

# **HOP'N AFTER SCHOOL PROJECT**

## **DATA COLLECTION FIELD MANUAL**



**USDA GRANT**

**KANSAS STATE UNIVERSITY COMMUNITY HEALTH INSTITUTE  
&  
KANSAS STATE HEALTH EXTENSION SERVICE- DOUGLAS CO.**

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## I. PHONE NUMBERS AND CONTACT INFORMATION

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Note: 1= 3:45-6pm, 2= 3-5:30pm, 3 = intervention school, 4 = control school

Intervention School Mnemonic: Lawrence Kansas- We Drive!-- Start Time Mnemonic: Late Night Coming

## II. ENROLLMENT/INFORMED CONSENT

- A. HOP’N team meets with project managers.
- B. HOP’N field team obtains after school program enrollment lists from each program at the start of each semester.
- C. Enrollment list is converted to checklist to track response rate of parental *Informed Consent* forms.
- D. **Tracking Sheet, Letter from Program Manager with attached consent provided to Program managers** to hand out to parents.
- E. Site project manager oversees the distribution of informed consent to children.
  - i. Informed consent obtained on site, when possible, from parents picking up students from school.
  - ii. All other children take informed consent packets home with instructions to bring back within one day.
  - iii. Project manager collects informed consent forms and notes students who have returned forms on Tracking List.
- F. One week post-distribution of *Informed Consent* HOP’N team meets with program managers and tracks consent form progress.
- G. Second notice letter and consent form provided to project managers.
- H. List of students with permission to participate in HOP’N is generated from tracking list.
- I. Data is collected for height/weight and survey from school site.
- J. Tracking sheet of students with consent, data collected, and those needed consent is provided to project managers. Project managers are asked to obtain consent from missing students.



(Date)

Dear Parent/Guardian:

Our elementary school has agreed to participate with other Lawrence area elementary schools in the **Healthy Opportunities for Physical Activity and Nutrition (HOP'N) After School Project**. This project is directed by K-State Community Health at Kansas State University and K-State Research and Extension-Douglas County, and is funded by a grant from the United States Department of Agriculture. This project aims to promote healthy eating and physical activity in elementary students.

I believe that this project will enhance your child's experience with our after school program while helping to provide valuable information on helping our children live healthier and happier lives. **Please help us make this project a success by completing the attached permission slip immediately. You may have your son or daughter return it as soon as possible, no later than (Date).** My goal is to have as many eligible students in the after school program take part in the project as possible. Feel free to contact me if you have any questions or concerns.

Thank you for your consideration.

Sincerely,

After School Program Manager



(Date)

Dear Parent/Guardian:

Our elementary school has agreed to participate with other Lawrence area elementary schools in the **Healthy Opportunities for Physical Activity and Nutrition (HOP'N) After School Project**. This project is directed by K-State Community Health at Kansas State University and K-State Research and Extension-Douglas County, and is funded by a grant from the United States Department of Agriculture. This project aims to promote healthy eating and physical activity in elementary students.

I believe that this project will enhance your child's experience with our after school program while helping to provide valuable information on helping our children live healthier and happier lives. **Please help us make this project a success by completing the attached permission slip immediately. You may have your son or daughter return it as soon as possible, no later than (Date).** My goal is to have as many eligible students in the after school program take part in the project as possible. Feel free to contact me if you have any questions or concerns.

Thank you for your consideration.

Sincerely,

After School Program Manager

**PARENTAL PERMISSION SLIP  
HEALTHY OPPORTUNITIES FOR PHYSICAL ACTIVITY AND NUTRITION (HOP'N)  
AFTER SCHOOL PROJECT**



**Project Information.** The HOP'N After School Project is a multi-site study designed to promote healthy eating and physical activity in children. The project is directed by Community Health Institute at Kansas State University and K-State Research and Extension-Douglas County, and is funded by a grant from the United States Department of Agriculture. Results from this project will be used to improve the health of youth by creating environments that provide options for and encourage healthy eating and physical activity in students.

**What is involved?** At the beginning of the program (Fall) and at the end of the program (Spring), children will complete a survey and be measured on height and weight in a private setting by trained research assistants. The survey should take about 20 to 30 minutes. Parents will also be asked to complete a survey. The surveys ask about physical activity and dietary habits, and attitudes towards physical activity and nutrition. In addition, about once a month, a research assistant will observe the after school program. At this time, students will be asked to wear an accelerometer during after school program time. An accelerometer is a small device that measures physical activity and is worn on the hip like a beeper or pedometer.

**Information is confidential.** Student names and parent names will be replaced with ID numbers. No one will be allowed to connect student names with their height and weight or answers on the surveys.

**Potential benefits and concerns.** As stated above, your son or daughter's answers to the survey will be kept completely confidential. The benefit of being in this project is an opportunity for your son or daughter to become more informed about being healthy, eating good foods, being active, and creating opportunities for healthy eating and physical activity.

**Participation is voluntary.** Your son or daughter's participation in this study is completely voluntary. There will be no penalty if you do not wish for your son or daughter to participate in either the project or the evaluation survey. They may withdraw at any time during the study and refuse to answer any of the questions.

**Questions/comments?** This project was approved by your son or daughter's school, after-school program and the Institutional Review Board at Kansas State University (Dr. Rick Scheidt, Chair, 785-532-3224); they can answer any questions you may have about the rights of participants in research. If you have any other questions about the project, please feel free to call Dr. David Dzewaltowski (785) 532-7750 or K-State Research and Extension-Douglas County (Susan Krumm; 785-843-7058). We can arrange for you to see the surveys in advance.

-----  
→ **Please check one box, sign, and return to the program as soon as possible:**

- I will allow my child to participate in having their height and weight measured and completing a survey.
- I do not want my child to participate.

Parent Name \_\_\_\_\_ (Please print) \_\_\_\_\_ (Date)

Parent Signature \_\_\_\_\_

Child's Name: \_\_\_\_\_

Child's Signature: \_\_\_\_\_

(Date)



Dear Parent/Guardian:

Lawrence Public Schools are participating in the **Healthy Opportunities for Physical Activity and Nutrition (HOP'N) After-School Project**. This project is directed by the Community Health Institute at Kansas State University and K-State Research and Extension-Douglas County, and is funded by a grant from the United States Department of Agriculture. This project aims to promote healthy eating and physical activity in elementary students.

This project will provide resources to our school and the other schools in the district while providing information on the health of children in our elementary schools. **Please help us make this project a success by completing the attached permission slip and having your child return it as soon as possible.** Our goal is to have as many students in 4<sup>th</sup> grade participate in the project as possible. Feel free to contact either of us if you have any questions or concerns. Please return the consent form by (Date).

Thank you for your consideration.

Sincerely,

4<sup>th</sup> Grade Teacher

Principal

**PARENTAL PERMISSION SLIP**  
**HEALTHY OPPORTUNITIES FOR PHYSICAL ACTIVITY AND NUTRITION (HOP'N)**  
**AFTER-SCHOOL PROJECT**

**Project Information.** The HOP'N After-School Project is a multi-school study designed to promote healthy eating and physical activity in children. The project is directed by the Community Health Institute at Kansas State University and K-State Research and Extension-Douglas County, and is funded by a grant from the United States Department of Agriculture. The Community Health Institute has funded participating schools to support the project. Results from this project will be used to improve the health of youth by creating after-school environments that provide options for and encourage healthy eating and physical activity in students.

**What is involved?** Children who participate will be measured on their height and weight at the end of the school year (Spring 2006). Trained research assistants will measure height and weight in a private setting. School records will be used to link height and weight with demographic information (age, sex, ethnicity, free and reduced lunch status).

**Information is confidential.** All information will be completely confidential. Your child's name will be replaced with an ID number. Their name will not be connected to any specific information.

**Potential benefits and concerns.** As stated above, your child's information will be kept completely confidential. Height and weight is being measured during school time but in a way that students will not miss very much of their school activities. The benefit of being in this project is an opportunity for your school to have information about the risk for overweight in children.

**Participation is voluntary.** Your child's participation in this study is completely voluntary. There will be no penalty if you do not wish for your child to participate. They may withdraw at any time,

**Questions/comments?** Your child's school and the Institutional Review Board at Kansas State University (Dr. Rick Scheidt, Chair, 785-532-3224) approved this project; they can answer any questions you may have about the rights of participants in research. If you have any other questions about the project, please feel free to call Dr. David Dzewaltowski (785) 532-7750, Susan Krumm (785-843-7058), or your child's school.

→ Please check one box, sign, and return to your child's teacher.

- I will allow my child to participate in having their height and weight measured.
- I do not want my child to participate.

Parent/Guardian \_\_\_\_\_  
 (Please print) (Date)

Parent/Guardian Signature \_\_\_\_\_

Child's Name: \_\_\_\_\_

Child's Signature: \_\_\_\_\_

### III. SURVEY/HEIGHT/WEIGHT ASSESSMENT DAY PROCEDURES (10-1-2005)

- a. Motor pool car is picked up the morning of data collection by trip leader.
- b. Equipment is checked out from laboratory by trip leader (**Check out form**).
- c. Prior to leaving campus, double check that all equipment is in the car.
- d. At arrival on site, K-State data collection team checks in with school and follows their security procedures.
- e. Data collection team meets and coordinates with site project manager.
- f. Data collection team sets up stadiometer and scale in designated assessment area.
- g. Data collection team identifies room for survey administration.
- h. Upon completion of snack, participating students go to designated classroom to complete *HOP'N Student Survey*.
  - i. Students sit at table or in desks in a quiet, distraction free room.
  - ii. Research team calls attendance from consent form list and checks off students that are present. At the same time, each student is given a survey and pencil to complete the questionnaire.
- i. Research team uses appropriate **Student Survey Assessment Protocol** (~30 minutes).
- j. After the survey is completed, students are released to the after school staff.
- k. Research Assistant A works with after school staff to bring groups of 3-5 students to BMI assessment area (line).
- l. Research Assistant A checks off on **Height/Weight/Survey participation sheet** that the student has been placed in line.
- m. Research Assistant B leads the **Height/WeightAssessment Protocol**.
- n. Groups of 3-5 students are weighed and measured by research team (5-8 minutes per group).
- o. Research Assistant A assist with the process. If possible, a new group of students are brought to the assessment area before the last student of the prior group is assessed.
- p. Follow-up approximately one week later for those students absent from previous assessment or whose data for the survey is incomplete.
- q. Upon completion of data collection, trip leader ensures all equipment has been collected from site using equipment checklist.

- r. Motor pool car is returned to Ahearn parking lot for following data collection day with full tank of gas (or trip leader returns car to motor pool).
- s. Trip leader returns equipment, equipment checklist and car keys to designated spot in lab.
- t. Lab manager will update **Height/Weight/Survey Participation Sheet**.

