RRSM

Regulation-Related Skills Measure

User Guide

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Appendices

1. Executive Summary

The Regulation-Related Skills Measure (RRSM) is an observational measure of young children's regulation-related skills, including their ability to employ their executive function and self-regulation skills. The RRSM is intended to serve as an ecologically valid, objective assessment of pre-kindergarten and kindergarten children's regulation-related skills in "real world" classroom contexts. It has been validated as a tool for research purposes, which may be used to measure regulation-related skills in order to, for example, support the evaluation of intervention efficacy.

To complete the RRSM, users must undertake the following steps:

1. Identify and train coders (see section 9 of this User Guide)
2. Select "Blocks" and "Segments" for coding (see section 8)
3. Code (see section 11)
4. Score (see section 13)

In this manual, we provide background information on the RRSM, its conceptual framework, and guidelines for its use and applicability. For further information, please see the *Frequently Asked Questions* section at the end of this manual, or contact us directly.

Sincerely,

The RRSM Team

2. Conceptual Background

Four fundamental terms provide the basis for the background, purpose, and conceptual framework of the Regulation-Related Skills Measure:

- *Self-Regulation (SR)*. The ability to control (change, inhibit, initiate, or sustain) attention, emotions, or behaviors in service of meeting a particular goal.

- *Executive Function (EF)*. The higher-order cognitive processes that support self-regulation, including inhibitory control, set (attention) shifting, and working memory (see definitions of these terms below).

- *Regulation-Related Skills (RRS)*. The term we use to describe how well children employ these often internal EF and SR skills in "real world" contexts, given inevitable environmental distractions and emotional arousal.

- *Regulation-Related Skills Measure (RRSM)*. A new tool for measuring specific regulation-related skills, intended for use in pre-kindergarten and kindergarten classrooms.

RRS are a diverse set of skills which together help children control their attention, emotions, and behaviors in everyday settings, such as classrooms. The advancement of these skills is a developmental milestone in early childhood (Ursache, Blair, & Raver, 2012), and has been linked both to children's short-term and lifetime outcomes, including academic and economic achievements (e.g., Blair & Razza, 2007; Duncan et al., 2011; Moffitt et al., 2011; Raver et al., 2011). For these reasons, we believe that it is important for researchers and practitioners alike to have access to an easy-to-use, reliable measure of children's RRS in early childhood classroom contexts.

Currently, there are a number of tools available for measuring SR and EF in young children. For example, both standardized, task-based assessments and adult reports of children's behavior at home and in school are frequently used for research and evaluation (Jones, Zaslow, Darling-Churchill, & Halle, 2016). The existing approaches have limitations as well as strengths. Task-based measures, for instance, are largely objective measures that target specific regulation-related sub-skills, but they are often conducted outside of everyday settings in which children regularly use these skills and thus lack ecological validity. Conversely, adult reports may capture children's behaviors in the "real world," but they may also reflect reporter bias and can be less specific. (See McCoy, 2019 for review of approaches to measuring EF and SR in early childhood.)

The RRSM was created to combine the ecological validity of adult reports with the objectivity and specificity of task-based measures. In doing so, we hope to provide users with an accurate, reliable assessment of children's RRS in real-world contexts.[1]

As such, the RRSM is a measure of the RRS identified by Stephanie Jones' *Executive Function Mapping Project* (Jones, Bailey, Barnes, & Partee, 2016). In particular, it attempts to represent observable, behavioral manifestations of the following cognitive, emotional, and social constructs based on their developmental relevance in the early childhood period:

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[1] Please note that the RRSM is ***not*** currently validated for use as an individual diagnostic or screening tool.

- *Working Memory*. "The ability to maintain and manipulate information over short periods of time" (Jones et al., 2016, p.57).

  > e.g. When a teacher gives a novel instruction including three distinct steps, children must employ working memory to recall and enact all three steps correctly and in the correct order. For instance, "Today we will try a *brand new* math game! This game has three parts: (1) roll two dice; (2) count all of the dots on both dice; (3) write down how many dots you counted."

- *Inhibitory Control*. "The ability to inhibit or suppress a dominant response in favor of a subdominant response" (Jones et al., 2016, p.57).

  > e.g. The teacher is reading a story to the class and stops to ask a question. Inhibitory control helps children overcome the impulse to simply "call out" their answers, and instead raise a hand and wait to be called on.

- *Attention Shifting*. "The ability to transfer focus from one object or task to another or to willfully move from one activity to the next (Wiebe et al., 2011)" (Jones et al., 2016, p.58).

  > e.g. During a writing activity, a child might shift between composing narration and illustrating the story. This child might also shift attention to a teacher who arrives to give feedback, or to a Word Wall for help with spelling.

- *Sustained Attention* (termed "Attention Control" in the *EF Mapping Project*). "The ability to voluntarily focus or sustain attention on a given task" (Jones et al., 2016, p.58).

  > e.g. While working on a puzzle, attention control helps children stay focused on the puzzle and ignore distractions until it is complete.

- *Wait/Delay*. "The ability to voluntarily postpone immediate gratification and persist in goal-directed behavior for the sake of later outcomes (Mischel et al., 1989)" (Jones et al., 2016, p.59).

  > e.g. Children stand in line, waiting to select books from a shelf. Rather than pushing to the front, the child in the back of the line must wait his/her turn.

- *Planning* and *Monitoring*. Planning ahead in order to successfully complete a task, including setting goals, monitoring progress, and correcting mistakes. Planning and monitoring involve the compilation of multiple EF and SR skills (see Jones et al., 2016, p.59-60).

  > e.g. A child decides to play with building blocks during indoor recess. S/he thinks about what s/he would like to create, and sets the goal of building a castle. After constructing the castle's outer walls, the child realizes that s/he has forgotten to include a door and so removes one block, creating an opening.

- *Emotion Regulation*. "The ability to manage, modulate, inhibit, and enhance emotions to facilitate adaptive functioning" (Jones et al., 2016, p.60)

  > e.g. The teacher introduces a science experiment that the class will conduct together – it is very exciting! Children must keep their excitement in check, rather than becoming overwhelmed by it, in order to participate appropriately and safely in this activity. Children may also need to regulate their behavior

while emotionally aroused; for instance, resisting the temptation to jump up and down while the teacher is describing the experiment.

3. Purpose & Aims of the RRSM

The primary purpose of the RRSM is to serve as an ecologically valid, observational method for quantifying pre-kindergarten and kindergarten children's RRS in the "real world" setting of their early childhood classrooms. More specifically, the RRSM aims to meet a need not filled by other tools available for RRS measurement by:

1. precisely measuring children's ability to employ EF and SR skills in the face of regular classroom distractions and emotional arousal,

2. remaining clear and straightforward, while simultaneously providing sufficient detail and nuance to inform those working to support children's RRS development in early education contexts, and

3. demonstrating psychometric validity and reliability.

Please note that the RRSM is **not** currently validated for use as an individual diagnostic or screening tool. That is, it does not provide information as to whether individual children are meeting specific benchmarks or are in need of supportive intervention.

4. Accessing Information

The RRSM and its supporting documents are free and available for use by researchers interested in measuring children's RRS (see *For More Information* or visit our website at https://projects.iq.harvard.edu/rrsm/home).

Basic Definitions

Throughout this *User Guide*, we employ specific terminology to describe the use of the RRSM. In order to ensure the accessibility of the information presented here, we've defined these terms:

- *Coder*. A person who "fills in" or completes the RRSM. This person assigns "ratings" for each of the 16 items. (See Section 9 for additional information.)

- *Rate* or *Code*. The act of "filling in" or completing the RRSM. (See Section 11 for additional information.)

- *Observe* (verb). The act of watching a child or class in order to rate/code the RRSM.

- *Observation* (noun). The period of time spent watching a child while rating/coding the RRSM.

- *Block*. The sequence of classroom events coded using the RRSM. A Block typically comprises a classroom activity and a transition. (See Section 8 for additional information.)

- *Segment*. RRSM Blocks are typically made up of two Segments – an activity and a transition. Segments should be coded independently. (See Sections 8 and 11 for additional information.)

- *Score*. The act of averaging all of the ratings from a single observation to create one final (total) score. (See Section 13 on scoring for additional details.)

5. General Overview of the RRSM

The RRSM is made up of 16 items that are intended to represent the observable behaviors that demonstrate children's use of internal EF and SR processes in early childhood classrooms. Ratings for each RRSM item indicate the consistency with which children do or do not use each behavior or sub-skill *in the given context of the observation*.

While an overview is provided here, each behavior is more thoroughly defined in the *Glossary* (Section 7*)* as well as the *Observation & Scoring Guide* (appendix A). The *Observation & Scoring Guide*, in particular, provides many helpful examples of the kinds of behaviors one might see for each item of the RRSM. While not exhaustive, these examples were carefully selected to give a general profile of what employment of each RRS "Does" or "Does Not" look like in an early childhood setting. ***Relying heavily on these guidelines helps to ensure that coders interpret and code behaviors in the same way, and should be the primary way in which coding decisions are made.***

16 Regulation-Related Skills Measured by the RRSM

Child…
1. Controls physical movements
2. Pays attention to the activity at hand
3. Can shift attention appropriately *within* an activity or task
4. Maintains focus during or quickly returns focus after a disruption/interruption
5. Can ignore distractions during an activity
6. Shows evidence of independent planning or monitoring
7. Shows evidence of listening
8. Remembers and enacts a series of instructions or completes a multi-step activity
9. Co-creates and/or follows group norms or rules when interacting with peers
10. Follows classroom rules and routines independently
11. Can transition to new activities, tasks, or major parts of the day
12. Inhibits inappropriate or automatic responses and enacts appropriate responses
13. Modulates emotional arousal or maintains appropriate level of emotional arousal in response to classroom expectations
14. Regulates behavior in the face of own emotional arousal
15. Is able to wait for something
16. Shows evidence of ability to cope with social dilemmas and conflicts with peers

 "Codes" or "ratings" are assigned for each of the 16 RRSM items during each observation. If multiple children are coded during a single observation, separate codes should be assigned to each individual child in order to assess his/her unique use of RRS during that time. When assigning codes, raters determine whether the focal child "Does" or "Does Not" demonstrate the behavior described in each item. (For a more detailed description of RRSM coding, please refer to Section 11.)

6. Assumptions & Considerations

When using the RRSM, several background assumptions and considerations regarding the measure, its scope, and its goals must be kept in mind. These shared assumptions and considerations serve a dual purpose: first, to support reliability across coders; and second, to ensure that codes are capturing RRS (and not inadvertently capturing something else).

