Motor movements of (just about anyone; most persons; only certain persons; does not imitate these movements yet).

c. Child imitates Object Placements of (just about anyone; most persons; only certain persons; does not imitate object placements).

d. Child imitates Mouth Positions of (just about anyone; most persons; only certain persons; does not imitate mouth positions yet).

Please list the persons and the movements that the child spontaneously imitates.

Okay, now let’s go over your evaluations, above, to get the whole picture.

b. Child (usually; sometimes; rarely; never) tries to imitate simple Small Motor movements.

c. Child usually needs (no prompting; a little prompting; a great deal of prompting) to repeat the movements (models) he is shown.

d. Child usually (watches the model; cooperates when we show the model and say “Do this” or “Pat the table.”; makes a half-hearted try; ignores us; puts up a fuss) when we try to get him to imitate.

**MI3. THE CHILD CORRECTLY IMITATES OR COPIES THE PLACEMENT OF OBJECTS**, such as building a bridge of three blocks, putting a block on top of or inside a box, or putting a fork next to a plate. The child is not following spoken directions; he is just copying what he saw/sees you do. (Circle as many as apply, and underline.)

a. How many simple Object Placements can/does the child imitate? (just about any; more than five; a few; none) Please list these.

b. Child (usually; sometimes; rarely; never) *tries* to imitate simple Object Placements.

c. Child usually needs (no prompting; a little prompting; a great deal of prompting) to repeat the Object Placements he is shown.

d. Child usually (watches the model; cooperates when we show the model and say “Do this” or “Put the block IN.”; makes a half-hearted try; ignores us; puts up a fuss) when you try to get him to imitate Object Placements.

Note that the above three skills help a child to learn harder Small and Large Motor Movements and play activities, and also Chores and Self-Help tasks. The next skillhas to do with imitating *Mouth Movements* and *Positions.* This will help the child to learn Verbal Imitation, because the correct imitation of sounds and words means that the child makes a sound at the same time his mouth is in a certain position.

**MI4. THE CHILD CORRECTLY IMITATES MOVEMENTS OF THE MOUTH OR MOUTH POSITIONS**, such as opening his mouth wide (as in the *ahhh* sound), shutting his lips together (as in the *mmm* sound), putting his tongue out, wiggling his tongue, putting his lower lip between his teeth (as in the *fff* sound). (Circle as many as apply, and underline.)

a. How many Mouth Positions can/does the child correctly imitate (just about any; more than five; a few; none). Please list these.

b. Child (usually; sometimes; rarely; never) *tries* to imitate Mouth Movements and Positions.  
 c. Child usually needs (no prompting; a little prompting; a great deal of prompting) to imitate the Mouth Movements and Positions she is shown.  
 d. Child usually (watches the model; cooperates when we show the model and say “Do this” or “Open mouth.”; makes a half-hearted try; ignores us; puts up a fuss) when you try to get her to imitate Mouth Movements and Positions.

The next two items are skills to work toward.

**MI5. THE CHILD PLAYS IMITATION GAMES SUCH AS “PAT-A- CAKE,” ”BYE­BYE,” OR “SO BIG.”** (Circle as many as apply, and underline.)

a.How many imitation games can/does the child play? (more than ten; five to ten; one or two; none) Please list these.

b. Child (usually; sometimes; rarely; never) *tries* to play imitation games.

c. Child usually needs (no prompting; a little prompting; a great deal of prompting) to play imitation games.

d. Child usually (watches the model; cooperates when we show the model and say “Do this” or “Wave bye-bye.”; makes a half-hearted try; ignores us; puts up a fuss) when you try to get him to play an imitation game.

**MI6. THE CHILD CORRECTLY IMITATES COMPLEX MOVEMENTS (LARGE AND SMALL MOTOR MOVEMENTS TOGETHER)** shown to him, such as sweeping the floor, brushing his teeth, or in play tasks, such as fitting puzzle pieces or catching a ball (may be told, “Do this.”). (Circle as many as apply, and underline.)  
 a. How many complex movements can/does the child correctly imitate? (just about any; more than ten; between five and ten; a few; none). Please list these.

b. Child (usually; sometimes; rarely; never) tries to imitate complex movements.

c. Child usually needs (no prompting; a little prompting; a great deal of prompting) to imitate complex movements.   
 d. Child usually (watches the model; cooperates when we show the model and say “Do this” or “Sweeeep.”; makes a half-hearted try; ignores us; puts up a fuss) when you try to get him to imitate complex movements.

The last four items are about “generalized imitation.” This means that the child’s imitation behavior is so *strong* that she will try to imitate almost anyone and anything. And she seems to be rewarded just by correctly imitating (matching) the model, as if she gets a kick out of “doing like (Mommy, Daddy, brother, teacher).” This is also a behavior to shoot for, because the stronger the child’s imitation behavior, the easier she will learn to imitate sounds, words, phrases, chores, and self-help tasks.

