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A Qualitative Study of Interviewer-Administered Physical Activity Recalls by Children

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Abstract

Background—Qualitative methods were used to better understand how to obtain interviewer-administered recalls of physical activity from children.

Methods—Subjects were 24 third- and fifth-grade children from one school in Columbia, South Carolina. Cognitive interviews targeted different retention intervals (about the same or previous school day). Round 1's protocols used an open format and had four phases (obtain free recall, review free recall, obtain details, review details). Round 2's protocols used a chronological format and had three phases (obtain free recall, obtain details, review details). Trained coders identified discrepancies across interview phases in children's recalls of physical activity at physical education (PE) and recess. Based on the school's schedule, children's reports of PE and recess were classified as omissions (scheduled but unreported) or intrusions (unscheduled but reported).

Results—Across interview phases, there were numerous discrepancies for Round 1 (regardless of grade, sex, or retention interval) but few discrepancies for Round 2. For Rounds 1 and 2, respectively, 0% and 0% of children omitted PE, while 33% and 0% intruded PE; 44% and 56% of children omitted recess, while 33% and 0% intruded recess.

Conclusions—Results provide important information for facilitating interviewer-administered recalls of physical activity with elementary-age children.

Keywords

physical activity; pediatrics; qualitative research; measurement; recall measures; children; developmental

INTRODUCTION

The progress of every science depends on the development and refinement of its methods. Researchers have become increasingly interested in improving the quality of self-reported recalls by children. Interview techniques may improve the accuracy of recall of everyday events (1) and, in particular, help children recall their physical activity (2). These techniques include interviewer-administered cognitive interviewing and the use of qualitative methods for understanding how best to obtain children's recalls of physical activity. In particular, few

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studies have compared open format interviews to chronological format interviews for facilitating interviewer-administered recalls of physical activity among children.

Although interviewer-administered recalls of dietary intake have frequently been used with children (3–11), interviewer-administered recalls of physical activity have rarely been used. In addition, little previous research in the cognitive developmental literature has evaluated recall of physical activity across differing ages of children (12–13). Based on cognitive developmental principles, third graders (mid-elementary school years) may have less ability to recall physical activity than children in fifth grade (late elementary school years) (14). Children in the mid-elementary school years understand causal relationships and can manipulate thoughts and intentions, but their cognitions are tied to reality (personal experiences) (15) and their cognitive ability (viewing process) is still quite linear; this is often referred to as concrete operational thought (14). Most children in the mid-elementary school years cannot yet consider complex relationships, or proficiently think in abstract terms. Cognitions about physical activity may still be difficult to assess in fifth graders, but by the late elementary school years, children demonstrate clear beliefs about such health behaviors actions (12–13). By 9 to 11 years of age, children's health beliefs are well-defined and stable (16) and they are able to distinguish intentions from desires or preferences and from the outcomes of intentional actions (12–13). This is consistent with the development of children's understanding of, and thoughts about, how their minds work (14–15). The ability to impute mental states to oneself and others may be necessary for attitudes, cognitive beliefs, and the ability to recall physical activity. Although the paper and pencil "three-day physical activity recall" (3DPAR) instrument developed by Pate and colleagues (17) has been used to assess physical activity in children, little previous work has focused on developing an interview-administered recall method and examining differences by age, sex, and retention interval.

Generally, as the *retention interval* (elapsed time between the event[s] to be reported and the interview) increases, reporting accuracy decreases, so the sooner something is recalled, the more accurate the report is (18–19). For a 24-hour recall of physical activity, two possible retention intervals are the *prior 24 hours* (i.e., the 24 hours immediately preceding the interview) and the *previous day* (i.e., midnight to midnight of the day before the interview). For recalls targeting the prior 24 hours, the end of the 24 hours coincides with the interview start time, and there is no intervening physical activity between the to-be-reported physical activity and the interview. For recalls targeting the previous day, the length of the retention interval and amount of intervening physical activity both increase as interviews are held later in the day. Although there is evidence that accuracy of physical activity recalls declines as time passes, most physical activity recalls concern the previous day(s), not the prior 24 hours (3, 20). To our knowledge, no study has investigated interviewer-administered recalls with children about physical activity that occurred on the previous day compared to the prior 24 hours.

The development of methods for obtaining interviewer-administered recalls in the context of schools is important given that children spend most of time in schools and there is increasing interest in developing policies to promote healthier activities in this context. Specifically, schools are major targets for obesity prevention (21–25), and concerns about whether schools contribute to childhood obesity (26–28) have intensified the need for more accurate information about children's physical activity that occurs at school. Because parents are not present at school, they lack first-hand knowledge of these behaviours; furthermore, teachers cannot be expected to provide detailed information (e.g., type, duration, intensity) of seven to eight hours of physical activity for each child in their classes on a given school day. Thus, children's recalls of physical activity that occurs at school is precisely what needs to be studied methodologically.

The purpose of this study was to enhance understanding of how to obtain interviewer-administered physical activity recalls using an exploratory approach that relied on the qualitative data elicited from the children's perspective. In addition, the present study expands on previous research by comparing recall discrepancies across the multiple phases of the interviews, and by comparing children's reports of physical education (PE) and recess against the school schedule, by age (third and fifth grade), by sex, and by retention interval (about the same school day in an afternoon interview; about the previous school day in a morning interview). Due to the exploratory nature of the study, specific hypotheses were not made.

METHODS

Approval was obtained from the University of South Carolina's institutional review board for research involving human subjects. Assent forms and consent forms were signed by children and parents, respectively.

Study Design

For the current study, two *a priori* decisions were made. The first *a priori* decision was to limit the content of children's recalls to physical activity that occurred at school. The rationale for this decision was that parents are not present at school, and teachers' primary responsibilities involve teaching rather than reporting individual children's physical activities throughout the school day. The second *a priori* decision was to conduct two rounds of cognitive interviews, with the two rounds differing in the format (i.e., initial instructions and prompts) used by interviewers. Round 1 interviews used an open format and Round 2 interviews used a chronological format. An open format was selected for Round 1 interviews to better understand how, during initial recall, children responded to physical activity prompts that had less direction or structure. Also, for national nutrition surveys with children and adults, the United States Department of Agriculture uses an open format to obtain initial recall of dietary intake (29–30). A chronological format was selected for Round 2 interviews because the Nutrition Data System for Research protocol (Nutrition Coordinating Center, University of Minnesota, Minneapolis), which has been used with children for numerous studies (6, 7, 31–36), uses chronological prompts to obtain initial recall of dietary intake (37).