- *Goal-Directed Behavior.* SR and EF are inherently goal-directed. This means that children's regulation of thoughts, feelings, and behaviors operates in service of meeting a particular objective or goal. This is true of both automatic and effortful regulation. Because such goals are internal and cannot be directly observed, ***the RRSM assumes that children are regulating with the intention of meeting the goals established by the teacher and classroom setting***. In other words, coders should rate all items based on how well children are regulating themselves toward meeting the objective of the classroom (e.g., to complete the worksheet, to play at the sand table), not any other goal that the child may have set for him/herself (e.g., to *avoid* completing the worksheet, to throw sand on the floor). As a more in-depth example, consider a situation where children are assigned to use blocks for a counting activity, but instead the target child uses the blocks to build a tower, or doesn't use the blocks at all but chats with a neighbor. Since this child does not appear engaged in the assigned task (i.e., is not working toward the overarching classroom goals), coding on many RRSM items would likely indicate dysregulation.
  - *Compliance.* At the same time, the goal of the RRSM is to identify children's RRS, and not their ability to comply with demands from others in the classroom. This is addressed throughout the *Observation & Scoring Guide* (Appendix A); for example, when coding *Item 7* regarding listening, we purposefully do not code based on whether the child follows directions but rather whether s/he is demonstrating listening behaviors such as looking at the speaker. To further avoid confounding RRS with compliance, *coders should look for moments in which children are directing their own behavior, forming their own rules, and motivating their own actions* (e.g., student-directed activities such as free-play or a dramatization center). It is likely that this type of self-directed behavior will be less frequent in certain types of activities (e.g., a highly scaffolded transition in which the teacher dismisses one child at a time from circle, a direct-instruction phonics lesson). As such, users may choose to keep careful track of what is happening in the classroom using the *Contextual Checklist* (see Section 12 and Appendices C and D) in order to understand how a child's RRS use may differ when supported by adults or peers.
- *Rules & Routines*. The norms surrounding classroom rules and routines are often unstated. When scoring items that involve rules and routines, the coder may necessarily need to make assumptions about what is expected of children in a given early childhood classroom. For example, coders can assume that pushing in chairs, using inside voices, raising hands before answering questions, walking instead of running, etc., are established rules and routines in most classroom settings. Coders should also use cues from specific classrooms (e.g., teachers' verbal instructions, posters with classroom rules) to glean the expectations specific to each setting or activity. In most classrooms, for

example, children may be expected to raise their hands before speaking, in which case the following guideline for *Item 15* would certainly inform coding:

- o Child raises his/her hand during a whole-class lesson, rather than shouting out

Conversely, if the observed classroom or activity does not appear to require hand-raising (e.g., all children are "calling out" and the teacher responds positively), then a child who does not raise his/her hand is demonstrating situationally appropriate behavior and coders should not enforce this particular guideline from the *Observation & Scoring Guide*.

- *Item Wording.* All RRSM items begin with the phrase, "child…" followed by a specific behavior. Most of these behaviors are indicated by a verb (e.g. "*controls* physical movements", "*regulates* behavior"). Three items, however, use the wording, "shows evidence of…" (e.g. "*shows evidence of* listening"). These three items represent skills that may not be directly observed through only one type of behavioral manifestation, but may take the form of many different behaviors for different children and in different contexts. For example, we cannot directly observe listening, but a child who is listening may display behavioral evidence in the forms of eye contact, body position, and/or physical or verbal response to the speaker.

- *Other Skills*. Though the RRSM includes items related to social interaction (e.g., *Item 16*) and physical movement (e.g., *Item 1*), it is designed first and foremost to measure children's RRS. Thus, it may be possible for a child's score on the RRSM to indicate a high level of regulation even as the same child might score poorly on a measure of empathy or motor development, since these are unique cognitive and physiological functions (see *Frequently Asked Questions* [Section 15] and the *Observation & Scoring Guide* [Appendix A] for more information). These are significant considerations both when selecting a measurement tool, and when scoring the RRSM.

- *Developmental Expectations*. The wording of the *Observation & Scoring Guide* is purposeful and is intended as a reminder that no child should be expected to enact these skills *all* of the time, or to enact them flawlessly. In other words, the RRSM does not assume that young children have fully developed their regulatory capacities, but rather that they may show a range of competencies across different situations. In this way, a code of "Does Not" should be considered descriptive rather than a negative judgement. For example, two of the "Does" guidelines for *Item 2. Pays attention to the task at hand* read,
    - o Child spends the *majority of the time* involved in the task. Child looks at teacher or peer, book, materials, etc. that s/he is supposed to be looking at.
    - o *Child may look away briefly*, but returns to the task independently.

Here, the words "majority of the time" and "Child may look away briefly" are a cue that even well-regulated children are not expected to focus their attention unwaveringly, but rather to do so *Consistently, with few exceptions* for the *majority* of the observation. In this way, the measure accounts for minor deviations or transgressions that are developmentally normative. In other words, a rating of "Does Consistently" may be given even for young children whose RRS are still developing.

- *Special Cases*. There may be rare cases that simply do not lend themselves well to coding with this measure. Some behaviors depart from what is typical to such a degree that they no longer make sense within the RRSM framework and should not be coded.

For example, a child who regularly does not engage with people or events in the classroom, but rather faces the wall during activities throughout the day. Something other than self-regulation is likely involved in such cases, and it is not within the scope of the RRSM to capture behaviors of this kind. These are, however, extreme cases, and small deviations from norms can be captured by the RRSM. For example, as noted above under *Goal-Directed Behavior*, a child who is engaged in the classroom (interacting with peers, teachers) but is not participating in an assigned task should still be coded using the RRSM.

7. Glossary of RRSM Terms

The RRSM uses some everyday terms in specific ways. In an effort to provide clarity and ensure that users interpret the measure in the same way, we have included some specific definitions below. **We recommend that users print this glossary and use it alongside the *Observation and Scoring Guide* (Appendix A) when implementing the RRSM.**

- *Disruption*. We define disruptions as *specific* and *short-lived* events occurring in the child's environment, which are likely to draw attention away from a task/activity. These are (1) acute and focused on the child (e.g., a peer knocks the child's paper on the floor during a writing activity), or (2) acute and affect the whole classroom (e.g., an alarm going off, something happening through the window outside, or an announcement over the PA system). If a teacher gives a direction (or redirection) or a peer engages the child in productive, relevant conversation, this should not be considered a disruption. However, if a peer or teacher interrupts the child with off-topic conversation, this should be considered a disruption.

- *Distraction*. We consider a distraction to be any feature of the classroom environment that *could* draw attention away from a task. As such, distractions are stimuli that exist in the space around a child. Ambient noise from an activity across the room, others' conversations, people entering or leaving the classroom, or movement in the background, could all be considered distractions. We consider these environmental features to be distinct from disruptions, which are more major, acute in nature, and time-bound. Distractions, in contrast, are less severe, more general, may be a regular or predictable part of an activity (e.g., children talking or walking around nearby), and could be present for the entire coding period. For example, a videographer/coder is a distraction, except in the first few minutes after his/her arrival when s/he is likely a disruption. While distractions are primarily external to the child, there are some instances where a child may distract him/herself through stimulating actions like talking or rubbing a textured carpet.

- *Routine*. We consider a routine to be a series of steps taken in or between activities, which have been internalized and no longer require working memory to complete. Rather than something that requires recalling and keeping top-of-mind a series of steps, a routine is something which a child can enact on his/her own without active recall. Some examples include clean-up, lining up, and knowing that a call to circle time requires children to sit on the edge of a mat with their legs crossed and ready to listen to the teacher. This stands in contrast to a novel series of instructions or steps, which would require working memory (holding the steps in one's mind) in order to complete or enact.

- *Transition*. A transition occurs when a child moves from one major activity to another, and will typically include a physical movement of some sort (e.g., walk from one center to another, switch from standing to sitting on the carpet). Transitions are often accompanied by a change in physical space from one area to another and may involve clean-up, though not necessarily. Classroom teachers may also offer cues for a transition by saying things like, "OK, it's time to clean up," or "Let's all come to circle now." Often, the whole class will transition together, though you may also see individuals transition independently (e.g., one child finishes a center-based math worksheet and transitions to a new task). (For additional information on transitions, see Section 8.)

- *Shifting*. Shifting occurs when a child moves fluidly *within* an activity from one part to another. A child may shift from dancing to "freezing" during a whole-class movement activity, switch roles with a peer in a paired activity, or move between the steps of an individual activity. For instance, in a painting task, a child might first put on a smock, attach paper to the easel, select a paintbrush and paint, begin painting, wash the paintbrush, get a different color of paint, and continue painting. In a partnered reading activity, children may take turns being the reader, requiring shifts between reading and listening. The need to shift between speaking and listening may also be observed during whole-class or small-group teacher-directed activities, during which the teacher may ask a question and then invite children to respond. We distinguish these smaller shifts in an activity from a transition, which involves departing from one activity and beginning another. Similarly, shifting within an activity is distinct from a change in attention due to a distraction/disruption. If a child shifts attention to and then from a distraction, this should only be coded as a distraction to avoid redundancy.

- *Support*. The word "support" is used throughout the RRSM *Observation & Scoring Guide* (Appendix A) to mean any sort of verbal or physical cuing, reminders, or directions, *initiated by peers or adults*. For example, the teacher might notice a child carrying his/her lunchbox and remind that child to wash hands before snack; in another example, one child might remind another that it is not yet his/her turn in a board game. However, *independent* use of classroom tools (e.g., using dress-up clothes to designate roles in play, looking at a "job wheel," passing a "talking stick") and collaborative conversations between children (e.g., deciding who will wear the crown in dress-up, or who will use the blue marker first) do not fit this definition of "support," since the child has chosen to implement these tools or strategies on his/her own without external intervention.

8. Selecting Blocks & Segments for Coding

To account for different settings in which children must regulate, the RRSM was originally designed to focus on both teacher- and student-directed activities, as well as transitions between activities. The remainder of this *User Guide* describes the coding procedure used by the developers of the RRSM to ensure representation of these activities and transitions. However, users may choose to amend this process based on their specific needs. (For example, users may choose to code only teacher-directed activities and transitions, they may choose to code only transitions, they may choose a shorter or longer duration for activities, etc.) We **strongly** encourage users to clearly describe any deviations from this original protocol when publishing their results, as well as any attempts they have made to validate their own procedures.

The original RRSM coding procedure utilized video recordings of classroom settings that were subsequently divided into at least two observational **Blocks** for each child, with each block containing two **Segments**. Each Segment was then coded independently, resulting in at least 4 sets of codes for each child.

- One *Block* should consist of approximately the last five minutes of a *teacher-directed activity* (*Segment 1*), plus up to five minutes of the subsequent *transition* to a new activity (*Segment 2*). Teacher-directed activities can involve the whole class (e.g., circle time, story time) or a small group of students (e.g., guided reading group, teacher-led discussion).

- One *Block* should consist of approximately the last five minutes of a *student-directed activity* (*Segment 3*), plus up to five minutes of the subsequent *transition* to a new activity (*Segment 4*). Student-directed activities include any activity in which the students have autonomy in creating their own goals, rules, and/or objectives (e.g., free play, small-group discussions not supervised by teachers, etc.). They can also include activities in which the teacher is present as a participant, rather than leading the activity.

