

**Observational System for Recording Physical Activity in Children-
Preschool**

(OSRAC-P)

OSRAC-P Training Manual for Observers

The *OSRAC-P* Coding System was initially developed in 2002. It is a combination of three different observational systems, the *CARS* [by Jackie Puhl et al.], the *CASPER II* [by William H. Brown, Samuel L. Odom, Ariane Holcombe, and Grant Youngquist for the Early Childhood Research Institute on Inclusion (ECRII) which was funded by the Early Education Programs for Children with Disabilities (EPCD) of the U.S. Department of Education (Grant #H024K40004)], and the Observational System for the Environmental Determinants of Physical Activity in Preschool Children Study [which was funded by Gerber Foods]. William H. Brown, M. João Almeida, Karin A. Pfeiffer, and Kerry L. McIver made the modifications and developed the *OSRAC-P* during the summer of 2003, while funded by the National Institutes of Health (NIH), National Institute of Child Health and Human Development (NICHD, Grant #R01 HD43125-01). Jon Tapp developed the Interval Manager System (*INTMAN*) for the Dell Axim X5 handheld computers.

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I. INTRODUCTION

The Observational System for Recording Physical Activity in Children- Preschool (*OSRAC-P*) is a direct observational system designed to collect information about children's physical activity in preschools (e.g., classrooms, child care settings) and the behavioral (e.g., prompts for physical activity) and contextual circumstances (e.g., location of physical activity, immediate educational/play context, group composition) of their physical activity in those environments. The *OSRAC-P* is known as a focal child system because a single child serves as the focus of the observation and all decisions about categories to be coded are made in reference to that focal child. The *OSRAC-P* consists of three types of coding categories: (a) those that give information about the focal child's physical activity level or intensity and type, (b) those that give information about the focal child's physical environment (e.g., location indoor or outdoor, immediate educational/play context) and (c) those that give information about the social environment relative to the focal child (i.e., group composition, activity initiator, and prompts).

The *OSRAC-P* system incorporates a momentary time sample procedure for collecting observational information. Using this procedure, observers watch a child for a five-second observation interval and then, during the next 25 seconds, record one code for each of the eight variables. Five-second observation intervals are repeated every 25 seconds across a 30 minute period of time to create an individual session for each focal child. Observational data are collected on Dell Axim handheld computers and later downloaded into a database. The data obtained from the *OSRAC-P* can provide systematic information about preschool children's physical activity and the contextual and behavioral circumstances of their physical activity. In addition, the temporal relationships among physical activity and physical and social circumstances can be systematically recorded and analyzed.

Observer Training for The OSRAC-P

The *OSRAC-P* Training Manual has been designed to prepare observers to become consistent in collecting observational data for the eight different types of observational categories with accompanying codes for each category. Training is arranged systematically to move observers from initial memorization of categories and codes to reliable use of the observational system for collecting information about children and their preschool environments. Observer training will be performed in a sequence that parallels the dimensions of the *OSRAC-P* coding system. That is, first observers will memorize the two categories for physical activity (i.e., physical activity level, physical activity type). Then observers will memorize three categories for activity context (i.e., location, indoor educational/play context, outdoor educational/play context). Finally, the observers will memorize three social categories (i.e., initiator of activity, group composition, and prompts for physical activity). To demonstrate initial acquisition of the eight categories and their accompanying codes, observers will take quizzes to assess their content knowledge. Before any *in situ* observer training (i.e., actually using *OSRAC-P* in preschool settings), a criterion of 100% accuracy across two days should be obtained for the eight categories and their accompanying codes on definition quizzes. This process will assist us in ensuring that observers understand the categories and codes and their definitions. After this training criterion is achieved on the definition quizzes for the categories and accompanying codes, *in situ* observer training for the codes will begin.

During *in situ* observer training (i.e., practice coding in classrooms and child care centers) to establish satisfactory observer agreement, a criterion of 90% interobserver agreement (IOA) should be obtained for each category. After *in situ OSRAC-P* Training, to assist in maintaining satisfactory interobserver agreement and to obtain a sufficient number of interobserver agreement

measures across observations and children, about one of every twelve observations for each focal child should be observed and recorded by two observers concurrently and independently (i.e., 10-16% of all total observations). After observations, point-by-point interobserver agreement scores should be determined by calculating the total number of agreements divided by number of agreements plus number of disagreements multiplied by 100 (i.e., $\text{agreements}/(\text{agreements} + \text{disagreements}) \times 100$) for each of the observational categories and codes. We propose a process with several training phases for systematic observer training. The observer training includes initial orientation, code memorization, quizzes, and frequent *in situ* training sessions in field settings. We strongly recommend the proposed systematic training process but the process may need to be adapted for local research site circumstances. Orientation, code memorization, and *in situ* practice are all essential elements for high-quality observer and interobserver agreement and accuracy training and must be conducted on a regular schedule (cf. Hartmann & Wood, 1990).

Contents of The OSRAC-P Manual

The *OSRAC-P* Manual begins with an I. INTRODUCTION. In the next section, entitled II. CODES AND CODE NAMES, we provide the observational codes and their respective names arranged by physical activity and contextual and behavioral categories. For example, the first category is Physical Activity Level and it has five possible options (i.e., stationary/motionless, stationary with movement of limbs or trunk, slow/easy movement, moderate movement, fast movement). In the next section, entitled III. CODE DEFINITIONS, we delineate the operational definitions and examples for the eight categories and their respective codes. In the next section, entitled IV. QUIZZES, we provide sample forms of quizzes for each category, which can be copied for taking tests to assess the memorization of observational codes for each category and respective codes.

General Rules Applying to Observing

- The five-second observational window that occurs every 30 seconds should start at the very beginning of the word “observe” or the initial auditory cue and last until the very beginning of the word “record” or the terminal auditory cue.
- After recording the highest level of physical activity exhibited, all subsequent categories and codes used during the five-second observational window should be recorded based on the information associated with the coded physical activity level.
- Observers should attempt to locate themselves within 10 to 15 feet of the focal child so that they can see the child, peers, and adults in the immediate group, any physical activity, and hear any directions or interactions among children and adults.
- Observers should attempt not to look directly at the focal child after coding the eight categories. On the other hand, the observers should discretely reorient themselves to the focal child to observe any category changes during the next interval.
- Children should not be followed into enclosed restrooms and the Self-Help Code should be recorded for the Indoor Educational/Play Activity Context. The Can’t Tell code should be used for Physical Activity Level, Physical Activity Type, and Group Composition Categories. If you can determine the Initiator of the Activity and the Location then you should employ the appropriate code. The Outdoor/Gym Educational/Play Context Category should be coded NA (not applicable) if the children are inside the building.
- If observers believe that they have missed or miss-scored a particular code during an interval they should immediately record the interval number and the changes that are needed for that interval on the Observation Comments/Notes Data Sheet provided for anecdotal notes during observations. They should also consult with the Measurement Coordinator that day about any problems that arise during observations before any codes are changed. This may happen during initial observer training but it should occur infrequently the observers become more facile with the *OSRAC-P* and the Dell Axim unit. After observer training is completed these types of difficulties and subsequent changes should be performed rarely and only after consultation with the measurement coordinator.

II. OBSERVATIONAL CODES AND CODE NAMES

The eight observational categories with their accompanying codes are delineated below. For each observational category described below, the first column represents the information that appears on the screen of the Dell Axim unit. Sometimes, the viewable screen cuts off the entire code label in the Dell Axim unit. The second column represents the full name of the category.

A. PHYSICAL ACTIVITY LEVEL CATEGORY

Code	Code Names
1-Stationary	Stationary/motionless
2-Limbs	Stationary with movement of limbs or trunk
3-Slow-Easy	Slow/easy movement
4-Moderate	Moderate movement
5-Fast	Fast movement
Can't Tell	Cannot tell

B. PHYSICAL ACTIVITY TYPE CATEGORY

Code	Code Names
Climb	Climbing, hanging
Crawl	Crawling
Dance	Dancing, expressive movement
Jump/Skip	Jumping, skipping, hopping, galloping
Lie Down	Lying down
Pull/Push	Pulling or pushing an object or child
R & T	Rough and tumble play, wrestling, tumbling
Ride	Cycling, skateboarding, roller skating, scooter
Rock	Rocking on a teeter totter or on a horse
Roll	Rolling
Run	Running
Sit/Squat	Sitting, squatting, kneeling
Stand	Standing
Swim	Swimming or playing in a pool
Swing	Swinging on a swing
Throw	Throwing, kicking, catching
Walk	Walking, marching
Other	Other – record a note of the physical activity type for the interval on the observer form
Can't Tell	Cannot tell

C. LOCATION CATEGORY

Code	Code Names
Inside	Inside the center or building
Outside	Outside the center or building
Transition	Transition between inside and outside areas or between two settings in a preschool facility
Can't Tell	Cannot tell

D. INDOOR EDUCATIONAL/PLAY CONTEXT CATEGORY

Code	Code Names
Art	Art centers and activities
Books/Preacademic	Books, preacademic, writing, listening, science and math centers and activities
GrossMotor	Gross motor activities
GroupTime	Group or circle time
LgBlocks	Large block centers and activities
Manipulative	Manipulative, fine motor, and sensory centers and activities
Music	Music centers and activities
Nap	Nap and rest times
SelfCare	Self care and self help areas
Snacks	Snacks, meals, and food
Sociodramatic	Sociodramatic play and pretend centers and activities
TeacArranged	Teacher arranged and lead gross motor physical activity
Time Out	Time out
Transition	Transition between centers and activities or major classroom activities in the schedule
Videos	Computer, TV, and videotapes
Other	Other – record note of the indoor educational context for the interval on the observer form
N/A	Not Applicable-child outdoors or in transition
Can't Tell	Cannot tell

