Cognitive Interview Evaluation of "Healthy and Ready to Learn" Survey Questions

Annie MacFadyen
Collaborating Center for Questionnaire Design and Evaluation Research
National Center for Health Statistics

March 2022

Interview team (alphabetically): A. Anthony, Kristen Cibelli-Hibben, Stacy Frank, Annie MacFadyen, Saswathi Natta, and Valerie Ryan

Introduction

This report documents findings from a cognitive interview evaluation of self-administered survey questions which aimed to assess school readiness of children aged three to five years old. These questions, the "Healthy and Ready to Learn" question set, consist of a subset of questions for inclusion on the National Survey of Children's Health (NSCH). The evaluation was carried out by the Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER) at the National Center for Health Statistics (NCHS) on behalf of the Health Resources and Services Administration's (HRSA) Maternal and Child Health Bureau (MCHB).

The findings of this study serve two overarching purposes. The first purpose is to provide information about what constructs the questions capture and about the patterns of interpretation associated with the questions, thus serving as a validity study for the "Healthy and Ready to Learn" question set. Second, the study examined inconsistencies and patterns in the ways respondents answered the questions, uncovering possible sources of response error. Information from these findings may be used to improve the question design of the "Healthy and Ready to Learn" question set, which were developed to provide standard, comprehensive measures of young-children's school readiness.

Background

The NSCH is an annual, address-based household survey that produces data for key indicators of physical, emotional, and behavioral health of children ages 0-17. The "Healthy and Ready to Learn" content was first added to the NSCH in 2016 at the request of state-level stakeholders, researchers, and practitioners from around the country. "Healthy and Ready to Learn" covers four distinct, complementary domains: early learning skills, physical wellbeing and motor development, social-emotional development, and self-regulation (the 'Question set' section below addresses which of the evaluated questions is associated with these domains). The content of the question set was designed to support National Outcome Measure 13, School Readiness, for

the Title V Maternal and Child Health Services Block Grant (Ghandour et al., 2018). Previously, there was no single data source that provided a multidimensional, population-based assessment of young children's school readiness. HRSA's MCHB developed the "Healthy and Ready to Learn" questions to fill that gap and develop such a measure for children 3-5 years old, with the expectation that the content would evolve over time (Ghandour et al., 2018).

Method

Cognitive interviewing
This evaluation utilized in-depth, one-on-one cognitive interviews. CCQDER uses the cognitive interviewing method to help gain a better understanding of the mental processes that respondents go through when answering survey questions within the context of their individual life experiences and circumstances (Miller, 2011). Using this method, researchers are able to explore construct validity and uncover potential sources of response error (Willis, 2005; Tourangeau et al., 2000; Miller et al., 2014)

A total of 60 cognitive interview were conducted in English with parents or guardians of children aged three to five years old between April and August 2021. Interviews were no longer than one hour in length, and they were conducted remotely through Zoom video calls. Respondents completed their confidentiality paperwork before the interview began, and they were mailed a $40 renumeration via FedEx after the interview ended.

The interviews began with the interviewer sharing the questionnaire virtually using screen sharing. Respondents using a computer for the interview were given remote control to complete the questionnaire as a fillable PDF. Respondents using a smartphone or tablet told the interviewers which answer to record for each question, since Zoom did not support the remote-control functionality for those devices. Screen sharing worked well for all interviews, regardless of the device used. After respondents finished the self-administered questionnaire, interviewers ended remote control but kept the questionnaire visible to respondents. The interviewers then asked follow-up questions designed to reveal information about how respondents interpreted the questions, what aspects of their lives were relevant to those interpretations, and the way they then formulated a response to each question. In this regard, the cognitive interviews elicited rich narratives from respondents that were often personal and were unique to each respondent.

Sampling and respondent characteristics
As part of a qualitative method, the sample selection for this study was purposive and based on the questions under evaluation. Because the questions evaluated in this study are designed for parents or guardians of children aged three to five years old, respondents were recruited by the age of their child. Beyond that criterion, respondents were recruited with the goal of producing a diverse sample and across a range of characteristics including respondents' race, ethnicity, education level achieved, and socio-economic status. Respondents were recruited through a variety of media, including online advertisements. Table 1 summarizes the demographic information of the sample. Future research exploring the school readiness measure may benefit

from recruiting respondents with lower educational attainment, as the sample achieved for this study had a high proportion of respondents with a graduate degree.

Table 1: Sample composition, n=60

	Number
Age of child (in years)	
3	13
4	23
5	24
Gender of child	
Female	33
Male	27
Gender of respondent	
Female	49
Male	11
Ethnicity/Race of respondent	
Hispanic (H)	
American Indian/Alaska Native (H)	1
Black or African American (H)	1
White (H)	2
Unspecified (H)	5
Non-Hispanic (NH)	
Asian (NH)	1
Black or African American (NH)	12
More than one race (NH)	3
White (NH)	35
Education of respondent	
Less than High School (no diploma)	1
High School Diploma or GED	7
Some college (no degree)	9
2- or 4- year college Degree	17
Graduate degree	26
Household income	
$0-$19,999	11
$20,000-$44,999	5
$45,000-$79,999	20
$80,000 or more	24

Data Analysis
Analysis of cognitive interviewing data followed a systematic process of data reduction and synthesis from interview to report (Miller et al., 2014). All interviews were video recorded, and interviewers used those video recordings to create question-by-question summary notes about the ways respondents interpreted and responded to each question. Summary notes include key quotations from respondents and relevant, observed behaviors and body language. Wherever this

report quotes respondents' verbatim statements, italics are used. Comparisons were made within interviews and across interviews by question. Summary notes and respondent answers to each question were entered into CCQDER's Q-Notes software[1], which is an application designed specifically by CCQDER for cognitive interview studies. Themes were then developed by categorizing the differences and similarities among individual patterns of interpretation.

Question set
The 43 questions evaluated in this study consist of questions previously included on the NSCH, questions revised from prior versions, and newly suggested questions. There are two sections to the questionnaire, a main set of 33 questions and an additional set of ten alternate questions. The alternate questions allowed for the evaluation of different wording for some questions in the main set.

The four "Healthy and Ready to Learn" domains are covered across the question set as follows: Questions 2-4, 8-13, 22, and Alternate questions 1-3 cover the early learning skills domain. Questions 1, 14-21, and Alternate questions 4-5 cover the physical wellbeing and motor development domain. Questions 6, 23-24, 27, 30, 32, and Alternate question 10 cover the social-emotional development domain. And, finally, the self-regulation domain is covered by Questions 5, 7, 25-26, 28-29, 31, 33, and Alternate questions 6-9.

All respondents were asked all questions, and there were no skip patterns built into the questionnaire. The alternate questions serve as different versions of a question or series of questions found in the main set. Because the alternate questions could appear repetitive, respondents were informed that the final ten questions were a series of alternate questions, before they completed the questionnaire. Alternate questions were probed immediately following similar questions from the main set.

Questionnaire Format
Two questionnaire formats were administered. The purpose of the two questionnaire formats was to explore potential benefits and challenges of a space-saving style, particularly since the NSCH is an address-based, paper questionnaire. Twenty-nine respondents received a traditional, non-grid questionnaire, with one question per PDF page. Thirty-one respondents received the grid-style questionnaire. Both versions were designed for use during this virtual cognitive interviewing study. Neither formatting option approximated a web-based survey, as they were not optimized for handheld, mobile devices. Potential benefits and drawbacks of the grid-style questionnaire are discussed below in the 'overarching findings' section. The grid-formatted questionnaire is included in Appendix A.

Overarching findings

---

[1] https://www.cdc.gov/nchs/CCQDER/products/QNotes.htm

Several broad themes emerged across the questions and are reported next. Specific examples of these themes may be found in the question-by-question findings in the final section of the report.

Salience of the Covid-19 Pandemic
The social restrictions and changes associated with the Covid-19 pandemic affected how respondents considered the survey questions, because it affected their day-to-day lived experiences. Many of the respondents' children were at home with them, rather than at daycare or preschool, as some would prefer. Therefore, opportunities for peer interactions were limited. The pandemic ultimately limited not only social circles but also many respondents' knowledge of their own children's social skills. For instance, Question Alt10 ("How often does this child have difficulty making or keeping friends?"), which was among the questions measuring social-emotional skills, proved particularly difficult for respondents whose children had not attended an in-person daycare or school since the pandemic started. Respondents with multiple children relied on sibling interactions at times to help them answer questions on topics such as sharing (Question 23), physically fighting with other children (Question 27), playing well with others (Question 30), and waiting their turn (Question 31).

The meaning of 'school readiness'
When respondents described, in their own words, what they felt 'school readiness' entailed, they discussed the skills and tasks found in the question set, such as reading and writing skills as well as social and emotional skills. Other topics respondents mentioned that were not captured by the question set included self-care skills (as in, independently going to the bathroom), and being sure the school itself was ready to provide for a child with specific learning difficulties. Many respondents focused on the importance of social skills and emotional readiness. That was the case across respondents of various social and economic backgrounds. As one respondent said, *"For me it's more about socialization in comparison to being able to read and write and all of that good stuff."*

One respondent who intentionally homeschooled her children felt that the questions targeted mainstream school readiness well, but that her own experience and context was not captured well by the questions. The questionnaire did not discern, as she said, *"how much of this has been taught?"* For example, she answered 'None of the time' for Question 1 ("How often can this child write his or her first name, even if some of the letters are not quite right or are backwards?"), but this was because it hasn't been a focus for her. She asked, "*Why not* [include] *'not yet' or 'haven't tried this'"* as response options? Indeed, some other respondents mentioned that they expected to see 'Not yet' as a response option, based on their experience with other questionnaires.

Variation by age
For some questions, the age of a respondent's child was related to question interpretation. This is highlighted in the question-by-question summaries where relevant. For example, when considering Question 2 ("How often can this child recognize the beginning sound of a word"), some parents of four- and five-year-old children answered based on their child's early sight-

reading skills, something that parents of three-year-old children did not consider. For Question 6 ("How often can this child recognize and name their own emotions?"), some parents of four- and five-year-old children thought about their child processing, and not simply naming, their emotions. For Question 7 ("How often can this child focus on a task you give them for at least five minutes?"), some parents of three-year-old children considered tasks that their child does with them as a helper, and not tasks the child does independently.

Response categories
In some cases, respondents felt that the answer categories either did not fit with the question asked or they did not provide a clear, bounded scenario on which to base their answer. For example, when considering Question 1 ("How often can this child write his or her first name, even if some of the letters are not quite right or are backwards?"), most respondents answered based on their own, imagined scale of their child's mastery of the skill ('Not yet' to 'Mastered the skill') rather than the provided scale of frequencies ('None of the time' to 'All the time').