**MI7. THE CHILD CORRECTLY IMITATES OR TRIES TO IMITATE SOME MODELS EVEN IF HE IS NOT REWARDED FOR IT.** (Underline.)

a. How many different models will/does the child imitate or try to imitate if he is not rewarded for it? (just about any; more than ten; between five and ten; a few; always needs to be rewarded; does not imitate). Please list these.

**MI8. ON HIS OWN, THE CHILD PLACES OR MOVES HIS BODY LIKE OTHER PERSONS.** For instance, she gets up off the chair and lays down on the floor when she sees her brother do it, or she crosses her legs when she sees her mother do it. (Underline.)  
 a. Child does this (often; sometimes; rarely; never really saw her do this). Please list the ones the child does.

**MI9. ON HIS OWN, THE CHILD IMITATES YOU WHEN YOU DO CHORES AND TASKS, SUCH AS SWEEPING, DUSTING, WIPING THE TABLE, OR HAMMERING.** For example, if he sees you wiping a table or sweeping the floor, he either begins to do something that looks like what you are doing, or he tries to get you to let him do it too, or he later does something like what you were doing. (Underline.)

a. Child does this (often; sometimes; rarely; never really saw him do this). Please list the ones the child does.

1. What is the easiest kind of Motor Imitation to start working on---earlier items on the list?

2. How much prompting does your child need?

3. How much does your child try to imitate?

4. What movements will you have to pre-teach or firm up, as shown in Chapter Seventeen, in the book on Learning Readiness?

5. Would it be good to tag-reinforce even tiny movements a child makes in response to your models?

**4. HOW DO I TEACH MOTOR IMITATION?**

The method for teaching Motor Imitation is pretty easy. The idea is to teach your child to *move* his body in the *same way* you do, *right after* you do. At first, you may have to help or *prompt* him to imitate your *movements* by saying, “Do this,” by telling him what to imitate (“PAT the table”), or by physically helping him through all or part of the motions. But, after a while, you want him to imitate your movements *(models)* without prompts. Here are some guidelines. First, please read section 7, Imitating Simple Movements, in Chapter Fourteen of the Learning Readiness book. You might tape Table 14-6 to the fridge, right next to the list of tasks no one will do.

1. ***Problem behaviors (whining, not cooperating) make it hard for you to teach,*** and hard for your child to learn desirable behaviors. So, let’s be alert *not to* *accidentally reinforce problem behaviors* by looking, staring, telling the child to stop, repeating requests over and over, giving the child something to distract or soothe her, dropping a request or stopping an activity to which the child is reacting. As much as possible, ignore what you don’t want; and as much as possible, tag-reinforce what you DO want. Review Chapter Ten in the book on Learning Readiness, to remind yourself how to respond to problem behavior versus desirable behavior.  
2. ***The main behavior we want to improve (Motor Imitation) is observable*.** We hear and see it **as** *movements*? Your child does something---she moves her body as you just modeled or showed what to do.

**We are also on the lookout for other behaviors to tag-reinforce**---Learning Readiness behaviors that are part of learning Motor Imitation---such as sitting big, looking at your model, quiet mouth and calm.

3. ***To help us easily to see and to tag-reinforce the right behaviors, we define behaviors in five words or less.*** For instance,

a. Eye contact. *Look my eyes two* (for two seconds)🡪 Means “I will tag and reinforce when Jimmy’s **eyes lock onto mine** for at least two seconds.”  
b. Sit big---feet on floor, sitting up, looking at me, quiet, hands calm = *Feet, back, look, calm, hands.”* 🡪 Means “I will tag and reinforce on an intermittent schedule when Pearl sits big for between 4 and 15 seconds.”  
c. Imitates. “Child does what I do within three seconds.” = *Move like me three seconds.*

4. ***At first your child is not likely to DO imitation behavior (imitate your model) with all the right movements, or smoothly, or within three to five seconds of your model.*** Also your child may not sit big for five seconds; she gets “antsy.” Or maybe she does not look at you for five seconds---long enough to see the whole model. Or maybe she makes noises more than usual. So, we do two things to improve these behaviors.

First, *we review and firm the Learning Readiness behaviors BEFORE we start working on Motor Imitation,* or else it could be a struggle. So, as I said earlier, on Table 1, review and firm Learning Readiness behaviors for a week or so during short sessions, everyday activities, and as opportunities come up. “Jimmy, look at me.” “Nancy, come and sit.” “Pearl, show me sit big.”

Second, when we start working on Motor Imitation, we:  
a. *Start at your child’s point of success.* How?  
 (1) We *begin with movements that your child CAN easily do on her own*. Otherwise, how can she imitate what she can’t do? Maybe you worked on these movements in Chapter Sixteen in the Learning Readiness book. If you did,

**Please make a list, and use it to select movements to use as your first models in #2 below.**

Movements we worked on and that our child does pretty well.

1.  
 2.  
 3.  
 4.  
 5.  
 6.