E. OUTDOOR/GYM EDUCATIONAL/PLAY CONTEXT CATEGORY

Code	Code Names
Ball	Ball or object play
Fixed	Fixed equipment
Game	Formal game
Open Space	Open space or non-designated area
Pool	Swimming pool
Portable	Portable equipment
Sandbox	Sandbox, designated digging area
Snacks	Snacks, meals, and food
SocioProps	Sociodramatic play props
TeacArranged	Teacher arranged and lead gross motor physical activity
Time out	Time out
Wheel	Riding or using push toys with wheels
Other	Other – record note of the outdoor play context for the interval on the observer form
N/A	Not Applicable-child indoors or in transition
Can't Tell	Cannot tell

F. INITIATOR OF ACTIVITY CATEGORY

Code	Code Names
Adult	Adult-initiated activity
Child	Child- or peer-initiated activity
Can't Tell	Cannot tell who initiated

G. GROUP COMPOSITION CATEGORY

Code	Code Names
Solitary	Solitary/alone
1-1 Adult	One-to-one with adult
1-1 Peer	One-to-one with peer
Group Adult	Group with adult
Group	Group without adult
Can't Tell	Cannot tell

H. PROMPT FOR PHYSICAL ACTIVITY CATEGORY

Code	Code Names
None	No teacher prompts
TP-I	Teacher prompt to focal child to increase or maintain physical activity
TP-D	Teacher prompt to focal child to stop or decrease physical activity
PP-I	Peer prompt to focal child to increase or maintain physical activity
PP-D	Peer prompt to focal child to stop or decrease physical activity
Can't Tell	Cannot tell

III. CODE DEFINITIONS

NOTE TO OBSERVERS: After recording the highest level of physical activity within a five-second observational interval, all subsequent codes for the other seven categories in that interval are coded based on the highest level of physical activity level observed and recorded (i.e., any code selected should correspond to the focal child’s highest physical activity level for the observational interval). For example, if you see a child run, walk, and sit during a five-second observational interval, then the activity type (e.g., run, walk, sit) should be coded based on the highest level of physical activity level observed. In this example, run should be coded for Physical Activity Type.

A. PHYSICAL ACTIVITY LEVEL CATEGORY AND CODES

The Physical Activity Level Codes represent five different levels of the intensity for the focal child’s physical activity. **The intensity level of physical activity is based on several considerations. Intensity may depend on (a) the speed or vigorousness of child movement ranging from slow easy to moderate to fast movements, (b) whether the movement is assisted by others, (c) whether the child movement is repeated within the observational interval, and (d) if there is any weight being moved, held, or translocated.** If there are multiple body parts involved in the movement, the intensity is usually higher. Stationary activities represent a resting state or involve extremely limited or confined movement. Limb physical activity involves non-vigorous arm, leg, and trunk movements but no actual translocation from one place to another (i.e., remember “two-step rule” where both feet have to move to another spot for walking to be coded). Any activity normally classified as limbs, slow easy, or moderate can be “upgraded” to the next intensity code, if it is performed more vigorously or if the activity requires more effort (carrying a heavy object, pushing a swing). Can’t tell is coded **only** if you cannot see the focal child or you really cannot determine a particular code within a category. Remember, the physical activity level is defined by what the focal child is doing during the five-second-observation interval.

Code	Code Names	Definition
1-Stationary	Stationary/motionless (Level 1)	<p><i>Stationary/motionless (resting state/motionless with head, finger, hand, or foot, or writing and drawing movement only and no major limb movement or two major joint movements)</i></p> <ul style="list-style-type: none"> • Sleeping, lying, standing, sitting, squatting, or kneeling • Riding passively in a wagon

Code	Code Names	Definition
2-Limbs	Stationary with movement of limbs or trunk (Level 2)	<p><i>Stationary with easy movement of limb(s) or trunk (arm, trunk, or leg movements without moving the entire body from one place to another)</i></p> <ul style="list-style-type: none"> • Standing up, sitting down, bending and squatting, or kneeling down with limb or trunk movement • Holding an moderately heavy object while unsupported • Hanging or partially hanging off of something, leaning on a pole, fence, or wall (includes a partial climb - one leg up and arms holding on) • Swinging passively (being pushed by another), bending, digging in the sand, twisting • Throwing ball or object without translocating • Leaning back on arms while sitting down • Resting head on arms on a tabletop • Sliding down a slide (without pushing self) <p><i>Add-on rule example: Standing motionless while holding object (1) + moderately heavy object (1) = 2</i></p>
3-Slow-Easy	Slow/easy movement (Level 3)	<p><i>Translocation (moving body from one location to another at a slow and easy pace)</i></p> <ul style="list-style-type: none"> • Walking <ul style="list-style-type: none"> • Walking at a slow or easy pace and focal child MUST translocate with BOTH feet (3 continuous steps) • Slow and easy marching (in place or translocating), crawling, skipping, hopping, jumping, rolling • Riding <ul style="list-style-type: none"> • Slow and easy cycling, skateboarding, roller skating, scooter • Slow and easy crawling on a flat surface • Swinging without assistance from others or leg kicks • Slow and easy tumbling/wrestling <p><i>Add-on rule example: Going down a slide (2) + pushing self (1) = 3 Throwing a ball (2) + heavy ball (1) = 3</i></p>

Code	Code Names	Definition
4-Moderate	Moderate movement (Level 4)	<p><i>Translocation (moving body from one location to another at a moderate pace)</i></p> <ul style="list-style-type: none"> • Walking <ul style="list-style-type: none"> • Walking at a brisk or rapid pace • Walking up at least 2 stairs or a hill • Two repetitions of skipping, hopping, jumping, leaping, kicking, or galloping • Riding <ul style="list-style-type: none"> • Two repetitions of cycling at a moderate pace • Climbing <ul style="list-style-type: none"> • Climbing on monkey bars, jungle gym, fence • Climbing backwards up a slide or an incline (or stairs) with arm usage • Hanging from bar with legs swinging • Tumbling <ul style="list-style-type: none"> • Two repetitions of a forward or backward roll • Fighting or wrestling at a moderate pace • Swinging with legs kicking
5-Fast	Fast movement (Level 5)	<p><i>Translocation (moving body from one location to another at a fast or very fast pace)</i></p> <ul style="list-style-type: none"> • Running • Walking up 3 or more stairs or an incline fast or with vigorous arm movement • Three repetitions or more of skipping, hopping, jumping, leaping, kicking, or galloping • Riding <ul style="list-style-type: none"> • Three repetitions or more of fast cycling, skateboarding, roller skating, scooter • Three repetitions or more jumping jacks or jumping rope • Three repetitions or more of tumbling • Vigorous fighting or wrestling • Climbing <ul style="list-style-type: none"> • Translocating across bars with hands while hanging <p><i>Add-on rule: Walking (3) + carrying very heavy object like another person (2) = 5</i></p>
Can't Tell	Cannot Tell	<ul style="list-style-type: none"> • Cannot Tell

Coding Rules

- Many motor activities such as riding and jumping other than running can be classified as slow-easy, moderate, or fast; it depends on the intensity of child movements ranging from slow/easy to moderate to fast/vigorous and how often the movement is repeated.
 - Example: One single jump is considered slow-easy movement. Two jumps in a row are considered moderate movement. Three or more jumps in a row are considered fast movement.
- If the focal child is swinging on a swing on his/her stomach, the activity level is coded as 3-Slow-Easy, unless he/she is running in circles or performing a higher activity level of some sort.
- If the focal child takes one or two steps and does not translocate, it is considered category 2-Limbs.
- For a movement to be considered 2-Limbs, the focal child needs to visibly bend a major joint or limb or perform a movement involving 2 joints (NOT including wrist, ankle, fingers, and toes) or the child clearly reaches for and perhaps grasp an object. For example, foot tapping does not count as limb movement, but bringing a cup up to the mouth for a drink is considered limb movement.
- The 90° angle rule: The joint must be at or above 90 for it to be considered limb movement, i.e. scratching one's nose while the elbow is at sides, would be considered a 1-Stationary. Scratching one's nose with the elbow up and parallel to the ground constitutes a 2-Limbs coding.
- If the focal child is being supported by another object (wall, table) or limb (leaning on arms), 2-Limbs should be coded. 2-Limbs should be coded if the child would fall if the object were to be removed.
- Smaller movement at the elbow or knee should also be coded as 2-Limbs, when the movement is repetitive (occurs more than twice). If the child is stabilizing him/herself while squatting (feet flat, knees bent), 2-Limbs should be coded due to the shifting of the center of gravity.
- Activity levels for coding throw should be similar to coding activity levels for jump. Where intensity level 1 = 1 jump and level 2 = two jumps, multiple consecutive throwing actions during an interval should also be coded in an increasing level. For example, if the focal child throws, catches, and kicks a ball during the observation interval, activity level = 5 and activity type = throw because three throwing actions were performed consecutively.