Additionally, in the cases of Question 24 ("How often does this child lose their temper?") and Question 27 ("How often does this child physically fight with other children?"), some respondents were confused by the response options that ranged from 'None of the time' to 'All the time.' As one respondent noted, *"That question feels weird to me. Like, would it really be possible for child to lose their temper 'all of the time?' Like literally a 24/7…screaming?"*

Questionnaire format
In general, the grid-style format of the questionnaire was comprehensible to nearly all respondents and functioned well in the virtual, self-administered environment. Most respondents moved quickly through the questionnaire without perceived difficulty. There was, however, one respondent who struggled with the format and had several format-based response errors. She had comparatively lower educational attainment and income compared to other respondents. Upon first seeing the questionnaire, she said, *"Let me ask you, so I can make sure I got it right, for questions one, two, and three – I have to put something in a box for all of them?"* This quote, and her experience throughout administration, showed that she was not familiar with a spreadsheet-style grid in which the top row of response options applied to multiple question rows below it. Specific usability testing, which was not within the scope of this study, would help to improve the formatting for those respondents without prior experience using spreadsheets or completing grid-style questionnaires.

There were several end-to-end misreading errors, in which a respondent, for instance, selected 'All the time' rather than 'None of the time.' However, these types of errors occurred across both versions of the questionnaire, particularly towards the end of the question set. It may be an outcome of the questionnaire switching between asking about 'difficulties' and 'abilities.'

Area for Future Research: Bilingual households

There were few respondents living in bilingual households in our achieved sample, but certain emergent findings indicated that focusing on this group may be a potentially rich area for future research. First, those whose children were bilingual tended to answer early learning questions based on their child's skills across both languages. However, the way respondents consider their child's ability when answering the 'Ready to Learn' questions may depend on the languages spoken, the parent's bilingual abilities, and in what context the child does most of their letter and number learning. As one respondent, whose son was learning both Albanian and English, explained, *"I think* [for] *numbers and letters, since he is going to daycare, he's more familiar with English."*

Second, certain terms were misunderstood by the few respondents who spoke English as a second language. For example, one such respondent was unsure of the terms 'setback' (from Question 26: "How often does this child keep working at a task after setbacks?") and 'bounce back' (from Question 33: "How often does this child bounce back easily when things do not go their way?"). At the end of her interview, she suggested that the questionnaire should account for non-native English speakers by utilizing simpler text options where possible, such as replacing Question 26 with Alternate 7 ("How often does this child keep working at a task even when it is hard for them?").

This study did not specifically recruit respondents who spoke English as a second language or those who had bilingual children. Information about the languages respondent used in the home and the languages that children spoke at school or daycare emerged during the interviews. Interviewers found that five respondents lived in bilingual houses, primarily English and Spanish, and one additional respondent had a child who spoke Chinese at daycare, though the respondent herself was not fluent in Chinese. Future research may benefit from examining how respondents who speak English as a second language consider the 'Ready to Learn' questions and, secondarily, how respondents think about and respond to these questions in the context of early, multi-lingual learning.

Question-by-Question Analysis: Main Question Set

1. How often can this child write his or her first name, even if some of the letters are not quite right or are backwards?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Total Cases	Age 3	Age 4	Age 5

None of the time	12	9	2	1
Some of the time	7	2	5	0
About half the time	2	0	2	0
Most of the time	12	1	4	7
All the time	27	1	10	16

Respondents considered this question to be asking about their child's ability to write their first name without assistance. The question generally captured a child's writing ability along a spectrum, from not being able to hold a pencil to full mastery of the skill.

Just one respondent considered 'how often' their child wrote their name in a literal sense, answering based on frequency. For instance, the respondent answered 'About half the time' because he tried to have his child practice writing her first name "*a few times a week*." Much more commonly, respondents considered their own scale of ability and answered based on that imagined scale. For example, one respondent who answered 'Some of the time' explained her consideration in the following way:

> "*It's not about how frequently you can write your name. It's about – my child will tell you he wrote his name, but it's not – it's a legibility question, it's 'how well.' […] Either they know their letters and can produce them with varying degrees of quality, or they don't know the letters and can't produce them.*"

Formulating a response
 Respondents tended to select a response based on their child's level of mastery of writing their name, rather than how often they can do the skill, as the question states. Those answering 'All the time' said their children were able to write their first names legibly and consistently. Whereas those answering 'None of the time' indicated that their child hadn't started writing their name at all, it was not a learning focus for them at that time, or their child was in the early stages of writing skills. For example, one respondent who answered 'None of the time' said, *"We're still working on that, practicing our lines, and trying to get him used to the pencil. So that's why we haven't really advanced to doing the name."*

The answer categories of 'Some of the time' and 'Most of the time' tended to indicate children who were either just starting to write their names and those who had nearly mastered writing their names, respectively. Those answering 'Some of the time' saw their child as being able to do some letter writing with guidance – not independently. Guidance included things like having the child copy or trace letters, the parent talking through each letter while the child writes, or holding the child's hand while they write. One respondent explained, *"With guidance, you have to sit with him and tell him 'now make the [letter].'"* Respondents who answered 'Most of the time' indicated that their child was nearly proficient in writing their name, but they had a few areas of difficulty, such as distraction or rushing while writing or some of the letters were a bit "*zig-zaggy*."

As mentioned above, one respondent answered 'About half the time' considering the days per week that he practiced name-writing with his child. Otherwise, respondents did not consider frequency when responding, rather they considered mastery of the skill of writing their name.

Response error
There was one instance of response error in that a respondent answered 'Most of the time' thinking about their child writing other people's first names or names in general. Upon probing she said, *"I'm actually realizing that for her name, she gets it 'all of the time' – some of her friend's names she gets the letters backwards."*

2. How often can this child recognize the beginning sound of a word? For example, the word "ball" starts with the "buh" sound?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	3	1	2	0
Some of the time	8	2	2	4
About half the time	6	2	3	1
Most of the time	16	3	4	9
All the time	27	5	12	10

Most respondents considered this question to be asking one or both of the following: 1) can their child enunciate the first sound of a word they hear, or 2) can their child identify the first letter of a word they hear. For example, one respondent who was thinking about word sounds, answered 'All the time' and said, *"I'll read the word and say 'what sound does it start with?' And she'll tell me what sound it is. And, we have flash cards we work on."* Whereas another respondent, who thought about phonics and answered 'Some of the time,' said, *"She doesn't get that the letters make different sounds [from their names]. So, I don't know if that counts."* For some respondents, these two interpretations were interrelated, two sides of the same skill. One respondent answered 'Most of the time' because his son was still *"figuring out"* a few of the letter sounds, although he always knows the sound. Explaining his answer, he said, *"Yeah, I would say we've been practicing that with him for a few months. We'll say what sound and sometimes what letter does it start with? For ball, he'll go 'buh buh buh' whether he'll get the 'b' is another story, but he'll get the sound."*

Respondent considerations depended on the activities and games associated with word sounds or letter sounds that they played at home with their children – or activities that they knew their children practiced at school. To that end, respondents answering about their three-year-old children more often considered 'word sounds' than parents of four- or five-year-old children, as younger children are in a different stage of learning. For instance, one parent answered 'Most of the time' for her three-year-old thinking of a 'fill in the blank' game. She said, "*I'll will start something and he will guess what I'm going to say. Usually if it's a familiar word…for example, 'We're going to eat I…I…' I can say 'I' and he will fill out 'ice cream.*'" Parents of four- and five-year-old children were more often considering activities associated with sight reading and spelling. For example, a respondent answered 'All the time' because her five-year-old son is able to sound-out three-letter words. She said, "*He's very good at recognizing words. He's starting to read. We have these little reading books.*"

Out-of-scope interpretations
Three out-of-scope considerations of this question that occurred, though rarely, included 1) letter recognition, meaning knowing what the letters look like, 2) reading comprehension, as in listening to a bible passage and understanding the meaning, and finally 3) pronouncing words correctly. The two respondents who considered letter recognition were both answering about a three-year-old, and the early stages of learning the alphabet were relevant to these respondents. For example, one respondent, who was thinking about her child recognizing letters in a book, explained her answer 'Some of the time' in the following way: "*We are going through some letter recognition, I think that she's recognizing what they look like. And she remembers what some of the words [letters] sound like in comparison to what they look like.*" On the other hand, the respondents who considered word pronunciation for this question brought specific experiences to the question. One respondent, who spoke English as a second language, answered 'All the time' because her son corrects her English pronunciation. Whereas the other respondent who considered word pronunciation answered 'Most of the time' because his son had a hard time pronouncing 'b' words due to a speech difficulty.

Formulating a response
When selecting a response, respondents who were thinking of a game or activity, as most were, thought about how often their child "gets it right." Other factors that influenced some respondents' answer selection included willingness to do the activity, overall feeling about the child's vocabulary, and the general relevance of the question.

While many respondents answered based on their child's ability to do the activity they considered, a few incorporated their child's willingness to participate as well. For example, one respondent explained her answer of 'About half the time' by saying, "*I know she knows it, but sometimes she's not going to respond if you ask her […] half the time she won't respond, but her accuracy is high.*"

Respondents who could not think of or did not mention a specific activity or game they play associated with this question answered based on a general feeling of their child's willingness to

learn and overall vocabulary and verbal skills. For example, one respondent answered 'Most of the time' because, *"He is only 5, I wasn't that perfect at words when I was 5, and he gets those hereditary things from me, but he is pretty good at vocabulary. I am confident…I mean he has improved."*

A few respondents were unsure how to respond since they have not practiced the type of skill asked in the question. One said they have not done reading instruction with her four-year-old since the pandemic and another said that although her daughter could always say what letter a word starts with, she was unsure about the 'sound.' She said, "*I think she could do it – I'm going to try it when I see her later today. But yeah, this is an unsure one.*" These respondents answered 'Most of the time' and 'Some of the time' respectively.

3. How often can this child come up with words that rhyme? For example, "cat" and "mat?"

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	2	1	1	0
None of the time	4	3	1	0
Some of the time	9	5	4	0
About half the time	8	1	5	2
Most of the time	14	1	4	9
All the time	23	2	8	13

Respondents considered this question to be asking about their child's ability to come up with rhyming words, even if those words are 'nonsense' or "*made up words.*" They thought about whether and to what degree their child had mastered the skill of rhyming. For example, one respondent explained her answer of 'All the time': "*Yes, yes – everyday there's a new rhyme. Sometimes her rhymes are words that aren't real words…like, and this is just an example, she would do something like porridge and morridge.*" The skill of rhyming was immediately comprehensible for respondents, and when thinking about their response, they talked about their child's ability to sing in rhymes, recognize and play with patterns, correctly find matching rhymes in a computer game, or follow along with rhyming games on the television.