(2) We begin with *models that your child already imitates at least pretty well*. So, please look at your evaluation, above. Maybe you worked on these in section 7 of Chapter Fourteen. Our motor imitation items (1-10) are listed from what may be easier to harder. So,   
 **Start with the kind of imitation (items1-10) that seems to be easiest for your child.** That is, she already DOES the imitations.

Look at any lists of models that you made for evaluation items 1-10 above that your child DOES imitate. List them all here.

Models that we worked on and that our child does pretty well.  
 1.  
 2.  
 3.  
 4.  
 5.  
 6.

**Start with these.** In other words, begin at your child’s point of success, with the kinds of movements she can easily make and the movement/ models that she already imitates at least pretty well. For example, Pearl will first work on Large Motor models (MI1), such as standing up, raising arms above her head, and jumping.

As your child improves with the first set of models, we review the earlier ones and add new ones (one at a time!) of the **same kind**. Pearl’s Mom will review standing up, raising arms above her head, and jumping. If these are strong IN A SESSION, she will add (**one at a time)** standing on one foot, touching ears, and clapping hands.

As your child becomes pretty good at imitating many model- examples in an item (1-10), such as Large Motor imitations, we start working on the next **kind** of imitation, with movements that your child can already do. For example, Pearl’s Mom will review Large Motor models (item MI1) each session and at other times of day, and she will ADD a few **simple Small Motor models** (item MI2)**.** In a week or so, she will review the earlier Large and Small Motor imitations, and add **Object Placements ONE AT A TIME**. Later, she will work on **Mouth Movements and Positions.** Likewise, Jimmy imitates six Large Motor models quickly and accurately, including walking forward and backward. His parents have never seen him walk **sideways**. *So that’s what they work on now.* They gain his attention; say “Do this”; model walking sideways; and prompt him physically to do this **with** them. Tag-reinforce. Then they fade the prompts little by little and tag-reinforce less-prompted imitations. As Jimmy learns a new movement and imitation, his parents review earlier models and add a new movement and model---hands on hips.  
  
 (3) We *tag-reinforce imitations that are as “good” as your child usually does them at first.* Let’s say that the model/movement is raise arm above head. Maybe your child responds slowly (five seconds); or maybe she raises her arm only part way; or maybe she moves part way, stops, and then continues the movement. If THESE are her starting points of success for that model/movement, then we make ***these*** the ***first*** tag points. CLICK— treat—“Yes, arm up.”   
b. *We add a prompt, if needed*. How? (1) We **tell** the child the movement (“Arm UP!”). (2) We give the model **again**. (3) We say, **“Do this.”** (4) Maybe we give a **physical prompt**---either for the whole movement; or we nudge her elbow to get her to raise her arm higher; or we just touch her arm to get her started.   
c. If your child is having trouble responding to your model, we could use *time delay.* For example, the first time we show a model, we prompt *at the same time*---by saying “Do this”; or “Arm up”; or a physical prompt. Tag-reinforce. Then we repeat the model, but we wait one second before we prompt---tag- reinforce. Then we wait two seconds. Then three. Then four. The idea is that your child responds to the model before you give the prompt.   
 Or we could use *constant time delay.* For example, we give the model and wait four seconds each time before giving the prompt. We save the biggest tag-reinforce for when the child imitates **before** the prompt.  
d. *Gradually raise the tag point.* When the child does an imitation more often at her point of success for that model, we “hold out” for small improvements that are the new tag point. For example, we tag-reinforce imitations that start *more quickly* after the model; imitations that have *more of the movement model* (for example, she raises her arm way over her head); imitations that received *less of a prompt*. We also tag-reinforce longer watching behavior, longer good sitting, long intervals of quiet and calm. In other words, we shape improvements.

For example, if you are teaching a child to imitate hand-clapping (the *model),* and you have gotten her to the point where she raises her hands and *almost* brings them together, do not tag-reinforce any more for *just* raising her hands. Praise and say, “That's pretty good. Let's try again.” The next time you show the model, tag-reinforce imitations that are better than just raising hands. But, if she does not do better the next time, *go back to prompting some more* and then try to *fade out your prompts again.* You should also be tag- reinforcing only when she imitates or tries to imitate *right after* you show the model­--say, within 3-5 seconds.  
e. **Work on the same model *only a few times in a row* during a session**; then switch to another one. *Make sure the other one you switch to is* *very different from the first one,* so that the child can easily see the difference. So, during a session, switch between different models. Each day, go back to the same ones for practice, until the child gets better at imitating them. Once he can imitate two or three different models all by himself and just about every time, add a few new ones. Even when he imitates a model perfectly, give him practice on it every few days, *and reinforce with plenty of praise and, once in a while* (if you are using it) *with food or a token.* Exchange tokens for a back-up reward at the end of the session.   
5. ***When and where will we work on Motor Imitation?***   
a. Think of **teaching sessions** of 15 or so minutes several times a day. For example, you can teach during   
 (1) **Everyday activities,** such as while your child is watching TV (“The boy is jumping. Look…. Momma is jumping… Your turn… Do this…” (show model); during meals (model how to scoop potatoes out of the bowl); while helping your child to get dressed (model raising arms for a shirt, or lifting a leg to put on pants); when you are playing (model how to throw a ball); when your child is walking around (model hopping); and   
 (2) **Special sessions** (for example, at a table) where you warm up with, for instance, playing with puzzles and other “manipulatives” that your child does well, so that you are starting with success. Success builds momentum (interest, enthusiasm) for when you add new tasks. Then add some work on Motor Imitation. In other words, *you can rotate among several activities, to keep it interesting*. Work on a task for only a few minutes at a time. Then *switch* to another one. Add a few new ones every couple of days. We build skills little by little. End the session while your child is engaged and successful.