B. PHYSICAL ACTIVITY TYPE CATEGORY AND CODES

The Physical Activity Type Codes represent what type of activity the focal child is performing at the highest physical activity level recorded. They literally correspond to exactly what the child was doing during the most intense physical activity for the five-second-observation interval. For example, if a child is sitting on a tricycle and not moving, the observer should code the Sit/Squat Code for the Physical Activity Category because that is the exact behavior in which the child is engaged. However, the observer should code the Wheel Code for the Outdoor/Gym Educational/Play Context Category. This type of systematic coding will allow us to determine that the focal child was sitting on the tricycle but not moving. ***Thus, physical activity type is different from activity context.*** Physical activity type reflects the focal child’s actual behavior, while activity context represents the environmental circumstances that are associated with the child’s physical activity.

Code	Code Names and Definition
Climb	• Climbing, hanging
Crawl	• Crawling
Dance	• Dancing, expressive movement
Jump/Skip	• Jumping, skipping, hopping, galloping
Lie Down	• Lying down
Pull/Push	• Pulling or pushing an object or child
R & T	• Rough and tumble play, wrestling, tumbling
Riding	• Cycling, skateboarding, roller skating, scooter
Rocking	• Rocking on a teeter totter or on a horse
Roll	• Rolling
Run	• Running
Sit/Squat	• Sitting, squatting, kneeling
Stand	• Standing
Swim	• Swimming or playing in a pool
Swing	• Swinging on a swing
Throw	• Throwing, kicking, catching
Walk	• Walking, marching
Other	• Other than options listed
Can’t Tell	• Cannot tell

Coding Rules

- A focal child may perform more than one physical activity type during the five-second observational interval, however, the physical activity type must coincide with the highest activity level recorded for the observational interval
- If the focal child performs two physical activity types that are within the same physical activity level, code the last physical activity type performed in the interval. For example, if a child sits for the first two seconds and stands for the last three seconds of a five-second-observation interval, the observer should code the Physical Activity Level Category as the Limbs Code. The Physical Activity Type should be recorded as the Stand Code given that standing was the last physical activity type performed in the interval.
- Hanging or swinging from a bar is recorded as Climb Code but swinging on an actual swing is recorded as Swing Code.
- If the focal child has her stomach on a swing and is running around pushing the swing, the Physical Activity Level is coded as 5-Fast and the Physical Activity Type is recorded as the Swing Code.

- The Throw Code is an exceptional case. Because a throw happens very quickly in many cases, the focal child is likely to be performing some other activity within the five-second-observation period. If the focal child is playing with a ball or similar object and throws it during the observation period, then the physical activity should be coded as THROW (i.e., the other physical activity will be interpreted as related to throwing). If the child stands in one place without translocating and throws a ball or object then it is 2-Limbs. If a child walks at a slow-easy pace and throws an object like a ball during the five-second-observation interval, the Physical Activity Level should be recorded as 3-Slow-Easy Movement, while the Physical Activity Type Code should be Throw. If the child throws the object AFTER the five-second interval is over, the Physical Activity Level would be coded as 3-Slow-Easy, and the Physical Activity Type Code would be Walk. If a higher level of activity occurs in the interval, the higher level activity type should be coded.
 - Throwing heavier objects will increase the activity level, i.e. throwing a basketball while standing still should be coded as 3-slow/easy and throw.
- **Ride** is coded as an activity type only when wheels of the riding object are in motion or when the focal child is attempting, with noticeable effort, to pedal or move the riding object. If the child is merely sitting on the object and no effort to ride the object, physical activity type should be coded as sit/squat.
- Similar to the ride code, **swing** is coded as an activity type when the swing is in a swinging/pendulum motion. If the swing is merely moving as a function of a child climbing on to it or there is residual movement from a former bout of swinging, coding is based more on the actual activity of the focal child (sit, stand, etc.)
- The action of **pushing a swing** is coded as pull/push for physical activity type, and fixed for outdoor context. Determination of the appropriate activity level is based upon the weight/type of the swing, the number of children on the swing, and the type of movement done by the focal child to aid the push (walk/pivot, run, etc.)
- **Climb** is coded as an activity type when the child is climbing OR hanging, dependent upon their apparent weight distribution. If the focal child is grasping an object with an upper body limb(s) and is clearly bearing their weight on that limb(s), physical activity type should be coded as climb. If a child is merely holding onto a bar or rail but their weight remains in the lower body, the physical activity type should be coded as stand. Specifically, a “partial climb” (defined in the OSRAC-P manual as having one leg up and arms holding onto an object) should be coded as, 2- limbs for physical activity level and stand for physical activity type.
- **Sit** should be coded when the child’s knees are bent past 90 degrees. If the child is bending his or her knees and leaning over, stand should be coded. Both of these situations should be coded as 2-Limbs for the activity type since the child’s center of gravity has shifted and they are having to stabilize themselves.

- **C. LOCATION CATEGORY AND CODES**

Location represents the global physical location of the focal child. The observer should record one of three possible location codes (a) inside of the building, (b) outside of the building, or (c) transition; when the focal child is clearly moving between the inside and outside of the building or he is clearly moving between two different rooms or settings in the building (e.g., adult has prompted children to line up for outside, teacher told children come inside while she attends to another child’s personal needs during outdoor play, adult lines up children and takes them to an indoor gym or the cafeteria).

NOTE TO OBSERVERS: If the focal child is clearly moving between the indoor and outdoor location or two different settings within a building, then observers should record Transition for the Location Category and NA should be recorded for Indoor Educational/Play Context and Outdoor/Gym Educational/Play Categories. Observers should note, however, that the Transition Code for the Location Category should only be used when a clear transition is initiated by the teacher and is being performed by the focal child. For example, the teacher may verbally indicate to children it is time to “Go inside!” and the focal child may go to line up at the door. Similarly, if the teacher tells children to get their coats and line up at the door for outside time and the focal child gets his coat and stands in line then observers should code the Transition Code for the Location Category. On the other hand, sometimes children anticipate going outside or coming in and they simply “hang out” waiting to go out or in the building. These episodes should not be coded transition for the Location Category but may be recorded as the Transition Code for the Indoor Educational/Play Context Category if inside or the Open Space Code for the Outdoor Educational/Play Context Category if outside. If teacher requires the focal child to come inside while another child “potties” or has a band aide applied then observers should record the Inside Code for the Location Category and also the Transition Code for the Indoor Educational/Play Context Category.

Code	Code Name	Definition
Inside	Inside the center or building	<ul style="list-style-type: none"> • <i>Being inside the preschool building</i>
Outside	Outside the center or building	<ul style="list-style-type: none"> • <i>Being outside the preschool building</i>
Transition	Transition between inside and outside areas or between two settings in a preschool facility	<ul style="list-style-type: none"> • <i>Lining up and waiting to move inside or outside following teacher direction</i> • <i>Moving between the inside and outside of the preschool building</i> • <i>Moving between two separate rooms within or between the building such as the classroom to the cafeteria, the classroom to a bathroom down the hall, or the classroom to the indoor gym/play area</i>
Can't Tell	Cannot tell	<ul style="list-style-type: none"> • <i>Cannot tell</i>

D. INDOOR EDUCATIONAL/PLAY CONTEXT CATEGORY AND CODES

The Indoor Educational/Play Context Codes represent contextual information about the immediate location of the focal child within the indoor physical contexts of preschool facilities. Typically, the Indoor Educational/Play Context Codes should be determined by what the child is doing, rather than the location of the child within the classroom. The exceptions to this general rule are: (a) the focal child is not using materials for a distinct preschool activity such as large blocks, but is sitting in the large block area; (b) focal child is not using materials for a distinct preschool activity and is not in a clearly defined area (transition should be coded); and (c) and the focal child is located in or involved with a designated gross motor area (e.g., obstacle course, exercise equipment) or he is involved in gross sustained gross motor activity behavior (e.g., dancing, exercising) while in a nondesignated area or an area typically used for several purposes (Dancing in the Group Time area indicated by a large rug). Also, observers should remember that the Indoor Educational/Play Context coded should be directly related to when the highest level of physical activity takes place.

Remember, most preschool classrooms are divided into several, well-defined learning or activity centers such as the large block area, the manipulative center with puzzles and small connecting blocks or materials, sociodramatic play area, and a book or writing center. The child does not have to be engaged with the materials within an activity center to be coded as in an Indoor Educational/Play Context, however if the child is engaged with materials outside of the designated center, remember to still code based on behavior not location. Questions about indoor physical contexts should be addressed before the first observation during an “environmental scan” of the classroom with brief teacher consultation when needed.

The Group Time Indoor Educational/Play Context should be coded when the focal child is located in a group time context that was planned or initiated by at teacher with about 50% of the children present. For example, morning group, closing group, and story time are frequent group activities in many preschools. Also, some preschools have children watch videotape while in a group time context. Remember that Group Time “trumps” (i.e., preempts) other Indoor Educational/Play Context Codes except for Videos/TV watching. For example, if children are in large group time during the morning and they play the “Hokey Pokey” the Indoor Educational/Play Context is Group Time and both the Physical Activity Level and Type should be coded based on the focal child’s behavior during the observational interval. If, however, the focal child is in the group time context and the teacher starts a video or they watch the television, then the Indoor Educational/Play Context is Videos.