While all respondents viewed the question as asking about the skill of rhyming, some thought about the skill of rhyming in a more formal sense: does the child know how to answer the

question 'What rhymes with X?'; whereas others viewed the question as asking about their child's recognition of rhyming words as sounding alike. For example, one respondent, who answered 'None of the time' said, "*Like, if I told him 'cat,' can you tell me another word that rhymes with 'cat?' I don't think he understands what 'rhyme' means*." And, on the other hand, another respondent, who answered 'About half the time' said, *"Green Eggs and Ham, I'll usually read it and I'll let her finish the last word in it. So, we don't explicitly say those words rhyme, but she can remember the words from the book."*

Formulating a response
When selecting an answer, respondents generally thought about how close their child was to mastering 'rhyming' as a skill. In that, for instance, those whose children were just beginning to learn rhyming answered 'Some of the time' and those whose children nearly mastered rhyming answered 'Most of the time." Typically, the respondents' answer corresponded to 'how often' the child correctly came up with a rhyming word. Though, in some cases, the answer selected was associated with the degree of the respondent's first-hand knowledge (or lack thereof) of their child's skill level. Finally, a few respondents incorporated their child's motivation and willingness to rhyme as well as ability.

Respondents with limited first-hand knowledge of their child's skill level answered in a variety of ways based on their best guess. One left the question blank, two answered 'None of the time,' guessing their child probably could not rhyme, and one answered 'About half the time' because, as she explained, *"Because she does it at school. Because they do a lot of rhyming. But that's instructed by the teacher, you know, they go like this and that and cat and mat, like the example. So I'm pretty sure she can recognize that, but I haven't heard her doing it."*

A few respondents incorporated their child's willingness to 'perform' or answer a rhyming question when answering. Both of these respondents answered 'Some of the time.' As one explained, *"Some of the time she's into it and sometimes she isn't. It's literally 'Some of the time.'"*

4. How often can this child come up with words that start with the same sound? For example, "sock" and "sun"?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	5	2	2	1

Some of the time	14	6	6	2
About half the time	6	1	2	3
Most of the time	17	3	8	6
All the time	18	1	5	12

Like Question 2 above ("How often can this child recognize the beginning sound of a word? For example, the word "ball" starts with the "buh" sound?"), respondents considered this question to be asking about their child's ability to think of and name words that start with the same sound, the same letter, or some combination of sounds and letters. The way respondents considered the question depended on the related games or activities they play at home with their child. Oftentimes, relevant games were associated with letters. For example, one respondent related his consideration to that for Question 2 and said, *"Yeah, it goes back to the earlier question, it may not be the sound, it's the letter."* The respondent answered 'Most of the time' because his son was usually able to answer the question "*What else starts with* [letter.]" Similarly, another respondent said, *"We play a game called 'I'm thinking of a word that starts with the letter…' and she'll keep saying every word that starts with that sound."* In the case of that respondent, 'letter' and 'sound' were somewhat interchangeable – two sides of the same skill.

One respondent, who spoke English as a second language, seemed to have an out-of-scope interpretation in that she was considering rhyming for this question. She said, *"To be honest, I just thought it was the same as number 3* [about rhyming]. *I don't understand the difference."* However, she did ultimately answer Question 3 and this question differently, 'All the time' and 'Some of the time' respectively.

Formulating a response
Respondents who were able to think of a relevant game or activity in association with this question typically answered based on how often their child could correctly name words that start with the same sound or, depending on the game considered, the same letter. Though some also considered other skills, particularly if they could not come up with a relevant game and a few incorporated their child's motivation as well as ability.

During follow-up probing, a few respondents who answered based on their child's ability to come up with words that start with the same letter noted that they would have chosen a different answer category if answering about words that start with the same sound. For example, when discussing her answer of 'Most of the time,' one respondent said, *"What starts with 'B' buh buh, 'ball,' 'bat,' stuff like that […] It really should be 'All of the time' now that I'm thinking about it."*

Those without a relevant game or activity in mind when answering this question provided a conservative best guess based on similar skills they had witnessed. In explaining her answer 'Some of the time,' one respondent said, *"Yeah – this was another one where she would know*

that sock starts with 's' and sun starts with 's' but if you ask her what's another word that starts with the same sound that sock starts with…I don't know – it's like a little leap, right?"

For a few respondents, their child's motivation to do the game or activity related to this question factored into their response. For example, one respondent explained her answer of "About half the time' in the following way: *"Yeah this is probably sometimes she just won't answer that kind of question. I think it takes a lot of brain power for her. I think her accuracy is pretty high, in terms of if she does follow through with the activity."*

5. How often can this child follow instructions to complete a simple task?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	0	0	0	0
Some of the time	4	0	2	2
About half the time	6	3	1	2
Most of the time	21	5	6	10
All the time	29	5	14	10

Respondents consistently thought of 'simple tasks' as age-appropriate, one-step actions. These included things like taking dishes to the sink, carrying something to the car, or picking out a book. The tasks respondents considered were typically simple chores around the house. For example, one respondent, who was thinking about feeding the dog said, *"stuff around the house, kind of examples like that. Like our routine."* The most complex tasks respondents considered were those that took more sustained effort, even if the direction was simple, such as brushing teeth or sorting laundry. Just one respondent considered tasks in a boardgame and one other respondent considered virtual schooling tasks.

Formulating a response
An important factor affecting response selection was whether respondents incorporated how often their child was motivated to comply with requests to do a 'simple task'. Since the tasks respondents considered were typically simple chores, and not activities the children did by choice, 'completing' a task required understanding, motivation to help, and ability to follow-through without distraction. Some respondents viewed the question as asking about their child's follow-through with tasks, no matter their mood or willingness. As one respondent said, *"I chose 'Most of the time' because sometimes she doesn't do it – because she doesn't feel like doing it. She knows what I'm saying, and she knows how to do it, but she chooses not to do it."*

On the other hand, other respondents specifically discounted their child's varied willingness to do tasks when answering, and they only answered based on their child's comprehension of instructions. For instance, a respondent who answered 'All the time' said,

> "*How often CAN my child follow instructions – she can understand it all of the time, but you know with a four-year-old that doesn't mean they want to, or you can rely on them to follow instructions all the time. So, I'm answering it as…it would be more accurate to say how often can this child understand instructions – as opposed to they're going to follow through.*"

These two considerations, both including and not including the child's willingness to follow-through on a task, occurred among respondents with children of any age – three, four, or five.

6. How often can this child recognize and name their own emotions?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	0	0	0	0
Some of the time	5	3	0	2
About half the time	7	2	2	3
Most of the time	28	7	11	10
All the time	20	1	10	9

Overall, respondents viewed this question as asking about their child's ability and willingness to say how they were feeling when asked. When considering the question, most respondents thought about the range of emotions their child could express – positive, negative, simple, and complex. Additionally, respondents thought about how their family talks about emotions overall and many considered how expressive their child is generally. Examples of such considerations are as follows:

> "*If she's sad, she can definitely say she's sad. If she's happy, if she thinks that something is funny. If she's mad, she can definitely say that she's mad because…and she can tell me why. So all of the time. Um – maybe not nervous. But angry or happy or sad, she can definitely name those and recognize that she feels that way.*"" (Answered 'All the time')

> "*I think it is my duty as a parent to coach them through their emotions, especially the three to five age range. She can do it most of the time, but some of it is me reflecting.*

> *Like, 'hey it seems like you're angry, let's talk about how you're feeling.'"* (Answered 'Most of the time')

> *"That's something that doesn't come naturally to her, she's really closed, I'm working on that with her. It's an area that she'll need a lot of encouragement. I haven't ever heard her say 'I'm sad' or 'I'm mad' and I'll try to identify those for her, but she doesn't say that herself."* (Answered 'Some of the time')

Some respondents, particularly those whose children were four- and five-years-old considered not only their child's ability to name their current feeling – such as "*Mommy, me happy!*" or *"I'm mad"* – but also considered their child's ability to process and explain where their feelings came from. For example, one respondent who answered 'All the time' said that her five-year-old was able to work through and understand his frustrations about bedtime. She said, *"It's an everyday routine. He still cries about it, but he gets it. He just doesn't want to go to bed at that time."* Another answered 'Most of the time' rather than 'All the time' because her daughter is able to recognize, *"but not deal with some of the emotions."*

Out of scope interpretation
There was one out of scope interpretation to this question. A respondent considered the question to be asking about their child's response to recognizing her name (as opposed to recognizing and naming emotions). In explanation of her answer, 'All the time,' the respondent said, "*She's a happy kid. She recognizes her name and she's happy when she hears her name.*"

Formulating a response
The primary factors that affected how a respondent answered were the complexity and range of the emotions the child was able to express and, particularly for parents of children aged four and five, their child's ability to explain their feelings when they were upset. A few respondents answered literally 'how often' their child named their emotions over the course of a day or week.

Many respondents considered the complexity of the emotions their child could express when selecting a response. Those who answered less than 'All the time' mentioned their child's ability to name the '*big*' emotions, but noted their child had difficulty naming more subtle emotions. For example, one respondent who answered 'Most of the time' said, "*Because I think most of the time she knows how she's feeling, like she's happy or she's sad or angry, but sometimes it is something more like related to frustration or maybe jealous…maybe she doesn't know how to name it, what kind of emotion is that.*"

Several parents of four- and five-year-old children (not those whose children were three years old) explained their answers of 'Most of the time' by noting their children sometimes needed to "*calm down*" before being able to name their emotions. As one parent explained, *"There are times that he shuts down though, so I would say it's not 100% of the time. I guess maybe he's recognized his emotion, but he's gone past the point of return, like needing some space before he can come back and talk about what's going on."*

A few respondents considered how often they had literally witnessed their child name their emotions over the course of a day or week. For instance, one respondent answered 'Some of the time' and said, *"About half the time is kind of hard to measure. You could be talking about emotions at any minute of the day – so what's 'half the time?'"* Another respondent explained her answer of 'About half the time' in the following way: *"when I ask what's wrong with her, she'll tell m*e […] *that's only when I catch it."* In this case, her daughter was always able to say how she felt when asked, in fact the respondent said that her two-year-old son could do that. Her response represented how often she was able to see her daughter express her emotions over the course of the day.