It might look like this.

1. Practice sitting big. Reinforce behaviors you worked on in past weeks. These should be easy for your child.   
 “Okay, let’s sit big…That’s it. Hands on the table….Now you are sitting big!” Treat.   
 “Tommy, look at me.” Tommy looks. Treat. “Again, look at me…keep looking….That’s it. You looked at Momma a **long** time.” Treat.  
 2. “Let’s play Do WITH Momma (imitating movements taught earlier)…. Look at me… YES. You look at Momma.… Now do THIS! [Mom raises her arm. Tommy raises his arm a little. Not close enough for a tag.]  
 “Again, do THIS….” [Mom raises her arm and this time gives Tommy’s arm a small physical prompt to get him moving. He raises his arm higher.] “Yes, you did WITH Momma!”   
 “One more time (to firm it up)…. Do this.” [Mom raises her arm and Tommy quickly raises his arm without help. He meets the tag point.] Tag-treat-“Yes, YOU did WITH Momma.”   
 They do a few more imitations.  
 3. Now that Mom and Tommy are working together fluently, Mom introduces the new model to work on.   
 After working on three or four models, they stack blocks; then do a puzzle; then a few more Motor Imitations.  
 Tommy does a perfect imitation. Tag-treat. “Yes, you did WITH Momma. Let’s have some ice cream!”

b. In addition to teaching sessions (planned sessions and during everyday activities), **think of times and places *that come up***,when you’ll be on the look-out for opportunities to request and tag-reinforce Motor Imitation. Make a game of it in the car, in the bath, on the floor, in the yard. Have the child imitate scrubbing his face, sweeping the floor, and other movements that are *natural* to where you are. “Look, I POUR milk….. Watch again….Pour milk… Your turn…. Do this. Pour milk.”

This will help your child get ready to learn Chores and Self-Help Skills in a later book!

You can work on Motor Imitation standing up or sitting down. You can either  
 (1) *Sit* *or stand* *next to your child---*close enough to physically prompt, butfar enough away that she can see your whole model.

(2) *Sit or stand across from your child* so that she gets a better view of your model---but then she is imitating from a mirror image---the opposite side of what you are doing.

Try both and see which works better.

6. ***Know how you’ll tag and reinforce.***

a. Make sure you have a tagger.  
b. If you are using food reinforcers, make sure your child likes them—A LOT; gets them ONLY as part of your current teaching program; and gets them IMMEDIATELY after she does the behavior you want to increase.   
 Sometimes, you can **hand your child the treat**. Sometimes you may have to put the treat in your child’s mouth. Pearl, for example, has a hard time feeding herself. If Mom waits until Pearl puts the treat in her mouth, it will be too long after the imitation that Pearl did.   
 Sometimes, you might use a spoon loaded with a **small** amount of food (pudding, yogurt, applesauce, mashed potatoes), and quickly put it in your child’s mouth. You might do this during sessions when you are sitting close to your child.   
 If you think that your child is ready for a *token system,* see Chapter Fourteen in the book on Learning Readiness. For example, the child might earn tokens (and occasional treats) during teaching sessions, both for sitting big, watching, and for imitating. After the session and at other times during the day, he exchanges his tokens for back-up rewards, such as treats or play.

7. ***How often to reinforce.*** *We’ll* ***tag*** *a behavior every time it meets the current tag point*---for instance, Jimmy imitates a little faster, or he watches Mom’s model for a longer time, or he does more of the small movements in the model, or he imitates with less prompts. Question. How often do we follow the tag/click with a reinforcer-treat?   
a. When we teach a new model, we tag-reinforce *every time* the child does the behavior at the tag point. *Continuous (every time) tag-reinforcement.*   
b. *Intermittent (once in a while, but fairly often) tag-reinforcement.* After a few days or a week or so, when your child’s imitations of some models are faster or more accurate or more complete, we slowly tag and reinforce a little less, and a little less---on a “once in a while” (random) schedule. Like this. Remember: the child is pretty good at imitating these movements.

Imitates pat head. 🡪 Tag-treat. Perhaps add, “Yes, you did like Momma.” Or, “Yes, pat head.” See if this verification helps teach your child. Do her eyes light up? Does she smile? Does she quickly do the movement again?  
 Imitates touch nose. 🡪 Tag-treat.