A Note on Activities

Activities are generally easy to identify and have a clear start/finish. However, the following guidelines may support consistent Segment identification and coding:

- *Activity Length*. Both student-directed and teacher-directed activity Segments should last approximately five minutes, but may be as short as four or as long as seven minutes. However, activities may last longer than four to seven minutes in early childhood classrooms, in which case coders should begin scoring four to seven minutes before the end of the activity. Ideally, this point will coincide with a natural shift in the activity, though this will not always be possible. For example, if children are playing dress-up for 30 minutes, but switch from playing house to playing doctors at 24:50, then coders should begin scoring the activity at 24:50 and continue until the transition begins. The person responsible for reviewing video footage and selecting RRSM Segments can help "set the stage" for coders by writing a brief description (one or two sentences) outlining what occurred during the uncoded portion of the activity. However, it is important that such descriptions be written in neutral language to avoid influencing coders' perceptions of children's RRS.

- *Student-Directed Activities.* Activities should be considered student-directed if a child(ren) is *leading* the play or the task, even if the teacher is present. Imagine, for example, a group of children playing cards or working together on a puzzle. The teacher sits with them, provides support, makes conversation, and perhaps even engages in the play, but s/he does not direct or lead the activity.

- *Child Participation in Activities.* An activity Segment can be selected for RRSM coding if the focal child is supposed to be engaged in the activity, even if s/he does not actively participate. For example, children are working independently on a phonics worksheet. The focal child is seated with a pencil and a copy of the worksheet, but is drawing animals on the paper instead of completing the exercise. This Segment could still be coded as a child-directed activity for this student, though s/he would likely rate in the "Does Not" range for *Item 2. Pays attention to the activity at hand*.

A Note on Transitions

The exact beginning and end of a transition is often ambiguous, particularly in classrooms that rely heavily on routines that children may have internalized. To aid users in identifying transitions for RRSM coding, we offer general recommendations as well as guidance on specific situations that often arise during transitions:

- *Transition Length.* Transition Segments can be as short as 20-30 seconds or up to five minutes, and should include the entirety of the transition whenever possible, ending when the subsequent activity begins. The beginning of a new activity may be signaled by a cue from the teacher (e.g., "Everyone begin your worksheets now."). However, an auditory cue may not be given during independent activities such as centers, in which case the transition should be considered over when the focal child begins the activity; if the focal child does not begin the designated activity promptly, the transition should be considered over when 75% of the other children in the class have begun. If a transition lasts longer than five minutes, only the first five minutes should be coded.

- *Physical Movement.* Transitions should be accompanied by a physical movement of some kind (e.g., children move from sitting in a circle on the carpet to sitting in chairs at a table, the class transitions from a seated to a standing activity).

- *Transition Identification.* RRSM transitions should be purposeful, and will often include clean-up, though there may be instances in which a child engages in a purposeful transition that does not include clean-up. For example, Child A is playing with blocks during centers. Child B says something like, "Do you want to do a puzzle with me?" Child A does not clean up the blocks since the class is still engaged in centers, but s/he does stop building and move to the puzzle center with his/her friend. This would be considered a transition for Child A. Conversely, a child who spontaneously stops playing and then seems to wander around the room should not be coded as transitioning, since it is not clear whether the child's intention is to transition to a new activity.

- *Whole-Group Transitions.* A whole-class transition begins when the teacher indicates the end of one activity and the transition to a new activity. This may entail ringing a bell, turning on music, giving verbal directions, flashing the lights, or

another signal specific to the classroom. When this signal is given, coders should cease scoring the activity Segment and begin coding the transition Segment, even if some children do not begin their physical transition right away. For example, as children transition from circle time to free-play, a teacher may dismiss children wearing t-shirts, then children wearing long-sleeve shirts, then children wearing sweaters, etc. In this instance, children wearing sweaters should be coded under *Item 15*, waiting, during the first portion of the transition. However, if no such clear signal is given to the class, then coders should begin rating the transition when 75% of students have begun moving toward the next activity.

- There may be instances in which children transition at different times. For example, as children finish work at independent centers they may transition to an anchor activity. In these instances, one child may be coded in a student-directed or teacher-directed activity while another is coded as transitioning. The activity preceding the transition should last a minimum of four minutes for the child who transitions first, but may exceed seven minutes for the child who transitions last.

- There may be instances in which a child starts a transition, returns to the initial activity, and then completes the transition. For example, a child is working at an independent center and starts to clean-up, but as s/he cleans realizes that s/he has forgotten one step in the activity and so returns to finish the activity. Coders should not begin rating the transition Segment until the child finally completes the activity and recommences clean-up.

- There may be transitions during which children leave the classroom (e.g., to go to Art class) or are not visible in video-recorded footage, and so the entire transition cannot be observed. It is preferable to code a transition where the focal child is visible the entire time, but partial transitions can be coded as long as a minimum of approximately 20 seconds can be clearly observed and confidently coded. Videographers should not follow children out of the classroom, and as such it will be impossible to rate the entire transition for children involved in a transition to outdoor recess or a special subject class (e.g., Art).

9. Coders

For the purposes of this Guide, the people completing the RRSM are referred to as "Coders." Selecting and training coders is an important part of reliable RRSM coding.

Selecting a Coding Team

We recommend establishing a team of coders, each of whom

1. has experience working in classrooms and/or with children of the grade being observed, and

2. has this experience in the country/culture in which the study is being conducted.

Importantly, coders *without* experience in classrooms like the ones being observed may be less reliable in their ability to identify rules and routines, and to interpret children's emotional and behavioral expressions. For example, a coder who has only experienced strict preparatory schools in one country may find it challenging to understand the norms and expectations of a progressive outdoor school in another, and is therefore likely to generate less reliable codes using the RRSM.

Training Protocol

An *RRSM Training Protocol* and *Training Videos* are available on our website for training new coders (https://projects.iq.harvard.edu/rrsm/about). However, we acknowledge that all of the provided videos come from one particular cultural/educational context. If the context in which the coding is being done differs substantially from the context of the training videos, alternative training/reliability approaches that are more locally specific should be used.

10. Guidance for Video Capture

The RRSM was originally developed using video recorded observations. There are no formal rules for capturing video for RRSM coding, as videographers will need to adjust their protocols and strategies based on each unique classroom context. However, we have developed a few guidelines that may help you capture enough footage that meets the criteria for RRSM Blocks and Segments:

- Work with teachers ahead of time to ensure that videographers' presence disrupts classroom routines as little as possible.

- Delay coding for approximately the first 15 minutes that coders/videographers are present in a classroom, so that children may acclimate to the presence of these new adults.

- Avoid the collection of data during snack, lunch, and other mealtimes, which are often neither purely teacher- nor student-directed and engage a particular set of routines and expectations.

- Engage two videographers during each filming session, if possible.

- Use cameras with high quality audio recording capabilities.

- Watch a sample video after the first day of recording to make sure that audio is being captured adequately.

- Videographers should not use tripods, but rather should operate cameras manually so that they can move about the classroom freely. This will both minimize disruptions to classroom routines and enable videographers to adjust their positions as needed. However, a stationary camera may be placed in an out-of-the-way location in the classroom using a tripod, in order to capture additional footage.

- Videographers should not follow children out of the classroom, particularly during research-related filming due to ethical restrictions around informed consent for non-consented children and adults in hallways and other classrooms.

- Consented children should wear badges featuring their study-specific ID numbers. ID badges should be worn on the front *and* back of children's shirts, and numbers should be written in large, dark print. This will help coders identify the correct child(ren) for coding when they watch the videos. (Non-consented children who wish to be included may also be given ID badges of a different color, which can be blank or include made-up ID numbers.)

- If possible, videographers should read through the RRSM *User Guide*, including the *Observation and Scoring Guide* (Appendix A), prior to their first recording session. If this is not possible, videographers should be made aware of the criteria for RRSM Block and Segment selection – specifically, it is important for videographers to understand that they need to capture approximately five minutes of an activity followed by up to five minutes of a transition.

11. Coding the RRSM

General Guidelines

Each RRSM observation should be rated by at least one coder. Using the protocol from the original RRSM developers, behaviors captured by the RRSM are observed across three different contexts within the above-described Blocks: student-directed activities, teacher-directed activities, and transitions. Each activity is known as a Segment, and should be coded independently, resulting in at least four sets of codes for each child/classroom. Together, these differing activities provide coders with the opportunity to observe children's RRS with and without the co-regulatory support of a teacher. Coding across these different activity types also increases the likelihood that coders will have the opportunity to observe children's RRS in activities that are more active, hands-on, and/or play-based, as well as those which involve more watching, listening, and/or waiting. In other words, coding multiple Segments provides a more complete picture of RRS across contexts, thereby supporting the generalizability of the results.

Response Scale

The RRSM provides a set of 16 individual codes for each individual child who is observed. Each behavior is rated using a 4-point response scale, with two decision points (see graphic, below). To rate a particular item,

1. coders choose whether the child "Does" or "Does Not" display this RRS during the observation. Then,

2. coders decide whether the child is (or is not) displaying the behavior "Consistently, with few exceptions" or "Most of the time, with exceptions".

For analytical purposes, codes can then be assigned a value from 1-4, such that a code of "Does NOT Consistently, with few exceptions" = 1 while a code of "Does Consistently, with few exceptions" = 4.

Does		Does Not	
Consistently, with few exceptions (4)	Most of the time, with exceptions (3)	Most of the time, with exceptions (2)	Consistently, with few exceptions (1)
Child is Well Regulated			Child is Dysregulated
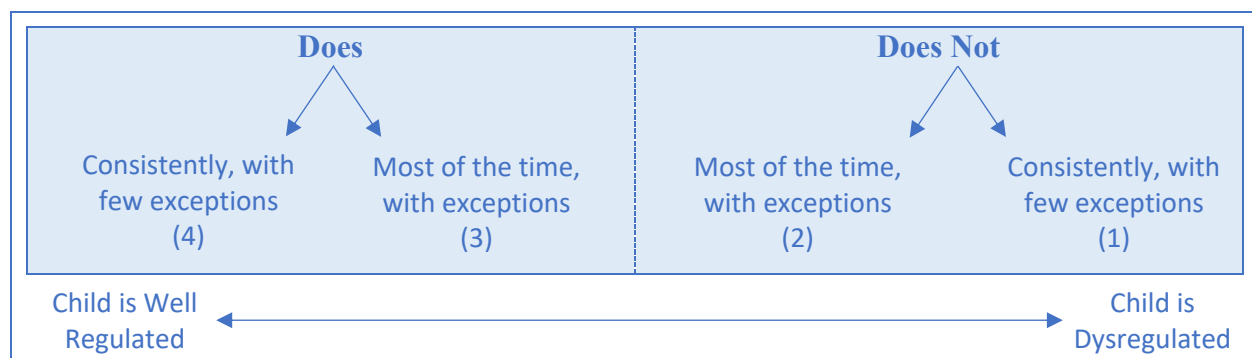
Children may not display consistent regulation or behavior across an entire Segment, yet only one code should be assigned for each RRSM item within each Segment. (Of course, different codes may be given during different activities or Segments; for example, a child may rate a 3 on *Item 1* during a teacher-directed activity, but rate a 2 on the same item during the subsequent transition.) If a child's RRS seem to ebb and flow throughout the Segment, codes may be assigned by considering the various behaviors and how frequently they occur. For example, the

teacher signals a transition and the child stops, then the teacher gives a direction and the child listens attentively, but when the teacher says "Go" the child runs across the room. This child has demonstrated well-regulated behavior for most of the transition Segment, and so might earn a rating of 3 for *Item 10* (for instance) because running across the room is typically not in line with classroom expectations. However, there are important exceptions to this way of thinking about coding, which are outlined here:

1. The child demonstrates emotionally dysregulated behaviors in the beginning of a Segment, but becomes more regulated as the activity or transition continues. This child's rating on *Items 13* and *14* should account for his/her ability to re-regulate, after becoming dysregulated.