Two rounds of cognitive interviews were conducted in February and March, 2010, with Round 1 interviews conducted in February and Round 2 interviews conducted in March. Each round included two interview protocols with one per retention interval: 1) about the same school day in an afternoon interview (SDA) and 2) about the previous school day in a morning interview (PDM).

Participants

Participants were in the third grade or fifth grade in January through March of the 2009–2010 academic school year in one public elementary school in Columbia, South Carolina. For the school year of data collection, 78% of children at the school were eligible for free or reduced-price school meals; this indicates that the majority of children were from families of low socioeconomic status. In January, 2010, researchers visited each of the three regular third-grade classes and each of the three regular fifth-grade classes to recruit children into the study by distributing assent and consent forms, reading the assent form aloud, and asking and responding to questions. When researchers returned to each class two or three days later, children who had returned forms signed by parents received small prizes (e.g., pencil pouches, rulers), regardless of participation decisions. Of the 71 third-grade children and 61 fifth-grade children invited to participate, 51 (72%) and 37 (61%), respectively, agreed;

within grade, the race/sex composition of children who agreed was similar to that of children who were invited.

For each of the two rounds, randomly selected children were interviewed, and assignment to the round's two protocols was random with the constraint that data collection continued until each of the two protocols in that round's final sample had six children, with three children (boys and girls) per grade, for a total of 12 children per round. To the extent possible, randomization to protocol was stratified across classes within grade. Also, to the extent possible, interviews were scheduled so children had attended their physical education (PE) class during the target period (same day or previous day) covered in the interview.

Neither school staff nor children knew in advance to which protocol children were assigned, or on which days interviews would occur. Because more children were recruited for each grade than would be interviewed, children could not determine who specifically would be interviewed. An individual child was interviewed once at most. However, when recruited, children were told that they might be interviewed zero, one, or two times; this was done so that being interviewed would not indicate to a child (or classmates) that the child would not be interviewed again.

Among children in each of the two grades who had agreed to participate, those in the upper 2.5% and lower 2.5% of the grade's age distribution as of September 1, 2009 were not interviewed. This was because children in the upper 2.5% or lower 2.5% of the grade's age distribution could have either repeated or skipped a grade, respectively.

Cognitive Interviews

For each of the two rounds of cognitive interviews, written multiple-phase protocols were developed by the study investigators after reviewing open and chronological format protocols used to obtain dietary recalls (29, 30, 37). Interviews were conducted on Tuesdays through Fridays by a total of three research staff. Morning and afternoon interviews were conducted in private locations at school after breakfast (between 8:15 and 10:30 am) and lunch (between 1:30 and 2:00 pm), respectively. Interviewer training for each round included review of written protocols, modeling, and practice with other research staff, with oversight by one of the study's Co-Principal Investigators. Interviewers documented children's reported information onto paper forms and used a different color of ink for each interview phase. Each interview was audio recorded and transcribed. Each interviewed child was mailed a \$10 check.

For Round 1, both SDA and PDM protocols used an *open format* to initially instruct children to report their physical activity at school in any self-defined order desired. Each protocol included four phases — obtain free recall, review free recall, obtain details, and review details. Figure 1 describes the interview protocols for Round 1.

For Round 2, both SDA and PDM protocols used a *chronological format* to initially instruct children to report their physical activity at school in chronological order. Each protocol included three phases — obtain free recall, obtain details, and review details. Figure 2 describes the interview protocols for Round 2.

Figure 3 shows a detailed summary of the decisions that were made about changes in the interview protocols between Round 1 and Round 2.

Coding and Analysis

For each round, the typed interview transcripts were used to develop codes to separate children's responses into manageable “themes” related to discrepancies of recalling physical

activity across interview phases. Decision rules were developed to guide and facilitate the coding of the data by using hypothetical situations to illustrate how responses would be coded. For example, the timing of when certain physical activities were reported during different phases of the interview was key and the level of detail used to describe a physical activity across the different phases allowed the coders to identify discrepancies in children's reporting. Coders were provided with a copy of the decision rules along with the coding tree used to summarize the data in a systematic way. When a coder was unsure about the appropriate way to code a specific response, she referred to the decision rules, and the response was discussed by all coders until consensus was reached. Prior to analysis, all three raters met to discuss each coding disagreement until a consensus was met regarding the final codes. After codes were applied to all transcripts in a round, children's responses were summarized to reflect grade, sex, retention interval, whether discrepancies occurred between phases of the recall, and whether children had PE and recess in the target period covered in the recall.

For Round 1, there were three classifications for coding discrepancies. First, a discrepancy was coded as occurring between Phases 1 and 2 if, in Phase 1, a child reported a physical activity (or activities), but did not say anything about the activity(s) being at PE, and then in Phase 2, that child reported one or more different specific activity(s) at PE. For example, a child reported baseball, walking around, and running in Phase 1 but did not say they were at PE; then, in Phase 2, that child reported balances, jumping up, and running a mile at PE. Second, a discrepancy was coded as occurring between Phases 1 and 2 if, in Phase 1, a child reported that s/he "went to PE" without saying what specific activity s/he did at PE, and then in Phase 2, this child reported a specific activity at PE. For example, a child reported "going to PE" in Phase 1 but did not specify what was done in PE; then, in Phase 2, that child reported playing dodge ball at PE. Third, a discrepancy was coded as occurring between Phase 3 and the previous two phases only if a child reported an activity was at PE in Phase 3 that this child had not reported in a previous phase. For example, a child reported playing a "capture the flag" game at PE in Phase 3, but that child had not reported that game in the previous two phases. These three classifications for coding discrepancies were also applied to recess.

For Round 2, a discrepancy was coded as occurring between Phases 1 and 2 if a child reported an activity in Phase 2 that the child had not reported in Phase 1. For example, a child reported shooting ball at PE in Phase 2, but the child had not reported that activity for PE in Phase 1. This classification for coding discrepancies was also applied to recess.

For each round, the school's grade-level and class schedule was used to classify children's reports of PE either as an omission (scheduled but unreported) or as an intrusion (unscheduled but reported). An analogous classification was used for children's reports of recess.

RESULTS

Open Format Cognitive Interviews (Round 1)

For Round 1, all children interviewed were Black and the mean (standard deviation) age when interviewed was 9.10 (0.35) years for third-grade children and 10.97 (0.25) years for fifth-grade children. The length of interviews for Round 1 ranged from 12 to 34 minutes; the average length was similar for the two retention interview protocols with 21 minutes for PDM and 22 minutes for SDA.