# HOP'N Data Collection Equipment Checklist

Trip Leader \_\_\_\_\_

Date \_\_\_\_\_

Equipment	Amount	Check Out	Check In
Stadiometers	2		
Scales	2		
Field manual binders	2		
Clip boards	4		
Youth surveys			
BMI Forms			
School consent lists	1 (            )		
	1 (            )		
BMI protocol	4		
Survey protocol	4		
Food models	2 sets		
Survey direction boards	2 sets		
Pencils	2 sets		
Student rewards			
Name tags	1 ea. person		
Plastic bins	2		
Car keys	1 set		
K-Tag	1		

\_\_\_\_\_ Trip leader initials (check out)

\_\_\_\_\_ Trip leader initials (check in)

#### **IV. SURVEY PROCEDURES (8-2006)**

Hello everyone, thank you all for helping us out with our research today.

My name is \_\_\_\_\_ and this is \_\_\_\_\_ (assistant).

We are college students, and work for the Community Health Institute.

In a moment, we're going to hand out some surveys for you to fill out.

It is important for you to listen to my directions and to read the instructions before making any marks or answering any items on the questionnaire.

We will be filling out the questionnaire together, so that everyone understands the information on physical activity and nutrition, and how to mark down their own opinions properly.

We are interested in YOUR OWN thoughts and answers, so please don't compare, or copy how your neighbors are answering the questionnaire.

*(-----If seating is mobile-----)*

*----- Please keep an arm's length between you and the closest person to you.*

-----Hand out questionnaires and pencils-----

In the space provided, please write your LAST NAME, FIRST NAME

Please write \_\_\_\_\_ in the space provided for SCHOOL.

*(-----Read the instructions-----)*

**Instructions:** Read all of the instructions and questions carefully.

Do not put your name on any part of the survey on the following pages.

Fill in the circle next to each question that indicates your best answer. Some questions have blank spaces for you to write your answer.

**This is not a test**, so there are no right or wrong answers.

**Turn to the 2<sup>nd</sup> page**

(-----Read the instructions-----)

**INSTRUCTIONS:** Read this information on physical activity, then answer questions 1-5 by filling in the circle that goes with your answer.

**Physical Activity** is any play, game, sport, or exercise that gets you moving, breathing harder, and your heart beating faster.

**Physical Activity** can be done in sports, playing with friends, or walking to school. Some examples of physical activity are running, brisk walking, rollerblading, biking, skateboarding, dancing, swimming, soccer, basketball, football, and volleyball.

Raise your hand and give me a physical activity you like to do.

(Get at least 5 answers, and make sure they meet our definition of physical activity.)

Are there any questions about physical activity? (Wait and answer all questions before moving on.)

(-----Show posterboard of items 1-5-----)

1) Look at item number 1, and don't mark an answer yet.

How sure are you that you can do physical activity 60 minutes a day?

In other words, how sure are you that you can do an activity that gets you moving and makes you breathe harder for a total of 60 minutes sometime today, tomorrow, the next day, and so on? It doesn't have to be 60 minutes all at once, but can be broken up throughout the day.

Are you not sure at all? Are you somewhat sure? Are you very sure? Now, in the white space to the right, mark one answer- not sure at all—somewhat sure— or very sure.

If you have any questions, please raise your hand. (*assistant help individually, unless the majority has questions*)

2) Now, look at item number 2. How sure are you that you can be physically active no matter how busy your day is?

Are you not sure at all? Are you somewhat sure? Are you very sure? Now, in the white space to the right, mark one answer- not sure at all—somewhat sure— or very sure.

3) Next, look at item number 3. How sure are you that you can be physically active no matter how tired you may feel?

Are you not sure at all? Are you somewhat sure? Are you very sure? In the white space to the right, mark one answer- not sure at all—somewhat sure— or very sure.

4) Now read item number 4. How sure are you that you can be physically active even if it is hot or cold outside?

Mark one answer- not sure at all—somewhat sure— or very sure.

5) Next is item number 5. How sure are you that you can be physically active even if you have a lot of homework?

Mark one answer- not sure at all—somewhat sure— or very sure.

Please turn to the next (3<sup>rd</sup>) page.

Please don't answer items 6 through 11 until I say so.

(-----Read the instructions-----)

**INSTRUCTIONS:** Read this information on servings, then answer questions 6-11 by filling in the circle that goes with your answer.

**A serving of fruit is equal to:**

- 1 medium-size piece of fresh fruit
- ½ cup of fruit salad
- ¼ cup of raisins, apricots or other dried fruit
- 6 oz. of 100% orange, apple, or grape juice

Do not count fruit punch, lemonade, Gatorade, Sunny Delight or fruit drink.

**A serving of vegetables is equal to:**

- 1 medium carrot or other fresh vegetable
- 1 small bowl of green salad
- ½ cup of fresh or cooked vegetables
- ¾ cup of vegetable soup

Do not count French fries, onion rings, potato chips, or fried okra.

(-----Show food models of fruit & vegetables-----)

This is a **(peeled banana/strawberry)**.

How many of you like **(bananas/strawberries)**?

**(This banana/these strawberries)** would count as 1 serving of fruit.

Here is another example of 1 serving of fruit: an **(apple/orange)**. Raise your hand if you like to have this fruit sliced before you eat it. Raise your hand if you eat the peeling too.

**(This is a baked potato/These are green peas.)**

This is another example of one serving of vegetables.

Raise your hand if you like to eat **(potatoes/peas)**. Good.

Here is an example of 1 serving of a vegetable: **(green beans/broccoli)**.

OK, for the next set of questions, you should think about the fruits and vegetables that YOU eat, not just the ones we showed you.

Are there any questions about how much a serving is? *(Wait and answer all questions before moving on.)*

Think about the foods you like to eat, and what types of foods are available at home, at school, and at other places where you eat.

6) How sure are you that you can eat **one** serving of fruit each day? Mark an answer from not sure at all—somewhat sure—very sure.

7) How sure are you that you can eat **two** servings of fruit each day? Mark an answer from not sure at all—somewhat sure—very sure.

8) How sure are you that you can eat **three** servings of fruit each day? Mark an answer from not sure at all—somewhat sure—very sure.

9) How sure are you that you can eat **one** serving of **vegetables** each day? Mark an answer from not sure at all—somewhat sure—very sure.

10) How sure are you that you can eat **two** servings of vegetables each day? Mark an answer from not sure at all—somewhat sure—very sure.

11) How sure are you that you can eat **three** servings of vegetables each day? Mark an answer from not sure at all—somewhat sure—very sure.

(-----Wait until all are done with items 6-11. -----)

Please read the next block of instructions.

**INSTRUCTIONS:** Please answer the following questions based **on what you think or how you feel** about the after-school program. Fill in the circle to mark your answer.

12) Does your after-school program offer chances to play sports or do physical activities? Mark an answer- yes—no—don't know.

13) I think the types of physical activities or sports offered at the after-school program are **fun**. Mark an answer- yes—no—don't know.

14) I enjoy the different kinds of physical activities or sports offered at the after-school program. Mark an answer-

15) I am happy with how challenging the physical activities or sports at the after-school program are. Mark an answer, and then read the instructions for the next group of items.

OK, please turn to the next page and read the instructions.

(-----Read the instructions. -----)

**Instructions:** How do you think **EVERYONE WHO GOES TO THE AFTER-SCHOOL PROGRAM** feels about the program? In other words, we want you to think about how the other kids feel about the program.

16) We are satisfied with the physical activities or sports offered at the after-school program. Mark an answer- yes—no—don't know.

17) Everyone at the after-school program thinks being physically active is important. Mark an answer

18) People at our after-school program encourage each other to do their best during the physical activities or sports.

19) There are a lot of chances for kids to get involved in physical activity at the after-school program.

*(-----Wait until all are done with items 16-19. -----)*

Please read the next block of instructions.

**Instructions:** How do you think **EVERYONE WHO GOES TO THE AFTER-SCHOOL PROGRAM** feels about the program? Again, we want you to think about how the other kids feel about the program for these next few questions.

20) There are a lot of chances to eat fruits and vegetables at the after-school program. Please mark an answer- yes—no—don't know.

21) We are satisfied with the fruits and vegetables offered at the after-school program. Please mark an answer-

22) Everyone at the after-school program would like to see more people eating fruits and vegetables.

23) Everyone at the after-school program thinks eating fruits and vegetables is important.

Please turn the page and read the next block of instructions.

*(-----Read the instructions. -----)*

**Instructions:** Please answer the following questions based **on what you think, or how you feel** about the after-school program.

24) I like the fruits and vegetables offered for snack at the after-school program. Please mark an answer-

25) I enjoy the different types of fruits and vegetables at the after-school program.

26) I am happy with the types of fruits and vegetables offered at the after-school program.

Please read the instructions in the next block.

**Instructions:** Please answer the following questions based **on what you think or how you feel** about the after-school program.

27) I enjoy spending time with people at the after-school program.  
Please mark an answer- yes—no—don't know.

- 28) When the after-school program ends, I will miss spending time with the people who go to the program. Please mark an answer.
- 29) I wish I could spend more time with the people at the after-school program.
- 30) I like the teachers or staff members in the after-school program this year.
- 31) I like the activities (**not just the physical activities**) in the after-school program this year.
- 32) I feel close to people at the after-school program.
- 33) I feel like I am part of the after-school program.
- 34) I am happy to be at the after-school program.
- 35) The teachers or staff members at the after-school program treat kids fairly.
- 36) I feel safe in my after-school program.

Please turn to the next page and read the instructions

(-----Read the instructions. -----)

**Instructions:** How do you think **EVERYONE WHO GOES TO THE AFTER-SCHOOL PROGRAM** feels about the program? Remember that we want you to think about how the other kids feel about the program.

- 37) Everyone likes to spend time together at the after-school program. Please mark an answer—yes—no—don't know.
- 38) Everyone enjoys hanging out at the after-school program,
- 39) Everyone enjoys being with the people at the after-school program.

(-----Read the instructions. -----)

**Instructions:** Please mark how sure you are that you can do these things.

40) How sure are you that you can get your **parents** to:

- help you plan to do your favorite physical activities?  
Are you not sure at all? Are you somewhat sure? Are you very sure? In the white circles to the right, mark one answer- not sure at all—somewhat sure— or very sure.
- give you a ride home from the after-school program?  
mark one answer- not sure at all—somewhat sure— or very sure
- find a place where you can be physically active? mark one answer-
- help you find different types of physical activities you can do?

- play outside with you, or do physical activity/sports with you?
- find time to be physically active with you?
- buy fruit for snacks?
- fix your favorite vegetable dishes for dinner?
- keep 100% juice in the refrigerator?
- fix a fruit and vegetable snack?

Please turn to the next page and read the instructions.