2. The child is well-regulated for 99% of the Segment, but then displays one egregiously dysregulated behavior, such as shoving or screaming angrily at another child. Given the extreme nature of these behaviors, this child should rate in the "Does Not" range for *Item 12* (for instance), even though s/he appears to successfully inhibit any inappropriate responses for the majority of the Segment.

Not Observed. Many items include a "Not Observed" option for behaviors/skills that will only be observed in light of specific situational demands. For example, in order to observe *Item 8. Remembers and enacts a series of instructions or completes a multi-step activity*, the teacher must present a multi-step instruction or activity.

Score Sheets

The *RRSM Score Sheets* is attached to this Guide as an appendix (Appendix B). This score sheet is intended to serve as a coding template insofar as it is useful. Codes can also be recorded directly into an excel spreadsheet, or other organizational mechanism for recording data (e.g., tablet-based app), if this is preferable. However, should a team opt not to use the provided score sheets, it is particularly important that they remain attentive to the two decision-point methodology for coding and do not revert to coding the RRSM as if it were simply a scale of 1-4.

Coding Teams

The original RRSM developers assigned two or three coders to each observation. Whenever possible, we recommend randomly grouping coders in pairs or triads for each observation, and changing these groups periodically so that all coders have at least one observation in common. This allows for the ongoing assessment of inter-rater reliability across the entire coding team (see Section 14 for additional information on reliability).

We recommend that coding pairs meet periodically to discuss coding and resolve discrepancies. For example, Coder A indicates "Does Consistently", while Coder B indicates "Does NOT Consistently" on *Item 14. Child regulates behavior in the face of emotional arousal*. Through discussion, they realize that Coder B observed the focal child subtly pinch another child while emotionally aroused and both coders agreed on a code of "Does NOT Consistently". Frequent reference should be made to the *Observation & Scoring Guide* while coding and during these conversations.

If a pair is unable to reach consensus during these conversations, a new coder may be asked to serve as a "tie breaker." This should be someone with experience using the RRSM who may be able to help answer questions about the measure. The "tie-breaker" should watch the video and determine a rating for the item(s) in question, then discuss this rating with the original coding pair, if needed, to reach consensus.

Video Coding

The RRSM developers applied the measure to video recordings of early childhood settings (see Section 10). Coders are encouraged to watch Segments as many times as is necessary to ensure accuracy. Indeed, we recommend that coders watch each Segment multiple times in order both to observe the child and to gain a better understanding of the rules, routines, and norms unique to each classroom setting.

12. Contextual Checklist

General Guidelines

In addition to the 16 core RRSM items, there is a two-page form called the *Contextual Checklist* (Appendix C). This form was used by the original RRSM developers to note the type and content of activities that were happening in the classroom during each Segment, as well as the role(s) of the teacher during that period. We recommend use of this Checklist alongside the core RRSM in order to better contextualize the activities in which children are actively regulating.

An overview of the *Contextual Checklist* is provided below, including the specific items found in each section. Additional information on use of the *Contextual Checklist* can be found in the *Contextual Checklist Scoring Guide* (Appendix D).

Activity Type

The Activity Type code indicates the size of the activity, who leads the activity, and whether the activity is a transition.

- ✓ Whole-group
- ✓ Small-group
- ✓ Independent
- ✓ Teacher-directed
- ✓ Student-directed
- ✓ Transition

Activity Structure

The Activity Structure code describes the various components of the activity.

- ✓ Listening to teacher or peers
- ✓ Talking on topic of activity or lesson
- ✓ Co-created drawing, writing, building, etc.
- ✓ Sharing complete or in-process work
- ✓ Playing game(s)
- ✓ Make-believe play or dramatization
- ✓ Using materials or manipulatives
- ✓ Using computer or tablet
- ✓ Worksheet
- ✓ Following directions
- ✓ Q & A
- ✓ Centers-based activities
- ✓ Clean-up

Activity Content

The Activity Content code describes the academic content of the activity.

- ✓ Reading
- ✓ Spelling, phonics, word study
- ✓ Math
- ✓ Science
- ✓ Social Studies
- ✓ Clean-up
- ✓ Other

Teacher Role

The teacher may have multiple roles and interactions during one RRSM Segment, each of which should be captured here.

- ✓ Teacher leads the activity (in which the focal child is engaged)
- ✓ Teacher circulates, briefly providing prompts, support/instructions, and/or interaction with children
- ✓ Teacher initiates activity or transition (e.g., gives directions)
- ✓ Teacher is otherwise occupied

Teacher-Child Interaction

This portion of the *Contextual Checklist* captures the interactions between the focal child and adults in the classroom.

- ✓ Adult works 1:1 with child for entire observation
- ✓ Teacher provides academic instruction/support
- ✓ Teacher provides behavioral redirection or feedback
- ✓ Teacher has no direct interaction with individual child

Teacher Proximity to Child

A code of 1-5 indicates, on average, how close (or far away) the teacher is from the focal child throughout the observation.

13. Interpreting Codes

Generating Final & Overall Scores

There are two types of *final score* that may be created for each item in a given observation. As both are acceptable, it is only necessary to calculate one type.

1. Final scores may represent the average of all coders' scores for that item in one observation. For example, Coders A, B, and C observe Child X and give scores of 3 (Sometimes Does), 2 (Sometimes Does NOT), and 3 (Sometimes Does), respectively, for *Item 3*. The final score for *Item 3* in this instance is $\frac{3+2+3}{3} = 2.67$.

2. If multiple coders have resolved discrepancies and developed consensus codes, the consensus code for each item may serve as the final score.

To calculate an *overall score* representing a child's RRS more generally, the final scores for each item should be averaged across all 16 items. Items with a rating of Not Observed (N/A) should be excluded from this average, as they have no numerical code. The resulting overall scores should range from 1-4 in line with the original metrics.

Generating Subscale Scores

Using a subset of items that were most commonly observed in our own data, the original RRSM developers identified two subscales of the RRSM: *Attention Control* and *Inhibitory Control* (McCoy et al., in preparation). The *Attention Control* subscale consists of items 2, 3, 5, 7, and 11, and the *Inhibitory Control* subscale consists of items 1, 10, 12, 13, and 15. Taking the average of the items in each subscale can provide a score specific to these regulation-related skills.

14. Reliability

We recommend monitoring coders' inter-rater reliability during the training period, as well as periodically during the actual study. Once discrepant coding has been resolved and final scores have been calculated, analyses can be conducted to determine the kappa coefficient for each Block. The kappa coefficient describes the percentage of agreement between two coders while accounting for agreement simply based on chance (Cohen, 1960; Cohen 1968). Based on pilot trials of the RRSM and a review of the literature regarding similar measures (e.g., LaParo, Pianta & Stuhlman, 2004; Cash, Hamre, Pianta & Myers, 2012), the following reliability criteria have been established:

Average kappa scores among coding pairs must not be lower than 0.60, with average agreement of 0.80 or higher considered ideal.

15. Frequently Asked Questions

Q. Can this measure be used to identify students who are "at risk" or "falling behind"?

    A. The RRSM is *not* a diagnostic or screening tool. As such, there are no cutoff scores that we can provide to identify students who are "at risk" or "falling behind."

Q. What should I do if the transitions in a classroom are very short?

    A. As long as the focal child is visible throughout the transition, it is possible to code even transitions that are as brief as about 20 seconds.

Q. Can snack time be coded using the RRSM?

    A. Snack and meal times should not be coded as either a student- or teacher-directed activity, as the rules and structure of meals and snacks are often ambiguous. However, transitions into snack or meal time can be coded using the RRSM. For example, a Block in which the teacher reads a story aloud to the class (teacher-directed activity) and then the children wash hands for snack (transition) could be coded.

Q. Can the RRSM be used to code an entire classroom, rather than individual children?

    A. The RRSM likely has utility for coding at the classroom-level. However, we have not pilot tested this application of the measure and as such cannot offer specific guidance at this time.

Q. Can the RRSM be used for live coding, as well as video coding?

    A. As above, the RRSM can likely be used for live coding. However, we have not pilot tested this application of the measure and as such cannot offer specific guidance at this time.

Q. What happens if a child uses the bathroom in the middle of an activity? Can this Segment/Block still be coded using the RRSM?

    A. Segments during which children go to the bathroom should be avoided as trips to the bathroom may disrupt the flow of the activity. However, if using such a Segment is unavoidable, the coder should not follow the child, but should note the trip to the restroom using the *Contextual Checklist* (Appendix D).

Q. Can a child be "over-regulated"?

    A. If a child is not engaging with peers or matching the arousal level of the class because s/he is highly aroused (e.g., crying), then s/he may rate in the "Does Not" range for multiple items on the RRSM. However, if a child is not engaging with peers or matching the arousal level of the class but appears quite calm, coding may feel a bit more complicated. In these situations, it may be helpful to distinguish between "over-regulation" and "under-arousal." While the calm child in the latter example may rate in the "Does" range on most RRSM items (e.g., *Item 2. Pays attention to the activity at*

hand), s/he would likely rate in the "Does Not" range for *Item 13. Modulates emotional arousal or maintains appropriate level of emotional arousal in response to classroom expectations* due to "under-arousal." Observing other students and adults in the classroom may help gauge the range of appropriate arousal in a given situation/context.

Q. Does the RRSM measure other skills such as motor control or social skills?

> **A.** The RRSM does include two items relating to peer interactions (*Item 9* and *Item 16*), though the emphasis of each item is regulation rather than socialization. In other words, these items capture the ways in which children regulate their emotions and behaviors in response to the particular situational demands of interacting with peers, rather than the skill with which they navigate social interactions. Similarly, the item related to physical movements (*Item 1*) pertains to how children keep physical motions in check, rather than their gross or fine motor abilities. Thus, a child might demonstrate regulation-related skills on the RRSM, but might not score as highly on measures of social skills or motor development.