Table 1 provides a summary of the data for the open format cognitive interviews conducted in Round 1. The data are summarized for the 12 participants with three children (boys and

girls) per retention interval protocol per grade. The results show numerous discrepancies in recalling physical activity between Phase 1 (obtain free recall) and Phase 2 (review free recall), and between Phase 3 (obtain details) and the previous two phases. Of the 10 children who reported PE, discrepancies in recalling physical activity were noted for PE for 7 of 10 children (70%) between Phases 1 and 2, and for 1 of 10 children (10%) between Phase 3 and the previous two phases; for recess, of the 6 children who reported recess, the respective values were 5 of 6 (83%) and 2 of 6 (33%). These discrepancies were common regardless of grade, sex, or retention interval protocol.

Concerning PE omissions and intrusions, according to the school schedule, 9 children interviewed for Round 1 had PE in the target period covered in the recall; of these 9 children, recalls by all 9 included reports of PE, so 0% omitted PE. Conversely, according to the school schedule, 3 children interviewed for Round 1 did not have PE in the target period covered in the recall; of these 3 children, recalls by 2 children were correct in not including reports of PE, but 1 child (33%; third-grade girl interviewed SDA) intruded PE by incorrectly reporting it.

Concerning recess omissions and intrusions, according to the school schedule, 9 children interviewed for Round 1 had recess in the target period covered in the recall; of these 9 children, recalls by 5 children included reports of recess, and recalls by 4 children (44%; all interviewed PDM; 2 fifth-grade girls, 1 fifth-grade boy, 1 third-grade boy) failed to include reports of recess (i.e., they omitted recess). Conversely, according to the school schedule, 3 children interviewed for Round 1 did not have recess in the target period covered in the recall because these were SDA interviews and recess was scheduled after the time of the afternoon interview; the recalls by 2 of these children were correct in not including a report of recess. However, for 1 child (33%; fifth-grade boy interviewed SDA), although the recall included a "no" response in Phase 2's inquiry about going to recess, in Phase 3, this child intruded recess by reporting playing football at recess and playing basketball "on the recess court".

When asked how far it was to the location for transition activities, children in general provided confusing and often times incomprehensible information. (See Table 1.)

In summary, the majority of participants had discrepancies in recalling physical activities across the first two phases, and between the third and the previous two phases, for both PE and recess. The direction of the discrepancies indicated that fewer details and fewer physical activities were reported during Phase 1 as compared to Phases 2 or 3. These discrepancies were common regardless of grade, sex, or retention interval protocol. Zero children omitted PE, 4 children (all interviewed PDM) omitted recess, 1 child intruded PE, and 1 child intruded recess.

Chronological Format Cognitive Interviews (Round 2)

For Round 2, all children interviewed were Black with the exception of one girl who was White, and the mean (standard deviation) age when interviewed was 9.22 (0.43) and 11.19 (0.29) years. The length of interviews for Round 2 ranged from 15 to 31 minutes; the average length was similar for the two retention interview protocols with 23 minutes for PDM and 21 minutes for SDA.

Table 2 provides a summary of the data for the chronological format cognitive interviews in Round 2. The data are summarized for the 12 participants with three children (boys and girls) per retention interval protocol per grade. The results show few discrepancies in recalling physical activity between Phase 1 (obtain free recall) and Phase 2 (obtain details). Of the 8 children who reported PE, between Phases 1 and 2, discrepancies in recalling

physical activity were noted for 1 of 8 children (13%); for recess, of the 4 children who reported recess, the respective value was 0 of 4 (0%).

Concerning PE omissions and intrusions, according to the school schedule, 8 children interviewed for Round 2 had PE in the target period covered in the recall; of these 8 children, recalls by all 8 included reports of PE, so 0% omitted PE. Conversely, according to the school schedule, 4 children interviewed for Round 2 did not have PE in the target period covered in the recall; of these 4 children, recalls by all 4 were correct in not including reports of PE, so 0% intruded PE.

Concerning recess omissions and intrusions, according to the school schedule, 9 children interviewed for Round 2 had recess in the target period covered in the recall; of these 9 children, recalls by 4 children included reports of recess, and recalls by 5 children (3 fifth grade, 2 third grade; 3 girls, 2 boys; 4 interviewed PDM, 1 interviewed SDA) failed to include reports of recess (i.e., 56% omitted recess). Conversely, according to the school schedule, 3 children interviewed for Round 2 did not have recess in the target period covered in the recall because these were SDA interviews and recess was scheduled after the time of the afternoon interview; recalls by all 3 children (fifth grade; 2 boys, 1 girl; all interviewed SDA) were correct in not including a report of recess, so 0% intruded recess.

When asked how many minutes of physical activity children engaged in while participating in PE or recess, many children provided meaningful responses that were comprehensible to the interviewers. (See Table 2.)

In summary, only 1 of 12 children demonstrated a discrepancy in recalling physical activity for PE or recess across Phases 1 and 2. Thus, few discrepancies were seen overall when a chronological format was used by interviewers to guide children's recall. Zero children omitted PE, 5 children (4 interviewed PDM) omitted recess, 0 children intruded PE, and 0 children intruded recess.

DISCUSSION

This qualitative study used two rounds of cognitive interviews (open-format for Round 1; chronological format for Round 2) to obtain interviewer-administered recalls of physical activity from boys and girls in third grade and fifth grade for two retention intervals (SDA; PDM). Although the use of different interview formats for the two rounds precludes the ability to compare results across rounds, results from Round 1 and Round 2 independently informed the investigators on how to conduct interviewer-administered recalls of physical activity in children in future studies. Round 1's open format yielded numerous discrepancies across interview phases in children's reports of physical activity; these findings were consistent for third and fifth graders, for boys and girls, and for both retention intervals. Round 2's chronological format yielded few discrepancies across interview phases. In addition, asking about the duration of time spent in physical activities in the school environment in Round 2 lead provided more helpful information than probing about distances related to transition activities in the school environment in Round 1.

Little is known from the previous literature about the accuracy of children's physical activity recalls or how attitudes and beliefs may influence recall accuracy. It is possible they might actually bias recall towards over-reporting if children hold strong beliefs about how much activity should be performed each day. Future studies may want include assessment of children's social desirability to investigate its correlation with accuracy of physical activity recalls. Although the purpose of our study was to use qualitative methods to better understand how to obtain interviewer-administered recalls of physical activity based on children's self-reported responses, our results provide important information for future

studies to validate accuracy. Other investigators have used paper and pencil methods to assess children's self-reported physical activity (17), and have focused on the previous day(s). Our study used interviewer-administered recalls and included two retention intervals (same day; previous day).