An Indoor Educational/Play Context can be a relatively permanent area (e.g., Book and Writing Center, Large Block Center, Manipulative Center with puzzles and other fine motor materials, Sociodramatic or Pretend Play center) or a temporary area (e.g., serving snack at tables in the classroom, bringing in a TV to show a videotape, bringing out musical instruments for a free choice activity). Hence, a single area such as a group of tables might be used for several activities throughout the day such as snacks, art, or fine motor depending on whether food is being served, art products are being created, or manipulatives are being played with by the children. In addition, some types of activities such as music centers or activities may be made available daily as a learning center, or they may be used only periodically by the teacher, or both.

Observers should record the Indoor Educational/Play Context Codes based on what the focal child is doing during the five-second observational interval. Nevertheless, sometimes information obtained before the five-second observational interval is needed to carefully interpret the immediate educational or play context. For example, the teacher may have signaled a transition by saying it is “Time to clean up the centers to go outside!” If the focal child is cleaning up the sociodramatic activity center then he should be coded as the Sociodramatic

Indoor Educational/Play Context. If, however, the child goes to the door and lines up to go outside, then he should be coded as Transition for the Location Context and NA (not applicable) for the Indoor Educational/Play Context. Another example of using information before the observational window might include children taking sociodramatic play materials out of but near the sociodramatic play center and extending their play with boots and hats in an open area near but outside of any other designated indoor physical context. When in preschool classrooms, remember to think, Behavior, Behavior, Behavior!

If a focal child is simply moving among activity centers and is not located within a clearly defined center or involved with materials for a distinct preschool activity (e.g., manipulatives in an open floor space), then the Indoor Educational/Play Context should be coded as Transition. Gross Motor is coded only when the child is clearly involved in a gross motor activity such as exercise or dancing and not in Group Time or another clearly delineated learning center. Seventeen indoor educational/indoor codes along with Other, NA, and Can't Tell codes may be coded and are described below.

1. Art – Art centers should be coded when the focal child is clearly engaged in an art-type activity of painting, making a collage, cutting materials up for pasting, sculpting three-dimensional products, or other art-related activities, or is located in the art center or area. Typical art materials and activities include crayons, paints, brushes, finger paints, coloring, pipe cleaners, glue, paste, cut out shapes, tape, scissors, and stamps.

2. Books/Preacademic – Books/Preacademic centers or activities should be coded when the focal child is engaged in a pre-reading or pre-writing and preacademic activities outside of large group or is located in a center or area containing books, writing, listening, science, or math materials. Board games are also coded as books/preacademic when the child is playing the game as intended.

3. Gross Motor – Gross motor activity should be coded when the focal child is engaged in large motor physical activities such as dancing or jumping outside of Group Activities. If the teacher has a gross motor area with a mat as determined with an environment scan, and the child is engaged in gross motor activity, then the child's indoor context in that area should be coded Gross Motor. If the child is reading a book while sitting on the mat area, then the indoor context should be coded as Books/Pre-academic. If the teacher and children go to and use an indoor gym, NA should be coded for the Indoor Educational/Play Context and the codes in the Outdoor Gym Category should be employed. Also, note that the Gross Motor Indoor Educational/Play Context Code is different from Teacher Arranged and Lead Gross Motor Physical Activity Code because the Teacher Arranged and Lead Gross Motor Physical Activity Code requires the teacher to arrange the gross motor activity area and to lead and directly supervise the gross motor activities.

4. Group Time – Group time or circle time activities should be coded when the focal child is located with or engaged in an activity that involves participating in a group of at least 50% of the children in the class and in which a teacher is discussing (e.g., asking questions of the children) or presenting information (e.g., performing calendar activities, conducting a cooking demonstration, reading a story). The children might be sitting in chairs or sitting on the floor. The teacher might be reading a story, using props such as a flannel board, or discussing various topics including the weather, holidays, who is present or absent, past or future events, and preacademic information such as colors, numbers, letters, and days of the week. Group time should continue to be coded when group time ends, if the focal child is engaged in the group activity as other

children go to other activities. When the focal child begins another activity is when group time ends. *If during the group or circle time activity the children are watching TV or a videotape then Videos should be coded.*

5. Large Blocks – Large block centers should be coded when the focal child is participating in activities with large building or construction materials or is located in the large block center without participation in other activities. Usually large block centers have relatively large wooden, plastic, or cardboard blocks. In addition, other props are often kept in the center such as railroad tracks, small people, cars, tools, and workbenches. Large block centers should be differentiated from manipulative play in that the play materials are typically larger and most often, but not exclusively, are used on the floor rather than on a table.

6. Manipulative – Manipulative, fine motor, and sensory centers and activities should be coded when the focal child is engaged in manipulative activities that focus on the small motor movements of the hand, fingers, wrists, and hand-eye coordination or located in the manipulative center without participation in other activities. Manipulative activities include playing with play dough, putting together puzzles, stacking rings, stringing beads, sewing, placing pegs in a pegboard, putting small blocks, legos, and duplos together. Manipulative play centers and activities might also include using a sensory table with rice, beans, sand, or water and accompanying props such as glasses, scoops, water wheels, and buckets.

7. Music – Music center and activities should be coded when the focal child is engaged in music activities, which are outside of large group. Usually, music centers are arranged with musical instruments that are made accessible for children. Music should also be coded when the focal child is listening to, dancing to, or involved in activities in a song (sing-a-long, follow the words) and it is not group time.

8. Nap – Naptime and rest time should be coded when the teacher has clearly indicated to children that it is time for nap or rest time. It is possible that the focal child might engage in even vigorous physical activity during the naptime. For example, a focal child might jump up and run across the room and that should be coded Naptime for the Indoor Educational/Play Context Code whereas the Physical Activity Level should be coded as 5-Vigorous for running, and the Physical Activity Type as Run. Nevertheless, the teacher's prompting of napping and resting and the fact most of the children are napping or resting should be the primary indicator of this activity context. If a child is preparing for nap, i.e. laying out his or her mat and placing a sheet on top, the indoor context should be coded as Nap.

9. Self Care – Self care should be coded when the focal child is engaged in self care activities such as taking care of personal needs (e.g., washing hands, putting on or taking off clothes, tying shoes) or is located at a self-care area such as a sink and toilets waiting for a turn, instruction, etc.

10. Snacks – Snacks, meals, and food activities should be coded when the focal child is participating in an activity that involves the preparation of and the eating of real food. Snacks should be coded when children are setting the table, passing out food, cooking and preparing foodstuffs, and eating or have food accessible. Snacks may occur in the classroom or in a cafeteria and begins when the food (snack) enters the room. If teachers are using a cooking activity such as popping corn during large group time with about 50% of the children present, indoor context should be coded as Group Time.

11. Sociodramatic – Sociodramatic play and pretend centers should be coded when the focal child is engaged in sociodramatic and pretend play with materials from a sociodramatic center, or located in the sociodramatic center without participation in other activities. Common sociodramatic props might include pretend materials such as dress up clothes, kitchen utensils, doctors’ kits, cash registers, telephones, dollhouses, puppets, and stuffed animals.

12. TeacArranged– Teacher arranged and led gross motor physical activity should be code only when the teacher arranges or transforms space, materials, or an activity for the purpose of gross motor activities. In addition, formal gross motor activity with the focal child has to be led or supervised by an adult with (e.g., obstacle course, bean bag race) or without equipment (e.g., exercising, gymnastics without apparatus).

13. Time Out – Time out should be coded when the child is placed in a separate area as a punishment for disciplinary reasons. Regardless of where the child is or what he/she is doing, if they are in “time-out”, it should be coded. Activity level and type should match the child’s behavior. If it is not clear whether or not a child is in time-out, the observer should ask the appropriate adult.

14. Transitions – Transition should be coded when the focal child clearly not located in one of the Indoor Educational/Play Contexts and is moving from one activity to another. Hence, the focal child is not located in or involved in learning centers and clear designated preschool activities. Transitions begin when the focal child clearly leaves a designated center or he obviously is not involved with or using materials for a distinct preschool activity. A focal child transition ends when he becomes involved with materials for a distinct preschool activity (e.g., manipulatives in an open classroom area) or locates in another learning center. Hence, wandering around is considered transition. Transitions is also coded when the children are sitting in a group waiting for something to happen

15. Videos – Videos, TV, and computers should be coded when the focal child is located in an area with videos, computers, or TVs or is using computers for any purpose or is watching TV or videos. ***Even if the focal child is in Group Time, Videos should be coded.***

16. Other – Other is recorded if the child is somehow participating in or located within an educational/play activity or area not otherwise designated above. If other is recorded, the observer should make a note indicating what the child is doing. Examples of ‘Other’ include fire drills, parent visiting days, etc.