(-----Read the instructions. -----)

**Instructions:** Please mark how sure you are that you can do these things.

41) How sure are you that you can get the **teachers or staff members of the after-school program** to:

• help you plan to do your favorite physical activities? Are you not sure at all, somewhat sure, or very sure? In the white space to the right, mark one answer- not sure at all—somewhat sure—or very sure.

• help you find a ride home from the after-school program?  
Mark one answer- not sure at all—somewhat sure—or very sure

• find a place where you can be physically active?  
Mark one answer.

• help you find different types of physical activities you can do?

• offer dried fruit snacks (like raisins, banana chips, and apricots)?

• offer applesauce cups or fruit cups (like fruit cocktail)?

• offer fruit and vegetable snack options?

• offer 100% real fruit juice?

(-----Show Physical Activity Poster & Read the instructions. -----)

**Instructions:** Remember that Physical Activity is any play, game, sport, or exercise that gets you moving, breathing harder, and your heart beating faster. For the following questions, think about all the time you spend in physical activity each day. Do not include physical education or gym class. Add up the total time you spend in physical activity and select the most accurate response for each question below. Mark one response.

42) Over the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?

Please mark your answer to the right, choosing a number of days from zero to seven. Remember that you're thinking about just the past 7 days.

43) Over a typical or usual week, on how many days are you physically active for a total of at least 60 minutes per day?

Please mark your answer to the right, choosing a number of days per week that you are usually or typically active... anywhere from being active 0 days a week to being active all 7 days of the week.

OK, please turn to the last page, and read the instructions.

**Instructions:** Read this information on servings, then answer questions 44-45 by filling in the circle that goes with your answer.

Remember, a serving of fruit is equal to:

1 medium piece of fresh fruit

½ cup of fruit salad

¼ cup of raisins, apricots or other dried fruit

6 oz. of 100% orange, apple or grape juice

(Do not count fruit punch, lemonade, Gatorade, Sunny Delight or fruit drink.)

**A serving of vegetables is equal to:**

1 medium carrot or other fresh vegetable

1 small bowl of green salad

½ cup of fresh or cooked vegetables

¾ cup of vegetable soup

(Do not count french fries, onion rings, potato chips or fried okra.)

44) On a typical day, how many servings of fruit do you eat?

Please mark an answer from zero to four or more servings.

45) On a typical day, how many servings of vegetables do you eat?

Please mark an answer from zero to four or more servings.

OK, last section-

**Instructions:** In the spaces below, please write your date of birth and age.

46) What is your date of birth? In what month were you born? (*refer to poster*) On what day of the month were you born? In what year were you born? Make sure to include all four digits of the year.

47) How old are you? \_\_\_\_\_

Now, before you return these surveys to me, are there any questions or comments?

Make sure you have responded to every item. Please pass your surveys forward, and make sure we get our pencils back. Thank you all very much for your time and attention.

## V. HEIGHT AND WEIGHT PROCEDURES (8-24-2006)

### 1. MEASUREMENT SET-UP

#### A. Equipment and forms needed

1. HOP'N Height & Weight Protocol
2. Stadiometer
3. SECA Digital Scale
4. HOP'N Student Height and Weight Data Sheet

#### B. Scale Calibration

1. Calibrate each scale with standardized weight at each of the three weight levels (i.e., 50, 100, 150 pounds), **the morning of field assessment**. Calibration will be performed in the lab by a research team member. Pounds will be used for calibration over kilograms because of the ready availability of lbs. vs. kg. **Note, measures will be in kilograms.**
2. Scales should be evaluated if they mis-measure standards in any one of the three standard levels by more or less than 0.5 lbs. If this happens, first replace the battery and repeat the calibration procedures precisely as described above. Be sure that the scale is placed on a level floor surface without carpet or rugs of any kind. Check that the scale is programmed to the pounds mode and that it balances at zero before you test.
3. If the scale still mis-measures the standards by more or less than 0.5 lbs., do not use the scale for measurement. Consult the *SECA* owner's manual and follow the manufacturer's recommendations for reconditioning.

Acceptable range for calibration of scales using **pound** weights:

<b>Standard Weight in kg</b>	<b>Evaluate scale if weight is more or less than as follows:</b>
50 lb	< 49.5 lb or > 50.5 lb
100 lb	< 99.5 lb or > 100.5 lb
150 lb	< 149.5 lb or > 150.5 lb

### **C. On site setup**

1. Measurements should be taken in a private area.
2. Ensure that the scale is placed on a level, uncarpeted floor surface.

## **2. HEIGHT & WEIGHT MEASUREMENT PROTOCOL**

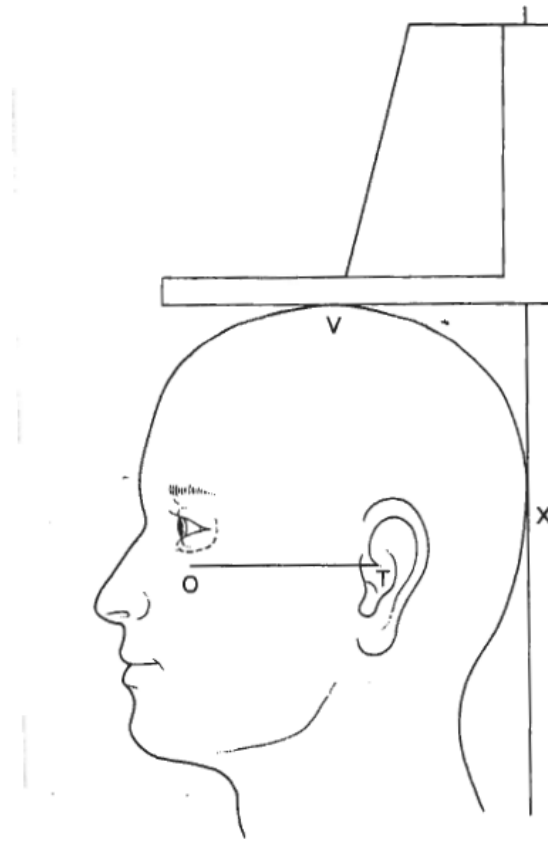
**A.** Students will have their height and weight measured after completing the HOP'N Student Questionnaire. Small groups of 4-5 students will be assessed by the field team. One team member will oversee students in line, admit each student to the assessment area, and provide student data forms to the measurer. The other team member will conduct both measures and note scores on data sheet.

**B.** Ask students to remove heavy outer clothing (such as coats, jackets, and vests), purses, shoes, and hair accessories located on the top of the head. If the student cannot remove hair accessories, or has a hair style which prevents the board from touching the crown of the head, please make a note on the questionnaire in the "comments" section.

### **C. Height Measurement**

1. Instruct the student to stand erect with heels together and arms hanging naturally at sides. The heels, buttocks, upper part of the back and usually, but not necessarily, the back of the head are in contact with the stadiometer.
2. Instruct the student to "look straight ahead" and "take a deep breath" while you apply gentle traction to the mastoid process.
3. With your thumbs at the level of the orbitales and your index fingers at the level of the tracion, ensure that the head is in the Frankfort plane. The Frankfort plane is the line from the lower edge of the eye socket (orbitale) to the notch above the flap of the ear (tragus) or the back of the cheekbone. These terms are illustrated on the top of the next page.
4. Lower the movable headboard on the snugly to the crown of the head with sufficient pressure to compress the hair.
5. Adjust your eye level to the level of the measurement before attempting to read the measurement. Read the measurement indicated at the bottom of the right angle board. If measurement is compromised due to hair accessories or hairstyle, please make a notation in the "comments" section of the Data Sheet. Also, make a notation if the child has an abnormal condition that may interfere with the measurement such as leg braces.
6. Record the measurement on the data sheet to the nearest 0.1 cm. Raise the head board and repeat the measurement process.

7. If the first two measurements differ by more than 1.0 centimeter, measure a third time and take the average of the two nearest measures.



- Orbitale:** The lower margin of the eye socket – “O”
- Tragion:** Notch above the tragus of the ear or the flap of the ear – “T”
- Frankfort plane:** Orbitale – Tragion line horizontal (O → T)
- Vertex:** Highest point on the skull when head is held in the Frankfort plane

Stature or height is the maximum distance from the floor to the vertex of the head. Technically, the **Vertex** is defined as the highest point on the skull when the head is held in the **Frankfort plane**. This position is when the imaginary line joining the **Orbitale** to the **Tragion** is perpendicular or right angles to the long axis of the body as shown above. Be sure that the student’s heels are not elevated when you apply gentle stretch force.

## D. Weight Measurement

1. Before each measurement, make sure the scale is zero-balanced. The SECA 770 Digital Scale is fitted with a vibration switch. Lightly touching or stepping on the scale will cause *S.E.C.A. 88888* and *0.00* to appear consecutively in the display. The scale is then automatically set to zero (only *0.0* is visible) and ready for use. If the digital scale does not register zero, do not use it.
2. Verify that the scale is programmed to kilogram mode. There is a button in the front of the scale that switches the mode between kilograms and pounds.
3. Be aware that the scale automatically switches off 20 seconds after the last weighing.
4. Make sure the scale is zero-balanced before **each** student is weighed.
5. Ask the student to stand motionless in the middle of the scale platform with the feet slightly apart and body weight distributed equally on both feet. The arms should be relaxed and hanging down loosely at the sides of the body. The digital scale is very sensitive so any movement by the student will change the weight measurement so the student must stand very still.
6. Digital scales do not register over 400 lbs. If a student weighs over the limit of the scale, the scale will register an "S6 OP." If this happens or if the reading is compromised due to a cast or other device, please make a notation on the questionnaire in the "comments" section.
7. **Do not react to the student's weight. While weight measurement is being taken, it is important not to be judgmental. Any communication about the weight should be neutral (neither positive or negative) and professional.**
8. Record the reading on the HOP'N Height and Weight Form in a 4-digit format to the nearest 0.1 kg. Ask the student to step down from the scale.
9. Reposition the student and repeat measure and recording process.
10. Measures should agree within 0.1 kg.

## REFERENCES

Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey (NHANES III), *Anthropometric Procedures Video*, 1996.

Child and Adolescent Trial for Cardiovascular Health (CATCH) *Anthropometric Protocol, Protocol #522*; November 1996.

US Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau (n.d.). *Growth Charts Training*. Retrieved August 15, 2005 from <http://depts.washington.edu/growth/index.htm>

US Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion (n.d.). CDC Growth Chart Training Modules. Retrieved August 15, 2005  
<http://www.cdc.gov/nccdphp/dnpa/growthcharts/training/modules/module1/text/mainmodules.htm>

### 3. HEIGHT and WEIGHT PROTOCOL CHECKLIST (9-12-2005)

#### **BEFORE ALL MEASUREMENTS:**

- Calibrate the scale the morning of assessment
- Verify that extra batteries are in each scale carrying bag.
- Identify a private area to conduct screening with no carpet
- Set-up the stadiometer in an area with clean and flat wall and floor

#### **Have Students:**

- Remove all shoes
- Remove all heavy outer clothing such as coats, jackets, vests, and sweatshirts
- Remove hair accessories from the top of the head

#### **HEIGHT ASSESSMENT CHECKLIST:**

- Use a calibrated vertical stadiometer with a right-angle headpiece
- The student is measured standing with heels, buttocks, and shoulders touching a flat upright surface
- Student stands should stand on the stadiometer without shoes, with heels together, legs straight, arms at sides, shoulders relaxed
- Student looks straight ahead
- Student takes deep breath and stands erect without lifting heels.
- Bring the perpendicular headpiece of stadiometer down to touch the crown of the student's head.
- Check Frankfort Plane
- Measurer's eyes should be parallel with the stadiometer headpiece.
- The measure is read to the nearest 0.1 cm and recorded on the Data Sheet.
- The student is repositioned and re-measured.

- The measure should agree within 1 cm
  - If two measures are not within tolerance limits, measure the student again (i.e., a third time)
  - If two of the measures are then within the tolerance limits, use the mean of these measures
  - If none of the measures are within tolerance limits, check the technique of the measurer and plan a training session

**STUDENT WEIGHT POSITIONING CHECKLIST:**

- Student must stand without assistance
- Student is wearing lightweight garments
- Student stands on the center of the scale platform
- Feet together with hands at sides
- Weight equally on both feet
- Student stands still on scale if scale is very sensitive
- Read the measurement to the nearest 0.01 kg and record it on the Data Sheet
- Reposition the student and repeat measure and recording process
- Measures should agree within 0.1 kg

## **VI. OBSERVATION ASSESSMENT DAY PROCEDURES**

- a. Motor pool car is picked up the morning of data collection by trip leader.
- b. Equipment is checked out from laboratory by trip leader (**Observation trip check out form**).
- c. Prior to leaving campus, double check that all equipment is in the car.
- d. At arrival on site, K-State data collection team checks in with school and follows their security procedures.
- e. Data collection team research assistant is assigned to **session observation/ snack protocol, accelerometer distribution leader and pickup (Research Assistant A)**.
- f. Data collection team research assistant is assigned to **SOFIT protocol (Research Assistant B)**.
- g. Data collection team meets and coordinates with site project manager.
- h. Both research assistants distribute accelerometers.
- i. Research Assistant A follows **Session Observation/SNACK Protocol**.
- j. Research Assistant B follows **SOFIT Observation Protocol**.
- k. Research Assistant A picks up accelerometers (with Research Assistant B) as students leave or at the end of the session.
- l. Upon completion of data collection, trip leader ensures all equipment has been collected from site using equipment checklist.
- m. Motor pool car is returned to Ahearn parking lot for following data collection day with full tank of gas (or trip leader returns car to motor pool).
- n. Trip leader returns equipment, equipment checklist and car keys to designated spot in lab.
- o. Trip leader files observation data
- p. Trip leader downloads accelerometer data
- q. Accelerometers are initialized for next data collection day
- r. Accelerometers are connected to auxiliary USD hubs for charging.

## VII. ACCELEROMETER PROCEDURES

### A. Tracking and Distribution of Accelerometers

- i. On monitoring days, the measurement team will transport an initialized Actigraph for each consenting child at the after-school site. Students who have not provided informed consent should not be given an accelerometer to wear.
- ii. Prior to transport, the Actigraphs will be secured onto elastic belts and initialized to start collecting data at or around the nominated start time of each after-school program.
- iii. Immediately after securing the Actigraph to each participant, HOP’N staff will record the Actigraph ID Number located on the bottom of each Actigraph unit and the time the accelerometer was secured. The “ID Number” and “Time On” should be recorded next to the student’s name and identification number on the Accelerometer Tracking Sheet.
- iv. As close as possible to the conclusion of the after-school program OR when the child is preparing to leave the site, collect the Actigraph and note the collection time (“TIME OFF”) on the Accelerometer Tracking Sheet. Do not let students wear the accelerometer home.
- v. During the data collection period, routinely scan students to confirm that the Actigraphs are still being worn and attached in the correct manner.

### B. Accelerometer Placement – Hooking Up

- i. Actigraphs should be placed on participating students as soon as they begin the after-school program.
- ii. The Actigraph will be attached to an adjustable elastic belt worn around the waist. The belt should be snug but not overly tight. It does not need to make contact with the skin. The only requirement is that the it be held against the body so it does not “flop around.”
- iii. The Actigraph is positioned on the mid-axilla line at the level of the iliac crest on the right hip. See pictures below.



## C. Downloading Accelerometer Data

i. Actigraph data will be downloaded to the project computer at the conclusion of each measurement day. It should not be left for the next day.

ii. Follow these steps to download the Actigraph data

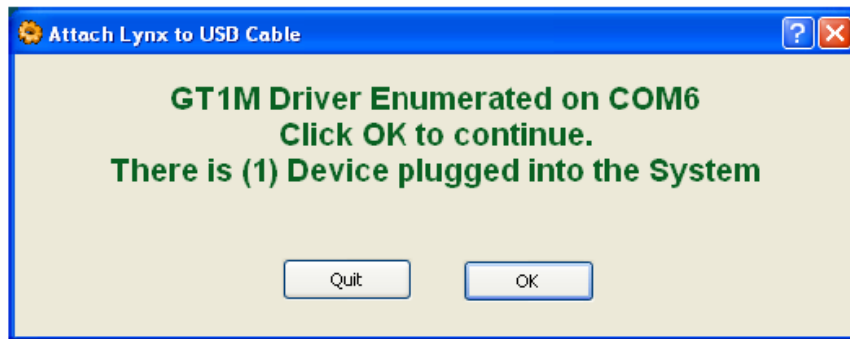
1. Start the ActiLife Software.



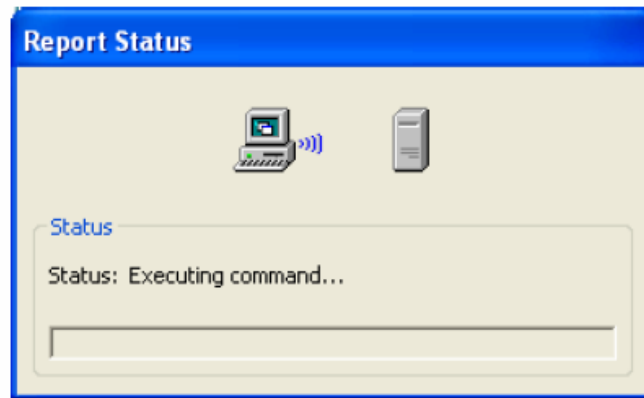
Click on the Download Button on the ActiWeb Client Software. If your ActiGraph is not connected to the USB Cable, you will get the following message.



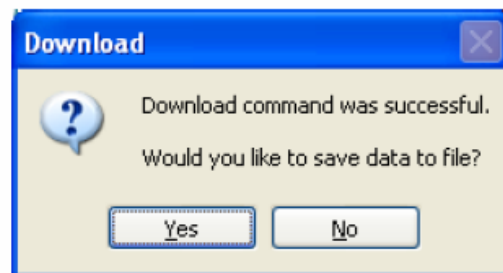
Make sure your ActiGraph is properly connected to the USB Cable and attached to your computer.



Once your ActiGraph is properly connected and communicating with the ActiWeb Client, Click OK to continue.



The ActiLife Desktop Software will now start to download the data from the GT1M.



Once the data is downloaded you must save the downloaded data onto your computer for Analysis.

2. Save the data to HOP'N Actigraph Folder using the filename listed on the Accelerometer Tracking Sheet. Enter the filename exactly as it appears on the tracking sheet.

## D. Initializing the Actigraph

i. Initializing means preparing the Actigraph to collect data. Data collection parameters such as starting time, sampling interval or “epoch” and other options can be specified. The only parameters that you will change are the start time and start date. These will be given to you by the project coordinator.

ii. Actigraphs required for the next data collection day should be initialized after downloading all of the accelerometers. Always download all of your Actigraphs before initializing, because it erases the previously stored data.

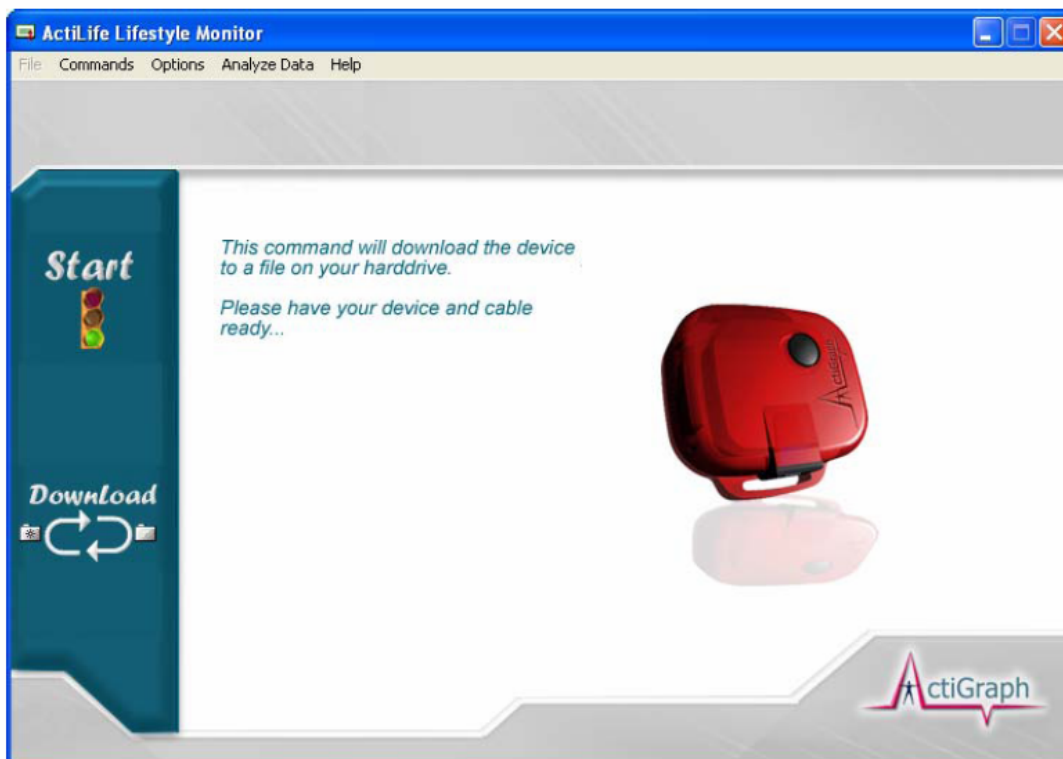
To initialize, follow these instructions:

### **START**

This function sets up the ActiGraph to start collecting data.