The findings from this qualitative study partially support previous work by McKenna and colleagues (1) which showed that think-aloud approaches to physical activity recall in children and adolescents (8–16 yrs; both sexes; 100% Caucasian) provided important insights to facilitating recall. Consistent with the study by McKenna and colleagues, our study showed that children are capable of recalling details about physical activities and the duration of physical activities they have engaged in at school while in mid- and late-elementary school years. However, while McKenna's previous work showed that context and peer engagement in physical activities were important in prompting recall, our study did not support that notion. Instead, our qualitative data supported the notion that simply using a chronological format to obtain initial (i.e., free) recall provided a high level of detail about physical activity during the first interview phase and with fewer discrepancies between the first and second interview phases.

In a study by Pearce, Harrell, and McMurray (38), qualitative recall data were obtained from small groups of middle-school children (11–15 yrs; both sexes; 53% African American) specific to physical activities in the contexts of school and home. The recall of physical activities was shown to be quite good across contexts. Furthermore, the children's recalls were linear and chronological, using sequencing as a predominant cue in recalling their activities. The findings from our qualitative study expand on the previous work by demonstrating that a chronological format can facilitate recall of physical activity.

Research on autobiographical memory (19, 39–45) and eyewitness testimony (46–48) has indicated that recall accuracy may depend on *prompts* used to ask subjects to recall events of a target period. *Chronological* (most distant to most recent) prompts may enhance accuracy because this is the sequence in which the events occurred and recall of earlier events could guide the recall of subsequent events; *reverse* (most recent to most distant) prompts may enhance accuracy because recent events are likely to be easier to remember and may stimulate recall of earlier events; and *open* (free [no instructions]) prompts may enhance accuracy because no order is imposed initially, so advantages of both forward and reverse may occur (41, 43, 45). Some research on autobiographical memory (41, 44) and eyewitness testimony (46) has found that both the number of intrusions (false reports) and intrusion rates may be *smaller* (better) with reverse than with chronological prompts. Few studies have investigated the impact of using chronological prompts or open prompts to improve the accuracy of recalling health behaviours. In one study in the dietary field, chronological- and reverse-order prompting were compared with elementary school children (49). Results showed that prompting children to report in reverse versus chronological order improved omission and intrusion rates for boys more so than girls. In another study in the dietary field, meal-name prompting was compared to open format with elementary school children (50). Results showed that open format was associated with a smaller (better) intrusion rate than meal-name prompting when validated with school meal observations. The current qualitative study's timeline precluded three rounds of cognitive interviews, and the investigators felt that of the two rounds, one round should be open format and the other round should be chronological format. Although our results showed few discrepancies in physical activity recalls across interview phases with the chronological format, validation studies are needed to investigate how reverse- versus chronological-order prompting influences the accuracy of children's recalls of physical activity.

There are several limitations to the present study that should be noted. We only interviewed a total of 24 children. Thus, the generalizability of our findings may be limited. However, our study did compare each format with two grades, with both sexes, and with two retention intervals. Thus, the findings do have replicability across sexes and grades (third and fifth) and retention intervals. The accuracy of children's recalls of specific types of physical activity is unknown; however, children's reports of PE and recess were compared to the school's schedule. The two rounds of cognitive interviews cannot be directly compared in the present study as they were independent protocols that were not linked. However, the two rounds independently informed the investigators on how to facilitate interviewer-administered recalls of physical activity from children. It is noted that the chronological format was associated with few discrepancies in reports of types of physical activities across interview phases, and that the open format was more prone to discrepancies in reports of types of physical activities across interview phases.

In summary, this study is one of the first to systematically use a qualitative approach to understand how to facilitate interviewer-administered recalls of physical activity in elementary age children, and the first study to use the same-day retention interval when obtaining children's recalls of physical activity. The findings provide evidence that during interviewer-administered recalls of physical activity in children, certain prompts (chronological) may yield few discrepancies across interview phases, and a shorter retention interval (i.e., SDA) may yield fewer omissions and intrusions of PE and recess. Research is needed to validate the accuracy of interviewer-administered recalls of physical activity in children using different formats and different retention intervals. Also, validation studies are needed to investigate whether recall accuracy differs by interview phase; in other words, if a phase to review details adds intrusions without decreasing omissions, it may not be worth the time (for researchers or subjects) involved to include that phase. The use of direct observation to validate the types, intensity, and duration of physical activity recalled by children would be extremely beneficial.

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Both protocols	
Introduction (part 1)	<p>Explain the interview:</p> <p><i>“The purpose of this interview is to learn about children’s physical activity at school. Physical activity means what you do when you are active, moving around, or exercising. I’m interested in all types of physical activity, moving around, and exercise that children do.”</i></p> <p>The interviewer showed three pages of pictures of physical activity. Pages 1, 2, and 3 had fast-paced, medium-paced, and slow-and-easy-paced physical activities, respectively. The interviewer pointed to each page individually and said <i>“Here are some ____-paced physical activities. What other ____-paced physical activities can you think of that are not pictured here?”</i></p> <p>The interviewer said <i>“My pictures don’t include every physical activity. What other physical activities do you do?”</i></p>
Protocol for interviews about the same school day in afternoon interviews (SDA)	
Introduction (part 2)	<p>The interviewer said <i>“For the rest of this interview, let’s talk about your physical activity while you were at school today. I’ll ask you questions. I want to know about the physical activity you did at school today, not what you saw other children do. It is important for you to do the best that you can when you answer my questions. Before I ask my questions, do you have any questions about what we’ll be doing?”</i></p>
1 st phase	<p>Obtain free recall:</p> <p><i>“Okay, let’s start. Please think about what you did today at school between the times when you got to school this morning until you came here with me for this interview. What physical activities, moving around, or exercise do you remember doing at school today?”</i></p> <p>When the child stopped, the interviewer asked <i>“What other types of physical activity, moving around, or exercise did you do at school today?”</i></p>
2 nd phase	<p>Review free recall:</p> <p><i>“Your answers are very important, so we need to be sure you’ve told me everything about the physical activity, moving around, and exercise you did at school today. Please listen as I review what you’ve told me so far about your physical activity at school today, and tell me if you remember anything else. At school today, you ...”</i> (The interviewer reviewed physical activity reported during the previous phase.)</p> <p>If physical education (PE) was not already reported, the interviewer asked <i>“In addition to what you have already told me about, did you go to PE at school today?”</i></p> <p>If PE was reported but the type of physical activity at PE was not, the interviewer asked <i>“What types of physical activity, moving around, or exercise did you do during PE at school today?”</i></p> <p>If the child reported going to PE today, the interviewer asked <i>“What else did you do at PE at school today?”</i></p> <p>If recess was not already reported, the interviewer asked <i>“In addition to what you have already told me about, did you go to recess at school today?”</i></p> <p>If recess was reported but the type of physical activity at recess was not, the interviewer asked <i>“What types of physical activity,</i></p>