7. How often can this child focus on a task you give them for at least five minutes, for example, simple chores?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

	Cases	Age 3	Age 4	Age 5
None of the time	0	0	0	0
Some of the time	8	2	4	2
About half the time	17	4	5	8
Most of the time	26	5	10	11
All the time	9	2	4	3

Respondents consistently viewed this question as asking about their child's ability to do assigned tasks for at least five minutes. They considered 'five-minute tasks' in a few ways: doing chores around the house, quietly playing independently, or getting dressed and ready for the day. Most respondents thought about chores – primarily cleaning up toys. Other chores that respondents considered were things like helping with the dishes, bringing out trash to the trashcan, and sweeping or vacuuming. For example, one respondent, who answered 'Most of the time,' thought of 'five-minute tasks' in the following way: *"Putting her books away, sorting the laundry, she likes to vacuum – she doesn't do a good job vacuuming, but she likes to push the vacuum around. And these things take more than five minutes."* Respondents who thought about their child's ability to play independently were thinking about "*quiet time activities*," oftentimes when the respondent was busy focusing on something else. As one respondent explained, *"If I go to church, and I ask them to color while I'm attending the service, they do, he does, for more than five minutes."* A few also thought about times they were working from home – on a video call, for example. Finally, a few respondents considered the process of getting

ready in the morning. They both struggled to come up with a five-minute task that would also be 'simple,' as the example of 'simple chores' in the question wording suggests. One respondent said, *"I think I struggled with this one cause I'm like 'a five-minute task?' I couldn't really think of a five-minute task…maybe in a situation I was thinking about where it's like, getting ready in the morning, because that's more of a process."*

While most respondents considered this question to be asking about their child's ability to do a task independently, several respondents answering about their three-year old child considered tasks their child did with them as a "*helper*." For example, one respondent said that she answered 'Most of the time' because her son will usually follow her when she is cleaning the house. She said, "*he comes after me and is copying what I am doing and he's doing that for more than five minutes.*" Likewise, another respondent said she thought about chores her son will do *"with the family."* In contrast, respondents whose children were aged four and five did not 'count' supervised or group tasks as evidence their child could focus for five minutes on an assigned task.

Formulating a response
When selecting an answer, most respondents considered times they have asked their child to do a task. Then, they gauged about how often the child was able to keep working independently for at least five minutes without too much intervention or encouragement on the part of the respondent. For example, one respondent who answered 'About half the time' said, *"Yeah – half the time I'll tell her to do something and she'll do it without me having to fuss with her. And the other half, I have to fuss with her."* The exception to this would be those parents of three-year-old children, as described in the paragraph directly above, who included their child's 'helper' tasks when responding.

Whether respondents incorporated their child's motivation and willingness to complete tasks was an important factor in selecting a response. This was also the case with Question 5 ('how often can this child follow instructions to complete a simple task?'), though to a lesser extent. For example, one respondent said 'Most of the time' as opposed to 'All the time' because her daughter's motivation to do chores would wane before five minutes. She said, *"If it's a chore, motivation will fall off, and we'll have to press her to do it and then she can do it"* noting that motivation is more an issue than attention."* However, several respondents focused on their child's ability to do tasks rather than their overall likelihood to do it. As one respondent said, *"That word 'can' is tricky."* She decided to answer 'Most of the time' based on her daughter's ability to do a five-minute task and not her *"follow through"* – which was less often.

No respondents answered 'None of the time.' Rather, the category 'Some of the time' captured those who felt their child was distractable or unwilling to do undesirable tasks independently. However, not all of those felt that indicated a problem or was abnormal for their age.

8. How often can this child read one-digit numbers? For example, 2 or 8?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	2	2	0	0
Some of the time	5	3	2	0
About half the time	7	2	3	2
Most of the time	8	2	2	4
All the time	38	4	16	18

All but one of the respondents considered this question to be asking about their child's ability to correctly name single-digit numbers, one through nine, upon seeing them written – in a book or on signs, for instance. The skill of reading numbers was something most respondents readily knew about their children. A child's ability to write numbers or their knowledge of double-digit numbers did not impact respondents' consideration for this question or answer selection. For example, one respondent who answered 'All the time' said, *"She can read and identify all of her numbers. She can even write some. But she can definitely look at – if you show her a number line or something, she can definitely pick out those numbers. You know, when you get to the double digits, she'll start to have trouble."*

One out of scope interpretation occurred in which a respondent answered according to her daughter's ability to read out and understand an equation of single-digit numbers, as in addition. She answered 'About half the time' despite indicating that her daughter could recognize numbers if written in a book. Focusing on the word, 'read' in the question, the respondent said, *"She – oddly she knows all of her numbers, all her single numbers. But reading them? Like 1 plus 1, mmm, I think she can only do so many."*

Formulating a response
Responses to this question typically aligned with how far along the child was with mastering the skill of reading all the one-digit numbers. In that, an answer of less than 'All the time' indicated that the child was in the process of learning to read their numbers. For example, one respondent who answered 'Some of the time' said, *"she'll recognize one through three every single time* […] *sometimes she knows 8, sometimes she knows 5 or 6 – I think?"* A few respondents said their answered were based on a combination of their child's ability, motivation, and willingness to name numbers correctly when asked.

Those whose children are learning multiple languages may factor in their skill-level across languages. One bilingual respondent answered based on her son's combined ability to recognize numbers in both English and Spanish. She answered 'About half the time' and said the

following: *"In Spanish he gets confused with the number 6 and number 10. He is learning both English and Spanish numbers."*

9. How often can this child correctly do simple addition? For example, two blocks and three blocks add to a total of five blocks?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	7	4	2	1
Some of the time	14	2	9	3
About half the time	9	4	1	4
Most of the time	15	1	6	8
All the time	15	2	5	8

Respondents considered this question primarily in one of two ways: 1) can their child count a total number of objects correctly, or 2) can this child answer a math equation problem – asked verbally or in a worksheet. More often, respondents considered the question to be asking about adding by counting physical objects. For example, count two small piles of items to have a larger, total number. Examples of objects included things like blocks, pieces of candy on the table, Barbies, Hot wheels, etc. The size of the numbers that counted as 'simple' addition varied across respondents, some only considered single-digit numbers and others considered larger numbers as well. Those who thought of the question in the second way, as a math problem, did not think the question implied that *"props"* or *"manipulatives"* were necessarily present. For example, one respondent thought through her answer of 'About half the time' in the following way: *"Simple addition with props and counting is 'All of the time.' With numbers spoken is 'Some of the time.'"* […] *"Is the prompt presuming that there are props present?"* […] let's do half. Sometimes he makes the transition to fingers as stand ins for verbal problems and sometimes he doesn't."* As the quote suggests, respondents considered verbal math problems to be more challenging than counting physical objects, at times resulting in a 'lower' answer category selection.

Formulating a response
When selecting an answer, respondents often gauged how involved they needed to be in the activity, the size of the numbers their child could add, and how often their child could do the task 'correctly' when asked. For example, one respondent explained her answer, 'Some of the time',

in the following way: "*With Legos or blocks* [she can do addition], *but that is pretty directed. I don't know that if it were not being very directed, she would understand as much*." Another respondent, thinking about the size of the number her daughter could add, answered 'Most of the time' and said, *"She's able to do, I would assume, up to five. After that it may get a little confusing."*

Some respondents who considered their child's ability to add physical blocks wondered if this question was measuring counting skills or their child's understanding of addition as a math concept. As one respondent said, "*that gets you thinking like, what is addition? It's not really just jamming things together and counting."* This led a few respondents to answer less than 'All the time.' For example, one respondent who answered 'Most of the time' said, *"Yeah I have trouble with this one because I don't totally understand what the task is. If I put two groups in front of her, she would count them up. Does she totally understand that is addition? […] if she can add two groups of blocks together by counting, then yes."*

The scale from 'None of the time' to 'All the time' typically reflected a child's mastery of the skill and not literally 'how often' the child did the activity. However, some respondents answered literally 'how often' the child does this. Those who were unsure how to answer did not often practice math skills at home and either answered literally 'how often' they thought their child practiced addition or they made a guess about their child's skill-level along a scale of mastery. For instance, in explanation of her answer 'Some of the time' one respondent said, *"This one she hasn't really...I guess they've done it at preschool. We haven't really done much with her here."*

10. How often can this child correctly do simple subtraction? For example, seven blocks take away three blocks leaves four blocks?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	16	6	8	2
Some of the time	17	4	6	7
About half the time	10	2	3	5
Most of the time	13	0	6	7
All the time	4	1	0	3

As seen in Question 9 ('How often can this child correctly do simple addition? For example, two blocks and three blocks add to a total of five blocks?'), respondents considered this question primarily in one of two ways: 1) can their child count a total number of objects correctly, or 2) can this child answer a math equation problem – asked verbally or in a worksheet. More often, respondents considered the question to be asking about subtracting by counting physical objects – as in, with toys, candies, or other objects. One respondent, who answered 'Most of the time,' gave the following example: *"Oh, yeah with Barbie dolls… 'ok, we've got 4 and one goes to the house, we've got 3 left' – she does that with me all the time."* Additionally, respondent considerations were consistent across Question 9 and this question. If a respondent considered the question about addition (Question 9) to be about their child counting up physical objects, then they viewed this question in the same way and answered accordingly. For instance, one respondent said she was considering the same scenarios for both questions, adding and subtracting toy bears. She said, *"Exactly the same as the addition question because when we did the bears with the addition we also did subtraction at the same time. So, it's the same."*

Formulating a response
Like the question on addition (Question 9), respondents gauged how involved they needed to be in the activity, the size of the numbers their child could subtract, and how often their child could do the task 'correctly' when asked.

Respondents tended to view subtraction as more advanced than addition, something a child tries after learning to add. Answers were either the same as that for Question 9 or they represented less frequency. For example, one respondent who answered 'Some of the time' to Question 9 (on addition) answered 'None of the time' for this question. She explained, *"She's still counting the one I've taken away. She knows it's still there. She says, 'no mamma' and she goes behind my back and she takes it [the block]."* Additionally, some mentioned that their child does not *"like"* subtraction, because it involves taking things *"away,"* and that was factored into the response selection. For example, one respondent who answered 'None of the time' said, *"Yeah we tried and she just doesn't want me to take away anything."*

Several respondents noted that they had not yet tried subtraction with their child. They either made a guess based on similar skills like adding and dividing, or they answered 'None of the time.'

Additionally, like Question 9 (on addition), the answer categories often represented a scale of mastery of the skill rather than 'how often' the child does subtraction, as the question states. As one respondent who answered 'About half the time' said, *"'Half the time' means that it is 'in process.' "I haven't really sat down with them in a minute to really track their progress."*

11. How often can this child split up a small number of objects in half? For example, split four objects into two groups of two?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	2	0	1	1
None of the time	9	3	4	2
Some of the time	13	3	6	4
About half the time	12	2	5	5
Most of the time	13	4	4	5
All the time	11	1	3	7

Respondents consistently thought of this question as asking about their child's ability to split objects into groups. The objects respondents thought of were things like Cheerios and other small foods, toys, pencils, or, in a few cases, shapes drawn on a school worksheet or virtual objects on a computer game. Those who had previously viewed Questions 9 and 10 (which refer to addition and subtraction) as asking about formal math equations did not do so for this question, because, as one respondent said, *"That one* [Question 11] *specifies objects."*

Many respondents had not tried the specific activity with their child, as described in the question. Therefore, they often made a best guess based on their child's understanding of equal proportions, sharing, patterns, or counting. As one respondent, who answered 'All the time' said, "*I was just thinking that when they grab snacks, like oranges or strawberries, she is very 'even Steven.' She gives herself two and her brother two. It's very real-life application for her*." Likewise, another respondent who answered, 'Most of the time, said, "*I feel pretty confident that he could do this - I haven't ever tried it. He is a twin, so if I said, 'give everyone equal shares,' he'd get that*."