17. NA – NA is coded when the focal child is located in the Transition or Outdoors Location.

18. Can’t Tell – Can’t tell is coded when the focal child is participating in activities that you cannot see. ***If you code Can’t Tell, see your coordinator after the observation to discuss the event.***

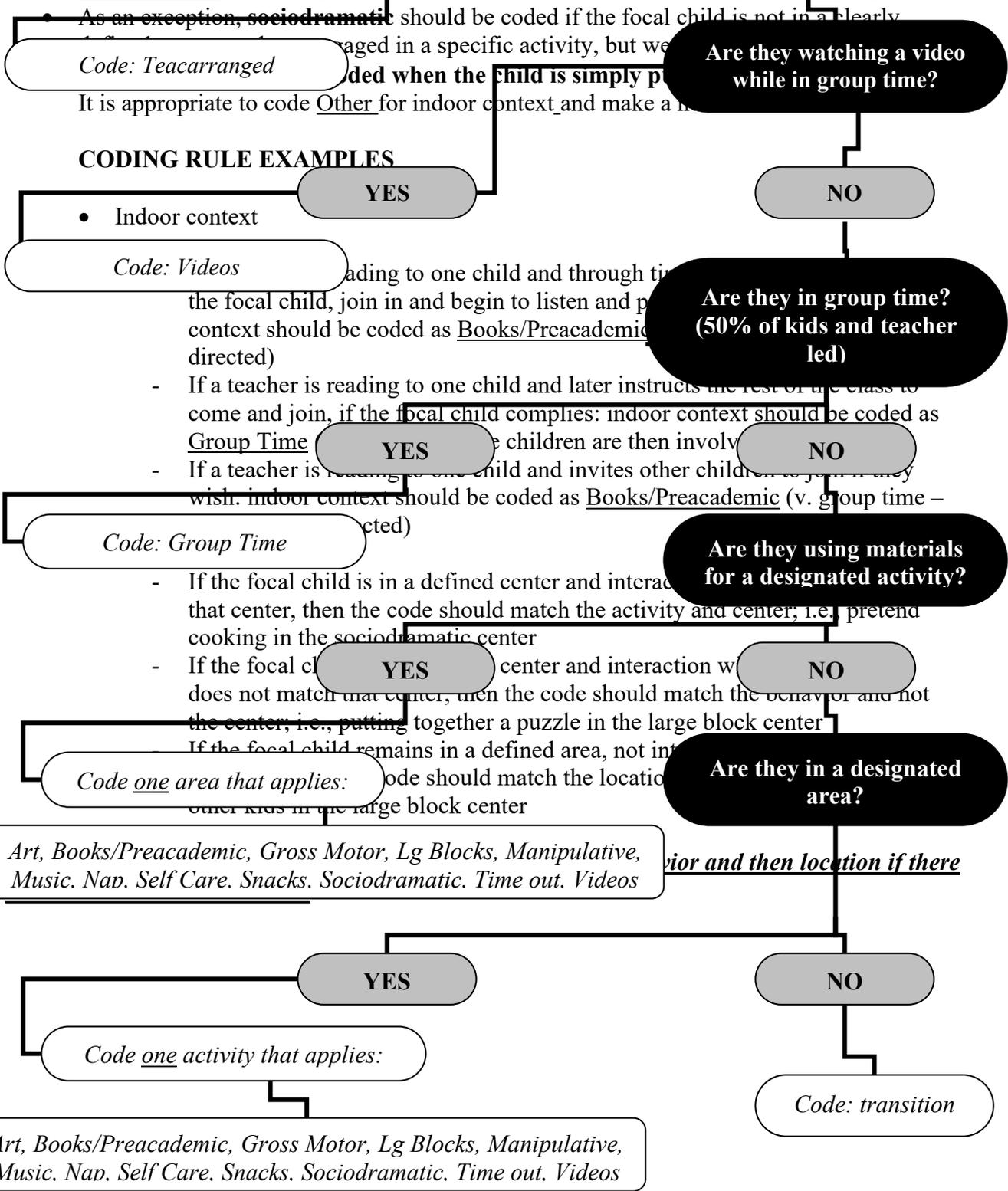
Code	Code Name	Definition
Art	Art centers and activities	<ul style="list-style-type: none"> • <i>Engaging in activities that focus on art such as drawing, painting, sculpting, coloring, cutting for a collage</i> • <i>Being in art activity areas</i>
Books/ Preacademic	Books, preacademic, writing, listening, science, math centers and activities	<ul style="list-style-type: none"> • <i>Engaging in an activity that has been arranged for emergent literacy activities or listening to audio taped stories</i> • <i>Engaging in an activity that has been arranged for preacademic, science, or math activities</i> • <i>Being in a books or writing area, science or math area</i>
Gross Motor	Gross motor activities	<ul style="list-style-type: none"> • <i>Engaging in large motor activities such as marching, or jumping with a group</i> • <i>Being in an indoor activity area with gross motor equipment (e.g., obstacle course, mat area for tumbling)</i>
Group Time	Group or circle times	<ul style="list-style-type: none"> • <i>Being in a circle or large group activity with at least 50% of the children</i> • <i>Being in a large group organized by a teacher, in which the adult is discussing and presenting information to children and asking questions or instructing them to perform activities</i>
Large (LG) Blocks	Large blocks centers and activities	<ul style="list-style-type: none"> • <i>Engaging in activities that have large blocks or accompanying materials and props which are large and used on the floor rather than on a table</i> • <i>Being in a large block or construction activity area</i>
Manipulative	Manipulative, fine motor, and sensory centers and activities	<ul style="list-style-type: none"> • <i>Engaging in activities that focus on either (a) small motor movements of the hands and hand-eye coordination; (b) sensory activities with materials designed to elicit a specific sensation (e.g., sensory table, water table)</i> • <i>Being in a manipulative or sensory art activity areas</i>
Music	Music centers and activities	<ul style="list-style-type: none"> • <i>Engaging in activities that focus on music such as singing, dancing or playing instruments</i> • <i>Being in a music activity area</i>
Nap	Nap and rest time	<ul style="list-style-type: none"> • <i>Napping or resting initiated by the teacher</i> • <i>Preparing for nap or putting away nap materials</i>

Code	Code Name	Definition
Self Care	Self Care and self help areas	<ul style="list-style-type: none"> • <i>Engaging in self care activities to meet general personal needs (e.g., toileting, washing hands, dressing, brushing teeth, tying shoes)</i> • <i>Being in an area for self-care (e.g., bathroom, sink), other than eating</i>
Snacks	Snacks, meals, and food	<ul style="list-style-type: none"> • <i>Eating food during a snack or mealtime (including setting the table, passing out food, and preparing food stuff, cleaning up the table)</i> • <i>Being located in an area that is being used food preparation</i>
Sociodramatic	Sociodramatic play or pretend centers and activities	<ul style="list-style-type: none"> • <i>Engaging in an activities with materials and props that are often used for pretend play or make-believe roles</i> • <i>Being in sociodramatic areas</i>
TeacArranged	Teacher arranged and lead gross motor physical activity	<ul style="list-style-type: none"> • <i>Being involved with a formal gross motor activity that has been planned, arranged and lead by an adult:</i> <ul style="list-style-type: none"> ○ <i>with equipment (e.g., obstacle course, bean bag race) or;</i> ○ <i>without equipment (e.g., exercising, gymnastics without apparatus).</i> • <i>Playing games that are gross motor in nature (musical chairs, duck-duck goose, ring toss)</i>
Time Out	Time out	<ul style="list-style-type: none"> • <i>Child is placed in a solitary time-out as a punishment for disciplinary reasons</i>
Transitions	Transition between centers and activities	<ul style="list-style-type: none"> • <i>Moving from one classroom activity to another</i> • <i>Passing through an activity area without stopping or engaging materials (wandering)</i> • <i>Waiting for an activity change (transition to group time, centers, snack, going outside, etc.)</i>
Videos	Computer, TV, and videos	<ul style="list-style-type: none"> • <i>Engaging in activities with computers, TVs, or videos</i> • <i>Being at a computer, watching other children using the computer</i>
Other	Other	<ul style="list-style-type: none"> • <i>Being in some other area/engaging in some other activity than listed for the previous codes</i>
N/A	Not Applicable	<ul style="list-style-type: none"> • <i>Child is Outdoors or in Transition</i>
Can't Tell	Cannot tell	<ul style="list-style-type: none"> • <i>Cannot tell</i>

Coding Rules

- ***If the focal child is participating in an activity in which 50% of the class is participating and the teacher is leading the activity or providing instruction, then Group Time should be coded.*** For example, if the focal child goes to the easel, when center time starts, and begins to draw, Art should be coded. If the whole class is at a table and the teacher gives out materials to make a craft and then gives instructions and information, Group Time should be coded.
- ***Teacher-arranged and led gross motor physical activity “trumps” or preempts any other indoor physical context in which children may be engaged. However, Teacher-Arranged is only coded when the teacher has planned a gross-motor activity, has arranged the space (with or without materials), is leading the activity, and remains an active participant in the activity.*** The gross-motor activity can be directed to only one child or the whole group. If a group of children with the focal child are already engaged in a gross motor activity and the teacher joins them and starts providing cues or prompts to them, this is not Teacher-Arranged. In this case, the code used for indoor context should be one defining the activity context the focal child is engaged in (e.g., if they are dancing in the Music Center, Music should be coded for Indoor Context and Dance for Activity Type). If the teacher stops leading the teacher –arranged gross motor activity that she has planned, arranged and has been leading, or if she moves away from the child or children and is not leading and interacting with them, GrossMotor should be coded.
- ***Group Time “trumps” or preempts any other indoor physical context in which children may be engaged except for Teacher-Arranged (in which the teacher has planned, arranged and is leading a gross motor activity) and for Videos (in which children are watching TV or a videotape).*** Thus, if the children are in a large group formally organized by the teacher, Group Time is coded unless the children in the group are watching TV or videotape or engaged in a gross motor activity planned and led by the teacher.
- ***Inside games should be coded according to the flowing structure:***
 - If the game is for gross motor activity, and it is organized and led by the teacher; the indoor context should be coded as TeacArranged.
 - If the game is for gross motor activity, and the teacher-arranged conventions are not met (i.e., the teacher leaves the area, does not lead the game); the indoor context should be coded as Gross Motor unless the conventions for group time are met. Gross Motor games include Duck-duck-goose, ring toss, Hopscotch, etc.
 - Sedentary games in which group time criteria are met should be coded as Group Time. This will most likely be the case for a sedentary game, i.e. Heads-Up, Seven-up.
 - Board games should be coded as Group Time if the activity meets the criteria for group time (teacher providing instruction, 50% of the class).
 - If the group time criteria are not met, and the focal child is using the game appropriately, then code = Books/Preacademic. Most board games for preschool children are designed to aid in counting, word association, memory, etc.
 - If the focal child is not engaged appropriately in the game, i.e. throwing game pieces, then the indoor context should be coded as Manipulative. If this occurs, the observer should make a note indicating the circumstances and the activities being performed.