16. More Information on the RRSM

Academic Papers
Forthcoming

Website
https://projects.iq.harvard.edu/rrsm

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17. Acknowledgements

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Appendix A. *RRSM Observation & Scoring Guide*

The examples provided in this Guide are intended purely as *examples* of behaviors that may indicate that a child Does or Does Not employ a regulation-related skill. These examples should not be considered an exhaustive list of all possible behaviors, nor are they a check-list of behaviors that must be observed in order to code an RRSM item. Rather, they should be considered coding *guidelines* that must be considered and adapted in light of the unique set of environmental demands in each classroom.

1. Controls physical movements

*This item is <u>fundamentally about</u> the ability to control unintentional movements (e.g., due to inattention or excitement) as well as the ability to keep physical movements within the bounds of what is appropriate to the given activity.

Does	**Does Not**
• Child maintains "bubble space" – doesn't touch, bump, or lean into other children • Child can sit still when it is appropriate to do so • Child moves in an intentional pattern with a specific rhythm (e.g., during a structured dance sequence) • Child manipulates objects in ways that are in service of the specific goal (e.g., uses pens and markers in appropriate ways) • Child moves safely about the classroom (e.g., walks from one center to the next during a whole-class transition) • Child trips over a chair that has not been pushed in all the way, but then recovers and continues with the activity at hand	• Child cannot sit still • Child fidgets, bumps into other children, body in other children's personal space unintentionally • Child's movements are random and uncoordinated (e.g., without a rhythm during a dance sequence) • Child interacts with objects inappropriately (e.g., jumps over seats or spins markers on the table) • Child runs across the classroom to retrieve materials or toys, or when moving from one activity to another • Child leaps up excitedly and trips over his/her own feet when called to transition

2. Pays attention to the activity at hand

*This item is <u>fundamentally about</u> attention control.

Does	**Does Not**
• Child spends the majority of the time involved in the task. Child looks at teacher or peer, book, materials, etc. that s/he is supposed to be looking at • Child may look away briefly, but returns to the task independently • Child is physically involved in the activity (e.g. drawing, building blocks, reading, putting away materials) • Attention is sustained until the task or the activity finishes	• Child cannot attend. S/he physically wanders or looks at other things in the room without participating in the task • Child appears disengaged. Attempts to re-engage the child by the teacher or a peer are not effective • Child may constantly ask for support or may interrupt other children without actually attending to the specific task

3. Can shift attention appropriately *within* an activity or task

This item is <u>fundamentally about</u> shifting attention from one part of an activity (or transition) to another according to situational demands.

NOT OBSERVED option. To be coded, the situation must demand that the child shift his/her attention <u>within</u> one activity or transition (e.g., listening to peer and then teacher, attending to teacher and then creating a product, counting manipulatives and then recording the number on a worksheet, or switching between drawing and writing). This demand will most often come from the environment, not be internally driven by the child. Note, this item refers to shifting of attention, rather than shifting an emotion (which would fall under Item 13*).*

DEFINITION in User Guide (Glossary, Section 7).

Does	Does Not
- Child is able to switch roles in play or in a partnered activity without support - Child can shift focus from one speaker to another (e.g., "turn and talk" with a partner during a whole-class activity) - Child pauses activity to shift attention to teacher instructions - In a long activity (e.g., clean-up), the child can switch from one part of the activity to the next without support (e.g., finishing activity, putting things away) - Can shift from drawing to writing, or from drawing and writing to writing name on top of paper - Can shift from looking at alphabet chart for letter guidance (what letter makes sound, how to form letter) back to writing letter; can shift from making letter back to writing/saying word (shift from focus on sentence to words to phonemes and back again) - Can shift from dealing cards, to arranging cards, to playing card when it's time for that card to be played, to monitoring peers' cards, and back - Can shift from listening to raising hand or answering a question	- Child gets "stuck" on one particular activity or facet of an activity - Child gets "lost" and becomes off track when attempting to shift focus or move to a new part of the activity - In a long activity for which the rules or structures change, child repeats first way of doing things or reverts to the first way if there is no support for moving on - During a whole-class activity, child may appear attentive but is delayed in joining a choral response, or does not appear to shift attention from the teacher to another speaker

4. Maintains focus during or quickly returns focus after disruption/interruption

This item is <u>fundamentally about</u> the ability to maintain focus during an acute and unexpected disruption/interruption, or quickly shift attention back to task after being taken off track by such an external stimulus.

NOT OBSERVED option.

DEFINITION in User Guide (Glossary, Section 7).

Does	Does Not
• Child is engaged in an activity or conversation, briefly disengages, and then returns to original activity • Child is listening and turns away to listen or look at something else and then returns gaze • A peer trips or knocks over the child, but child returns to activity • A peer interrupts the child's activity with an off-topic comment, and the child returns to activity • Something loud in the environment (e.g., fire truck or announcement on PA system) draws attention away, but child quickly returns to activity • Child is engaged in free play activity (e.g. puzzle), adult calls group attention over to window to see bird or parent/peer with new baby that has entered room; child returns to activity after viewing	• Child is engaged in an activity or conversation, disengages, and does not return to the activity • Child is listening, disengages and does not go back to the original activity but to yet another activity • Child takes a long time to re-engage with the activity after a disruption • Child loses thread of play and instead of returning to play, explores objects or talks with peers • Child leaves activity to attend to off-topic conversation with teacher or peers and never returns to earlier activity (e.g., was making a puzzle, goes over to see new baby, and then goes to a table to play with a new toy) • Child joins the disruption/interruption

5. Can ignore distractions during an activity

*This item is <u>fundamentally about</u> attention control in the face of minor distractions in the environment around the child. A minor distraction could be ambient noise or chatter across the room, but is not as major as the disruptions/interruptions described above (*Item 4*).*

Baseline assumption is DOES (coder can only observe "Does Not").

DEFINITION in User Guide (Glossary, Section 7).

Does	Does Not
• Child ignores outside sounds and keeps working on a task • Child is not disturbed by distractions in the room. Stays attentive and involved in the task at hand • Child may be temporarily distracted, but independently returns to the task at hand (e.g., the focal child is completing a worksheet at his/her seat when another child walks past; the focal child looks up briefly, then returns to the worksheet) • Child may pause own work to listen to the teacher provide feedback to another student who is engaged in the same activity	• Child pays more attention to any distraction than to own task • Repeated attempts to maintain the child's focus or direct focus back to the activity don't work • Significant teacher intervention, such as standing near the child, pointing to the paper, or helping the child move is only temporarily effective • Child joins the distraction • Child seeks to distract other children or him/herself (e.g., plays with a watch or item of clothing; initiates conversation with a nearby peer during a whole-class lesson)

	• Child chooses to play a board-game during free-play, but then turns and talks to a group of children involved in another activity without transitioning to their activity or playing the board-game • Child repeatedly looks up at videographer/coder and tries to engage him/her in conversation

6. Shows evidence of independent planning or monitoring

This item is <u>fundamentally about</u> planning and self-awareness, rather than responding to instructions from adults. It concerns planning any future action, short- or long-term, as well as monitoring and self-correcting to achieve a certain goal. This item does not require that coders witness the original development or enactment of the plan.

*NOT OBSERVED option. This kind of planning may be rare in preschool or kindergarten classrooms. Teacher feedback or redirection should only be coded as "Does Not" if it reinforces an instruction given prior to the start of the activity, as in the final "Does Not" example for this item.

Does	**Does Not**
• Child discusses his/her intentions for an activity *before beginning* (e.g., "First I will X, then I will Y" or "I'm going to read first, then it will be your turn") • Makes a plan and follows that plan later in the activity (e.g., acting out a play plan) • Child may monitor or reflect on own actions, may correct mistakes (e.g. writing, erasing, re-writing). However, narration during an activity should be coded as Not Observed (e.g., child states, "I'm drawing a tree" as s/he draws a tree). • Child may take action to prevent a predicted undesirable occurrence (e.g., child carefully adjusts a block tower when it wobbles to prevent the blocks from falling) • Child may overhear the teacher giving feedback to another student, then generalize and respond to that feedback on his/her own (e.g., hears teacher remind another student to "add periods at the end of sentences," then checks own work and adds periods) • Child may re-start activity to complete it correctly (e.g., during a transition, child may forget to put away markers, but then realizes and corrects his/her mistake) • Child may think out loud about the goals of the activity and how to meet those	• Child dives into an activity without pausing to reflect on what s/he is meant to do • Child makes a plan and immediately forgets the plan or chooses not to act on it • Child fails to recognize or reflect on mistakes • Child makes a plan, but the plan does not match the guidelines of the activity • Child makes a plan, but is inflexible in revising the plan should the need arise (e.g., child decides that s/he will go first in a board game and becomes upset when another child suggests drawing straws or flipping a coin to see who goes first) • Child completes something and goes off to another area without doing something appropriate with creation (e.g., putting puzzle away or saving work product in some way) • Before activity begins, the teacher instructs children to focus on a particular element of production (e.g., "remember to add a period at the end of each sentence"), but during the activity the child does not focus on this element without direct support

goals (e.g., how many children are allowed to be at a given classroom center) • Child may move in a way that suggests s/he is making a plan, even if these plans are not verbalized (e.g., stopping, looking around the room, pointing, and then moving) • Child may monitor others' actions during partner/small-group activities (e.g., reminding others of the rules or to take their turns during a card game) • Child does something with a "product" to preserve it (e.g., removes painting from easel or gets teacher to put it somewhere to dry); child does final stage of completion (e.g., put puzzle back in box). (The routine action of placing work into cubbies should be coded under *Item 10*) • Child seeks out resources to answer a question or solve a problem (e.g., asking the teacher or peer for help, using classroom tools such as an alphabet strip or list of sight-words) • Child describes his/her action plan before beginning to play (e.g., "First you will break your arm, then I will make you a cast...")	

7. Shows evidence of listening

This item is <u>fundamentally about</u> children's attention control and ability to follow along with another speaker in the moment during both whole-class lessons and small group or 1:1 conversations, without interrupting or becoming distracted.

*NOT OBSERVED option. To code this item, clear evidence of listening must be observed. If it is unclear whether or not a child is listening, a code of N/A should be given.

Does	**Does Not**
• Child attends to speaker (e.g., teacher, peer) when the person starts talking • Child responds to what is said (e.g., repeats what is said, responds with answer to a question, engages in conversation, looks at materials speaker refers to, follows instruction during a transition) • Child's body may be oriented to the speaker. Child may glance back and forth from the speaker to materials (e.g., book, toy, activity) the speaker refers to • Child may ask question relevant to the situation, or ask for clarification if something is not understood	• Child doesn't attend when the speaker is talking, but looks around the room at other things and other distractions. Child becomes involved in other things, may physically turn back or turn away from speaker • Child doesn't attend even if the teacher attempts to re-engage him/her • Child interrupts the speaker; talks at the same time other people talk • Child starts talking about something else not being discussed • Child is not listening to the teacher read aloud, but is instead listening to a peer

• Child notices a peer's or teacher's mistake • Child may ignore a conversation next to him/her, but listens well when it is appropriate to do so	• Child misses an auditory cue (e.g., child is waiting to transition but does not respond when his/her name is called)

8. Remembers and enacts a series of instructions or completes multi-step activity

This item is <u>fundamentally about</u> working memory and the active recall of novel steps.