Formulating a response
Respondents generally gauged their response based on their perception of their child's skill level with splitting objects into groups. Those who answered less than 'All the time' felt their child did not totally grasp the concept of a 'half,' their child could only divide small numbers of objects, or their child required parental guidance to complete the task. In a few cases, respondents answered literally how often they saw the activity. One respondent said, "*I put 'about half the time' because it's not often that I see it. It's not often. So, I didn't want to just say all of the time. That's false because I don't see it all the time*."

Respondents who were unsure how to answer ultimately either left the question blank, or, more commonly, they made a best guess. As one respondent, who answered 'Most of the time,' said,

"Yeah this is hard you know because I'm pretty sure he could, but we haven't actually done it, so I'm going to have to just guess…no I'm pretty sure that would not be hard for him."

Finally, one response error occurred in which a respondent read the question as asking about splitting objects into multiple groups (more than four) and answered 'Some of the time.' However, after discussion of the question, she indicated that she would have answered 'All the time' for splitting a small number of objects into two groups.

12. If asked to count objects, how high could this child count correctly?

☐ **Child cannot count**
☐ **5**
☐ **10**
☐ **20**
☐ **30 or more**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	0	1	0
Child cannot count	2	2	0	0
5	2	1	1	0
10	16	6	6	4
20	11	1	7	3
30 or more	28	3	8	17

Respondents interpreted this question as asking how high their child has the capability to count. Many respondents, particularly those whose children could count past 30, and even up to 100, considered the highest number their child had counted to correctly – not necessarily how high their child could consistently count. For instance, one respondent answered '20' because her daughter could *"confidently go to 15,"* but sometimes she would *"skip 16"* when counting to 20. Additionally, while a few respondents said it might be hard for their child to count 30 or 40 Legos, for example, without skipping one or double counting one accidentally, those considerations did not impact response selection. As one respondent said, *"Yeah, I think he could definitely count up to 100. Like, if he was going to count objects and there were 50 objects, how confident am I that he wouldn't double count something or skip one? I wouldn't be sure of that. But can he sit and count to 30? I'm sure of that."*

Formulating a response
No respondent indicated having limited knowledge of their child's counting ability. They answered based on what they had personally witnessed, or, in one case, what they saw in their child's schoolwork.

13. How many letters of the alphabet can this child recognize?

☐ **None of them**
☐ **Some of them**
☐ **About half of them**
☐ **Most of them**
☐ **All them**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	0	1	0
None of them	4	3	1	0
Some of them	7	3	3	1
About half of them	1	0	1	0
Most of them	16	1	6	9
All of them	31	6	11	14

Respondents consistently considered if their child could name the letters of the alphabet by sight, such as in a book or on a sign. Apart from two exceptions, respondents did not consider their child's ability to recognize 'lower-case' letters when explaining their response.

Formulating a response
When selecting a response, respondents consistently considered only their child's ability to recognize and name letters of the alphabet. Children's writing ability did not factor into respondents' answer selection, nor did children's ability to sing the ABC song.

The answer respondents selected corresponded to how far along their child was in recognizing all the letters of the alphabet. A response of 'Some of them' indicated that a respondent's child was just beginning to recognize letters – like the ones in their own name. Whereas those who answered 'Most of them' indicated that their child had trouble with just a few letters that may look alike – like 'W' and 'M' and 'N.' For example, one respondent said, *"Some of the letters, like M and N, letters that look similar and may sound similar, are a little bit confusing right now to her to recognize, but there is only a few of those."* As mentioned in the above section on respondent considerations for this question, two respondents answered 'Most of them' because their child had a little trouble with similar looking 'lower-case' letters, like 'p' and 'q.'

14. In general, how would you describe this child's health?

☐ **Poor**
☐ **Fair**
☐ **Good**

☐ **Very good**
☐ **Excellent**

Answer	Cases	Age 3	Age 4	Age 5
Poor	0	0	0	0
Fair	1	0	1	0
Good	2	1	0	1
Very good	15	3	4	8
Excellent	42	9	18	15

Respondents considered primarily physical aspects of health – their child's health conditions and behaviors – when answering this question. These aspects included the presence or absence of a chronic condition, results from a pediatric 'well' visit, frequency and severity of colds, effects of allergies and asthma, diet, weight, activity level, sleep conditions, and, in one case, recovery from a recent surgery. A few respondents mentioned emotional health and development when explaining their responses, they still primarily considered physical aspects of health. Two exceptions to this were a parent of a child with developmental delays and another parent whose child had attention deficit hyperactivity disorder (ADHD).

A similar general health question, with the same response options as this question, has been evaluated by the CCQDER in the past ("Would you say your health in general is excellent, very good, good, fair, or poor?"). These prior studies also found similar constructs captured and that respondents often consider just physical health (Scanlon 2017; Willson 2006).

Formulating a response
An answer of 'Excellent' indicated that the respondent felt their child had no ongoing physical health conditions or issues that were a concern. As one respondent said, "*Excellent, he has no health issues […] good at the doctor, healthy as a bean*." Likewise, another respondent said, *"He's almost 4, he's had one ear infection. He's not chronically ill by any means. He's never been hospitalized. He doesn't have asthma or any general diseases. He's small but he's been growing on his growth chart appropriately. That's why I put excellent."* As that second quote indicated, minor or short-term health conditions, such as occasional colds, infections, mild eczema, or mild, seasonal allergies did not impact response selection.

A response of 'Very good' or 'Good' generally indicated that there was something concerning the respondent, though it did not have a major impact on day-to-day life. These concerns included things like diet, weight, teeth grinding, more frequent colds, ADHD, and recovery from recent surgery. For example, one respondent who answered 'Very good' said, "*The only reason why I would not say 'excellent' is that her eating, her nutrition is in a weird, weird place. She either goes on a hunger strike, or she finds a bag of marshmallows and eats them all in one sitting. She's got a weird food thing right now*." However, a few respondents indicated that

'Excellent' was too extreme an answer. One respondent said, *"Well, I was going to go with 'excellent' but I don't think anyone is excellent so I went to really good."*

Finally, one respondent answered 'Fair' considering her child's health conditions she had as a premature infant as well as her developmental and learning delays.

15. How would you describe the condition of this child's teeth?

☐ **Poor**
☐ **Fair**
☐ **Good**
☐ **Very good**
☐ **Excellent**

Answer	Cases	Age 3	Age 4	Age 5
Poor	1	0	1	0
Fair	1	0	0	1
Good	10	2	5	3
Very good	16	6	3	7
Excellent	32	5	14	13

Respondents considered this question to be asking about both the physical condition of their child's teeth and their child's dental hygiene behavior. Typically, respondents thought about the most recent time their child went to the dentist, and the outcome of that visit, in conjunction with the quality of their at-home brushing routine.

Formulating a response
When assessing this question, respondents considered whether they had concerns about the physical condition of their child's teeth – the presence or absence of cavities, for instance – and also their child's dental hygiene behavior – their brushing routine. An answer of 'Excellent' indicated a lack of concerns. For example, one respondent said, *"We just went to the dentist, had x-rays, no cavities, they said her teeth look great. She brushes them, she lets me use the flossers. They are spaced out so food doesn't get stuck – so we're lucky."*

Feedback from a dentist, either positive or negative, was an important factor in how respondents answered. Typically, respondents whose children had had cavities filled, or other dental work done answered less than 'Excellent.' Though, a few either simply had concerns about their child's brushing routine or they hadn't been to the dentist in a while. A few examples of such responses are as follows:

"The reason I put 'Very good' and not 'Excellent' is because she grinds her teeth when she's sleeping and she's cracked some of her back teeth. So she's had to get crowns put on." (Answered 'Very good')

"Yeah, we haven't gone to the dentist since the pandemic so I can't really say for sure. And, her brushing habits can use some work…brushing the right way." (Answered 'Good')

"Yeah, so she just had her dentist appointment and she had a couple cavities, so that's not excellent or very good. They're not rotting out of her head or anything, so not poor or fair, so right in the middle." (Answered 'Good')

16. During the past 12 months, how often have this child's health conditions or problems affected his or her ability to do things other children his or her age do?

☐ **This child has no health conditions**
☐ **Never**
☐ **Sometimes**
☐ **Usually**
☐ **Always**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	1	0	0
This child has no health conditions	47	10	19	18
Never	6	1	3	2
Sometimes	4	1	0	3
Usually	1	0	1	0
Always	1	0	0	1

Respondents primarily considered this question to be asking if their child was affected by long-term or chronic, diagnosed conditions that could keep them from participating in physical activities, keep them out of school, or affect their progress through developmental milestones. Some of the conditions respondents considered to be 'health conditions' included: learning and developmental delays, difficulties walking or running, hearing loss, chronic constipation, developmental tooth defects, and breathing difficulties. Respondents did not consider 'health conditions' to include short-term colds and flus, temporary rashes, minor eczema, or mild seasonal allergies. One respondent, who answered 'This child has no health conditions,' explained his consideration of 'health conditions' in the following way: *"Something chronic or acute with long-term consequences. Like, if she was recovering with burns."* Likewise, another respondent said that the phrase 'ability to do things other children his age can do,' indicated

more prolonged, serious conditions because, as she said, it *"compares him with his peers rather than his general activities."*

A few respondents considered 'health conditions' to include their child's behavioral difficulties that affected how their child interacted with others, rather than their ability to do things other children do. These respondents both answered 'Sometimes,' and as one respondent explained, thinking of the effects of her son's ADHD, *"We have a lot of issues to deal with at school and at camp and when he interacts socially with others. It affects his ability to do things with other children."*

Finally, one respondent considered the 'health condition' in terms of the Covid-19 pandemic and the effects that social distancing have on his child's ability to play normally. This respondent was not thinking of his son's own illness or recovery. He answered 'Usually' and said, *"They're* [young children] *not going to know what that* [the virus] *is. So, it breaks my heart that a lot of his youth years are getting subtracted from him because we say 'stay back.'"*

Formulating a response
Those answering 'This child has no health conditions' indicated that they felt their child had no serious conditions, and health considerations their child may have (allergies, eczema, or, in one instance, obsessive compulsive disorder) did not rise to the level of a 'health condition' in their minds. One respondent was not sure how to classify her daughter's asthma, so she left this question blank.