*NOTE: The ActiGraph must be plugged into the USB Port before clicking this button.*

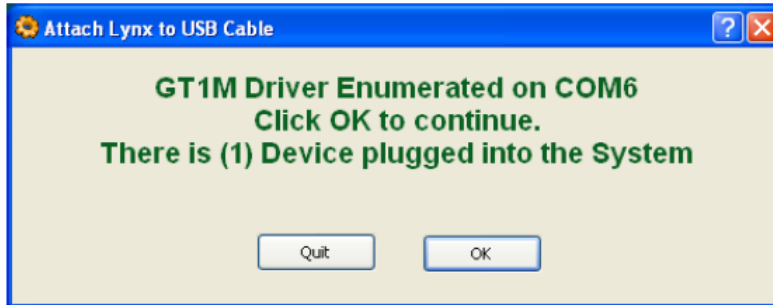
Press the Start button.



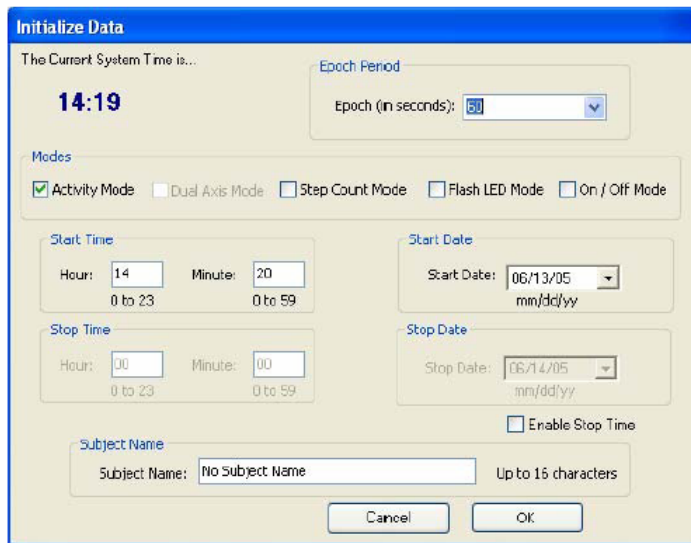
If your ActiGraph is not connected to the USB Cable, you will get the following message.



Once your ActiGraph is connected, you will get the following message.



Click OK to continue.



This is the initialization screen that you can enter the Start Time, Stop Time, Epoch Period and Subject Name.

**Note – do not enter a subject name or select the “stop data” function. Only change the “start time” and “start date. Do not change the settings for “Mode” or “Epoch”**

## **E. Charging the Actigraph Battery**

- i. The GT1M's rechargeable battery Lithium ion battery is capable of providing power for 14 days without a recharge. Recharging is automatic and is accomplished by connecting the GT1M to any standard USB port.
- ii. After initializing the accelerometers for the next data collection day, connect each accelerometer to the one of the multi USB HUB units for charging. The hubs will not be connect to a computer but will simple charge the battery.

**SAMPLE ACCELEROMETER TRACKING SHEET**

**Site:**

**Date:**

NAME	ID	Accelerometer #	Time on	Time Off	Download File Name	Time Downloaded	Initials
Billy Cumner	1201				1201.dat		
Toyen Evans	1202				1202.dat		
Sheyla Malcolm	1203				1203.dat		
Rachel Campbell	1204				1204.dat		
Rhiannon Campbell	1205				1205.dat		
Jack Gibson	1206				1206.dat		
Brad Glachan	1207				1207.dat		

## **VIII. SESSION OBSERVATION PROTOCOL**

- A. Research Assistant A** meets with **Program Manager** and notes the planned sessions for the day.
- B. Research Assistant A** travels to session
- C. Research Assistant A COMPLETES THE SESSION OBSERVATION FORM**
  - Start/end Time:** Record the start time
  - Location:** Record the physical location of the session
  - Condition:** If it is a session with movement, record the condition of the area.
  - Session:** Record the type of session (e.g., Academic-Studying)
  - Activity:** Record the primary activity of the session, number of staff members, and the number of males and females participating. If two activities are going on concurrently record another session activity.
- D.** If the session involves a Snack, follow the **SNACK OBSERVATION PROTOCOL.**
  - a.** Direct Research Assistant A to follow the **SOFIT PROTOCOL.**
- E.** If the session is the primary recess of the day, direct Research Assistant B to follow the **SOFIT PROTOCOL. If SNACK and first RECESS are combined start a new sheet for the recess session.**
- F.** If the session is structured physical activity (physical education), direct Research Assistant B to follow the **SOFIT PROTOCOL.**

Note: We anticipate that each observation day will have **one SOFIT observation during snack and the first recess and one primary physical activity period.** This physical activity period may be recess for 15 to 30 minutes or this period may be structured physical activity for 30 to 60 minutes. There may be some observation days where there is snack, recess, and a structured physical activity period.

Complete a **SOFIT SUMMARY FORM SEPARATELY** for SNACK, RECESS, and the PRIMARY PHYSICAL ACTIVITY period (3 forms).

SESSION FORM DATE: \_\_\_\_\_ SCHOOL: \_\_\_\_\_ OBSERVER: \_\_\_\_\_

START/END TIME	LOCATION (e.g., Gym)	CONDITION				SESSION (Select One)	ACTIVITY Primary Activity
		U	S	O	E		
____:____ ____:____		0. N 1. Y	0. N 1. Y	0. N 1. Y	0. N 1. Y	<input type="checkbox"/> Academics <input type="checkbox"/> Enrichment <input type="checkbox"/> Recreation <input type="checkbox"/> Snack	_____ Male N=      Staff N= Female N=
____:____ ____:____		0. N 1. Y	0. N 1. Y	0. N 1. Y	0. N 1. Y	<input type="checkbox"/> Academics <input type="checkbox"/> Enrichment <input type="checkbox"/> Recreation <input type="checkbox"/> Snack	_____ Male N=      Staff N= Female N=
____:____ ____:____		0. N 1. Y	0. N 1. Y	0. N 1. Y	0. N 1. Y	<input type="checkbox"/> Academics <input type="checkbox"/> Enrichment <input type="checkbox"/> Recreation <input type="checkbox"/> Snack	_____ Male N=      Staff N= Female N=
____:____ ____:____		0. N 1. Y	0. N 1. Y	0. N 1. Y	0. N 1. Y	<input type="checkbox"/> Academics <input type="checkbox"/> Enrichment <input type="checkbox"/> Recreation <input type="checkbox"/> Snack	_____ Male N=      Staff N= Female N=
____:____ ____:____		0. N 1. Y	0. N 1. Y	0. N 1. Y	0. N 1. Y	<input type="checkbox"/> Academics <input type="checkbox"/> Enrichment <input type="checkbox"/> Recreation <input type="checkbox"/> Snack	_____ Male N=      Staff N= Female N=
____:____ ____:____		0. N 1. Y	0. N 1. Y	0. N 1. Y	0. N 1. Y	<input type="checkbox"/> Academics <input type="checkbox"/> Enrichment <input type="checkbox"/> Recreation <input type="checkbox"/> Snack	_____ Male N=      Staff N= Female N=

- **Record Start and End Time**
- **Location: Record the physical location of the session.**
- **Condition: If it is a session with movement, record the condition of the area.**
  - **U** = Area is usable for physical activity (e.g., is not excessively wet or windy).
  - **S** = Area is supervised by designated school or adjunct (e.g., YMCA) personnel (e.g., teachers, playground supervisors, volunteers). The supervisor must be in or adjacent to that specific area (i.e., available to direct students and respond to emergencies), but does not have to be instructing, officiating, or organizing activities.
  - **O**= Organized physical activity (i.e., scheduled, with leadership by school or agency personnel apparent) is occurring in the area (e.g., intramurals, interscholastic practices, fitness stations).
  - **E** = Physical activity equipment provided by the school or other agency is present (e.g., balls, jump ropes). Do not code 'YES' if the only equipment is permanent (e.g., basketball hoops) or is owned by students themselves.
- **Session: Record the type of session (Academics, Enrichment, Recreation, Snack).**
- **Activity: Record the most prominent activity the girls and boys are participating in, number of staff members, and the number of males and females participating. If two sessions are going on concurrently, record another start and end time, location, condition, session type, and activity.**

## **IX. SNACK OBSERVATION PROCEDURES**

### **A. After School Snack Presentation Protocol**

Snacks are provided by a central kitchen and are either pre-packaged or kept in a refrigerator to be prepared and served at snack time. For most sites, the central kitchen provides the menu for each school and has a rotational snack menu.

For most sites, each type of snack offered is measured equally and separated so that each child can easily collect his or her equal snack portion (e.g., 10 carrot sticks in a cup; ½ cup applesauce, 6 oz of milk, etc.).

Program manager escort children into the cafeteria for snack time

Children systematically walk down table collecting each snack. Note: Children are required to take the snacks at some sites offered regardless of whether or not they want them. At other sites, they are not required to take the snack.

After collecting snack, children sit together within the cafeteria/classroom to eat their snack. If the child chooses not to eat the snack they are sometimes asked to put their un-eaten snack on the “share table” which is set up near the snack table where they initially received their snack. This “share table” holds un-eaten snacks that instead of being thrown away are shared with children who may want a second helping.

### **B. Snack Observation Variables**

# of Fruits Served

# of Vegetables Served

# Total Snack Calories

# Total Fat-Calories

# Children attending after school program : \_\_\_\_\_

Average Daily Snack Participation \_\_\_\_\_

(# children received snack in month) estimated from three observations

(total serving days in month)(average daily attendance)

Average Daily Fruit Participation \_\_\_\_\_

(# children received fruit in month) estimated from three observations  
(total serving days in month)(average daily attendance)

Average Daily Vegetable Participation \_\_\_\_\_

(# children received vegetable in month) estimated from three observations  
(total serving days in month)(average daily attendance)

Average Total Snack Calories \_\_\_\_\_

Average Total Snack Fat-Calories \_\_\_\_\_

### **C. SNACK OBSERVATION PROTOCOL**

#### **A. USE THE SNACK OBSERVATION FORM**

- B. **Before children arrive:** Observe/record the types of snack(s) offered on the record sheet, observe/record the quantity of each snack offered.
- C. Position yourself as inconspicuous as possible. For example, in the corner of the room and/or behind the children so they do not notice you.
- D. Count and record the number of children lined up to receive snack
- E. Record the type and number of snack portions placed on the “share table” before given to other children requesting seconds.
- F. Collect any packaging used for pre-packaged snacks in zip lock bag (milk, crackers, etc.)
- G. If possible, record the total calories and fat calories for each serving of the snack or topping prepared (Hidden Valley Ranch Dressing, 110 calories and 30 fat calories per serving, serving size equals 2 tablespoons, children received 2 tablespoons).