	<p><i>moving around, or exercise did you do during recess at school today?"</i></p> <p>If the child reported going to recess today, the interviewer asked <i>"What else did you do during recess at school today?"</i></p> <p>The interviewer asked <i>"In addition to what you have already told me about, did you move around when you were in [teacher's name]'s classroom at school today?"</i></p> <p>If yes and if needed, the interviewer said <i>"Tell me how you moved around when you were in [teacher's name]'s classroom at school today."</i></p> <p>The interviewer asked <i>"In addition to what you have already told me about, did you go anywhere other than [teacher's name]'s classroom at school today?"</i></p> <p>If yes and if needed, the interviewer asked <i>"Where else did you go other than [teacher's name]'s classroom at school today?"</i></p> <p>For each of the other locations, the interviewer asked <i>"When you were in [location] at school today, did you move around?"</i></p> <p>If yes and if needed for each of the other locations, the interviewer asked <i>"Tell me how you moved around when you were in [location] at school today."</i></p> <p>The interviewer asked <i>"In addition to what you have already told me, can you remember any other types of physical activity, moving around, or exercise that you did at school today, or any other places that you went to at school today?"</i></p>
3 rd phase	<p>Obtain details:</p> <p>The interviewer asked questions to obtain details about the types of physical activity reported, where at school the reported physical activity occurred, with whom each physical activity was done, and whether the child did the reported physical activity today.</p> <p>For each physical activity reported, the interviewer asked <i>"How much of the time during (recess or PE or ...) today did you do (or play) this ____? Please listen to these choices and choose one: Did you do (or play) this all, most, half, or a little bit of (recess or PE or ...)?"</i></p> <p>For each transition activity reported, the interviewer asked <i>"Who did you do (or play) this ____ with today? When you went to (location) today, how far was it? For this (type, location, with whom) at school today, did you go there at a fast pace, medium pace, or slow and easy pace?"</i></p>
4 th phase	<p>Review detailed information:</p> <p><i>"To finish our interview, let's review what you've told me. Please tell me if you need to change or correct something. Also, please tell me if you forgot to tell me something about the physical activity, moving around, or exercise that you did at school today."</i></p> <p>For each non-transition activity reported, the interviewer said <i>"At school today, you (type of physical activity reported) in (or on) the (location) with (whom) for (duration) at a (pace). Is this correct?"</i></p> <p>For each transition activity reported, the interviewer said <i>"At school today, you went to (location) and it was (how far as freely reported by child) at a (pace). Is this correct?"</i></p> <p>The interviewer concluded by asking <i>"Can you remember any other types of physical activity, moving around, or exercise that you did at school today?"</i></p>
Protocol for interviews about the previous school day in morning interviews (PDM)	
Introduction (part 2)	<p>The interviewer said <i>"For the rest of this interview, let's talk about your physical activity while you were at school yesterday. Today is (day of week), so what day was yesterday? I'll ask you questions. I want to know about the physical activity you did at school</i></p>

	yesterday, not what you saw other children do. It is important for you to do the best that you can when you answer my questions. Before I ask my questions, do you have any questions about what we'll be doing?"
1 st phase	Obtain free recall: <p>"Okay, let's start. Please think about what you did yesterday at school between the times when you got to school yesterday morning until school ended yesterday. What physical activities, moving around, or exercise do you remember doing at school yesterday?"</p> <p>When the child stopped, the interviewer asked "What other types of physical activity, moving around, or exercise did you do at school yesterday?"</p>
2 nd phase	Review free recall: <p>"Your answers are very important, so we need to be sure you've told me everything about the physical activity, moving around, and exercise you did at school yesterday. Please listen as I review what you've told me so far about your physical activity at school yesterday, and tell me if you remember anything else. At school yesterday, you ..." (The interviewer reviewed physical activity reported during the previous phase.)</p> <p>If PE was not already reported, the interviewer asked "In addition to what you have already told me about, did you go to PE at school yesterday?"</p> <p>If PE was reported but the type of physical activity at PE was not, the interviewer asked "What types of physical activity, moving around, or exercise did you do during PE at school yesterday?"</p> <p>If the child reported going to PE yesterday, the interviewer asked "What else did you do at PE at school yesterday?"</p> <p>If recess was not already reported, the interviewer asked "In addition to what you have already told me about, did you go to recess at school yesterday?"</p> <p>If recess was reported but the type of physical activity at recess was not, the interviewer asked "What types of physical activity, moving around, or exercise did you do during recess at school yesterday?"</p> <p>If the child reported going to recess yesterday, the interviewer asked "What else did you do during recess at school yesterday?"</p> <p>The interviewer asked "In addition to what you have already told me about, did you move around when you were in [teacher's name]'s classroom at school yesterday?"</p> <p>If yes and if needed, the interviewer said "Tell me how you moved around when you were in [teacher's name]'s classroom at school yesterday."</p> <p>The interviewer asked "In addition to what you have already told me about, did you go anywhere other than [teacher's name]'s classroom at school yesterday?"</p> <p>If yes and if needed, the interviewer asked "Where else did you go other than [teacher's name]'s classroom at school yesterday?"</p> <p>For each of the other locations, the interviewer asked "When you were in [location] at school yesterday, did you move around?"</p> <p>If yes and if needed for each of the other locations, the interviewer asked "Tell me how you moved around when you were in [location] at school yesterday."</p> <p>The interviewer asked "In addition to what you have already told me, can you remember any other types of physical activity, moving around, or exercise that you did at school yesterday, or any other places that you went to at school yesterday?"</p>
3 rd phase	Obtain details: <p>The interviewer asked questions to obtain details about the types of physical activity reported, where at school the reported physical</p>
	activity occurred, with whom each physical activity was done, and whether the child did the reported physical activity yesterday. <p>For each physical activity reported, the interviewer asked "How much of the time during (recess or PE or ...) yesterday did you do (or play) this ____? Please listen to these choices and choose one: Did you do (or play) this all, most, half, or a little bit of (recess or PE or ...)? For this (type, location, with whom) at school yesterday, did you do it fast paced, medium paced, or slow and easy paced?"</p> <p>For each transition activity reported, the interviewer asked "Who did you do (or play) this ____ with yesterday? When you went to (location) yesterday, how far was it? For this (type, location, with whom) at school yesterday, did you go there at a fast pace, medium pace, or slow and easy pace?"</p>
4 th phase	Review detailed information: <p>"To finish our interview, let's review what you've told me. Please tell me if you need to change or correct something. Also, please tell me if you forgot to tell me something about the physical activity, moving around, or exercise that you did at school yesterday."</p> <p>For each non-transition activity reported, the interviewer said "At school yesterday, you (type of physical activity reported) in (or on) the (location) with (whom) for (duration) at a (pace). Is this correct?"</p> <p>For each transition activity reported, the interviewer said "At school yesterday, you went to (location) and it was (how far as freely reported by child) at a (pace). Is this correct?"</p> <p>The interviewer concluded by asking "Can you remember any other types of physical activity, moving around, or exercise that you did at school yesterday?"</p>