Imitates pat head. 🡪 Tag.   
 Imitates open mouth. 🡪 Tag-treat.   
 Imitates stand up. 🡪 Tag.

Imitates sit down. 🡪 Tag.

Imitates clap hands. 🡪 Tag-treat.  
 Imitates pat head. 🡪 Tag.  
 Imitates open mouth. 🡪 Tag.  
 Imitates stand up. 🡪 Tag-treat.

Having your child imitate two, three, four, etc. models in a row will help your child learn routines, such as play, daily life, and chores/self-help. Just have your child imitate each step, one after another. For instance, setting a place at the table, putting away clothes, opening a game on the computer.   
8. ***Generalization.*** As your child imitates certain models with more skill and/or more quickly, we begin to tag and reinforce Motor Imitation in *other places*---while walking, in the park, at a neighbor’s house, when shopping. We also get *other persons* involved, doing some tagging and reinforcing. “Jimmy, look. I PUSH the cart…. Here’s YOUR cart. Do this (show model of pushing).” Physically prompt to get him started. CLICK. Yes, push cart.”  
9. ***End Sessions on a Good Note.***End sessions *before* you and your child get tired or stop paying attention. If you end sessions while she is fussing, she will learn that she can get out of sessions by not paying attention or by putting up a big enough fuss. Stop after the child has done a job well and has been rewarded---while she is still feeling successful.

10. ***Which models to work on.***   
a. *Large and Small Motor.*

The best models to start with are (1) Large Motor models, because they are easiest to see, and (2) Small Motor models in which a noise is also made (patting table, clapping hands). Again, begin with movements the child can *already* do by himself. For example, if you have already taught the child how to bend down and touch the floor, or how tostretch his arms over his head, use these when you start on Motor Imitation---only now have him *imitate you* when *you* bend over and touch the floor or stretch *your* arms over your head.

It may take a few days or even a week before the child learns to imitate two or three Large Motor models *very well* and *without prompts.* When he does learn to imitate two or three very well, start teaching him to imitate a few Small Motor models that you have picked from the list or that you think of. Then switch between Large and Small Motor models during sessions. Also work on them outside of sessions for fun.

Once the child is imitating about five models from the Large and Small Motor groups *very well, with few, if any, errors* and *without prompts, add a few* Object Placement and Mouth Position models to your sessions. Later, run a short session each day on Object Placements or Mouth Positions.   
b. *Imitating Object Placements*

This will help your child to learn harder Small Motor activities, as well as Chores and Self-Help tasks. Examples are imitating the way *you* stack one block on top of another, the way *you* draw a line, the way *you* fluff the pillows, and the way *you* brush your teeth.

As with Large and Small Motor imitations, wait until the child is looking at you and then show him a model; for instance, fluffing up the pillows. Then prompt him to do the *same* thing. Tag-reinforce closer and closer tries. When he imitates one Object Placement very well, start on another but continue to practice the first one often.

The secret of teaching the child to imitate an Object Placement that has several parts (for instance, stacking four blocks) is to give him a way to *prompt himself* by telling himself *what he is doing.* For instance, when showing the child how to stack four blocks, make sure he is watching you while you slowly stack each block, saying, “One . . . two . . . three ... four.” When the child is imitating your model, prompt him by moving him through the motions if necessary, *and* by saying, “ONE ...TWO ... THREE ... FOUR” *while he* is stacking them. Slowly fade out counting with him until you are just whispering and, later, not prompting him at all. If he can speak, teach him to imitate saying “ONE ...TWO ... THREE ... FOUR” *while he* is stacking the blocks.

The same goes for other kinds of object placements, such as picking up objects in the same order as you do. Let’s say that there are three objects on the table---a ball, a toy dog, and a block. The model may be to pick up all three: first the ball, then the dog, and then the block. As you show the model, *say* what you are doing: “Ball ... dog ... block.” When it is the child's turn to imitate this, prompt him by hand *and* by saying, “BALL ... DOG . . . BLOCK,” while he is picking them up. If he can talk, prompt him toprompt himself by saying, “Ball ... dog ... block” while he is picking them up, and reward him for prompting himself in this way.

Please take a look at Figure 3-1 in the Learning Readiness book. Notice how teaching Chores and Self-Help skills comes after Motor Imitation. You already gave your child a start on this when you worked on daily-life skills in Chapter Eighteen. Now, when the child is learning to imitate Object Placements very well and does not need much help, you can start working on Chores and Self-Help Skills, too, in a later book in this series.  
c. *Mouth Movements and Positions*

When the child has learned to imitate some Large and Small Motor models very well, you should also start teaching her to imitate *mouth movements and positions.* This will help her when it comes time to work on Verbal Imitation, in the next book in the series..