### **D. SNACK WRAPPER/TRASH PROTOCOL**

- A. Inform the project manager that you will be collecting the empty snack cartons, wrappers, bags, etc. This means that you may be digging through the trash.
- B. USE THE LARGE ZIPLOCK BAG AND GLOVES**

- C. **After most children have completed their snack:** Collect one of each type of snack wrapper/carton that was offered to the 4<sup>th</sup> grade children. This includes any wrappers, cartons, or condiment wrappers (jelly, jam, salad dressing). It is likely that these items are found in the trashcan; however, they may also be collected from the tables or floor.
- D. It may be necessary to collect two identical wrappers (of one specific snack item) due to wrapper tearing that hinders the legibility of the nutritional content.
- E. If a snack item is dispersed without an individual wrapper collect the larger wrapper from which it was contained (if empty). For example, 6 bagels are wrapped in one package; therefore, collect the empty box wrapper that packaged the 6 bagels.
- F. For a snack item given to children from a large dispenser that is impossible to collect (ketchup, mustard, ranch dressing, etc.), record the necessary nutrition content on the SNACK OBSERVATION FORM and record the type and company name manufacturing that specific item. For example, Ranch: Hidden Valley Ranch dressing.

DATE: \_\_\_\_\_ SCHOOL: \_\_\_\_\_ OBSERVER: \_\_\_\_\_

**HOP’N Snack Observation**

Fourth grade Group? Yes No

Children required to take snack? Yes No

# Staff men: \_\_\_\_\_ # Staff Women: \_\_\_\_\_

	<b>N</b>		<b>N</b>
# of girls		# of boys	
# of girls received snack		# of boys received snack	
# of girls received second snack		# of boys received second snack	

Snack Item	OFFERED SNACK(S)				RETURNED/SHARED SNACK
	Quantity Served (#, oz, cups, etc.)	Serving size (#, oz, cups, etc.)	Total Calories (per serving)	Total Fat Calories (per serving)	Number of boys and girls returning snack item (# of portions)

## **X. SOFIT OBSERVATION PROCEDURES**

The following supplies are needed for SOFIT observation: pencils, a clipboard, ample SOFIT observation sheets, MP3 player and headphones, fresh batteries.

For each SESSION (SNACK, RECESS, PHYSICAL ACTIVITY) arrive at location before the announced start time of the class. Warm-up by mentally rehearsing or actively practicing the coding conventions. For concurrent SESSIONS, move to the new location immediately when 51% of the class has left the old location. Follow the protocol, for each SESSION.

### **A. Select target students**

Select six students who are representative of the fourth grade group as possible targets for observation. Fifty percent should be male and female. Four students are for observation and one male and one female alternates. Do not select students who are sitting out. If there is less than 50% males or females in the session, select more males or females to accurately represent the session. As students arrive at the instructional station, divide the number of students by 3 and select students. For example, select students 4, 8, 12, 16, and 20 from a class of 20 students, and select numbers 3, 6, 9, 12, 15, and 18 from a class of 18 students. Note some identifying characteristics of each student on the SOFIT Lesson Observation Form to enable you to locate her later. Observe each student for 4 consecutive minutes before changing your focus to the next student; reserve the fifth student as a backup replacement in case one of the first four leaves the observation environment. If you are observing the replacement student and the original student comes back to class, continue observing the replacement student for that rotation. A rotation is a four-minute interval of observation. Go back to the original student for the next rotation.

Prior to class starting, it may be difficult to determine which students are in the fourth grade group if more than one class is commingling or sharing instructional space. Hopefully, once the teachers are present, the classes will disperse into more definable groups of students. However, if observation has begun and it turns out that a student being observed is in a different class, observation should immediately change to another representative member of the target class being observed.

The students in many classes may look the same. The protocol states that the 3rd, 6th, 9th, etc. student is to be selected, but observers may be tempted to pick students who are more readily identifiable (those with an unusual hairstyle or polka dot socks, for example). However, in doing so, the goal of observing a representative sample of the class is potentially compromised. If you have trouble locating the student originally selected because there is not a differentiating characteristic about that student (i.e., they are wearing gym clothes or many are dressed alike), you may observe a similar looking student instead. Caution must be used not to introduce bias (e.g., selecting an active person because you are attracted to motion).

## B. Observation procedures

1. The target student is the major focus of the observation, however, place yourself in a position so that you can also hear the teacher and observe what the class as a whole is doing. Be as inconspicuous as possible and do not interfere with class activities. Be prepared to relocate frequently.
2. Observation should not begin until the teacher is present.
3. Start MP3 player and begin observing when 51% of the students reach the instructional station (gymnasium or designated outdoor space) and the teacher is present.
4. Write the start time on the first cover page.
5. Data should be representative of the entire class period. Even in emergency situations (e.g., can't find the class), do not begin observations if the class has been underway for over five minutes.
6. Observe the lesson context, and interaction throughout the 10-second "observe" interval.
7. At the "record prompt" observe and record student physical activity.
8. Then, enter lesson context and interaction codes by filling in the appropriate symbols during the 10-second "record" interval.
9. Code Student One for four consecutive minutes (12 observations). Then code Students Two, Three, and Four in sequence. Continue in this manner, rotating the focus on a different target student every four minutes until the lesson ends.
10. End observing when 51% of the students have departed the instructional area. Record end time on the cover page.
11. Turn off the MP3 player.

## C. Summarize Data

1. For each session calculate and record the lesson length on the **SOFIT SUMMARY FORM**.
2. Tabulate (sum vertically) and record the total for each of the coding categories at the bottom of each page in the booklet.
3. Copy the summary scores from each page to the SOFIT SUMMARY FORM.
4. Calculate the total (across all pages) and record under TOTAL.

5. Complete the header information of the SOFIT SUMMARY FORM.
6. Attach forms in the following order: 1) SOFIT Summary Form and SOFIT Lesson Observation Booklet

#### **D. Reliability checks**

1. Approximately 10% of all SOFIT lessons will be coded simultaneously by two independent observers. All observers should complete reliability checks. Reliabilities should be conducted at several different schools.
2. Reliability measures on 15% of SOFIT lessons equates to observing (3 x 7 sites=21 sessions) 3 sessions in duplicate (lead observer and reliability observer at the same time). To the extent possible, these repeated measures should take place:
  - a.) at least once per school
  - b.) with a greater number earlier in the semester rather than later (the rationale being if the reliability is poor, we want to know about it earlier rather than later)
3. When doing reliability checks, make sure that the MP3 players are started simultaneously and that the record prompt occurs at the same time.
4. For reliability sessions, one person will be designated the Lead Observer and his/her data will be used for analysis. The other person will be the Reliability Observer and will indicate this on the cover page of the SOFIT Booklet.
5. It is very important that the Lead Observer and the Reliability Observer begin observing AT THE SAME TIME and that they record the same information on the front page of the SOFIT form except for a note that this is a reliability session.
6. It is acceptable for reliability and lead observers to talk to each other when they are changing students (i.e., at the end of each 4 minute interval) to ensure that they are selecting the same student to observe.

#### **E. COMPLETING THE SOFIT OBSERVATION FORM**

**Date:** Enter numbers for Month (MM), Day (DD), and Year (YYYY)

**School:** Write school name

**Teacher:** Write teacher name

**Observer:** Write observer name

**Location:** Specify the primary location of the lesson: O=outdoors; I=indoors. If outdoors, specify the weather.

**Start Time:** Enter time the lesson actually started (Use 24-hr clock; e.g., 13:30 is 1:30PM).

**Stop Time:** Enter time the lesson actually started (Use 24-hr clock; e.g., 13:30 is 1:30PM).

**No. girls/boys:** If Research Assistant A has counted students on the observation form, skip this. At minute 16 (at the end of page 1) enter the total number of girls and boys participating in the lesson (students need not be physically active at that time). Do not include those enrolled in the class, but absent (e.g., in library or at home).

**CATCH Kids Club:** Enter if CATCH Kids Club used (ask teacher) or other source of curriculum.

**Warm-up/Cool Down:** Record if there was a warm-up or cool-down.

**Student activity:** Identify the activity level of observed student at the "record" signal: 1=lying down; 2=sitting; 3=standing; 4=walking; 5=very active.

**Lesson context:** Identify the lesson context occurring at the "record" signal:

**Interactions:** Identify teacher verbal or nonverbal interactions to promote physical activity and fitness during the "observe" interval.

**Comments:** Write notes to describe the target student, lesson activities, or unusual events on summary form.

DATE: \_\_\_\_\_ SCHOOL: \_\_\_\_\_ TEACHER: \_\_\_\_\_  
 OBSERVER: \_\_\_\_\_ LOCATION: \_\_\_\_\_ START TIME: \_\_\_\_\_ STOP TIME: \_\_\_\_\_  
 NUMBER OF GIRLS/BOYS: \_\_\_\_\_ CATCH Kid's Club Used? YES NO OTHER SOURCE: \_\_\_\_\_ Warm Up? YES NO Cool Down? YES NO

Student	Interval	Activity	Lesson Context			Teacher Interaction				
ONE  M F	1	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	2	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	3	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	4	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	5	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	6	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	7	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	8	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	9	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	10	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	11	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	12	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
TWO  M F	13	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	14	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	15	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	16	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	17	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	18	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	19	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	20	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	21	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	22	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	23	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	24	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
THREE  M F	25	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	26	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	27	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	28	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	29	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	30	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	31	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	32	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	33	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	34	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	35	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	36	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
FOUR  M F	37	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	38	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	39	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	40	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	41	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	42	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	43	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	44	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	45	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	46	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	47	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	
	48	1 2 3 4 5	M	K N B	FGSO	PI PO	EI EO	SI SO	N	

**SOFIT SUMMARY FORM (ONE FOR EACH SESSION)**

Date \_\_\_\_\_ School \_\_\_\_\_ Teacher name \_\_\_\_\_ Observer \_\_\_\_\_  
 Session \_\_\_\_\_ Session length \_\_\_\_\_ min Total observed intervals \_\_\_\_\_

Student Behavior	Page					Total
	1	2	3	4	5	
1. lying down						
2. sitting						
3. standing						
4. walking						
5. very active						
<b>Session Condition</b>						
Management (M)						
Physical Activity Knowledge (K)						
Nutrition Knowledge (N)						
Social Behavior Knowledge (B)						
Fitness activity (F)						
Skill practice activity (S)						
Game play activity (G)						
Other (O)						
<b>Teacher Behavior</b>						
Promotes in class MVPA (PI)						
Promotes out-of-class PA/fitness (PO)						
Promotes in class Vegetable and Fruit (EI)						
Promotes out-of-class Vegetable and Fruit (EO)						
Promotes in class social behavior (SI)						
Promotes out-of- class social behavior (SO)						
Discourages in class MVPA (PI)						
Discourages out-of-class PA/fitness (PO)						
Discourages in class Vegetable and Fruit (EI)						
Discourages out-of-class Vegetable & V (EO)						
Discourages in class social behavior (SI)						
Discourages out-of- class social behavior (SO)						
No Promotion (N)						
<b>Total</b>						

**Special Notes (ON BACK)**

## SOFIT CODE SUMMARY

On prepared coding forms, trained observers circle one code each for student behavior, lesson context, and teacher behavior at the end of each 10-second observation interval. The three-phase decision system is summarized below.

