

Matching

- Objectives:**
1. Student learns to put together items that are associated
 2. Develop student's attention to detail (*e.g.*, grouping boys running vs. boys throwing a ball)
 3. Student develops symbolic representation (*e.g.*, picture represents object)
 4. Student learns how to use materials
 5. Student develops independence by sorting multiple items
 6. Student develops a skill that is often used in playing games
 7. Student establishes a foundation for the development of receptive and expressive labeling
 8. Student develops a skill that can be used to introduce more advanced concepts (*e.g.*, same/different)

Procedure: The student sits at the table and the teacher sits next to or across from the student. Place three objects on the table, spaced well apart from each other. For ease and clarity in teaching you will want to have several copies of objects that are identical on hand. Hand the student an object that matches one of the items on the table and say, "Put with same", "Where does this go?", "Find the match", etc.). If the object does not easily lay on the table, it is helpful to use a plate or tray under each item. The target item must then be placed on the proper plate to be considered correct. Eventually the number of distractors on the table can be increased. Children quickly catch on to the strategy of matching and you will soon be able to omit the verbal cue entirely. However, when you are ready to move on to labeling, it is helpful to do matching trials where you name the object (*e.g.*, instead of saying, "Put with **same**", the teacher says, "Put with **balloon**"). This will let the student become familiar with the label. To increase his motivation, utilize materials and concepts that would be of interest (*e.g.*, favorite foods, preferred toys, movie characters, etc.).

Instructional Considerations:

It is important for the instructor to identify the objective to be accomplished through the matching program. Of course, matching may be introduced to teach the skill of putting similar items together. However, more importantly, the primary objective of introducing this skill is to facilitate attending behaviors and compliance (*i.e.*, learning how to learn skills). The types of materials used and the target responses identified will help facilitate the objectives (*i.e.*, seated *vs.* out of chair responses). For example, once a student is able to match object-to-object and/or picture-to-picture the instructor may ask the student to identify the matching item via pointing. For this skill, the student is shown an object or picture, but the teacher continues to hold the item. The teacher instructs the student to “Find the same.” The response is to point to the appropriate item. After this is mastered at the table, it should be done with the student finding items around the room. This teaching procedure may be used to help practice attending skills or may be introduced as a critical lead in to receptive labeling.

Prompts:

Use the least intrusive prompt that facilitates the response (*e.g.*, modeling prompts, pointing, physical guidance). Gradually fade the prompts until the student performs independently.

Entry critier:

Student’s disruptive behaviors have been reduced and do not interfere with learning. The student has foundational “learning how to learn” skills (understanding contingencies, paying attention, not grabbing). The student can sit in a chair, and hold objects. If attending is poor, this is a good program to develop that skill since looking is essential to making the correct response.

Mastery crit:

The student consistently performs a response correctly with no prompting with three or more choices, making few errors. This should be repeated with at least one additional teacher across environments.

Phase 1:

Object-to-object (nesting items).

Assess the student’s ability to understand the objective, decide if prompting the skill versus breaking the skill down further would be most appropriate in fostering skill development. If the student is able to progress well with standard prompting techniques begin with Phase 2 and provide a variety of target items. Students that require more systematic instruction should begin at Phase 1.

Use identical sets of objects which are familiar to the student that easily fit together (*e.g.*, bowls, cups, spoons, blocks, etc.). Select three

items to start with. Put the first item on the table (do not put out any distractor). Hand matching item to the student and say, "Put with same." Gradually move in a second unknown item as a distractor on the table. When the student responds correctly approximately three times with distractor present and no prompts, repeat with item two. When item two is done, go back and review item one, then item two. When the student responds correctly approximately three times with distractor present and no prompts, introduce item three. Finally put out all three target items at the same time and begin asking randomly for one or the other. This is called random rotation. We suggest the introduction of three items to reduce inadvertent reinforcement of guessing behaviors. As each item is mastered, select an additional item to train. Once the new item is learned in isolation, it must be randomized with previously learned items.

Nesting items and items that fit together with ease:

Cups	Plates
Bowls	Baskets
Upside down cones	Pie tins
Spoons	Bristle blocks

Phase 2:

Object-to-object (3-D). You may start by placing three items on the table, give the student an item identical to one on the table and provide an instruction (*e.g.*, "Match", "Put with same", etc.). Remember, if the object does not easily lay on the table, it is helpful to use a plate or tray under each item. The target item must then be placed on the proper plate to be considered correct. If the student is progressing well increase the number and variety of items.