Figure 1.
Open format multiple-phase interview protocols used for Round 1

Both protocols	
Introduction (part 1)	<p>Explain the interview:</p> <p><i>“The purpose of this interview is to learn about children’s physical activity at school. Physical activity means what you do when you are active, moving around, or exercising. I’m interested in all types of physical activity, moving around, and exercise that children do.”</i></p> <p>The interviewer showed three pages of pictures of physical activity. Pages 1, 2, and 3 had fast-paced, medium-paced, and slow - paced physical activities, respectively. The interviewer pointed to each page individually and said <i>“Here are some ____-paced physical activities. Can you name one that is not pictured here?”</i></p> <p>The interviewer said <i>“My pictures don’t include every physical activity. What other physical activities do you do?”</i></p>
Protocol for interviews about the same school day in afternoon interviews (SDA)	
Introduction (part 2)	<p>The interviewer said <i>“For the rest of this interview, I’ll be asking you questions about your physical activity, moving around, and exercise at school today. I want to know about what <u>you</u> did at school today, <u>not</u> <u>what</u> you <u>saw</u> other children do. I want to know about all of your physical activity at school today – whether it was in your classroom, in another place here at school, if you had physical education (PE), if you had recess, and if you went anywhere else at school today. Before I ask my questions, do you have any questions about what we’ll be doing?”</i></p>
1 st phase	<p>Obtain free recall:</p> <p><i>“Okay, let’s begin with this morning. What time did you get to school this morning?”</i></p> <p><i>“After you got to school this morning at (<u>time</u>), what was the first time you were physically active, moving around, or exercising? What physical activity, moving around, or exercise did you do at that time? Did you do any other physical activity, moving around, or exercise at that time? What was the next time at school today that you were physically active, moving around, or exercising? What physical activity, moving around, or exercise did you do at that time? Did you do any other physical activity, moving around, or exercise at that time? Can you remember any other times at school today that you were physically active, moving around, or exercising—either in your classroom or somewhere else at school today?”</i></p>
2 nd phase	<p>Obtain details:</p> <p><i>“Now, I’m going to ask you for more details about the things you just told me. As we go along, please tell me if you remember any other times at school today that you were physically active, moving around, or exercising.”</i></p> <p>Beginning with the earliest transition/physical activity, the interviewer asked about duration and pace by saying <i>“You got to school this morning at (<u>time</u>). Let’s talk about the first time you moved around at school today – that was at (<u>time</u>) (<u>this morning/afternoon</u>) when you (<u>earliest transition/physical activity</u>).”</i></p> <p>For a reported transition activity, the interviewer asked <i>“How long did it take you to go to (<u>class / PE / recess / place / etc</u>)?”</i> and <i>“Did you go to (<u>class / PE / recess / place / etc</u>) at a fast, medium, or slow pace?”</i></p> <p>For a reported physical activity, the interviewer asked <i>“How long did you do (or play) this (<u>physical activity</u>)?”</i> and <i>“Did you do this (<u>physical activity</u>) at a fast pace, medium pace, or slow pace?”</i></p> <p><i>“Now let’s talk about the next time you moved around at school today – that was at (<u>time</u>) (<u>this morning/afternoon</u>) when you</i></p>