NOT OBSERVED option. Coder must hear or see teacher or peer give instructions of at least 3 steps, or be able to confidently intuit based on the situation, to identify the directions the child is following. Transitions are likely to be routinized and should therefore not be coded here unless the directions preceding the transition are clearly out of the ordinary.

Does	**Does Not**
• Child independently carries out a set of directions in the correct order (and these directions are not routinized) • Child helps other children follow the directions (e.g., reminds children of what they're supposed to be doing) • Child remembers the rules or steps of a new game and how to play it without adult support	• Child does not follow the directions. May partially start the steps but becomes "lost" • Multiple repetitions only get the child through one step in the directions • Child follows along only when every step is scaffolded by modeling or verbal prompting. Cannot repeat independently

9. Co-creates and/or follows group norms or rules when interacting with peers

This item is <u>fundamentally about</u> peer-to-peer regulation and following the norms/rules that have been <u>established by the group</u> and are unique to the specific social situation, game, or activity (rather than implicit social norms or classroom expectations). These norms/rules may be explicitly stated by the group (e.g., "let's pretend that I'm the doggy") or may be enacted without discussion (e.g., child starts barking and others say, "good doggy!").

NOT OBSERVED option. To be coded, the activity must require collaboration or cooperation. This item will be most frequently observed in free-play, dramatic-play, or interactive activities, and requires that children should be/are expected to play or work together.

Does	**Does Not**
• During free-play, child accepts modifications and changes, or incorporates plot twists and new roles. Suggests an evolving scenario built on the first scenario. Modifies roles based on new scenario. All done independently (without the teacher) • Child follows rules or suggestions put forth by other children, without support • Child regulates other child(ren) about following the rules (e.g., reminding them of what they should be doing) • Child shows a sense of fairness when applying, using, or making up new rules	• Child ignores the rules and the roles unless there is mediation and support by the teacher • Child will not play what other children suggest without the teacher's support • Child becomes upset when playing the game or working on the activity (e.g., cannot reconcile not going first without the teacher's support) • Child cannot adapt to suggestions or rules proposed by others • Child completely disengages from social situation because s/he does not want to follow the rules

(e.g., "I went first this time, now it's your turn. You haven't had a turn") • Child negotiates turns with peers or accepts their proposals during an activity • Child shows flexibility in creating or adapting rules. May talk with other children about changing the rules. May modify the rules for a younger child or a child who has difficulty with a game • Child discusses "rules" in play and follows rules created by peers (e.g., only the mom gets to cook, the children have to stay at the table) • Child responds to peer announcing it's "night time" now, time for bed in make-believe play, and lies down and pretends to sleep • Child uses "baby voice" to say aloud words on cards after peers decide to play card game in a silly way • Child is directing play, while another appears to happily "go along" with it	• Child violates or changes the rules without discussion or input from others • Child changes rules to fit his/her needs or desires to "win" or succeed in game or activity • Child is overly rigid in applying rules and cannot adjust to deviations or other norms suggested by the group • Child is directing play despite dissent or dissatisfaction expressed by peers

10. Follows classroom rules and routines independently

This item is <u>fundamentally about</u> children's ability to regulate themselves in service of classroom expectations/rules, which have been internalized. These may include classroom management system norms for interactions and behavior, such as following directions.

Baseline assumption is DOES (coder can only observe "Does Not"). This is because classrooms include so many rules and routines that even a detailed direction from the teacher will never include all expectations. For example, if the teacher directs children to put away their reading materials, push in chairs, and walk to the carpet, what she hasn't said is "carefully close your books and put them back on the correct shelves. Do not push another student if s/he is in your way. Do not throw your books. Place books on the shelves so that the covers and pages lie flat…etc."

DEFINITION in User Guide (Glossary, Section 7).

Does	Does Not
• Child follows routines (e.g., getting in line, cleaning up) independently. The teacher may signal the routine's beginning, but that's it. Child goes through the routine without prompts • Child does not need reminders about following the rules (e.g., using inside voices, raising a hand before speaking, keeping hands to self) • Child may anticipate the routine (e.g., says, "Isn't it time to clean up?")	• Child does not follow the routine • Child needs routine modeled by a peer or the teacher or verbal prompting to continue after a few steps • Child becomes distracted during routine or cannot follow the rules for routines (or any other activity) • Child directly violates the rules, whether or not the teacher is watching • Child needs many prompts from teacher and/or peers to follow classroom rules/expectations

• Child reminds other children of the rules or expectations • Child follows directions or completes an assigned task	• Child does not follow normative rules around turn-taking, hand-raising, etc. (e.g., talks over others during a whole-class activity)

11. Can transition to new activities, tasks, or major parts of the day

* *This item is <u>fundamentally about</u> disengaging from one activity and engaging in another.*

**NOT OBSERVED option.*

**DEFINITION in User Guide (Glossary, Section 7).*

Does	**Does Not**
• Child can engage in a transition between tasks (e.g., group activity to clean up) independently and without getting "stuck" on the original activity • Child is ready to start the new activity as soon as the one they are engaged in finishes • The transition is quick and smooth. The child does not dawdle or become distracted • Child transitions well, though s/he may not follow the mechanical instructions for the transition. For example, a child is instructed to "hop like a bunny to your next center." S/he moves efficiently and safely to the next center, but does not hop.	• Child is not ready for the transition to begin, remains stuck in the activity after being prompted to move on • Child will not stop activity until the teacher or peer intervenes • Child gets "lost" and wanders around the room during the transition, becoming engaged in something else that catches his/her eye • Teacher has to provide support all the way through the start of the next activity • Child is not ready for the new activity when it begins

12. Inhibits inappropriate or automatic responses and enacts appropriate responses

**This item is <u>fundamentally about</u> in-the-moment impulse control.*

**Baseline assumption is DOES (coder can only observe "Does Not").*

Does	**Does Not**
• Child uses appropriate skills to get what s/he wants instead of grabbing or pushing • Child successfully engages in self-regulation games (e.g., Simon Says, Red Light/Green Light) • Child responds to classroom setting in appropriate ways (e.g., does not blurt out, participates in choral responses, takes turns, raises hand) • Child waits in line, rather than immediately rushing to the front • Child may fidget slightly, but does not engage in sudden, large movements	• Child acts impulsively (e.g., grabs toys to get his/her way) • Child talks out of turn, talks over other people, is unable to wait • Child cannot successfully do self-regulation games (e.g., says forbidden words, cannot change the action in pattern movements) • Child leaps up and rushes off to the next activity before the teacher signals a transition

13. Modulates emotional arousal or maintains appropriate level of emotional arousal in response to classroom expectations (e.g., gets excited or calms self down)

This item is <u>fundamentally about</u> emotional arousal (e.g., anger, fear, sadness, worry, excitement, happiness, displeasure, boredom), and emotion regulation that is appropriate to the context.

The overall goals of the classroom are important in coding this item. Children should be regulating emotions to meet classroom goals (rather than personal goals), with their level of emotional arousal meeting that of other students/adults in the classroom.

Baseline assumption is DOES (coder can only observe "Does Not").

Does	Does Not
• Child stays within the appropriate level of arousal for the setting (e.g., smiles when other students smile) • Child matches the feelings of the other children without going overboard • Child quickly calms him/herself down when excited or upset • Child shows an appropriate level of enthusiasm for activities • Child may soothe other children and help others stay in the right emotional range. May reach out to a child who is distressed • Child can use voice, intonation, movement, etc. to match arousal level of a character when acting out a role (e.g., playing a crying patient in a hospital even when his/her own emotional state is different) • Child may be fidgety but does not show emotional arousal • Child brings excitement level up to match the activity or peers in an appropriate way	• Child's regulation does not match the arousal of his/her peers (e.g., others are laughing, but child is placid) • Child is overly excited and does not respond to cues or support by the teacher or peers • Child is unable to calm down when upset or angry. Emotional state interferes and spreads from activity to activity • Child becomes overly emotional for the same things, over the same activities • Child's emotional state interferes with his/her ability to complete an activity

14. Regulates behavior in the face of own emotional arousal

This item is <u>fundamentally about</u> a child's ability to control his/her behavior when emotional arousal is evident (e.g., the child is visibly upset, angry, or excited).

NOT OBSERVED option. For this item to be coded, the child must show behavioral evidence of emotional arousal (e.g., anger, fear, sadness, worry, excitement, happiness, displeasure, boredom). This item should be coded even if the level of arousal is situationally appropriate (e.g., the class is reading a silly story and laughing loudly). Coders should NOT assume or infer the child's emotional state without behavioral evidence (e.g., facial expressions, body movements, or tone of voice).

Does	Does Not
• Child copes with conflict, frustration, or disappointment without acting out • Child controls excitement or happiness in context-appropriate ways (e.g., smiling	• Child reacts inappropriately to an emotional situation (e.g., uses aggressive, pouty, or whiney response when

and laughing, but not jumping out of seat or yelling) • Child shows effort to control behavior (e.g., sits still but is visibly excited or upset) • Child can describe what s/he is feeling and then moves on • Child works toward the classroom goals (e.g., completes the activity at hand) even while emotionally aroused (e.g., excited or upset) • Child expresses that s/he does not want to do the activity, but engages in it anyway	angry/frustrated; shouts or talks over peers when excited/upset) • Child reacts emotionally and struggles to get over the situation, even with teacher or peer support • Child has difficulty completing the activity at hand because of his/her emotional state • Child expresses displeasure in inappropriate ways (e.g., whining, aggression)

15. Is able to wait for something (e.g., turn, talk, materials, start of an activity, etc.)

This item is <u>fundamentally about</u> sustained inhibitory control, which takes the form of waiting.