Phase 1. **Student activity** decision. What is the physical nature of an individual learner's engagement? What is his/her activity level?

Choices:

- (1). Lying down
- (2). Sitting
- (3). Standing
- (4). Walking
- (5). Very active

Phase 2. **Session context level** decision. What is the context of the session? How is time allocated for the class as a whole (at least 51% of the students)?

Choices:

General content

(M) Management, Transition, Break

Knowledge content (modified from SOFIT and NASPE Standards)

(K) Physical Activity

\* (N) Nutrition

\* (B) Social behavior-Responsible personal and social behavior that respects self and others in physical activity settings.

Motor content

(F) Fitness activity

(G) Game play activity

(S) Skill practice activity

(O) Other

Phase 3. **Teacher involvement** decision. What is the teacher doing?

Choices:

Physical Activity (Draw line through for negative behavior)

(PI). Promotes in class MVPA

(PO). Promotes out-of-class MVPA

Nutrition (Draw line through for negative behavior)

(EI). Promotes in class fruit and vegetable consumption

(EO). Promotes out-of-class fruit and vegetable consumption

Social Behavior (Draw line through for negative behavior)

(SI). Promotes in class positive social behavior

(SO). Promotes out-of-class positive social behavior

No promotion

(N). No promotion

# BACKGROUND HOP'N SOFIT

## Modified from

**System for Observing Fitness Instruction Time (SOFIT)**  
**Thomas L. McKenzie, Ph.D.**  
**San Diego State University**  
**June 20, 2005**

### Outcome Variables

1. Student physical activity levels: number of minutes and % session time spent in MVPA (moderate to vigorous PA); VPA (vigorous PA); lying down, sitting, standing, walking, and very active; estimated energy expenditure per lesson (kcal/kg) and estimated energy expenditure rate (kcal/kg/min)

### Process Variables

1. Schedule of physical activity: Frequency; scheduled and actual lesson length; adherence to physical activity schedule (i.e., missed sessions)  
2. Session Context: minutes and % session time spent in management, instruction, warm-up, cool-down, fitness activity, skill drills activity, game play activity, and other  
3. Teacher Interaction: % session intervals spent promoting activity and fitness, fruit and vegetable consumption, and positive social behavior in and out-of-class time.

### The SOFIT System--Technical Description

This is a modification of the SOFIT 3-phase decision system for the HOP'N After School Project.

#### Phase 1. Student physical activity engagement.

The first phase requires a decision to be made on the physical activity levels of individual learners. The learner involvement decision is made by observing a preselected student and determining his/her **level of physical activity** (active engagement level). The engagement level provides an estimate of the intensity of the student's physical activity and uses the activity codes from BEACHES (McKenzie et al., 1990). Codes 1 to 4 (lying down, sitting, standing, walking) describe the body position of the student and code 5 (very active) identifies when the student is expending more energy than he/she would during ordinary walking. The higher the code, the higher the student's rate of energy expenditure.

#### Phase 2. Lesson context/content.

The second phase of the decision sequence involves coding for the curricular **lesson context** of the class being observed. For each observation sample (10-second interval observation interval, 10 second record interval) a decision is made as to whether class time is currently being allocated for general content (M) (such as management) or for actual subject matter (physical education) content. If substantive education content is occurring, an additional decision is necessary to determine whether the class focus is on knowledge content: **K) General physical activity knowledge**-Movement concepts, rules, strategy, principles, tactics as they apply to learning and performance of physical activities, how to play game (SOFIT, NASPE). **(N) Nutrition Knowledge**, or **(B) Social behavior knowledge**. If motor content is occurring, a further decision is necessary to code whether the context is fitness activity (F), skill practice activity (S), game play (G) or other **(O)**.

### Phase 3. Teacher interaction.

The third phase of the decision sequence involves coding the teacher's interactions during the interval regarding the promotion of physical activity and fitness, fruit and vegetable consumption and positive social development. Interactions are classified as (PI) when in-class physical activity or fitness is promoted, (PO) when out-of-class physical activity or fitness is promoted, (VI) when inclass fruit and vegetable consumption is promoted, (VO) when out-of-class fruit and vegetable consumption is promoted, (SI) when inclass social behavior is promoted, (SO) when out-of-class social behavior is promoted, and (N) neither in- nor out-of-class positive health/social behaviors are promoted.

## SOFIT METHODOLOGY

**Data collection.** Pre-recorded audiotapes keep observers on pace throughout the lesson via standard observe/record prompts every 10-seconds. During each record interval the observer enters a code for each of the three phases of decision sequence.

**Observation technique.** Student Activity and Lesson Context are coded for events occurring at the “record” prompt to end the observation interval. The Interaction code is based teacher promotion of physical activity or fitness during the 10-second observation interval.

**Interval length.** Alternately “observe” and “record” during 10-second intervals” This yields 3 observations per minute, or 90 observations per half-hour. Note: Observe for student level of activity, lesson context, and instructor interaction during the “observe” interval and record the results during the “record” interval (i.e., one line on the data recording form).

**Selection of students.** Select six target students as directed for each observed lesson. Estimate the class size and divide by 3. Then, pick the students as they enter the area (e.g., every third student). Rotate focus among the first four target students after observing each one for four consecutive minutes. The fifth and sixth students are selected as a back-up (one male and female). See subsequent section for more details. Begin the observation period when the teacher and 51% of the class has reached the instructional station and continue until half the class has departed from the area. A 32-minute lesson would yield 96 observation intervals (24 on 4 different students).

## HOP’N MODIFICATION OF SOFIT DEFINITIONS AND CODING

### 1. Student activity

Code the activity level/ body position of a target student into one of the five following categories using momentary time sampling (i.e., code a number to indicate what the student is doing at the “record” prompt):

1. lying
2. sitting
3. standing
4. walking
5. very active

Code levels 1-4 (lying, sitting, standing, walking), unless the student is expending more energy than that required for an ordinary walk.

Lying down but at least moderately moving arms and/or legs should be coded as sitting or 2; snow/grass angels, hamstring stretches, etc. Sitting but at least moderately moving arms and/or legs is coded as standing. Thus, sitting while stretching, swinging, twisting body, arm wrestling, sliding, vigorously clapping, etc should be coded as 3. Furthermore, standing and at least

moderately moving arms should be coded as walking or 4; any stretching, body twists, vigorous clapping, throwing objects (ball, Frisbee), etc.

Code level 5 (very active) for any activity in which the student is expending more energy than she would during ordinary walking (do not consider body position only). For example, code 5 (very active) when the student is running, jogging, skipping, hopping, wrestling with a peer (even though she is lying on her back), and pedaling on a moving or stationary bike (even though sitting). Furthermore, walking and at least moderately using arms is coded as very active. For example, wrestling, carrying moderately heavy objects, throwing objects while walking (ball, frisbee) should all be coded as very active or 5. Also, walking movements made difficult are coded as very active (5); plyometrics (box steps or jumps), calf raises, high-knees, butt-kicks, frog jumps, crab-crawl, etc.

When the student is in transition from one category to another, enter the code for the higher category. For example, code level 2 (sitting) if at the record signal the student is partially lying down and partially sitting up; code level 3 (standing) if the student is getting up from either sitting or lying down.

## **2. LESSON CONTEXT** (Modified from Siedentop & Tannehill, 2001; McKenzie, 2002)

Code the lesson context allocated for the majority of class members (51%) by using momentary time sampling (i.e., circle **M, P, K N, B, W, C, F, G, S** or **O** to indicate what the class was doing at the "record" signal).

### **Lesson context refers to how subject matter is delivered.**

**General Content. (M)** Refers to class time when students are not intended to be involved in physical education content (either knowledge or movement). General content includes transition, management, and break times. Transition refers to time allocated to managerial and organizational activities related to instruction such as team selection, changing equipment, moving from one space to another, changing stations, teacher explanation of organizational arrangement, and changing activities within a lesson. Management refers to time devoted to class business that is unrelated to instructional activity such as taking attendance, discussing a field trip, or collecting money for class pictures. Break refers to time devoted to rest and/or discussion of non-subject matter related issues such as getting a drink of water, talking about last night's ball game, telling jokes, celebrating the birthday of a class member, or discussing the results of a class election.

**Physical Activity Knowledge Content. (K)** Refers to lesson time when the primary focus is on student knowledge acquisition related to physical education, not their activity engagement. Knowledge is typically related to: (a) Physical activity and fitness (i.e., information related to physical activity or physical fitness concepts, including endurance, strength, and flexibility), and (b) General Knowledge (information related to areas other than physical activity and fitness, such as history, technique, strategy, rules, and social behavior).

**Nutrition Education Knowledge Content (N)** Refers to class time when the primary focus is on knowledge related to any aspect of nutrition education

**Social behavior Education Knowledge (B)**. Refers to class time when the primary focus is on knowledge related to any aspect of exhibiting responsible personal and social behavior that respects self and others in physical activity settings (NASPE Standard).

**P E Motor Content.** Refers to class time when the primary focus is on motor involvement in

physical education activities. Coded categories include fitness (**F**), skill practice (**S**), game play (**G**), and other or free play (**O**).

**Warm-up and cool-down (W & C)** are NO LONGER coded during each 20-second interval. Rather, record whether or not a warm-up and/or cool-down period occurred after SOFIT coding is complete for that activity period.

- **Fitness (F)**. Activity time devoted to activities whose major purpose is to alter the physical state of the individual in terms of cardiovascular endurance, strength, or flexibility. This includes physical activity stations, aerobic dance, calisthenics, distance running, weight training, agility training, fitness testing, stretching, push-ups, sit-ups, box jumps, butt kicks, crab-crawls, line runs, and warm-up and cool down activities. Include fitness testing. Relays conducted with more than three per team are coded as games (G), not fitness.
- **Skill Practice (S)**. Activity time devoted to practice of skills with the primary goal of skill development (e.g., passing drills in volleyball, exploring movement forms, and practicing dribbling a basketball, dance steps, or a skill on a balance beam). Included also is time devoted to the refinement and extension of skills in an applied setting (like the one in which the skill is actually used) and during which there is frequent instruction and feedback. Thus, the context is specified as **skill** when the purpose or goal of the observed activity is to improve/work on fundamental body movements and/or skill aspects of obvious games. For example, partner nerf ball throwing, passing a soccer ball, balance beam, or shooting basketball free throws.

**Game play (G)**. Activity time devoted to the application of skills in a game or competitive setting when participants generally perform without major intervention from the instructor, such as during volleyball and tag games, capture the flag, balance beam routines, and folk dance performances.