	<p><i>(second earliest transition/physical activity).</i>"</p> <p>The interviewer repeated the same questions as above for "first time". This process was repeated to cover today's transition/physical activities at school in chronological [forward] order – from when the school day started until the interview.</p>
3 rd phase	<p>Review detailed information:</p> <p><i>"To finish our interview, let's review what you've told me. Please tell me if you need to change or correct something. Also, please tell me if you forgot to tell me something about the physical activity, moving around, or exercise that you did at school today."</i></p> <p><i>"After you got to school today at (time), the first time you moved around was at (time) (this morning/afternoon) when you (earliest transition/physical activity) for (duration) at a (pace). Is this correct? Did you do any other moving around at that time?"</i></p> <p>When reviewing a transition activity, instead of saying "for (duration) at a (pace)", the interviewer said "It took you ___ minutes to get there, and you went at a ___ pace," and the interviewer did not ask "Did you do any other moving..."</p> <p><i>"The next time you moved around at school today was at (time) (this morning/afternoon) when you (second earliest transition/physical activity) for (duration) at a (pace). Is this correct? Did you do any other moving around at that time?"</i></p> <p>The interviewer concluded by asking "Can you remember any other times at school today that you were physically active, moving around, or exercising?"</p>
Protocol for interviews about the previous school day in morning interviews (PDM)	
Introduction (part 2)	<p>The interviewer said "For the rest of this interview, I'll be asking you questions about your physical activity, moving around, and exercise at school yesterday. Today is (day of week), so what day was yesterday? I want to know about what you did at school yesterday, <u>not what</u> you <u>saw</u> other children do. I want to know about all of your physical activity at school yesterday – whether it was in your classroom, in another place here at school, if you had PE, if you had recess, and if you went anywhere else at school yesterday. Before I ask my questions, do you have any questions about what we'll be doing?"</p>
1 st phase	<p>Obtain free recall:</p> <p><i>"Okay, let's begin with yesterday morning. What time did you get to school yesterday morning?"</i></p> <p><i>"After you got to school yesterday morning at (time), what was the first time you were physically active, moving around, or exercising? What physical activity, moving around, or exercise did you do at that time? Did you do any other physical activity, moving around, or exercise at that time? What was the next time at school yesterday that you were physically active, moving around, or exercising? What physical activity, moving around, or exercise did you do at that time? Did you do any other physical activity, moving around, or exercise at that time? Can you remember any other times at school yesterday that you were physically active, moving around, or exercising—either in your classroom or somewhere else at school yesterday?"</i></p>
2 nd phase	<p>Obtain details:</p> <p><i>"Now, I'm going to ask you for more details about the things you just told me. As we go along, please tell me if you remember any other times at school yesterday that you were physically active, moving around, or exercising."</i></p> <p>Beginning with the earliest transition/physical activity, the interviewer asked about duration and pace by saying "You got to school yesterday morning at (time). Let's talk about the first time you moved around at school yesterday – that was at (time) (yesterday morning/afternoon) when you (earliest transition/physical activity)."</p> <p>For a reported transition activity, the interviewer asked "How long did it take you to go to (class / PE / recess / place / etc)?" and "Did you go to (class / PE / recess / place / etc) at a fast, medium, or slow pace?"</p>
	<p>For a reported physical activity, the interviewer asked "How long did you do (or play) this (physical activity)?" and "Did you do this (physical activity) at a fast pace, medium pace, or slow pace?"</p> <p><i>"Now let's talk about the next time you moved around at school yesterday – that was at (time) (yesterday morning/afternoon) when you (second earliest transition/physical activity)."</i></p> <p>The interviewer repeated the same questions as above for "first time". This process was repeated to cover yesterday's transition/physical activities at school in chronological [forward] order until the school day ended yesterday.</p>
3 rd phase	<p>Review detailed information:</p> <p><i>"To finish our interview, let's review what you've told me. Please tell me if you need to change or correct something. Also, please tell me if you forgot to tell me some physical activity, moving around, or exercise that you did at school yesterday."</i></p> <p><i>"After you got to school yesterday at (time), the first time you moved around was at (time) (yesterday morning/afternoon) when you (earliest transition/physical activity) for (duration) at a (pace). Is this correct? Did you do any other moving around at that time?"</i></p> <p>When reviewing a transition activity, instead of saying "for (duration) at a (pace)", the interviewer said "It took you ___ minutes to get there, and you went at a ___ pace," and the interviewer did not ask "Did you do any other moving..."</p> <p><i>"The next time you moved around at school yesterday was at (time) (yesterday morning/afternoon) when you (second earliest transition/physical activity) for (duration) at a (pace). Is this correct? Did you do any other moving around at that time?"</i></p> <p>The interviewer concluded by asking "Can you remember any other times at school yesterday that you were physically active, moving around, or exercising?"</p>

Figure 2.
Chronological format multiple-phase interview protocols used for Round 2

Interview phase	Change*	Rationale
Introduction	<p>Three pages of pictures of physical activity were shown with pages 1, 2, and 3 having fast-paced, medium-paced, and slow-and-easy-paced physical activities, respectively.</p> <p>Round 1 - The pages were on full (8.5 by 11 inch) sheets of paper; pages 1, 2, and 3 had 10, 11, and 11 pictures, respectively. The interviewer pointed to page 1 and said, "Here are some fast-paced physical activities. What other fast-paced physical activities can you think of that are not pictured here?" The interviewer repeated a similar process for each of pages 2 and 3.</p> <p>Round 2 - The pages were on trimmed (4.25 by 8 inch) sheets of paper; each page had 6 pictures. The interviewer pointed to page 1 and said, "Here are some fast-paced physical activities. Can you name one that is not pictured here?" If children did not respond within about 10 seconds, the interviewer gave an example of a fast-paced physical activity that was not pictured on the page. The interviewer repeated a similar process for each of pages 2 and 3.</p>	<p>In Round 1, considerable time was taken by children to respond; some children gave no responses while other children named each picture on each page.</p> <p>For Round 2, we decreased the number of physical activities pictured on each page to facilitate children's ability to name a non-pictured physical activity of that pace. We trimmed the pages so they took less space when laid side by side in front of children. We set a time limit to move the interview along if children failed to provide responses.</p>
Introduction	<p>Final instructions given to child.</p> <p>Round 1 - "For the rest of this interview, let's talk about your physical activity while you were at school today. I'll ask you questions. I want to know about the physical activity you did at school today, not what you saw other children do. It is important for you to do the best that you can when you answer my questions."</p> <p>Round 2 - "For the rest of this interview, I'll be asking you questions about your physical activity, moving around, and exercise at school today. I want to know about what <u>you</u> did at school today, <u>not what</u> you <u>saw</u> other children do. I want to know about all of your physical activity at school today – whether it was in your classroom, in another place here at school, if you had PE, if you had recess, and if you went anywhere else at school today."</p>	<p>For Round 1, immediately after the phase to collect the initial list of activities, there was a phase to review the initial list which included specific prompts about PE, recess, in the classroom, and anywhere other than the classroom.</p> <p>For Round 2, we felt it was important to mention locations at school, PE, and recess during the final instructions because the specific prompts about these things were no longer included when we eliminated the phase to review the initial list.</p>
Obtain free recall	<p>Round 1 - "Please think about what you did today at school between the times when you got to school this morning until you came here with me for this interview. What physical activities, moving around, or exercise do you remember doing at school today? What other types of physical activity, moving around, or exercise did you do at school today?"</p> <p>Round 2 - "Let's begin with this morning. What time did you get to school this morning? After you got to school this morning at (time), what was the first time you were physically active, moving around, or exercising? What physical activity, moving around, or exercise did you do at that time? Did you do any other physical activity, moving around, or exercise at that time? What was the next time at school today that you were physically active, moving around, or exercising? What physical activity, moving around, or exercise did you do at</p>	<p>For Round 2, we needed to know what time the child arrived at school in order to begin the chronological prompting.</p>