NOT OBSERVED option. This item should be coded only when the situation clearly demands that the child wait for something or someone, but not in instances requiring only a momentary pause (which are captured in Item 12*). For example, whole-class Q & A involving hand-raising should be coded here, while the waiting that occurs during regular one-to-one conversations is often ambiguous and should not be coded here. Similarly, situations during which the teacher is engaging or entertaining children should not be coded here. For example, a whole-class lesson during which children take turns writing on the smartboard should not be coded as waiting since children are expected to watch and learn from others; however, children might be required to wait during such an activity if the teacher pauses the lesson to ask for volunteers or to gather additional materials.*

Does	**Does Not**
• Child can wait when waiting is required (e.g., turn to Play Plan, turn in a game, turn to share materials such as sandbox toys or paintbrush) or for teacher's attention (e.g., when teacher is circulating to children for 1:1 interactions, child waits turn to ask a question) • Child waits and watches independently until it is his/her turn • Child waits to act until it is appropriate to respond (e.g. a teacher may give a cue for the group to respond, child does not move during the "freeze" portion of a move-and-freeze game) • Child waits for another child to move instead of pushing in front of him/her to get something (e.g., materials) • Child can wait for the music to stop before freezing in pose, or to replicate Simon Says pose after Simon has demonstrated it; can wait to draw/write	• Child does not wait turn. Jumps in line, talks out of turn, or takes materials out of others' hands (e.g., in an activity that requires hand-raising, child begins speaking without first raising his/her hand and waiting to be called on by the teacher) • Child may disrupt the activity for others, talk over partner or take the partner's turn, or leave task • Child needs constant reminders from an adult to wait for his/her turn • Child avoids waiting by wandering away and/or disrupting another student • While waiting for a new activity to begin, child whines, repeatedly asking when they will begin, and/or violates other rules • Child transitions from one activity to another before the transition is signaled (e.g., the teacher is still giving directions

until the music is playing in activity where drawing only happens when music is on • While waiting for a new activity to begin, child occupies him/herself by chatting quietly with a peer, reading a book, etc. (as long as it is appropriate to do so) • Child raises his/her hand during a whole-class lesson, rather than shouting out	either to the whole group or to another individual student)

16. Shows evidence of ability to cope with social dilemmas and conflict with peers

This item is <u>fundamentally about</u> social problem solving.

NOT OBSERVED option. Coder must observe a dilemma or conflict to code this item.

Does	**Does Not**
• Child can navigate a social conflict, disagreement, or dilemma (e.g., needing to react to unusual behavior from a peer) without becoming upset or using inappropriate responses (e.g., aggression) • Child may be able to describe the social problem, the feelings of the people involved, and the classroom rule that pertains to the situation • Child shows empathy toward other children both in class and in hypothetical situations • Child can negotiate and understand the problem and what would be "fair" • Child uses problem-solving strategies with peers • Child notices other children having a conflict/problem and attempts to help in resolving it • Child avoids potential conflict, is passive and calm in response to aggression (e.g., ignores, walks away), or gets teacher help	• Child gets upset and is unable to calm down enough to employ problem-solving skills • Child melts down or runs away during a disagreement or dilemma • Child struggles with not having own way all the time • Child becomes physically or verbally aggressive with other children in response to conflict (e.g., raises voice, uses unkind words, enters another's personal space)

Appendix B. *RRSM Score Sheet*

1. EXAMPLE – Child Does Consistently

Does	✓	Does Not		N/A
(4) Consistently, with few exceptions	4	(2) Most of the time, with exceptions		
(3) Most of the time, with exceptions		(1) Consistently, with few exceptions		

2. EXAMPLE – Does NOT Consistently

Does		Does Not	✓	N/A
(4) Consistently, with few exceptions		(2) Most of the time, with exceptions		
(3) Most of the time, with exceptions		(1) Consistently, with few exceptions	1	

3. EXAMPLE – Not Observed

Does		Does Not		N/A
(4) Consistently, with few exceptions		(2) Most of the time, with exceptions		✓
(3) Most of the time, with exceptions		(1) Consistently, with few exceptions		

1. Controls physical movements

Does		Does Not		
(4) Consistently, with few exceptions		(2) Most of the time, with exceptions		
(3) Most of the time, with exceptions		(1) Consistently, with few exceptions		

2. Pays attention to the activity at hand

Does		Does Not		
(4) Consistently, with few exceptions		(2) Most of the time, with exceptions		
(3) Most of the time, with exceptions		(1) Consistently, with few exceptions		

3. Can shift attention appropriately *within* an activity or task

Does		Does Not		N/A
(4) Consistently, with few exceptions		(2) Most of the time, with exceptions		
(3) Most of the time, with exceptions		(1) Consistently, with few exceptions		

4. Maintains focus during or quickly returns focus after disruption/interruption

Does		Does Not		N/A
(4) Consistently, with few exceptions		(2) Most of the time, with exceptions		
(3) Most of the time, with exceptions		(1) Consistently, with few exceptions		

5. Can ignore distractions during an activity

Does		Does Not		
(4) Consistently, with few exceptions		(2) Most of the time, with exceptions		
(3) Most of the time, with exceptions		(1) Consistently, with few exceptions		

6. Shows evidence of independent planning or monitoring

Does		Does Not		N/A
(4) Consistently, with few exceptions (3) Most of the time, with exceptions		(2) Most of the time, with exceptions (1) Consistently, with few exceptions		

7. Shows evidence of listening

Does		Does Not		N/A
(4) Consistently, with few exceptions (3) Most of the time, with exceptions		(2) Most of the time, with exceptions (1) Consistently, with few exceptions		

8. Remembers and enacts a series of instructions or completes multi-step activity

Does		Does Not		N/A
(4) Consistently, with few exceptions (3) Most of the time, with exceptions		(2) Most of the time, with exceptions (1) Consistently, with few exceptions		

9. Co-creates and/or follows group norms or rules when interacting with peers

Does		Does Not		N/A
(4) Consistently, with few exceptions (3) Most of the time, with exceptions		(2) Most of the time, with exceptions (1) Consistently, with few exceptions		

10. Follows classroom rules and routines independently

Does		Does Not		
(4) Consistently, with few exceptions (3) Most of the time, with exceptions		(2) Most of the time, with exceptions (1) Consistently, with few exceptions		

11. Can transition to new activities, tasks, or major parts of the day

Does		Does Not		N/A
(4) Consistently, with few exceptions (3) Most of the time, with exceptions		(2) Most of the time, with exceptions (1) Consistently, with few exceptions		

12. Inhibits inappropriate or automatic responses and enacts appropriate responses

Does		Does Not		
(4) Consistently, with few exceptions (3) Most of the time, with exceptions		(2) Most of the time, with exceptions (1) Consistently, with few exceptions		

13. Modulates emotional arousal or maintains appropriate level of emotional arousal in response to classroom expectations (e.g., gets excited or calms self down)

Does		Does Not		
(4) Consistently, with few exceptions (3) Most of the time, with exceptions		(2) Most of the time, with exceptions (1) Consistently, with few exceptions		

14. Regulates behavior in the face of own emotional arousal

Does		Does Not		N/A
(4) Consistently, with few exceptions (3) Most of the time, with exceptions		(2) Most of the time, with exceptions (1) Consistently, with few exceptions		

15. Is able to wait for something (e.g., turn, talk, materials, etc.)				
Does (4) Consistently, with few exceptions (3) Most of the time, with exceptions		**Does Not** (2) Most of the time, with exceptions (1) Consistently, with few exceptions		**N/A**

16. Shows evidence of ability to cope with social dilemmas and conflict with peers				
Does (4) Consistently, with few exceptions (3) Most of the time, with exceptions		**Does Not** (2) Most of the time, with exceptions (1) Consistently, with few exceptions		**N/A**

Appendix C. *Contextual Checklist*

See instructions in Section 12, and the *Contextual Checklist Scoring Guide* (Appendix D).

Activity Type	Activity Structure	Activity Content
Check only one:	Check all that apply:	Check all that apply:
Whole Group ☐	Listening to teacher or peers ☐	Reading ☐
Small Group ☐	Talking on topic of activity or lesson ☐	Writing ☐
Independent ☐	Co-created drawing, writing, building etc. ☐	Spelling, phonics, word study ☐
Check only one:	Sharing complete or in-process work ☐	Math ☐
Teacher-Directed ☐	Playing game(s) ☐	Science ☐
Student-Directed ☐	Make-believe play or dramatization ☐	Social Studies ☐
Check only if applicable:	Using materials or manipulatives ☐	Clean-up ☐
Transition ☐	Using computer or tablet ☐	Other ☐
	Worksheet ☐	
	Following directions ☐	
	Q & A ☐	
	Centers-based activities ☐	
	Clean-up ☐	

Teacher Role	Teacher-Child Interaction
	(with focal child)
Check all that apply:	Check all that apply:
Teacher leads activity (in which the focal child is engaged) ☐	Adult works 1:1 with child for entire observation ☐
Teacher circulates, briefly providing prompts, support/instruction, and/or interaction with children ☐	Teacher provides academic instruction/support (at least once during observation) ☐
Teacher initiates activity or transition (e.g., gives directions) ☐	Teacher provides behavioral redirection or feedback (at least once during observation) ☐
Teacher is otherwise occupied (e.g., talking with other adults or children) ☐	Teacher has no direct interaction with focal child ☐

Teacher Proximity to Focal Child
(average for period of observation)

Circle only one:

very nearby	moderately close	very far away

1----------------2----------------3----------------4----------------5

Notes/Comments

Please record any additional notes or comments in the space below.

Appendix D provides detailed definitions for each item in the *Contextual Checklist*, as well as general coding guidelines for each section, and examples of how codes might be applied in specific situations.

When completing the *Contextual Checklist*, all applicable boxes should be checked unless otherwise indicated.

Activity Type

The Activity Type code indicates the size of the activity, who leads the activity, and whether the activity is a transition.

Items and Definitions

- ✓ Whole-group – An activity involving *at least* 75% of the class.

- ✓ Small-group – An activity involving more than one child, but which does not involve the entire class. Small-group activities typically involve two to four students.

- ✓ Independent – An activity that children complete independently. Children may talk to each other during independent activities, as long as the work itself is not collaborative.

- ✓ Teacher-directed – An activity led by the teacher. As noted in Section 8, teacher-directed activities can usually be identified by the presence of the teacher, though there may be student-directed activities in which the teacher participates. When determining whether an activity is student-directed or teacher-directed, coders should consider who is leading or driving the activity.

- ✓ Student-directed – An activity led by a student(s). Student-directed activities can usually be identified by the absence (or inconsistent presence) of the teacher, though the teacher may participate in some or all of a student-directed activity. When determining whether an activity is student-directed or teacher-directed, coders should consider who is leading or driving the activity.

- ✓ Transition – A transition occurs when a child moves from one major activity to another, and will typically include a physical movement of some sort (e.g., walk from one center to another, switch from standing to sitting on the carpet). (See the *Glossary* [Section 7] for additional information.)

    - o **Transitions should almost always be coded as *Whole-group* and *Teacher-directed*** because the whole class is usually involved in a transition, even if some students are waiting to be dismissed as others are being called individually or in small groups. However, transitions may be coded as *Individual*, *Small-group*, and/or *Student-directed* when appropriate, as in the following examples:

    - e.g. The teacher dismisses only one child (or a small group of children) to clean-up, *while others continue the activity*.

    - e.g. As children finish an independent task, they transition independently to an anchor activity.