- In **Is the child participating in an activity that is teacher arranged, led, and for the purpose of gross motor activity?**
- **Preparation and clean-up** periods are coded by activity in relation to indoor context. For example, if the focal child is preparing the table for snacks, indoor context should be coded as Snacks. Similarly, if a child is told to clean up and get ready to go outside and they are putting away materials, the indoor context is Sociodramatic.



CODING RULE EXAMPLES

- Indoor context

Code: Videos

Code: Group Time

Code one area that applies:

Code one activity that applies:

Art, Books/Preacademic, Gross Motor, Lg Blocks, Manipulative, Music, Nap, Self Care, Snacks, Sociodramatic, Time out, Videos

Art, Books/Preacademic, Gross Motor, Lg Blocks, Manipulative, Music, Nap, Self Care, Snacks, Sociodramatic, Time out, Videos

E. OUTDOOR/GYM EDUCATIONAL/PLAY CONTEXT CATEGORY

The Outdoor/Gym Educational/Play Context Codes represent involvement with specific outdoor play settings (e.g., fixed equipment, open space) or materials (e.g., portable equipment, balls and throwing or jumping objects) and is ONLY recorded when the focal child is located outdoors or in a large gymnasium/room during the observation interval. If the focal child was indoors and not in a gym or physical activity/recreational room or he is in Transition, NA is recorded for not applicable.

Twelve outdoor/gym educational/play contexts along with Other, NA, and Can't Tell codes may be coded and are described below. Higher order activities are those, which "trump" location such as riding a scooter in an open space. We want to capture the activity in which the focal child is engaged. Refer to the flowchart for a depiction of higher order codes.

1. Ball- Ball and object play should be coded when the focal child is clearly engaged in a play activity with balls or other equipment for gross motor activities, such as hula-hoops, jump ropes, Frisbees, etc. If the child is carrying a ball with them or playing with a ball in any location, ball should be coded for outdoor context.
2. Fixed- Fixed equipment should be coded when the focal child is engaged with an activity involving the use of fixed equipment such as a jungle gym, play house, swing set, spring toys, etc. Fixed equipment should also be coded when the focal child is waiting for his or her turn on the equipment (waiting in line to ride the tire swing). Fixed equipment should not be coded when the focal child is engaged in some other activity while on the fixed equipment, i.e. socioprop or ball/object play while sitting in the play house.
3. Game- Game should be coded when the focal child is clearly engaged in an outdoor game such as tag, red rover, duck-duck-goose, etc. These games should be formal, meaning they have rules, rather than just a child chasing another child around the playground. It will be important to look for verbal and behavioral rules as to the formality of the games.
4. Open Space- Open Space should be coded when the focal child is in an open area not defined by the other codes and is not engaged with any other activity or material such as games, socioprop, ball/object, wheels, etc. This is similar to the transition code for indoor, in that the child should not be engaged in other activity and the area, which they are in, is not defined.
5. Pool- Pool should be coded when the focal child is physically located in a portable pool (baby swimming pool) or involved in water play such as sprinklers, hoses, and slip-n-slides. If the focal child is playing with other objects while in the pool, the outdoor context should be recorded as Pool. Regardless of what the child is doing, if the child is involved in water play, pool should be coded.
6. Portable- Portable equipment should be coded when the focal child is engaged in activity involving portable equipment that the teacher has brought out for play. This does not include balls/objects, socioprops, wheel toys, etc., but does include sand/water tables, pop-up tents, etc. Similar rules apply for portable equipment as for fixed equipment. If the child is engaged in a higher order activity (balls, socioprops, wheels) while using portable equipment, the higher order activity should be coded.

7. Sandbox- Sandbox should be coded when the focal child is physically located in the sandbox or clearly defined digging/sand play area, regardless of what he or she is doing. Similar to pool, sandbox should be coded when the focal child is in or around the sandbox, even if they are playing with other objects in the sandbox.
8. Snacks- Snacks, meals, and food activities should be coded when the focal child is participating in an activity that involves the preparation of and the eating of real food. Snacks should be coded when children are setting the table, passing out food, cooking and preparing foodstuffs, and eating or have food accessible. If teachers are using a cooking activity such as popping corn during large group time with about 50% of the children present, indoor context should be coded as Group Time. This will most likely only occur outdoors during warm weather months, when the children may have ice cream or special frozen treats, fruit, etc.
9. Socioprops- Socioprops should be coded when the focal child is engaged with play involving a prop that can be used for sociodramatic play or any prop that is not used for gross motor play or wheels. Socioprops does not include any organic objects such as sticks, leaves, or bugs. Socioprops are typically small objects that are brought from inside for play outside. Examples include: dolls, cars, trucks, books, buckets, blocks, sidewalk chalk. Remember that water toys such as water guns, and spray bottles are considered socioprops when they are removed from the water play area. Similarly when digging tools are removed from the sandbox or digging area, they are considered socioprops.
10. TeacArranged- Teacher arranged and led gross motor physical activity should be code only when the teacher arranges or transforms space, materials, or an activity for the purpose of gross motor activities. In addition, formal gross motor activity with the focal child has to be led or supervised by an adult with (e.g., obstacle course, bean bag race) or without equipment (e.g., exercising, gymnastics without apparatus).
11. Time Out- Time out should be coded when the child is placed in a separate area as a punishment for disciplinary reasons. Regardless of where the child is or what he/she is doing, if they are in “time-out”, it should be coded. Activity level and type should match the child’s behavior. If it is not clear whether or not a child is in time-out, the observer should ask the appropriate adult.
12. Wheel- Wheel should be coded when the focal child is engaged in play with a wheeled object such as a bicycle, tricycle, scooter, wagon, Hotwheels, etc. If the focal child is pushing, rising, or sitting on any piece of wheeled equipment, that is not fixed, the outdoor context should be coded as Wheels.
13. Other- Other is recorded if the child is somehow participating in or located within an educational/play activity or area not otherwise designated above. If other is recorded, the observer should make a note indicating what the child is doing.
14. NA- NA is coded when the focal child is located in the Transition or Indoors Location

15. Can't Tell- Can't tell is coded when the focal child is participating in activities that you cannot see. *If you code Can't Tell, see your coordinator after the observation to discuss the event.*