**Other Free Play (O)**. Refers to free play time during which physical education instruction is not intended. This time resembles recess during which students may select to participate or not.

NOTES: Transition time naturally occurring within an activity is coded as part of that activity rather than as management (M). For example, time spent moving from one fitness station to another is coded (F), and changing sides of the court during a volleyball game is coded (G). A new code is entered when the game or transition is halted for more than 10 seconds (usually for M or K).

### 3. TEACHER BEHAVIOR

Circle the appropriate letter (*PI PO EI EO SI SO N*) to indicate what the teacher did during the observation interval. In class promotion should be obvious; thus, the teacher should be trying to increase the level of the targeted behavior (e.g., moving from 2 to 3 on the physical activity scale, increasing fruit and vegetable consumption, increasing cooperative behavior. Use partial interval recording according to the following hierarchy:

**Promotes in-class MVPA (physical activity/fitness/motor skills) (PI)**. Promotes in-class physical activity/fitness or motor skill engagement by prompting or encouraging physical or fitness activity during the interval. For example, (a) attempts to initiate or increase student engagement in a physical or fitness activity; (b) demonstrating physical activity; (c) participating with children during physical activities or games that encourages them to continue; or (d) praises or reinforces physical/fitness activity (e.g., makes a statement or gesture during or following a student fitness activity engagement clearly designed to increase or maintain such responses in the future (“go faster” or “work harder”)). Prompting and praising the target student during fitness testing is recorded, but simply entering fitness data or providing her score is not.

**Promotes out-of-class MVPA (physical activity/fitness/motor skills) (PO)**. Promotes out-of-class MVPA (including physical activity/fitness and motor skills engagement) beyond PE lessons. For example, (a) attempts to initiate or increase student engagement in fitness, physical activity, or motor skills outside of PE class; or (b) praises or reinforces these behaviors for occurring beyond class (e.g., at school, home, or in the community).

**Promotes healthy eating in class (EI)**. Promotes in-class fruit and vegetable consumption by prompting or encouraging eating during the interval. For example, (a) attempts to initiate or increase student eating of the fruit or vegetable snack; (b) demonstrates healthy eating; or (c) praises or reinforces fruit and vegetable consumption (e.g., makes a statement or gesture during or following eating clearly designed to increase or maintain such responses in the future (“eat fruit/vegetable for snack”)).

**Promotes healthy eating out-of-class (EO)**. Promotes out-of-class fruit and vegetable consumption beyond the snack or after school program. For example, (a) attempts to initiate or increase student eating of fruit and vegetables at home; or (b) praises or reinforces these behaviors for occurring beyond class (e.g., at school, home, or in the community).

**Promotes positive social behavior in class (SI)**. Promotes in-class responsible personal and social behavior that respects self and others in physical activity settings (NASPE Standard).

**Promotes a lack of disruptive behavior** (inappropriate noise, arguing, horseplay, not following rules). **Promote cooperation, communication, and problem-solving** (children share materials, games, and resources, positive feedback to reach common goals (“congratulate Jimmy to work together like a team”)). Promotes interpersonal problem solving (when conflicts arise participants solve problem by themselves or with help of adult). Promotes appropriate expression of feelings (both positive and negative affect are controlled to the extent that they are not allowed to be harmful to others or seeming out of proportion to the situation; the expression appears to be genuine and natural).

**Promotes positive social behavior out-of-class class (SO)**. Promotes out-of-class responsible personal and social behavior that respects self and others (NASPE Standard).

**No promotion (N)**. Neither in-class (I) or out-of-class (O) health/social behaviors were promoted by the instructor during the interval.

**Promoting inactivity, unhealthy eating, or poor social behavior (Line drawn through positive coding representation)**. Promoting in/out-of-class negative behaviors is represented with a line drawn through the corresponding positive code. Promotion of a negative behavior must be seen or heard by at least 51% of the class. For example, having the class sit still for 5 minutes as punishment (line through PI), telling the class that vegetables are yucky (line through EI), eating fast food during interactions with the class (line through EI), encouraging the class to negatively compete (line through SI). These same negative behaviors can also be observed as effecting children’s out-of-class behavior. For example, telling a child to ask his parent for pizza at dinner (line through EO) or encouraging the children to buy the newest video game (line through PO).

## **5. Calculating reliabilities**

Calculate percentage agreement for the three major categories on an interval-by-interval basis using the standard formula (agreements/observed intervals multiplied by 100) using the following steps:

- a) Match the lead observer SOFIT Booklet to the reliability observer's booklet.
- b) On the reliability observer's booklet, mark a red square to indicate instances of disagreement for student activity, lesson context, or teacher interaction. Be careful not to mark in any bubbles.
- c) Total the number of disagreements (red squares) for student activity, lesson context, or teacher interaction and write the number at the bottom of the each page, and then across all pages.
- d) Complete a table similar to the following:

TOTAL # PERCENT  
 TOTAL # OBS DISAGREE TOT. # AGREE AGREE

Student Activity

Lesson Context

Teacher Interaction

- e) Calculate the reliabilities (percent agreement) using the formula:  

$$\text{Percent Agree} = (\text{Total \# Agree}) / (\text{Total \# Obs}) \times 100$$

- f) Attach results to the Reliability observer's booklet.

Note: If reliability between observers is less than 80%, some refresher work should be done. Note that it is unrealistic to expect high agreements without practice in diverse environments. See Section 5 for more details.

## **XI. HOP'N DATA MANAGEMENT PROCEDURES (9-9-2005)**

### **Terminology**

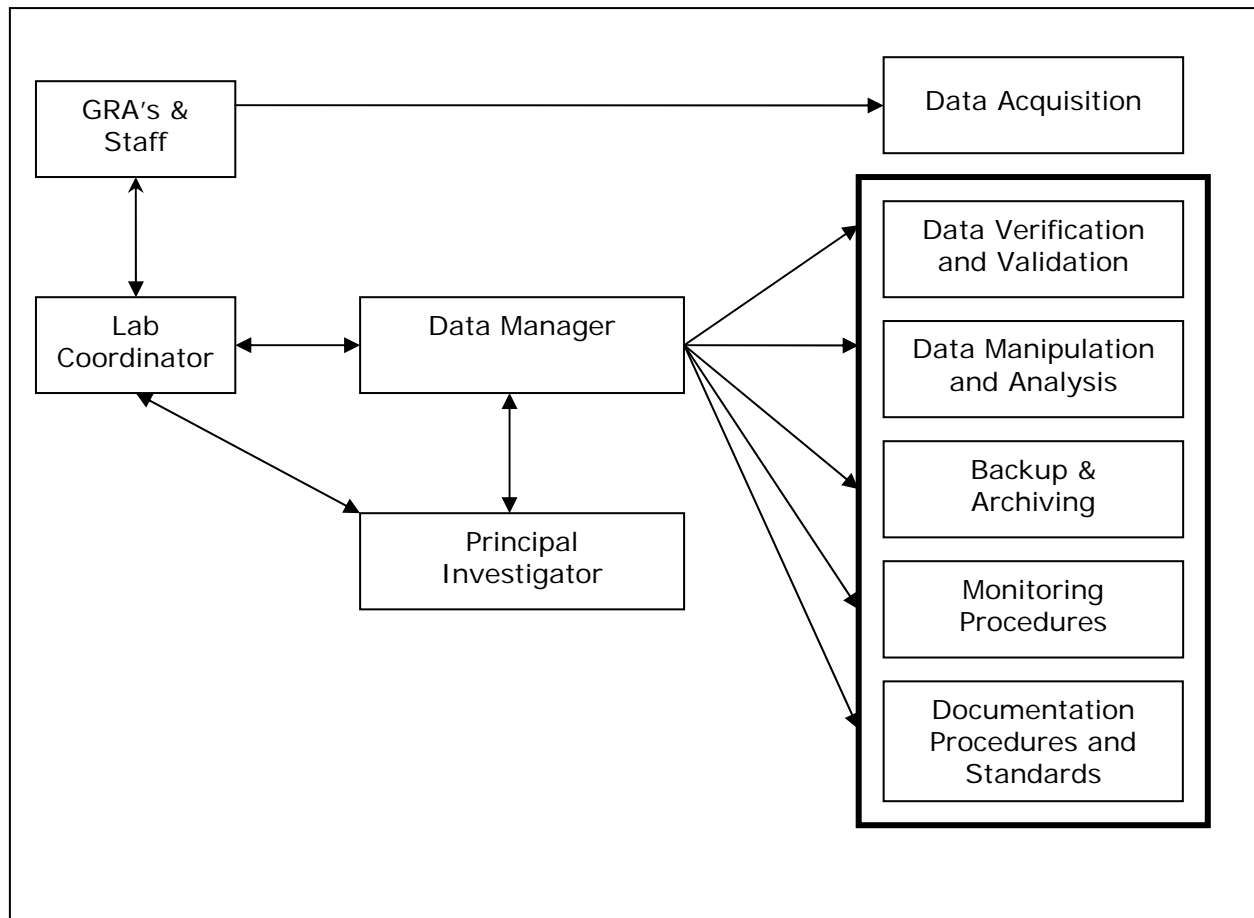
**Research Data Management (RDM):** The systematic handling of information, ultimately stored in electronic form, to preserve the value of the contents for future scientific investigation or to answer specific research questions. Assuming the data accurately reflect reality, the value of research data depends on the usability and timeliness. Excellent research data management will produce a practical framework for creating well-documented data of consistent quality, which permits research projects to proceed quickly and easily.

**RDM System:** A systematic set of research data management activities and procedures related to acquiring, manipulating, documenting, and storing research data in a computer environment. An RDM system is composed of interrelated RDM processes.

**RDM Processes:** A set of activities or procedures directly related to accomplishing a specific research data management objective. Examples of RDM processes include data collection, data entry, data cleaning, and back-up.

**RDM Monitoring:** A set of activities or procedures for tracking and evaluating an ongoing RDM process for management and control purposes. The goal of RDM monitoring is to quickly identify problems so that resolutions may be found and implemented in a timely fashion. Typical monitoring processes could involve computing data entry error rates or reviewing program documentation.

## Proposed Data Management Duties Flowchart



- Data management activities for the HOP'N project will be the primary responsibility of the Data Manager (Dr. Stewart Trost), working closely with the Principal Investigator (Dr. Dzewaltowski) and the Lab Coordinator (Kristin Trost).
- GRA's and staff will be responsible for data acquisition activities. The remaining data management processes will be performed by the Data Manager and the Lab Coordinator.
- At the completion of data collection duties for the day, all data sheets, questionnaires, and other data sources will be turned into to the Lab Coordinator.
- The location and manner in which data will be submitted needs to be determined.
- Project staff and/or lab staff not involved in data collection duties may be called upon to assist the Data Manager or the Lab Coordinator with data management tasks as needed.