Start your sessions with a warm-up and success by working on puzzles or by practicing a few of the Large and Small Motor models your child can already imitate. Then slip in an *easy* Mouth Position model. When she is *looking at your face or mouth,* show her the model (such as opening her mouth wide or sticking out her tongue). You may have to prompt her to open her mouth wide by gently pulling her lower jaw down a little. Other lip and tongue positions can be prompted with a tongue depressor, as well as with your fingers. You can prompt a child to stick out her tongue by “teasing” it out with a lollipop. And you can prompt her to pucker up and blow by molding her lips with your fingers while you push in on her tummy. Of course, tag-reinforce mouth movements and positions that she imitates better and without prompts.

If your child ALSO makes a good *sound* while she is imitating a mouth position model, tag-reinforce, and repeat the sound. “Yes, mmmm!.” Then try to have her imitate that mouth position *and* sound again. For example, if you are teaching the child to open his mouth wide, and he says *“*Ahhh,” tag-reinforce + “Yes, Ahhhh.” The next time, open your mouth wide and say “Ahhh.”Prompt him, if needed, to imitate “Ahhh,” and tag-reinforce if he tries---that is, imitates partly. If you find that the child *does* try to imitate a few sounds at this time, she may be ready for Verbal Imitation---the next book in the series. Table 2 has examples of models.

**Table 2. Models You Can Work on**

**Large Motor Models** **Small Motor Models**

Stretch arm over head Clap hands

Stand up Wave ‘bye-bye”  
Bend over Pat or tap table  
Shake head Blink eyes  
Pat head Wiggle nose

Raise arms over head Touch or point with finger to nose,

Swing arms eyes, ears, tummy

Jump over objects Touch forefinger and thumb together

Stamp foot More?....  
Swing leg   
March in place   
Run

Touch foot

Roll, Crawl   
Hop

Walk on a line

Walk on a raised beam

Follow an obstacle course

**Object Placements Mouth Movements and Positions**Move objects from one hand Open mouth  
to another Close mouth

Pick up blocks Chew

Stack blocks Stick out tongue

Draw lines (straight line, circle, Put tongue on upper lip  
triangle, square) Put lips together---as in p or m sounds  
Ring bell Purse lips, as in ooooo

Hit tambourine Pucker up and blow

Do simple puzzles (child puts in Pull lower jaw down with finger---a way to  
the same pieces you did) prompt the sound Ahhh

Fold paper Put index finger over both lips---

Throw ball one way to prompt the p sound

String beads (in the same way Pinch lips together---one way to prompt  
you do) the mmm or b sounds.  
Put plate, cup, spoon, on table, Put tongue on edge of upper teeth---the

on counter, in sink position for the th sound

Move toothbrush on teeth Put tip of tongue just behind upper teeth---

Pick up toys the position for the lll, t, and d sounds  
Put toys on shelf or box Put tongue on roof of mouth---another position for

Wash, dry, stack dishes the lll sound  
Hang up jacket, pants, hat. Put upper teeth on lower lip or “bite” lower

More?.... lip---the position for the fff or vvv sounds

Close teeth together---position for ssss

Open mouth wide with tongue push way back---  
 position for g or k sounds

Smile

**5. WHAT PROBLEMS MAY COME UP? AND WHAT DO I DO?**

*One problem may be that your child just does not get much better on a certain model.* It may be that he is bored, or that the model is too hard (too many movements; movements that he has a hard time doing), or that his imitations are not being tag-reinforced quickly or often enough. Try these.

1. *Stop working on that model for a few days.* If he still has trouble when you come back to it, maybe it is too hard. So,

2. *Break the model down into easier movement steps and tag-reinforce imitating the steps or parts.* For example, if the child is having trouble learning to imitate stamping his foot, back up to teaching him to imitate raising his foot. Once he has that down solidly, go back to teaching the whole sequence---raise and then lower foot.   
3. Make sure to tag-reinforce at a child’s current point of success. Don’t “hold out” for perfect imitations. Tag-reinforce *trying*,and praise with *vigor.* Be careful, though! Reinforce and prompt the child more often for a few days. After that, *hold off on reinforcers except for slightly better imitations that he does with less help.* In other words,tag-reinforce what he DOES do, and then gradually raise the tag point.  
4. Use *stronger* reinforcers.

*Another problem may be that the child pays less and less attention.* This may happen because he is bored with imitation in general. Maybe you have been working on it for too long or too fast. In that case, *switch* toworking on *other skill areas for a few days to a week*;for instance, Small and Large Motor skills. This will give both you and your child a break. If this does not increase his attention, *run sessions during mealtime.* Praise and snacks may not be strong enough reinforcers, and so you may have to work with your child during meals, when food is sure to be a strong reinforcer. A general rule to follow is this:

ALWAYS MAKE THE TEACHING SESSIONS AS ATTRACTIVE AS YOU CAN, BY REINFORCING MORE TIMES, USING STRONGER REINFORCERS, BACKING UP TO EASIER TASKS, AND SWITCHING TO DIFFERENT TASKS.