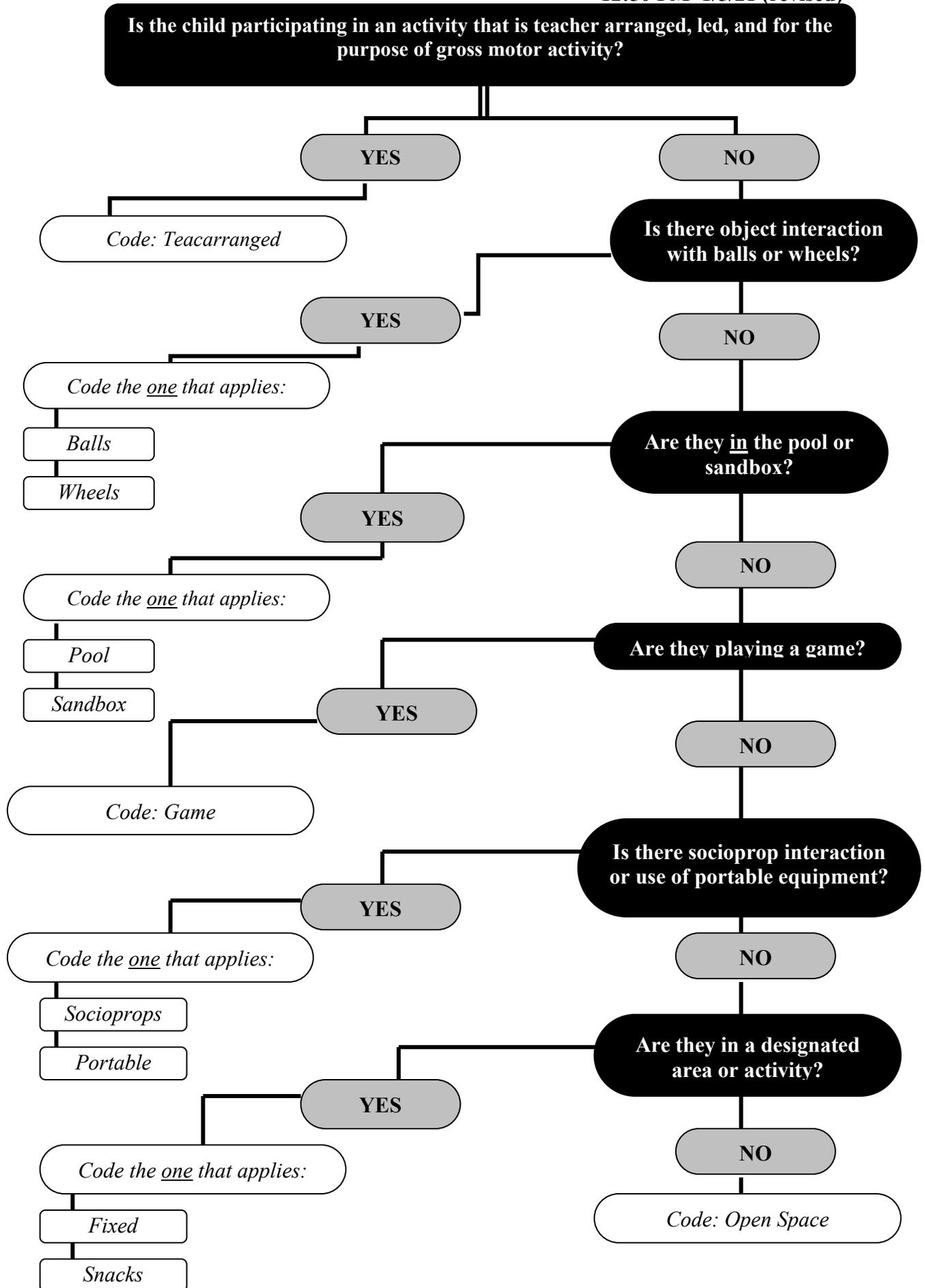
Code	Code Name	Definition
Ball	Ball/object play	<ul style="list-style-type: none"> • <i>Engaging in activity with objects used for gross motor activities such as balls, throwing toys, jump ropes, hula hoops, etc.</i>
Fixed	Fixed equipment	<ul style="list-style-type: none"> • <i>Engaging in activity with large fixed playground equipment</i> • <i>Being in a designated area for large fixed playground equipment such as slides, jungle gym, swings, and other large equipment that can be climbed on or used for large motor activity</i> • <i>Waiting for a turn on fixed equipment (swings, monkey bars, etc.)</i>
Game	Formal game	<ul style="list-style-type: none"> • <i>Participating in a well-known preschool game such as Duck-Duck-Goose, Red Rover, Tag, etc.</i>
Open Space	Open space or non-designated area	<ul style="list-style-type: none"> • <i>Being in an open outdoor area that is not one of the other outdoor locations or activities</i>
Pool	Outdoor pool	<ul style="list-style-type: none"> • <i>Being in and around a pool or other water play (slip-n-slide, sprinklers, hose)</i> • <i>Using pool materials (water guns, buckets, water toys) in the pool area</i>
Portable	Portable equipment	<ul style="list-style-type: none"> • <i>Using physical activity equipment brought by teachers to the playground (not fixed equipment, wheel toys, or ball and object toys)</i>
Sandbox	Sandbox	<ul style="list-style-type: none"> • <i>Being in a sandbox or a designated area for a sandbox</i> • <i>Engaging in activities using sandbox materials (e.g., pail full of sand) in the sandbox area</i>
Snacks	Snacks, meals, and food	<ul style="list-style-type: none"> • <i>Eating food during a snack or mealtime (including setting the table, passing out food, and preparing food stuff, cleaning up the table)</i> • <i>Being located in an area that is being used food preparation</i>
Socio-Props	Small Sociodramatic play props	<ul style="list-style-type: none"> • <i>Engaging with small sociodramatic play props that are brought outdoors or to an indoor gym area (does not include outside debris, sticks, leaves, etc.)</i>

Code	Code Name	Definition
Teac Arranged	Teacher arranged and lead gross motor physical activity	<ul style="list-style-type: none"> • <i>Being involved in a formal gross motor activity that has been arranged by and lead by an adult with (e.g., obstacle course, bean bag race) or without equipment (e.g., exercising, gymnastics without apparatus).</i>
Time Out	Time out	<ul style="list-style-type: none"> • <i>Child is placed in a solitary time-out as a punishment for disciplinary reasons</i>
Wheel	Riding/push toys	<ul style="list-style-type: none"> • <i>Touching, riding, or pushing wheel toys that are not fixed equipment</i>
Other	Other	<ul style="list-style-type: none"> • <i>Other Outdoor/Gym Educational Play Context than the delineated above</i>
N/A	Not Applicable	<ul style="list-style-type: none"> • <i>Child is Indoors or in Transition</i>
Can't Tell	Cannot tell	<ul style="list-style-type: none"> • <i>Cannot tell</i>

Coding Rules

- A bench that exists on the playground or in the gym is not considered fixed equipment because it is not intended for use as a play object per se, and therefore should be coded as open space.
- *Teacher-arranged gross motor physical activity “trumps” or preempts any other outdoor/gym context in which children may be engaged. However, Teacher-Arranged is only coded when the teacher has planned a gross-motor activity, has arranged the space with or without objects, and is leading the activity.* The gross-motor activity can be directed to only the focal child or a group of children with the focal child. If the children are already engaged in a gross motor activity and the teacher joins them and starts providing cues or prompts them, this is not Teacher-Arranged. The code chosen should define the activity context the focal child is engaged in (e.g., if they are playing basketball, Ball should be coded). If the teacher is leading a gross motor activity she has planned and arranged and stops leading the activity or moves away from the child or children and is not interacting with them, the Outdoor Context Code directly linked to the activity type the focal child is engaged in should be coded (e.g., if the teacher is leading an obstacle course that includes fixed equipment and during the observation window the focal child is climbing it, Fixed Equipment should be coded).
- *Other* is recorded if the child is somehow participating in or located within an educational/play activity or area not otherwise designated above. If other is recorded, the observer should make a note indicating the activity that the child is engaged in.
- Socioprops should be coded when the focal child is interacting with an appropriate object, and also if the child is clearly interacting with a child or group where socioprops are being used. If unsure of the interaction, the focal child should be coded in open space.
- Socioprops should be coded when the focal child is playing with water guns and spray bottles outside of the water play area. For example: when a child is in the pool pouring

water from a bucket, the outdoor context should be coded as Pool. If the child then takes the bucket to the fixed equipment, the outdoor context should be coded as Socioprop.



F. INITIATOR OF ACTIVITY CATEGORY AND CODES

Activity initiator is defined by who selected the activity area where the focal child is located or the activity in which he is involved. Although observers watch the focal child during the five-second-observation interval, they should remember that information about who started the activity might be obtained from adult or child behavior before any specific five-second observation window. For example, a teacher may initiate a painting activity during the 25-second recording time period before a five-second observation interval. If the child is involved in that adult initiated painting activity or is located in the activity area for painting, then the activity initiator is coded as adult initiated even though the activity was started prior to the five-second observation interval. In addition, the activity may last for a relatively long period of time (e.g., 15 minutes) and the initiator will still be an adult if the teacher had initially arranged the area for art activities and the focal child continued to paint during that time period without becoming involved in another activity. The following three activity initiator options may be coded.

Code	Code Name	Definition
Adult	Adult initiated	<p><i>The activity area or the activity in which the focal child is observed was selected or clearly started by an adult</i></p> <ul style="list-style-type: none"> • Adult tells the focal child to go to the sink and wash his or her hands and the focal child complies • An aide has selected a story and is reading it to children during Group Time • Teacher asked child to draw a picture and then they can go to sociodramatic play center
Child	Child initiated	<p><i>The activity area or the activity in which the focal child is observed was selected by the focal child</i></p> <ul style="list-style-type: none"> • During center time the focal child moves from a sensory water play activity that was teacher initiated to the sociodramatic play area • Child selects his activity of choice without the teacher requiring his presence or involvement • Teacher is present and interacting with the focal child but the child choose to be in the large block area
Can't Tell	Can't tell who initiated activity	<p><i>It is impossible to determine the initiator of the activity in which the focal child is engaged</i></p> <ul style="list-style-type: none"> • The observer arrives and begins coding after an activity has begun and cannot tell who initiated the activity and is unable to ask a teacher.

Coding Rules

- If you cannot determine who initiated the activity for a specific observational interval, try by the next observational interval to determine the activity initiator with contextual information. For example, if it's center time and children are usually allowed to self-select learning centers and activities during it, then code Child initiated until you can clearly determine that the teacher initiated another activity. As another example, if it is Group Time and the teacher usually plans and initiates Group Time, then code it as a teacher-initiated activity.

G. GROUP COMPOSITION CATEGORY AND CODES

Group is defined by the number of children and adults who are in the same activity area as the focal child or who are engaged in activity with the focal child or are in proximity of the focal child. Group composition is defined first by interaction with another child, group of children or adult, and secondly by proximity (within 5 feet) of another child, group of children or an adult. Remember that Group Composition is not depended on explicit social interaction or engagement with the same materials.

Examples of children who are in the same group include: children doing an art project; children having snack; children playing with the same outdoor equipment (e.g., monkey bars, riding and pushing a wagon); children playing with pretend toys in the kitchen area; children in a group singing a song during circle time; and children who are involved in clean-up. The following six group arrangement options may be coded.

1. Solitary – Solitary arrangement, sometimes known as solitary/alone is coded when the focal child is not interacting with or in proximity of adults or peers. Usually, the focal child will be involved in an activity by himself or herself. Examples include: the focal child is in an art activity area when other children are not in proximity or not involved in an art activity; the focal child is moving to a new activity without passing through another group or by another child or adult (i.e., when there is not a group transition); and the focal child is in time-out.