- Coders are instructed to *select only one* activity size. If an activity involves a combination of both whole- or small-group instruction and independent work, the overarching structure of the activity should guide coding.

    o Children are completing worksheets at their seats, but the teacher reads each question and the correct response is discussed: Though children are answering questions independently on their own worksheets, this would be coded as a *Whole-group* activity.

    o Children complete most of a worksheet together as a class, and then answer the last few questions independently: This would be coded as a *Whole-group* activity since the *majority* of the activity is in a whole-group format.

Activity Structure

The Activity Structure code describes the various components of the activity. As activities may include many structural components, coders should check all that apply. However, items should only be coded here if they are enacted in service of classroom goals (see Section 6 for underlying assumptions of the RRSM).

Items and Definitions

- ✓ Listening to teacher or peers – This item should be coded for any activity during which children listen to a teacher and/or peer(s). This may be a highly structured activity, or a casual conversation during free-play.

- ✓ Talking on topic of activity or lesson – This item should be coded for any activity during which children have the opportunity to contribute verbally.

    o If the focal child participates in an activity involving talking, this item should be coded even if s/he does not choose to participate verbally.

- ✓ Co-created drawing, writing, building, etc. – This item should be coded any time children are working together to create a single finished product. (This item may be coded even if the product is not completed during the observational period.)

- ✓ Sharing complete or in-process work – This item should be coded if the sharing of complete or in-process work is purposefully incorporated into an activity. For example, children take turns sharing their drawings at the end of an art lesson. Impromptu sharing during production should not be coded here.

- ✓ Playing game(s) – This item should be coded any time a game is played (e.g., board game, card game, hide-and-go-seek). This includes games that may have been assigned by the teacher (e.g., a game designed to support practice with addition or phonics). However, "games" played on a computer or tablet should *not* be coded here.

- ✓ Make-believe play or dramatization – This item should be coded if children are engaged in imaginary play. Activities coded here may include free-play (e.g., pretending to be a family cooking dinner in a toy kitchen) or re-enactment of a story (e.g., as part of a literacy lesson).

✓ Using materials or manipulatives – This item includes use of blocks, toys, game pieces, math manipulatives, markers, books, etc. During a transition involving clean-up, this item should *not* be coded if students are putting away or gathering materials for the next activity.

✓ Using computer or tablet – An activity involving a computer, tablet, or similar technological device.

✓ Worksheet – Worksheets (including workbooks) should be coded as *Worksheets*, <u>not</u> *Using materials or manipulatives*. *Using materials and manipulatives* should only be checked in conjunction with *Worksheet* when the activity necessitates use of specific materials (e.g., math manipulatives for an addition worksheet).

✓ Following directions – This item should be coded any time an instruction is given and followed during the course of the activity. Following directions that were given prior to the start of the activity should *not* be coded here.

✓ Q & A – This item captures activities involving a structured question and answer session, usually facilitated by the teacher. Questions arising spontaneously, or which do not follow a *Q & A* format, should be coded as *Listening to teacher or peers* and *Talking on topic of activity or lesson*, rather than here.

✓ Centers-based activities – This item describes activities in which children are spread out around the classroom, usually in small groups. A different activity is set up at each location (or center), and children rotate through most or all of these centers over an extended period of time.

  o Rotating between centers should be coded as a transition, since the specific activity in which each child is engaged changes with the rotation.

    e.g. Imagine that center-time lasts one hour in a classroom with four centers. Each center is 13 minutes, with a two minute transition between each center. Four full RRSM Blocks could be coded during this hour – (1) the first center followed by the first transition, (2) the second center followed by the second transition, etc. Of course, for centers of this length only the last five minutes of the activity need to be coded (see Section 8).

✓ Clean-up – This *Activity Structure* is most often observed during transitions, and should be coded any time the focal child is involved (or is supposed to be involved) in putting away materials, toys, etc. If *Clean-up* has been checked, it is not necessary to also check *Using materials or manipulatives*, as students are necessarily handling materials and manipulatives in the process of tidying up.

General Coding Guidelines

• Boxes should be checked *only if the observed activity is in service of classroom goals*.

  o If the teacher asks children to "turn and talk" to a partner about a story, then the box indicating *Talking on topic of activity or lesson* should be checked.

  o Conversely, if children are sitting and listening to a story and a child turns and whispers to a neighbor, this box should not be checked since conversation is not in service of classroom goals at this time.

Activity Content

The section of the *Contextual Checklist* describes the academic content of the activity.

Items and Definitions

- ✓ Reading – All activities involving reading should be coded here. This includes activities in which the teacher reads aloud to the class, children read aloud to each other, or children read quietly to themselves.

- ✓ Writing – All activities involving writing should be coded here. This includes both creative writing and worksheet completion.

- ✓ Spelling, phonics, word study – All activities involving spelling, phonics, or other forms of word study should be coded here. This includes whole-group instruction, worksheets, games, use of manipulatives, etc.

- ✓ Math – All activities involving math should be coded here. This includes whole-group instruction, worksheets, games, use of manipulatives, etc.

- ✓ Science – All activities involving science should be coded here. This includes whole-group instruction, worksheets, games, use of manipulatives, etc.

- ✓ Social Studies – All activities involving social studies or history should be coded here. This includes whole-group instruction, worksheets, games, use of manipulatives, etc.

- ✓ Clean-up – This *Activity Content* is most often observed during transitions, and should be coded any time a focal child is involved in putting away materials, toys, etc.

- ✓ Other – This item should be coded only if none of the above items are applicable.

Example of **Activity Type**, **Structure**, and **Content** Coding

Activity-related coding should appear as follows for center-time during which the focal child is reading and discussing a book with a partner, while other groups of children build with blocks, complete phonics worksheets, or do puzzles:

- ✓ Small Group
- ✓ Student-Directed
- ✓ Listening to teacher or peers
- ✓ Talking on topic of activity or lesson
- ✓ Centers-based activities
- ✓ Reading

Teacher Role

The teacher may have multiple roles and interactions during one RRSM Segment, each of which should be captured here.

Items and Definitions

- ✓ Teacher leads the activity (in which the focal child is engaged) – If the teacher leads the activity in which the focal child is engaged, this item should be coded. Note that this item will usually only be coded for *Teacher-directed* activities and transitions.

✓ Teacher circulates, briefly providing prompts, support/instructions, and/or interaction with children – This item should be coded when the teacher is moving from one individual or small group to another. If the teacher is speaking to the entire class this item should not be coded, even if the teacher only speaks briefly.

✓ Teacher initiates activity or transition (e.g., gives directions) – If the teacher announces or otherwise initiates an activity or transition, this item should be coded.

    e.g. In most cases, if the activity or transition is *Teacher-directed*, this item should be coded.

        e.g. If the teacher is guiding a math lesson, it is appropriate to assume that the teacher initiated this lesson even if the beginning of the activity is not coded.

    o There may also be activities that the teacher initiates, but which are *Student-directed*.

        e.g. The teacher initiates the activity by asking children to draw and write about their favorite animals. Children then work independently to complete the activity.

✓ Teacher is otherwise occupied – If the teacher is engaged in any activity other than the three choices provided here for *any amount of time* during the coding period, this item should be coded.

General Coding Guidelines

- These boxes should only be checked if they relate to the activity in which the focal child is engaged.

  o The class is engaged in centers and the teacher is leading the focal child's center: *Teacher leads the focal activity* <u>should</u> be coded, since the teacher is leading the activity in which the focal child is engaged.

  o The class is engaged in centers and the teacher is leading a center *other than* the focal child's center: *Teacher leads the focal activity* <u>should not</u> be coded because the teacher is not leading the activity in which the focal child is engaged.

  o The teacher is circulating and providing academic and/or behavioral support during an activity: *Teacher circulates* <u>should</u> be coded even if the teacher does not interact with the focal child during the Segment, as this indicates the teacher's varying proximity to the child.

- The child or class may watch a video or listen to an audio recording during an observation; in such instances, coders should consider both the role of teacher him/herself during this time, and the role of the video/audio as a proxy for the teacher.

  o The teacher turns on an instructional counting video, then walks around the room setting up a hands-on math activity while the children watch the video. *Teacher leads the focal activity*, *Teacher initiates activity*, and *Teacher is otherwise occupied* should all be checked. The notes field at the bottom of the *Contextual Checklist* may then be used to explain these seemingly contradictory codes.

Teacher-Child Interaction

This portion of the *Contextual Checklist* captures the interactions between the focal child and adults in the classroom.

Items and Definitions

✓ Adult works 1:1 with child for entire observation – This item should be coded if an adult works *individually* with the focal child throughout the entire observation. This item should *not* be coded if an adult is supporting a group activity in which the focal child is involved.

✓ Teacher provides academic instruction/support – If a teacher provides academic instruction or support of any kind at least once during the observation, this item should be coded. This includes *Whole-group* and *Small-group* instruction.

✓ Teacher provides behavioral redirection or feedback – If a teacher provides academic instruction or support of any kind at least once during the observation, this item should be coded. This includes *Whole-group* and *Small-group* instruction.

> e.g. The class is engaged in an activity or transition and the teacher pauses to remind everyone that they must use "inside voices."

> e.g. The class is engaged in an activity or transition and the teacher pauses to redirect one or two students. The box beside *behavioral redirection or feedback* would only be checked if the focal child is one of the students being redirected.

✓ Teacher has no direct interaction with individual child – This box should only be coded if the teacher has no contact with the focal child either individually or as part of a group.

> e.g. The teacher is circulating during quiet reading but does not read with (or otherwise interact with) the focal child.

General Coding Guidelines

- These boxes should only be checked as they relate to interactions between the teacher and the focal child.

Teacher Proximity to Child

A code of 1-5 indicates, on average, how close (or far away) the teacher is from the focal child throughout the observation.

Teacher Proximity to Focal Child
(average for period of observation)
Circle only one:
very nearby   moderately close   very far away
1----------------2----------------3----------------4----------------5

- A code of *1* may be given if the teacher interacts directly with the focal child in a one-on-one or small-group setting for the majority of the Segment.

- A code of *5* may be given if the child is engaged in an independent or small-group activity, while the teacher is otherwise occupied on the other side of the classroom.

- A code of *2*, *3*, or *4* may be given if

    o The teacher is circulating and briefly provides support to the focal child.

    o The teacher is working with another student near the focal child.

    o The teacher is leading a whole-class activity but is not physically nearby the focal child.

- The determination of a *2*, *3*, or *4* should account for the teacher's **average** *physical, visual, and verbal proximity* to the child throughout the Segment.

    o If the teacher is speaking to the focal child from across the room: A code of *4* might be preferable to a code of *5*, since the child is physically distant from but does interact with the teacher.

    o If the teacher is sitting nearby but is facing away from and does not interact with the focal child: A code of *2* might be more appropriate than a *1*, since the teacher is physically close to but does not interact with the child.

    o If the teacher moves around the classroom for the majority of the Segment: A code of *3* will often be given during *Independent* or *Centers-based* activities during which the *Teacher circulates*, providing feedback and support. In such Segments, the teacher may alternate between being very nearby and very far away from the focal child.