**6. GENERALIZED IMITATION, OR MAKING SURE IMITATION STAYS STRONG AND NATURAL**

The imitation behaviors of two children, Jimmy and Steven, may look the same. But Steven imitates most people, just about anywhere, and his imitations are rewarded by praise and natural consequences. He likes to do what Daddy does. Jimmy, on the other hand, imitates only during special sessions with his Mom, and his imitations are rewarded and kept going by food. *Jimmy’s imitation behavior is not guided* by *everyday signals---*he imitates only in a special place and with one person. And his imitations are not strengthened by *everyday rewards*;he imitates only as long as his behavior is followed by food. So, please go back to section 3, above, on evaluation, and look at items MI7 to MI10…. We want your child now to: (1) Imitate Some Models Even if He Is Not Rewarded (MI7); (2) Move His Body or Do Chores as Others Do on His Own (MI8 and 9); and (3) Imitate Motor Models of Many People (MI10). These items are very important. They will help your child to learn Verbal Imitation and Functional Speech. Let’s work on these items now.

**Teaching the Child to Imitate Some Models Even if Not Rewarded (MI7).***This is mostly a matter of time and reinforcement schedules.* As your child gets better at imitating, *slowly* move from a Continuous to an Intermittent Schedule---a *Changing Number schedule---*sothat he does not know just which imitations will be followed by, for example, a treat. Of course,

Tag and reinforce improved imitations!

Second, *wean the child off food or token rewards, and use more Social Rewards (praise, hugs) and natural Activity Rewards* (during and at the end of sessions). *At other times of the day, too, follow correct imitations more and more with natural rewards.* For instance, when the child imitates getting a glass from the shelf, fill it with soda pop; when he imitates jumping up and down, have a bout of roughhousing with him; and when he imitates licking a lollipop, give him one.

Keep track of how well the child imitates models that are not rewarded by testing him every week or so. During your session that day, set aside a few models that you will not reinforce; for example, clapping hands and opening his mouth wide. Run the session as usual, and tag-reinforce correct imitations, except the few models you picked to test him on. If he imitates these correctly, just go on to the next model.

Count how many times he correctly imitates the reinforced vs. the not reinforced imitations. Your goal is to teach him to imitate unreinforced models about as much as the reinforced models.

**Teaching the Child to Move his Body and Do Chores as Others Do on His Own (MI8 and MI9)**

Little children often move their bodies like other persons. For example, when a child sees her mother brush her hair, she may do the same thing with her hand; when she hears someone cough, she coughs too; and when she sees her father hammer a nail, she picks up a stick and pretends to hammer. This is great, because it means imitation is strong. The child “enjoys” doing “like Daddy and Mommy do.” And she will learn many behaviors this way.

When you are teaching a child to imitate, it is important to teach him to imitate outside of sessions in the “normal” way children do. Whenever you see the child imitating what you (or someone else) are doing, quickly reward it and tell him what he is doing. “YES! You are CROSSING YOUR LEGS like me.”

**Teaching the Child to Imitate Models of Many People (MI1O)**

If you are the only person who works with your child on Motor Imitation, he may not imitate anyone else. And, if you work with him only in one place, he may not imitate anywhere else. So, *once a child has learned to imitate five to ten models very well, you should have other persons work with him and in other places.*

First, slowly *change* the teaching session by having another person come in (brother, sister, another teacher, or neighbor )---someone the child has had contact with before. Have this person sit *next* to you while you are showing the child models to imitate (ones that he already does well). After a few minutes, have the other person tag-treat the child for imitating *your* model *(you* are still showing the models). If the child does poorly with the new person around, go back and tag-reinforce yourself. When he improves again with you, have the other person tag-reinforce again.

Next, have the other person show models *and* tag-reinforce correct imitations. You may have *to coach* or *prompt* the other person so that he or she rewards the child fast and prompts him if he needs it. *Slowly let the other person work with the child for longer and longer periods.* When this is working, you can bring in a third person---a visitor, for example.

Third, when the child is imitating models with other people, work on imitation in *different places.* When you go on field trips, to people’s homes, or to the grocery, have the child imitate models that are natural tothose places; for instance, picking up a leaf, pushing a chair up to the table, taking a can off the shelf.

**7. WHAT DO I MEASURE?**

Keep track of how well the child is doing on Motor Imitation. This will help you to decide when he is ready to work on another skill area, such as Verbal Imitation. During sessions when you are working *mostly* on Motor Imitation, count two things:

1. The number of times *you show models* during each session.

2. The number of times the *child correctly imitates* the models you show, without any help.

At the beginning, you may get mostly *close tries* but very few *perfect* imitations (your child imitates quickly and does all the movements in the model), but you should count only the *perfect ones.* You might use Table 3. Each session,

1. List the models that you will work on or that you did work on.

2. Afterwards, add notes on how well the child imitated.

3. Make a mark (/) each time you do a model for your child to imitate. When your child imitates perfectly (she does the whole movement without help) put a line through the hash mark (/ ). This will show if the child is imitating better and better.