Those who answered 'Never' were thinking of conditions that had no impact on their child's activities or had affected their child more (or entirely) in the past and had since improved. One respondent considered her child's ongoing learning and speech delays and the relative improvement she had seen. She explained her answer in the following way: *"Probably because it's getting better. It don't really affect her. Like, teachers can understand her most of the time, and other people can understand her most of the time."*

Response error
There were several cases of response error in which respondents answered 'Never' and, in one case, 'Always,' when, in follow-up probing, they indicated that they should have answered 'This child has no health conditions.' The respondent who answered 'Always' explained that she was unclear what the question was asking and thought that her response indicated that her child was *"always healthy."*

17. To what extent do this child's health conditions or problems affect his or her ability to do things?

☐ **This child does not have any health conditions**
☐ **Very little**

☐ **Somewhat**

☐ **A great deal**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	1	0	0
This child does not have any health conditions	50	10	21	19
Very little	6	2	1	3
Somewhat	2	0	1	1
A great deal	1	0	0	1

Respondents viewed this question as asking if their child had limitations in their playing or learning due to diagnosed, long-term or chronic medical conditions. As one respondent said, *"She doesn't have any chronic things."* Some of the health concerns respondents considered included: learning and developmental delays, difficulties walking or running, hearing loss, chronic constipation, developmental tooth defects, and breathing difficulties from asthma or developmental. Overall, considerations of 'health conditions' were very consistent across this question and Question 16 ("During the past 12 months, how often have this child's health conditions or problems affected his or her ability to do things other children his or her age do?"). This led many respondents to simply skim through this question and not give it much additional attention. As one respondent said, *"Yeah, I didn't even, like now I'm seeing that there's different answers here, but um I didn't like I didn't think about it at all. Again, because I just answered that in 16, so 17 is same as above."*

Some respondents noted that this question seemed to be asking about general health, like Question 14 above (In general, how would you describe this child's health?), noting that, unlike Question 16, there was no time reference in the question stem. As one person, who answered 'This child does not have any health conditions,' explained, *"In terms of his general health being excellent, I think I was building off of that."* But the similarities across Questions 14, 16, and 17 led some to view this series of questions as a consistency test. As on respondent said, *"There was a lot of questions in here that were really similar, and I thought they were trying to switch me up and confuse me […] I just figured the reason they asked me twice is to see if I would say the same answer."*

One respondent, who answered 'Somewhat,' was thinking of the effects of social distancing on his son – not the impacts of his son's personal health conditions. He said, *"Yeah, definitely because 'his or her ability' – it's like trying to teach him how to play football or how to play basketball. You got to be right next to a person, and I'm not knocking them* [teachers] *because it has to get done."*

Just one respondent interpreted 'health conditions' differently between Questions 16 and 17. She answered 'This child does not have any health conditions' because her daughter had missed fewer days of school for colds and illnesses this year as compared to the prior year: "*Yeah I thought about that as her health, her getting sick, her – I don't know why.*" She answered 'Never' to the previous Question 16, thinking about her daughter's developmental delays, which she did not consider here.

Formulating a response
Several respondents indicated that there was no 'Never' response option for this question. Therefore, some answers of 'Very little' do not necessarily indicate that a child's condition affected him or her. As one respondent said, "*But then it says that he 'doesn't have any health conditions', but he does. But it doesn't affect him, so it's missing that answer.*"

Response error
One respondent answered 'A great deal' when she should have responded 'This child does not have any health conditions.' She had the same type of error for Question 16, noting that she was unclear what this and the prior question were asking.

18. How well can this child draw a circle?

☐ **Child cannot**
☐ **Not well**
☐ **Somewhat well**
☐ **Very well**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	0	1	0
Child cannot	0	0	0	0
Not well	4	1	3	0
Somewhat well	17	8	5	4
Very well	38	4	14	20

Respondents consistently considered this question to be asking about their child's ability to draw a recognizable, closed, round circle. For example, one respondent explained her answer of 'Very well' by saying, *"it's closed, it's circular in shape, yeah."* Respondents were familiar with their child's drawing ability, even if their son or daughter did most of their drawing at school or daycare. Most often, respondents judged their child's drawing ability in relation to what one might expect from a young child. And a few respondents judged their child's drawn circles in comparison to an ideal circle or how they themselves might draw a circle, which affected response selection ('Somewhat well' rather than 'Very well,' for instance).

Formulating a response

Oftentimes, respondents' initial thoughts when considering how to answer were about how much their child enjoys drawing and coloring. This was particularly the case for those who answered 'Very well.' For example, one respondent who answered 'Very well' said, *"She loves to draw, we have her artwork all over our house. She draws a lot of circles. A lot of her circles turn into people. Like with stick arms and legs and faces."*

Respondents who answered 'Somewhat well' or 'Not well' recognized that their child's circle was not quite "accurate," as one person said. Respondents who answered 'Somewhat well' noted that their child's circle was more "oval" or "wonky" or, in some cases, simply "not perfect." For instance, one respondent explained, *"Is it a circle or is it more of an oval? Not quite as round as you would hope."* Those respondents who answered 'Not well' noted that their child's circle did not connect to form a closed loop: *"It looks like a cinnamon roll."*

19. How well can this child draw a face with eyes and mouth?

☐ **Child cannot**
☐ **Not well**
☐ **Somewhat well**
☐ **Very well**

Answer	Cases	Age 3	Age 4	Age 5
Child cannot	1	1	0	0
Not well	7	4	3	0
Somewhat well	22	8	7	7
Very well	30	0	13	17

Respondents viewed this question as building upon Question 18 ('How well can this child draw a circle?') Typically, respondents first considered if all the necessary elements – a circle for a face, two eyes, and a mouth – were present in their child's drawings of a face. Then, they also considered if the face was recognizable as such.

Formulating a response
Some respondents were completely confident in their child's ability to draw a face with eyes and a mouth, often with extra details like hair, a nose, and ears. They often thought of their child's overall interest in art when answering, 'Very well.' For example, one respondent said, *"She's an artist, she does drawings of all her toys. All the bits in the right places, the spots and the bows, and things. She draws all the time."* Another said, *"She drew us all. We all have a portrait. We all have eyes and ears and teeth."*

Those who indicated that the faces their child drew were not recognizable as such consistently answered 'Not well.' For example, one respondent explained, *"It's real scribbly. She can't*

draw…she can draw the circle but then, it's like dot dot dot, scribble hair.'' The one respondent who answered 'Child cannot' supposed that her son might be able to draw a face, but she had never seen him do it.

For respondents whose children were on neither extreme in terms of drawing, answer selection of either 'Very well' or 'Somewhat well' depended, in part, on the standard by which respondents measured their child's ability. For instance, one respondent who answered 'Somewhat well' said, *"For her age, probably 'very well' but if I'm comparing it to someone older, probably 'somewhat well.' I mean, she can draw a face with eyes and mouth 'very well' but is it a realistic depiction of a face?"* By contrast, a respondent answered 'Very well' because her daughter's intent was clear. She explained, *"Yes [*very well*], for very rudimentary eyes and mouth."* In cases where a child tended to draw 'extra' details, such as a nose or ears in an eccentric or *"wonky"* way, respondents tended to answer 'Somewhat well' because the faces were not *"realistic."* For example, one respondent said, *"Somewhat well. They all end up looking like pigs [*laughs*]…He always draws a nose as another circle with two dots on it."*

20. How well can this child draw a person with a head, body, arms, and legs?

☐ **Child cannot**
☐ **Not well**
☐ **Somewhat well**
☐ **Very well**

Answer	Cases	Age 3	Age 4	Age 5
Child cannot	3	3	0	0
Not well	13	7	6	0
Somewhat well	22	3	12	7
Very well	22	0	5	17

As with the prior Question 19, ('How well can this child draw a face with eyes and mouth?'), respondents considered whether their child tended to draw all the elements indicated in the question – body, arms, and legs – when drawing a person. They then judged 'how well' their child drew a person, if their child's drawing was recognizable and if the arms and legs were realistically placed, for instance.

Formulating a response
Respondents whose children were on either extreme of ability answered as might be expected. Those whose children included all the elements in the question and even added extra details to their drawings of people (such as clothes, shoes, and fingers) answered 'Very well.' Generally, these respondents mentioned that their child enjoyed drawing. On the other hand, respondents

who explained that their child's drawings of people were unrecognizable as such or were very disordered, with arms and legs *"on the body wherever,"* answered 'Not well.'

Two types of drawings were captured across multiple answer categories. First, respondents whose children drew simple stick figure drawings either answered 'Very well' or 'Somewhat well,' depending on how they judged their child's drawing. For example, one respondent, who answered 'Somewhat well,' said, "*I was thinking, she can do the stick figure, with all the joints and appendages. but on the other hand, I've seen other kids who can draw textures, and it's more than a stick figure.*" Whereas another person who answered 'Very well' said, *"The body is like a stick. He don't draw a full body. It's a stick man with a big old head."*

The second type of drawing which was captured across answer categories was a drawing that was missing a body. Rather, the arms and legs were drawn attached to the head. In that case, respondents answered either 'Not well' or 'Somewhat well.' One respondent said, *"I think that if this one said how well can she draw a person, I would say 'somewhat well.' But the fact that it specified head, body, arms and legs, that's where it falls apart because the people have no body."* Another respondent viewed the missing body as a transitional phase towards stick figures. She explained her answer 'Somewhat well' in the following way: *"Yeah, the body is kind of like the head…like the body and the head are combined, she hasn't quite made that distinction yet."*

21. How well can this child bounce a ball for several seconds?

☐ **Child cannot**
☐ **Not well**
☐ **Somewhat well**
☐ **Very well**

Answer	Cases	Age 3	Age 4	Age 5
Nor response	1	0	1	0
Child cannot	1	1	0	0
Not well	5	2	2	1
Somewhat well	26	6	9	11
Very well	27	4	11	12

Respondents considered the phrase 'bounce a ball' in a few ways: a) one-handed, as in basketball dribbling, b) throwing the ball down and catch it two-handed, as in kickball, or c) bouncing smaller-sized balls like tennis and jacks-sized balls.

In some cases, respondents considered their child's overall athletic ability or general ball handling skills as a heuristic. For example, one respondent who answered 'Somewhat well' said,

"She has pretty good coordination, I think she could do it. I don't know, and there's not an option for 'don't really know.' I guess we haven't played with balls a lot recently. She'll throw a ball for the puppy, but I don't think I've asked her to bounce it."

