

LABORATORY EXPERIENCE #3

GROSS AND FINE MOTOR SKILLS

The development of motor skills depends on a number of factors, including maturation and learning. Remember that maturation is the biological process by which all of the neurons and muscles, etc., become ready to perform new skills. You cannot walk until your legs are mature enough. Your bones and muscles must be ready before you can walk. No matter how much your parents practiced with you or put you in walkers, you could not walk until you were mature.

Once a certain maturation level is reached, you can begin to do certain skills. Maturation is a critical concept when discussing motor skills. As children reach the preschool period, their motor skills become more complex and learning plays a larger role than does maturation. Many of the complex motor skills require a great deal of input from others (usually adults) to help children reach levels of competence.

Motor skills are classified as gross or fine. Gross motor skills involve the whole body and large muscle responses. These skills include running, jumping, hopping, climbing and skipping. Gross motor skills normally develop first and then are refined as a child matures.

Fine motor skills are those that involve the small muscles and require more hand to eye coordination. Some fine motor skills include handling small objects, opening a toothpaste tube, buttoning clothes, feeding oneself and copying drawings. These skills usually appear after gross skills.

There are many individual differences in the development of motor skills. While pediatricians and others set target ages for development of these skills, there is much room for individual variation. Remember that the principles of individual variation is supreme in developmental psychology.

In this lab experience, you will observe two children of approximately the same age to observe their motor skills. We will use time sampling in this exercise. I have also included some checklists for you to use in assessing motor skill.

You will need a watch with a second hand for this exercise.

Time Sampling

You did an informal time sampling in Lab #1. This will be a more in-depth, formal observation. Time sampling involves observation of behavior for a set number of minutes (or hours or days). In this case we will use minutes.

After you get settled in a comfortable place at the center where you can observe the children, pick two children to observe for this session.

Watch one child for 2 minutes. Do not watch other children or anything else that is happening in the room. (This type of concentration can be difficult!) Watch the child and see what the child (Child A) is doing.

Spend the next 20 seconds thinking about what the child did.

Spend 1 minute writing down your observations. **Remember to write only what you see - no interpretation of the behavior at this point.** Include anyone the child interacts with by labeling them as child 1 or adult 3.

Take the next minute to close your eyes or look out the window. This is an important step since you need to clear your mind before the next observation.

Repeat the process.

Do this observation on Child A a total of 6 times.

Next you will observe Child B. Child B should be the opposite gender of Child A but should be about the same age.

Use the same time sampling process on Child B.

When you return home, write 2-3 paragraphs analyzing the children's motor behavior. What does the observed behavior mean? What gross and fine motor skills were used? Were the children "on-time," advanced, or slow? Were there any gender differences in what you observed?

Sex of Child _____ First Name of Child _____

Date _____ Time of Day _____

Physical Description of Child A:

Time Sampling:

- 1) 2 minutes watching child
- 2) 20 seconds thinking about observation
- 3) 1 minute writing down observations
- 4) 1 minute resting eyes and mind

Child A

Time Sampling

Behavior

1

2

3

4

5

6

Time Sampling

Behavior

7

8

9

10

Sex of Child _____ First Name of Child _____

Date _____ Time of Day _____

Physical Description of Child B:

Time Sampling:

- 1) 2 minutes watching child
- 2) 20 seconds thinking about observation
- 3) 1 minute writing down observations
- 4) 1 minute resting eyes and mind

Child B

Time Sampling

Behavior

1

2

3

4

5

6

Time Sampling

Behavior

7

8

9

10

MOTOR SKILLS CHECKLISTS

Two checklists follow. Select the one that is appropriate for the age of the children you observe. You should indicate the skills that the children can perform as well as make quick assessments of the level of that skills.

Specifics: Can the child perform the following physical skills with ease or difficulty?

I. For younger children (ages 15 months - 30 months)

- a. fill and empty containers
- b. crawl under and over objects
- c. chase a ball
- d. bend at the waist
- e. kick a ball
- f. go up and down a slide
- g. grasp with the thumb and forefinger
- h. open and shut drawers
- i. twist and turn bottle tops
- j. take out and put back puzzle pieces

II. For older children (ages 30 months and old)

- a. bend over and touch toes
- b. walk upstairs and downstairs
- c. run between two points
- d. balance on tape or low beam
- e. catch a ball
- f. throw a ball
- g. catch a beanbag
- h. throw a beanbag
- i. jump on two feet
- j. jump on one foot
- k. skip
- l. do a somersault

LAB REPORT PART B QUESTIONS

Questions to Answer:

1. What difficulties did you encounter with the time sampling observation method?
2. Were the children on-time, advanced or "slow"?
3. Did you observe any gender differences?