Generalization Tip: It is recommended that once the student has been successful matching at the table, that he be asked to move around the room to find the matching item. You can hand him the sample item to take with him to make this easier. Later you can do this without giving him the item (he only looks at it). This is an excellent exercise to promote attending and general compliance.

Phase 3: **Picture-to-picture (identical objects, persons, animals).** Start when the student has mastered several items in Phase 2. Use identical sets of pictures. Select targets which are familiar to the student. Select three items to start with. If necessary, follow the discrimination training procedure described for Phase 1. As each item is mastered, select an additional item to train.

If the student has difficulty making the transition from 3-D objects to pictures, select a variety of items that are progressively flatter. Items such as books, plates, view master disks, play food such as bread or cookies can be used and the dimensions of thickness and texture gradually faded out.

Phase 4: **Picture-to-picture (identical pictures of action).** Start when the student has mastered several items in Phase 3. The teaching procedure is the same as Phase 3, but uses pictures of action being portrayed. This skill is helpful in preparing students to follow picture prompts to perform independent tasks such as hand washing, dressing or other self-help activities.

Phase 5: **Object-to-picture/Picture-to-object (identical 3-D to 2-D and 2-D to 3-D).** Start after the student has mastered several items in phase 3. Follow the same procedure as Phase 2, except the student matches object to corresponding picture or picture to object. This is an element common to many games and may help students in the development of common play skills.

Phase 6: **Non- identical objects (3-D).** Start this when the student has mastered several items in Phase 5. Make sets of items that are visually similar but not identical. An example would be different kinds of cookies. Have the student form piles of objects (*e.g.*, cars *vs.* shoes). The verbal instruction could be “Put with [car].”

Non-identical Matching Ideas:

Food	Cars	Dogs	Balls
Shoes	Shirts	Flowers	Books
People			

Phase 7: **Non-identical pictures (2-D).** Start this when the student has mastered several items in Phase 6. Make sets of pictures that are visually similar but not identical. An example would be different dogs. Have the student form piles of pictures (*e.g.*, dogs *vs.* cars). The verbal instruction is “Put with [dog].”

Phase 8: **Color.** Start if the student has demonstrated an inability to learn the concept receptively. Use pairs or groups of simple objects which are identical in every respect except for color. The developmental age at which the skill is identified as emerging by the Brigance Inventory of Child Development is listed in parentheses by years and months.

- a. red, blue (B: 2-0)
- b. green, yellow, orange, purple (B: 2-6)
- c. brown, black, pink, gray (B: 3-0)
- d. white (B: 4-0)

Phase 9: **Sorting.** Start after the student has mastered several items in Phases 1 and 2. Give the student two items at one time to sort, then gradually increase the number of items. The verbal cue is “sort.” As a prompt you can say “Sort—Find where it goes.” Eventually fade out verbal instruction. Extend to functional daily activities.

Sorting Ideas:

Toys	Groceries
People	Laundry
Size	Silverware, dishes
School materials	Pets
Categories	Clothing

Phase 10: **Non-identical object-to-picture and picture-to-object.**

Phase 11: **Non-identical actions.** Match pictures of different people doing same actions.

Phase 12: **Multiple dimensions (identical combinations varying size/color/attributes).**
For some students this phase may be helpful in developing better attention to detail and more complex thinking. Follow same procedure as Phase 2 except have the student match according to combined dimensions (*e.g.*, tall boy *vs.* short boy *vs.* tall girl *vs.* short girl). Hand him a picture of a tall boy and tell him to “put with same.” The correct response is to put it with a tall boy. Putting it with another tall person or a different boy would not be correct.

Phase 13: **Associations** (items that go together). Hand object or picture to the student and ask, “What does this go with?” He should put it with the associated item.

Associations Ideas:

Pencil/paper
Sock/shoe
Pillow/bed
Napkin/plate
Swimsuit/towel
Chalk/chalkboard
Flowers/vase
Glove/hand
Ball/bat
Paints/brush
Basketball/hoop
Pitcher/cup
Soap/washcloth
Baby/bottle
Screw/screw driver
Balloon/balloon pump

Shovel/pail
Spoon/bowl
Toothbrush/toothpaste
Coat/hat
Lunchbox/sandwich
Scissors/paper
Shirt/pants
Play dough/rolling pin
Candles/birthday cake
Bike/helmet
Broom/dustpan
Hairbrush/hair dryer
Train/track
Crayon/coloring book
Hammer/nail
Vacuum/rug

Cross-Refer: Note that categorization is a more advanced concept than non-identical matching and associations. Please refer to the categories program.

Teaching Strategy: If the student is having difficulty learning concepts such as people, gender, quantity, or locations, matching may be used as a strategy to help the student recognize the important information related to the topic.