	that time? Did you do any other physical activity, moving around, or exercise at that time? Can you remember any other times at school today that you were physically active, moving around, or exercising—either in your classroom or somewhere else at school today?"	
Review free recall	Round 1 - The second phase was to review information from the free recall obtained in the first phase. Round 2 - The phase to review the free recall was eliminated.	For Round 2, we eliminated the phase to review the initial list to prevent interviews from being too long; also, we felt this review phase would not be needed because we anticipated more physical activities being reported during the initial recall when we used chronological prompts.
Obtain details	Round 1 - We asked with whom each physical activity at school was done. Round 2 - The question about with whom at school was not asked.	For Round 1, the time needed to obtain details about with whom at school did not seem well spent considering the information provided by this question. For Round 2, we eliminated the "with whom" question to prevent interviews from being too long, and to allow us more time to obtain details about physical activity that we felt would be more informative.
Obtain details	Round 1 - We asked where each physical activity was done at school. Round 2 - The question about where at school was not asked.	For Round 1, the time needed to obtain details about where at school did not seem well spent considering the information it provided. For Round 2, we eliminated the "where" question to prevent interviews from being too long, and to allow us more time to obtain details about physical activity that we felt would be more informative.
Obtain details	Round 1 - We asked "Did you do (<i>or play</i>) this _____ today?" Round 2 - This question was not asked.	For Round 2, the "did you do" question was not asked to prevent interviews from being too long; also, we felt children understood (from final instructions at the end of the Introduction) that they were to report what they had done, not what they saw other children do.
Obtain details	Round 1 - "How much of the time during (<i>recess or PE or ...</i>) today did you do (<i>or play</i>) this _____? Please listen to these choices and choose one: Did you do (<i>or play</i>) this all, most, half, or a little bit of (<i>recess or PE or ...</i>)?" Round 2 - (<i>For a transition activity</i>) "How long did it take you to go to (<i>class / PE / recess / place / etc</i>)?" (<i>For a physical activity</i>) "How long did you do (<i>or play</i>) this (<i>physical activity</i>)?"	For Round 1, we did not feel responses to the "how much of the time" question provided helpful information about duration. For Round 2, we were curious as to whether children would report duration in terms of minutes in response to the "how long" question but without specifically asking children to report minutes.

Figure 3.**Decisions for Round 1 and Round 2 Interview Protocols**

* The changes in Figure 3 are for recalls about the same day obtained during afternoon interviews. Comparable changes were made for recalls about the previous day obtained during morning interviews.

Table 1

Round 1 (Open Format) Cognitive Discrepancies in Recall of Physical Activities

Child ID, grade, sex, and protocol*	Physical Education (PE)		Recess		Distance	PE scheduled in TP [†]	Recess scheduled in TP
	Discrepancy between Phases 1 and 2?	Discrepancy between Phase 3 and the previous two phases?	Discrepancy between Phases 1 and 2?	Discrepancy between Phase 3 and the previous two phases?			
#1 5 th -grade girl; PDM protocol	Yes	No	-----Did not report recess-----		"Long time" to the gym	Yes	Yes
#2 3 rd -grade boy; SDA protocol	Yes	No	Yes	No	No transition activity reported	Yes	Yes
#3 3 rd -grade girl; PDM protocol	Yes	No	Yes	No	"Like far from our class and one half hallway to the PE room"	Yes	Yes
#4 5 th -grade girl; SDA protocol	Yes	No	-----Did not report recess-----		"Like a mile" to PE	Yes	No
#5 5 th -grade boy; PDM protocol	-----Did not report PE-----		-----Did not report recess-----		When asked about distance to class where activity occurred, child included time that teacher used to discipline class	No	Yes
#6 3 rd -grade girl; SDA protocol	Yes	No	Yes	Yes	"Not very far to the playground"	Yes	Yes
#7 3 rd -grade boy; PDM protocol	Yes	No	Yes	No	"I don't remember" how far it was to PE	Yes	Yes
#8 5 th -grade boy; SDA protocol	No	No	No	Yes	"Not that long" to PE	Yes	No
#9 3 rd -grade boy; PDM protocol	No	No	-----Did not report recess-----		"...about a mile" to PE	Yes	Yes
#10 5 th -grade girl; PDM protocol	-----Did not report PE-----		-----Did not report recess-----		No transition activity reported	No	Yes
#11 5 th -grade boy; SDA protocol	No	Yes	-----Did not report recess-----		"At least 3 hallways away" to PE	Yes	No
#12 3 rd -grade girl; SDA protocol	Yes	No	Yes	No	"Three to two minutes to PE"	No	Yes

* The PDM protocol is for recalls about the previous day obtained during a morning interview. The SDA protocol is for recalls about the same day obtained during an afternoon interview.

[†]The TP is the target period covered in the recall. For example, the PDM protocol targets the previous day, while the SDA protocol targets that same day.

Table 2

Round 2 Cognitive Discrepancies in Recall of Physical Activities when Using Chronological Protocol

Child ID, grade, sex, and protocol*	Discrepancy between Phases 1 and 2?	Was physical education (PE) reported?	Was recess reported?	Duration of Activity	PE scheduled in TP [†]	Recess scheduled in TP
#1 5 th -grade girl; PDM protocol	No	No	No	"Five minutes"	No	Yes
#2 3 rd -grade girl; SDA protocol	No	Yes	No	"Three to four minutes," For Peer Review	Yes	Yes
#3 3 rd -grade boy; PDM protocol	No	Yes	No	"Four to ten minutes"	Yes	Yes
#4 5 th -grade boy; SDA protocol	No	Yes	No	"Three minutes a session for 21 minutes total"	Yes	No
#5 5 th -grade girl; PDM protocol	No	Yes	No	"About 30 minutes"	Yes	Yes
#6 3 rd -grade boy; SDA protocol	No	Yes	Yes	"Probably about 5 minutes"	Yes	Yes
#7 3 rd -grade girl; PDM protocol	No	Yes	Yes	"It was, I only did one round so it took 1 minute"	Yes	Yes
#8 5 th -grade boy; SDA protocol	Yes	Yes	No	"Actually I did it for a minute and some, some change."	Yes	No
#9 5 th -grade boy; PDM protocol	No	No	No	"3 minutes"	No	Yes
#10 3 rd -grade girl; PDM protocol	No	No	Yes	"20 minutes"	No	Yes
#11 3 rd -grade boy; SDA protocol	No	No	Yes	"Less than 2 seconds."	No	Yes
#12 5 th -grade girl; SDA protocol	No	Yes	No	"40 minutes"	Yes	No

* The PDM protocol is for recalls about the previous day obtained during a morning interview. The SDA protocol is for recalls about the same day obtained during an afternoon interview.

[†] The TP is the target period covered in the recall. For example, the PDM protocol targets the previous day, while the SDA protocol targets that same day.