2. One-to-One Adult – One-to-one adult is coded when the focal child is in an activity area by himself or herself with at least one adult or interacting with an adult. Examples include: the focal child is alone with the teacher at the sink; the focal child goes to physical therapy room or the other side of the room with the physical therapist and the teacher; and the teacher is putting the focal child in time out, the teacher is talking to the child from across the room. This code should be used when there is one or more adults interacting with the child or within 5 feet of the focal child in the absence of a group.

3. One-to-One Peer – One to one peer is coded when the focal child is engaged in an activity or is in proximity (within 5 feet) of 1 peer. Examples include: the focal child is painting at the easels with 1 other child; the focal child is in a pre-academic activity with another child and the teacher is not present; and the focal child is putting together a puzzle with 1 other child, the child passes by another child in the 5-second observation interval.

4. Group Adult – Group adult is coded when the focal child is engaged in an activity with or is in proximity to 1 or more peers and an adult. The adult is considered WITH the group if he or she is sitting at the table with the focal child, is passing out materials to the group, or is in a designated activity area (e.g., sitting in the block area). If the adult moves away from the activity area, but maintains verbal contact during the five-second observation interval, the adult is still considered WITH the group. If the adult moves away, but does not maintain verbal contact during the five-second-observation interval (i.e., by talking to a child or the group), the adult is not considered with the group. Examples include: the focal child (along with 2 other children) are read a story by an adult; the focal child and one other child are working on a pre-academic activity with the teacher present; and the focal child and the teacher are playing catch with 2 other children on the playground. This can also include more than one adult in the group.

5. Group Child – Group child is coded when the focal child is engaged in an activity with 2 or more peers and no adult. Examples include: the focal child and 2 children are playing in the

sensory bin; the focal child and 3 children are riding tricycles in proximity to one another and following one another; the focal child and 1 other child are walking in a line to the bathroom; the focal child runs past a group of 2 or more children on the playground.

6. Can't Tell – Can't Tell is coded when you cannot see the size of the group cannot be determined.

Code	Code Names	Definition
Solitary	Solitary/alone	<ul style="list-style-type: none"> • <i>Engaging in an activity alone and not in proximity to children or adults</i> • <i>Being in an activity area alone, clearly without peers or adults</i>
1-1 Adult	One-to-one with adult	<ul style="list-style-type: none"> • <i>Engaging in an activity with or in proximity to only an adult</i> • <i>Being in an activity area with only an adult</i>
1-1 Peer	One-to-one with peer	<ul style="list-style-type: none"> • <i>Engaging in an activity with or in proximity to only a single peer</i> • <i>Being in an activity area with only a single peer</i>
Group Adult	Group with adult	<ul style="list-style-type: none"> • <i>Engaging in an activity with or in proximity to one or more peers and an adult</i> • <i>Being in an activity area with one or more peers and an adult</i>
Group Child	Group without adult	<ul style="list-style-type: none"> • <i>Engaging in an activity with or in proximity to two or more peers, without an adult in the group</i> • <i>Being in an activity area with two or more peers, without an adult in the group</i>
Can't Tell	Cannot tell	<ul style="list-style-type: none"> • <i>Cannot tell</i>

- ***Group composition should be coded first by interaction, then by proximity.*** “Looking” by either the focal child or by someone towards the focal child does not constitute interaction. When inside, proximity is based on defined areas when applicable. For example, if the focal child is alone in the large block area, and other children/adults are in the sociodramatic area, code = solitary if there is not interaction with the focal child. In non-clearly defined areas inside or when outside, proximity is based on a 5-foot parameter measure. Anyone outside of 5 feet of the focal child should not be considered in group composition. Proximity can also be determined by parallel play (someone slightly outside of the 5-foot parameter, but engaged in activities matching that of the focal child).
- ***Remember that group composition is based upon the focal child’s interaction/proximity to other children or to 1 adult.*** If the focal child is interacting or in proximity to no other children, but to multiple adults, code = 1-1 adult. Also note that while teacher and parents

contribute towards group composition, observers do not unless they are specifically interacting with a child for a necessary non-routine, non-observational purpose.

- **“Passing through” a group or by another adult or child is considered being part of that group if it occurs during the 5-second observation window.** If the focal child is interacting with another child(ren) or adult(s) or in proximity to others at all during the observation period, group should be coded as the appropriate option other than solitary. This includes a walk-by during nap (code = 1-1 adult), running by another child while outside (code = 1-1 peer).
- **Solitary** should be coded when the focal child is alone for the full 5 seconds and does not interact with, or come in proximity of another child, group of children or an adult.
- **Group adult** should be coded when the focal child is engaged with an adult who is part of a group of children, i.e. the focal child asks the teacher a question while playing in the sociodramatic area and the teacher is reading a story to a group of 3 children in the book area, code = group adult.
- **1-1 adult** should be coded when the focal child is engaged with an adult who is in proximity to, but not interacting with a group of children, i.e. the focal child is talking to a teacher who is cleaning the table and is in proximity to children playing in the large block area, code = 1-1 adult.

H. PROMPT FOR PHYSICAL ACTIVITY CATEGORY AND CODES

Prompts are explicit and observable teacher behaviors presented for the purpose of increasing or decreasing the likelihood of children’s responding (Wolery, Bailey, & Sugia, 1988). Adult prompts may be presented before or after children respond. In the Preschool Physical Activity study, we are interested in teacher prompts that either increase and maintain (i.e., facilitative prompts) or that stop and decrease (i.e., inhibitory prompts) children’s physical activity. Bailey et al. (1988) have identified several types of prompts that we will be looking for during the study: (a) verbal prompts, (b) modeled prompts, and (c) physical prompts. Remember, prompts for physical activity should be explicit and observable and clearly linked to an increase, maintenance, or decrease in physical activity.

Code	Code Name	Definition
None	No teacher or peer prompts	<p><i>Child was not explicitly prompted to increase or decrease physical activity or the teacher’s prompt is instructional in nature and unrelated to physical activity</i></p> <ul style="list-style-type: none"> • If the physical activity is an inherent part of a formal preschool game (e.g., “Simon Says”) children’s imitation of physical activity should not be recorded as a teacher or peer prompt for physical activity • If the teacher merely moves a child a short distance or instructs the child to move should not be recorded as a teacher prompt for physical activity • If the teacher tells the focal child, “Karin it’s time to stop fidgeting and sit quietly like David.”
TP-I	Teacher prompt to focal child or a group with the focal child in it to increase or maintain physical activity	<p><i>Teacher prompted the focal child to engage in or maintain physical activity</i></p> <ul style="list-style-type: none"> • Teacher says to the focal child, “Tim run fast as you can!” • While jumping, the teacher says to the focal child, “Jon jump up and down like me.” • Teacher holds the focal child’s hand while running across the playground. • Teacher is leading a group of children with the focal child present in exercises and says, Hey guys, march around the circle like me.”
TP-D	Teacher prompt to focal child or a group with the focal child in it to stop or decrease physical activity	<p><i>Teacher prompted the focal child to stop or decrease physical activity</i></p> <ul style="list-style-type: none"> • Teacher tells Jo, who is peddling furiously, to slow down on the tricycle. • Teacher physically stops Dale from riding her tricycle and says “You have to get off now.”

Code	Code Name	Definition
PP-I	Peer prompt to focal child or a group with the focal child in it to increase or maintain physical activity	<p><i>Peer prompted the focal child to engage in or maintain physical activity</i></p> <ul style="list-style-type: none"> • Peer tells the focal child to run across the playground with him. • Peers on a tire swing request that the focal child run faster or push harder to make the swing go faster. • Peer takes the focal child’s hand and starts running with her across the playground.
PP-D	Peer prompt to focal child or a group with the focal child in it to stop or decrease physical activity	<p><i>Peer prompted the focal child to stop or decrease physical activity</i></p> <ul style="list-style-type: none"> • Peer asks the focal child, “Stop running and let’s sit down.” • Peer tells a group with the focal child who is riding tricycles fast, “Let’s go sit on the car.”
Can’t Tell	Cannot Tell	<i>Cannot tell</i>

- Simultaneous prompting, when the teacher and a group of peers are prompting, should be coded as the higher priority person prompting, code = TP-I/D.

SPECIAL SITUATIONS:

Bus Riding:

If the focal child is on a bus, the observation intervals should be coded as:

- Act Level: Cant’ Tell
- Act Type: Can’t Tell
- Location: Inside
- Indoor: Other
- Outdoor: NA
- Act Initiator: Adult
- Group: Can’t Tell
- Prompts: Can’t Tell

If you can see the child clearly and can tell the activity he or she is doing, those categories may be coded. Observers should make a note of the intervals that this occurs during an observation session and that other was coded because of bus riding.

Special Events:

If the focal child is involved in a special event (Mother’s Day Breakfast, Graduation, Assembly, etc.), code as much as possible without making any assumptions. If a special event is occurring, observers should make a note of the observation intervals that the focal child is participating in

the event (could be the whole session) and what the event is. Other should be coded for the indoor or outdoor context as appropriate if you cannot tell what the child is doing.

- If the focal child is singing at a breakfast and the observer can see the child clearly, it is appropriate to code the child's indoor context as group time (if it meets criteria) and make a note that this occurred during an assembly, breakfast, etc.
- If the focal child is practicing for a ceremony and the observer cannot see the child clearly, indoor context (or outdoor) should be coded as other and a note should be made indicating the activity (intervals 1-60: indoor context = other, child was involved in practice for a graduation ceremony)
- Tumble bus should be coded as Location= Outside, Outdoor Context = Other.