For a few respondents, the question lacked salience because it seemed to specifically indicate basketball skills. As one person who answered 'Somewhat well' said, "*Yeah and this one...it's more like, we have a soccer ball, we don't really have a basketball. I've seen her try to dribble before and she did well for several seconds, but recently I haven't really seen her [do it] really just based on lack of exposure.*" Likewise, another said, *"I don't know if she bounces! We don't have a basketball at home. I'll just skip that one, I don't know."* One respondent noted that no one brings balls to the playground anymore due to the Covid-19 pandemic. She said, *"I put somewhat well because, quite honestly, she doesn't bounce balls."*

Formulating a response
How the respondent interpreted the question's intent impacted responses for those whose children were moderately coordinated – neither extremely coordinated or uncoordinated. For example, one respondent, who felt the question likely implied basketball dribbling due to the phrase 'for several seconds,' answered 'Somewhat well' and said, "*I don't think she can really do [*dribbling*]. But can she bounce it by throwing it down to the ground and catching it, yeah absolutely – 'very well'. But that's not several seconds, that's one second.*" However, some other respondents answered 'Very well' thinking about two-handed bouncing.

22. How often does this child explain things they have seen or done so that you know what happened?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	0	0	0	0
Some of the time	2	2	0	0
About half the time	7	1	4	2
Most of the time	24	6	7	11
All the time	27	4	12	11

This was a salient question for respondents in that all respondents were readily able to provide examples of their child explaining things they had seen or done when asked to do so. Considerations of 'things they have seen or done' included events and interactions at school,

daycare, or at home, the plot of television episodes or movies, what they saw while in the car, and, in some cases, what happened in make-believe games and what happened in their dreams.

Respondents judged their child's explanations from within their own context, taking the phrase 'so that you know what happened' as referring to 'you,' the respondent and 'what happened' as referring to the child's interpretation what happened. Outside observers might not understand the child's explanations when a parent can. And, outside observers may describe events differently from the child. This was particularly evident for respondents answering about their three- or four-year-old. As one respondent said, *"One day he told me 'Mommy the baby hit me.' I don't know if the baby hit him, but he was upset. So, he's explaining to me what happened to him."* This respondent answered 'All the time' because she personally understood her son's point of view.

Formulating a response
Typically, judging how to respond to this question was a balance between three factors: 1) the child's perception of events, 2) the facts the respondent can attain, and 3) the child's motivation to explain events.

Most respondents judged their child's retelling of events based on the child's perception, and not necessarily based on an unbiased third party or other 'proof' of real events. Some respondents wondered if the question intended to capture their child's true accuracy at retelling a true story, since young children sometimes mis-represent the order of events or embellish a story with extra or make-believe details. But, unless they could verify otherwise, respondents tended to answer based on their ability to comprehend their child's perspective and retelling of events. For example, one respondent, who answered 'All the time,' said that her son explains what happened at daycare, but she could not be sure that it happened in the way he described. She said, *"If it is about something that happened, I don't think he makes up things. How close they are to reality? I don't know - just 'cause it's his perception or perspective. So that's where it's like ok, is it for real real?"*

Respondents' answers also incorporated their child's willingness to provide explanations of events when asked. Some children wanted to describe everything they did, and as one respondent said, "*He tells me everything"* [laughs] *and "he talks non-stop,"* and she answered, 'All the time.'   In other cases, respondents said their children only wanted to talk about certain events. For instance, one respondent explained her answer 'Some of the time' in the following way: *"Because, I feel like more often than not, either he just doesn't want to talk about what he did today, or he talks about maybe something that he wanted to do but we didn't do. So, I don't think he is consistently describing our day."*

Finally, when selecting an answer, respondents thought about what information their child provides and if they need to ask clarifying questions. One respondent, who answered 'About half the time' said, *"He has the linguistic skills to explain it, but I don't know – he's a bit fanciful. […] If there are things we are interested in, he can't always drill down on those things*

or can't always decipher the details of what we are looking for." The need to ask clarifying questions sometimes led parents to answer 'Most of the time' rather than 'All the time,' though not in all cases. One respondent, who answered 'Most of the time,' said, *"Thinking about after school and you ask him about his day, it's always good to ask qualifying questions."* Whereas another respondent, who answered 'All the time,' said, *"If it's something we don't quite get, then we can ask leading questions but other than that she tells us everything that's going on."*

23. How often does this child share toys or games with others?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	1	0	1	0
Some of the time	4	3	0	1
About half the time	8	1	4	3
Most of the time	37	6	15	16
All the time	10	3	3	4

When considering this question, respondents thought about their child's playtime interactions with siblings or cousins at home, other children at daycare, children around the neighborhood, and, for some, playdates with friends. Respondents generally thought about how often their child willingly shared toys like dolls, balls, and blocks, though one respondent considered her child's willingness to share an electronic tablet.

The Covid-19 pandemic affected many respondents' knowledge of their child's willingness to share as well as who their child shared with on a regular basis and, for a few, whether they encouraged their child to share. One respondent encapsulated these effects when she said the following to explain her answer of 'About half the time':

> *"This is a very interesting one at this time because in the era of covid, there's not a lot of sharing. I mean, the sharing she does happens at school predominantly. I mean she does have a little sibling, so I can answer with that in mind – a little nuanced now. We don't encourage general sharing as much."*

Another respondent, who answered 'Most of the time,' based her answer just on her two children sharing at home. Her children were not attending a daycare or school, so interactions with peers

was limited. She explained, *"We kept a really small friend circle during the pandemic, but unfortunately it didn't include any kids her age."*

Formulating a response
Respondents oftentimes, though not consistently, answered based on a perceived average of their child's sharing across the various situations in which their child shares toys. For example, those whose children spent time at daycare or preschool tended to consider both sharing at home and sharing at school, despite not having direct observation at daycare or school. Likewise, those respondents answering about children with siblings tended also to consider both sharing with friends (at school or during playdates) and sharing with siblings. For example, one respondent, who answered 'Most of the time,' said, *"I think he's better about it at school, but I don't have a lot of direct observation there. So, I had to respond about his brother, mostly."* Similarly, another respondent said, "*We've literally had 5 playdates since the beginning of the pandemic, so all of these, it's more like with his brother. I say 'most of the time' because if it's not with his brother, he [always] shares*."

Those respondents who answered less than 'Most of the time' all referred to sharing being a bit difficult in some way – either due to limited peer interactions during the Covid-19 pandemic or due to sharing itself being a challenge. As one respondent, who answered 'About half the time,' said, *"Yeah, I mean there are times that he's in the mood to share and there are times where he is incredibly possessive."* The only respondent who answered 'None of the time' noted that her child had a particularly difficult time sharing at school and at home with his baby sister. She said, "*The teachers explained that he did really well with all the other things with school – except for sharing*."

24. How often does this child lose their temper?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	5	1	1	3
Some of the time	35	6	16	13
About half the time	11	3	2	6
Most of the time	7	3	3	1
All the time	2	0	1	1

Respondents often considered this question to be asking about their child's tantrums. They thought about the times their child loses control of their emotions and becomes upset, cries, screams, or has a 'melt down.' Less often, respondents considered milder emotional expressions such as their child crossing their arms in frustration, whining, pouting, or 'shutting down' for several minutes. Typically, before 'losing their temper,' the child had not gotten their way, so they were triggered and became angry or disappointed. Some respondents mentioned the importance of context in triggering their child's temper – such as lack of sleep or hunger.

Several respondents were confused by the question and felt it did not provide a clear context or a bounded scenario for the answer category options. One respondent said, "*That question feels weird to me. Like, would it really be possible for child to lose their temper 'all of the time?' Like literally a 24/7...screaming?*" She ultimately chose 'Some of the time' because it felt like the 'normal' answer. Likewise, another respondent said, "*These categories, that losing their temper...like, 'Does it happen twice a day? Three times a day? Once a week...?'* […] *She loses her temper a lot, but 'about half the time?' There isn't a reference point.*"

Formulating a response
When selecting a response, respondents considered their child's temperament and how often, and to what degree, their child loses their temper (per day or per week). Then, they typically judged what might be 'normal' for a child. As one respondent, who answered 'About half the time,' explained, "*No kid 'never' loses their temper. 'Some' refers to a 'normal' kid temper.*" She felt that her child lost his temper slightly more than normal, so she selected 'About half the time.'

Those who selected 'Some of the time' described a range of frequencies that their child loses their temper – from periodically or once a week to a few times a day. Despite that range, those who selected 'Some of the time' often noted that their child seemed typical for their age. For example, one respondent said, "*I just feel like she is an average kid, has all the feeling. She does not lose it all that often. It wasn't enough that it consumed my day, but every now and then.*" Also, the frequency could vary over time. As one respondent said:

> "*This seems like a developmental leap thing. He goes through phases. For the most part, he's a very even-keeled kid. But...maybe three months ago there was a period – a week and a half maybe two-week period – where he would just kind of lose it uncontrollably for like 20 minutes and it was really freaky and then one day it just stopped and went back to normal.*"

Response error
One respondent answered 'All the time' when she should have answered 'Some of the time.' She had difficulties with the grid-style questionnaire format and selected 'All the time' accidentally.

25. How often does this child have difficulty when asked to end one activity and start a new activity?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	8	2	2	4
Some of the time	32	5	13	14
About half the time	17	5	7	5
Most of the time	1	1	0	0
All the time	2	0	1	1

In general, respondents viewed this question as asking about their child's ability to 'transition' between activities when asked. Most respondents focused on examples when their child did not want to end what they were doing, and more rarely, respondents considered their child's difficulties starting new activities. Beyond that general, common interpretation, respondents held different understandings of what having 'difficulty' meant and what 'activities' meant within the context of the question.

The activities respondents considered their child transitioning between formed three types of scenarios on which they based their answer: 1) moving between two preferred activities, 2) ending a preferred activity and starting a routine task or less-preferred activity, and 3) an attempted average of all types of transitions that occur in a day.

One respondent, with an out-of-scope interpretation, thought about her child's ability to multitask when she answered 'None of the time.' She said, *"One time I caught her trying to color, do the tablet, and play w her brother all at the same time."*

Formulating a response
Valuation of this question depended both on what types of activities respondents considered and what respondents considered having 'difficulty' to mean.

With regard to the three activity scenarios mentioned above, those respondents who thought of moving between two 'fun' or preferred activities often answered 'None of the time' or 'Some of the time.' For example, one respondent, who answered 'None of the time,' said she thought of the following: "'*Put away your toys we are going for a swim lesson, or we are going for a walk.' That is where my mind went versus from playing to cleanup. For cleanup, it would not be 'none of the time' it would be 'some' or 'half.'*" Those who thought about transitioning from a preferred activity to a less-preferred activity, such as turning off the television and starting the

bedtime routine, tended to answer a higher difficulty level than those who considered transitions between two preferred activities (mostly answering 'Some of the time' or 'About half the time'). For instance, in explanation of her answer, 'About half the time,' anther respondent said, "*No one can get that kid away from the TV without an argument*!" Finally, many respondents who considered an average of the day's transitions and activities noted that, when considering their answer, *"It depends on the activity."* For those thinking about all their child's activities throughout the day, answered in a variety of ways: 'Some of the time,' 'About half the time,' or 'All the time.'