Monday. Tuesday Wednesday

Raise arm.

/ / / / / / / / / / / / / / / / / / / / / / / /

Progress!

You can also you can find the *percentage* of correct imitations by dividing the number of models you show each session *into* the number of perfect imitations. For example, if you show models of pat table twelve times and the child imitates perfectly six times, you have 6/12 or 50 percent perfect imitations. Note the percentage for each session to see if it gets higher over time.

When the child imitates a model perfectly with no prompts, day after day, *underline it* on the progress sheet (Table 3) for that week. Do not forget to review-practice it every few days.

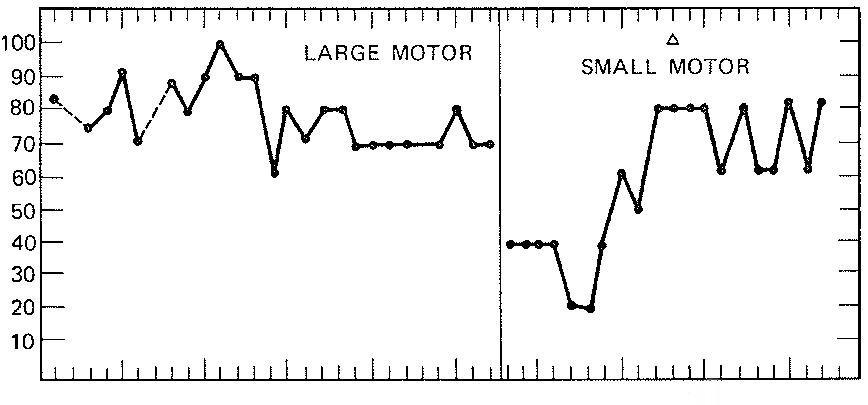
**An Example of Progress on Motor Imitation**

Figure 1 shows how Steven Rogers learned to imitate Large Motor and Small Motor models. Ma and Pa Rogers worked on Large and Small Motor movements (Chapter Sixteen in the book on Learning Readiness) for a few weeks. When Steven became more skilled at these movements, they began *adding* some of these same Large Motor movements as **models** for him to imitate during sessions; for example, stretching hands above head, touching toes, and hopping on one foot. They worked on Large Motor models for 27 days. On the twenty-eighth day they started adding Small Motor models (drawing lines, finger movements). In other words, they worked on the different Large and Small Motor movements and activities (puzzles, bouncing a ball), and then taught him to imitate when they modeled these.

Steven’s improved imitations (he imitated more of the model and got less prompting) were tagged, and reinforced with praise, bites of food (once in a while), and Activity Rewards. For example, when he imitated a model right, he could have the next piece of a puzzle to work. His parents counted the number of times they showed models and the number of times he imitated them perfectly. The chart shows the *percentage* of models that he imitated perfectly. In other words, the number of times models were shown was divided *into* the number of perfect imitations. If twenty models were shown and Steven imitated fifteen perfectly, the percentage of perfect imitations was 15/20 or 75 percent.

Figure 1 is interesting. Do you see that Steven did *not* get much better at Large Motor imitations? He imitated Large Motor models perfectly about 75 percent of the time, which is pretty good. But he did get much better at imitating Small Motor and Mouth Position models. This means that Ma and Pa will have to work on Large Motor *movements* using Chapter Sixteen of the book on Learning Readiness. Once Steven is firm on some Large Motor movements, his parents can then teach him to imitate these movement/models.

**Figure 1. Teaching Steven Large and Small Motor Imitation**



Days

= Percentage of models imitated correctly.

**Table 3. Progress in Motor Imitation**

Make copies of this table. When the child has learned to imitate a model accurately and without help, and he can do this about five times in a session, *underline* it.

Dates

Monday Tuesday Wednesday Thursday

**Large Motor Models**  
 Which ones?   
 How well?   
 What prompts?   
 What problems?

**Small Motor Models**   
 Which ones?   
 How well?   
 What prompts?   
 What problems?

**Object Placement Models**   
 Which ones?   
 How well?   
 What prompts?   
 What problems?

**Mouth Movements and  
 Positions Models**   
 Which ones?   
 How well?   
 What prompts?   
 What problems?

Which Models Does   
 the Child Consistently   
 Imitate Even If He Is Not   
 Reinforced.

Where Else and Who   
 Else Will the Child   
 Imitate?

What Movements or   
 Chores Has the Child   
 Imitated on his Own?

**Next Steps**

When your child (1) is imitating many models perfectly (especially mouth movements and positions) and with little prompting; (2) is cooperative and attentive, (3) makes eye contact and watches your movements, (4) and learns with you for a solid 15 or so minutes, (5) continue to review Motor Imitation; (6) continue to work on play; (7) continue to teach Large and Small Motor movements; (8) continue to review and firm other Learning Readiness Skills (sitting, cooperating, eye contact, good sounds and words); and (9) begin to work on Verbal Imitation and Functional Speech, as described in later books in the series.

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