In addition to which activities were considered, what respondents counted as having 'difficulty' when their child was asked to end an activity also was a key factor in respondents' judgement for this question. Some respondents thought about their child's general inertia or their delaying and negotiating tactics, whereas others thought of having 'difficulty' as their child having a temper tantrum. For example, one of the respondents who answered 'All the time' did so because her son always negotiates for more time whenever she asks him to switch games, particularly when they are out at the park. She said that her son will negotiate for a long time, but, she said, *"in the end I always win* [laugh]*."* Meanwhile, the other respondent who answered 'All the time' did so because her daughter, who has autism, struggles with and is triggered by transitions. She explained, *"If she's doing something, and you want her to do something else, that's a big set off. She freaks out."*

Finally, a few respondents took their own behavior into account when responding. For instance, one respondent said that if he gives his son a warning, then he has no problem changing activities. He answered 'About half the time' because he gives his son a warning half of the time. Another respondent answered 'None of the time' and said she used to have difficulties with her daughter, but she has since learned how to best communicate. *"She may ask to play for a couple extra minutes, and I'll let her have that. But, usually when we say it's time to do something, she stops whatever she's doing and comes to do it."*

26. How often does this child keep working at a task after setbacks?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	3	1	1	1
Some of the time	10	1	6	3
About half the time	20	6	7	7

Most of the time	21	3	7	11
All the time	6	2	2	2

Most respondents considered this question to be asking about their child's resilience, *"stick-to-it-ness,"* or even stubbornness in the face of a frustration, mistake, or disappointment. Several parents recognized that this skill relates directly to Kindergarten readiness. As one respondent said, *"That's the nature of school, you're presented with things you can't do."*

Aspects of the question which were considered in different ways included the tasks respondents thought about, how respondents considered their own encouragement of their child, and the meaning of the term 'setbacks.' Regarding tasks, some respondents, particularly those whose children were closer to entering Kindergarten, thought of their child's academic tasks like remembering numbers or writing their name. Whereas others thought about tasks around the house or while playing, like building a Lego tower or dressing a doll. Also, respondents' consideration of what it meant to 'keep working' also varied. Some thought about their child's independent ability to keep working at a task. For example, in explaining her response of 'Some of the time,' one respondent said, *"Yeah, because she is always expecting someone to help her."* Others saw their own encouragement or assistance as part of their child's ability to keep working. A respondent who answered 'About half the time' said that she has taught her daughter a breathing technique to allow her to refocus and keep working at a task, which was effective 'About half the time.' She said, *"What we do when she gets frustrated or is losing interest in it…what we'll do is take a second and take a deep breath and count to four."*

Understanding 'Setbacks'
While most respondents viewed 'setbacks' to refer to something not going their child's way, as in something to overcome, several respondents, some of whom spoke English as a second language, were not sure what the term 'setbacks' meant, or they had out-of-scope interpretations. For example, a few respondents took 'setbacks' to mean a pause in activity, due to, for instance, going to the bathroom or stopping for dinner. As one respondent said, "*I was thinking he's doing an activity, he stops the activity [*for dinner*], and then when he returns back, how easy is it for him to start working again on the same activity? That's my understanding.*" There may be order effects evident for this question, because the prior question, Question 25 ("How often does this child have difficulty when asked to end one activity and start a new activity?"), asked about a child's difficulty stopping and starting activities – which is how some respondents thought of the term 'Setback.'

Formulating a response
How respondents factored in their own encouragement of their child when considering this question impacted response selection. Some viewed the question as asking about their child's self-initiated resilience, whereas others viewed the question as asking if their child is open to encouragement. For example, one respondent decided to answer 'All the time' including her own encouragement, though she recognized that without encouragement, her child would

typically not work through setbacks. She said, *"That one feels like…with encouragement – I have to say, 'no keep going.' So, yeah if he didn't have encouragement from an adult, it would be never. But, I think as long as I say, 'no no no keep going' – we'll say, 'all the time.'"*

One respondent answered in error, taking the question to mean, 'How often does your child have difficulty with setbacks.' He answered 'Some of the time' when he likely should have answered 'Most of the time.' He explained, *"More often than not I'll be like, 'can I help' and he'll say 'I got it.'"*

27. How often does this child physically fight with other children?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	1	0	0
None of the time	29	4	14	11
Some of the time	25	7	7	11
About half the time	2	1	0	1
Most of the time	1	0	1	0
All the time	2	0	1	1

Respondents viewed 'physical fighting' to include intentional altercations such as pushing, slapping, or kicking another child. Some respondents additionally considered wrestling, tussling, or "*roughhousing*" – either between friends or siblings. Grabbing toys away from other children was not considered a physical fight, although a few respondents noted that fights could begin over toys.

Respondents did not consistently include or exclude sibling fights when considering this question. Some respondents incorporated sibling arguments into their response. For example, one respondent answered 'Some of the time,' averaging her child's interactions between siblings and friends. She said, "*So physically fight [*with friends*] we will say, 'None of the time,' but with her sibling, they throw down [*physically fight*] 'all the time.'*" Likewise, another respondent, answered 'Some of the time,' thinking about the limitations of the Covid-19 pandemic on her son's opportunities for playdates. She said, *"Yeah it's just with his brother for the most part, because he's the only kid he's really around right now."* Other respondents specifically excluded sibling fights. A respondent who answered 'None of the time' said, "*With her brother,*

it's 'Some of the time.' They are siblings. They are physical with each other, but I thought of other children – outside our bubble."

Like Question 24 ("How often does this child lose their temper?"), some respondents felt that the response options left this question unbounded and without context. For those viewing the question literally, 'About half the time' could mean 'half of the days of the week' or even 'half of this child's time.' One respondent said that options like 'daily, weekly, and monthly' would be clearer. She explained, "*We are looking at frequency not constant-ness*."

Formulating a response
For respondents whose children had siblings close in age, whether they included sibling fights was an important factor for answer selection. Those who included sibling interactions tended to respond that their child did 'physically fight with other children' more often than they would have if they did not include sibling interactions. Additionally, fighting between siblings was typically considered 'normal' and expected to some degree. For example, a respondent who answered 'Some of the time' said, *"I've never seen her fight with any other kids except her sister. And that is standard sister stuff."*   Similarly, another respondent said, *"'Some of the time' – only because we are fighting with her sister, physically. If it excluded her sister, never. Not a single report of her fighting physically with other children from daycare."* Respondents whose children were very rarely physical with friends of siblings either selected 'None of the time' or 'Some of the time,' depending on how they counted rare occurrences or sibling interactions.

For many respondents, 'Some of the time' was considered a 'normal' amount of fighting, and this response option encompassed a wide range of experiences – from a child having once pushed a friend to physical fights between siblings a few times a week. But, a selection of more than 'Some of the time' indicated that the respondent felt their child fought more often than average. For example, in explaining her answer of 'Most of the time,' a respondent said, *"I thought about her sharing on this one because she does not like sharing. She goes to hurt whoever is trying to take her toy. But, she's getting better with her sister."*

28. How often does this child get distracted?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	3	0	1	2

Some of the time	38	8	16	14
About half the time	15	5	4	6
Most of the time	1	0	0	1
All the time	3	0	2	1

Respondents mostly considered the distractibility of their child when they should be focused on something. The question does not provide a bounded scenario, so respondents often noted that their child's level of focus depends on their interest in the activity or task at hand. Respondents considered a variety of situations where their child was distracted, including distractions from playtime, conversations, meals, chores, and learning activities. Those whose children were four and five years old sometimes considered distraction from distance learning classes – highlighting the relevance of the Covid-19 pandemic to some respondents' considerations. For example, one respondent described her child's behavior during Zoom Kindergarten classes in the following way: *"Every 5 seconds she's like 'mommy, I have to go to the bathroom, mommy I want a drink, mommy I want a snack, mommy I want to show my friend my toy' and yeah, it was a lot. So that's why I said, 'About half the time.'"*

Sometimes respondents considered distraction in terms of being overly focused on the 'wrong' thing, such as television, and not being focused on the 'right thing,' like a question, a task, or a chore. As one respondent, who answered 'Some of the time,' said, *"For example, if he's looking at his favorite cartoons and it's time to eat at the same time, he forgets to eat."*

Out-of-scope considerations
One respondent had an out-of-scope interpretation and considered times when his son distracted him while teleworking from home. He explained, *"Yeah, you know…if he, is sitting on the couch watching TV and I'm working, he'll ask me, 'what are you doing.' It happens every now and then that he is taking an interest in what I'm doing, that is all."*

Order effects may have impacted interpretation of this question. Several respondents referred to Question 25 ("How often does this child have difficulty when asked to end one activity and start a new activity?") when describing their considerations. For example, one respondent said, *"I thought of the same situation that I did for* [the question about] *going from one activity to the next. She's avoiding it, she's staying over here, and not really focusing on the next thing, so she is being distracted and* [focusing] *on what she wants to do and not on what we are trying to do next."*

Formulating a response
When selecting answers, respondents thought about the circumstances when their child is distracted, how often those circumstances occur, and their child's overall ability to focus on something compared to other children their child's age. While most respondents attempted to average their child's level of distraction across several scenarios, one respondent only considered her child's distractibility during activities she enjoys, so she answered 'None of the time.'

Respondents tended to consider distractibility 'normal' for this age range. Indeed, a few respondents said that an answer of 'None of the time' would indicate something problematic in a child. However, which answer respondents considered to represent 'normal' behavior was not consistent. This variation is represented across the following quotes:

> "*I don't think it's a problem. I think it's normal for her age. I think it's normal for her age because she hasn't had much of a structured background.*" (Answered 'All the time')

> "*Like a baby squirrel...his teachers understand that all the kids are like that.*" (Answered 'All the time')

> "*I think for her age, she is pretty good. Thinking a bit about virtual school and how much attention they could pay on those screens as well.*" (Answered 'About half the time')

> "*Yeah, I think her attention span is pretty typical for a four-year-old, but she can get distracted at times.*" (Answered 'Some of the time')

29. How often does this child have trouble calming down?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	9	1	3	5
Some of the time	38	8	14	16
About half the time	10	3	4	3
Most of the time	2	1	1	0
All the time	1	0	1	0

Most respondents directly associated this question with Question 24 ("How often does this child lose their temper?"). They tended to consider the same scenarios for both Question 24 and this question – the times when their child loses their temper or has a temper tantrum. Although, for this question, they focused on the ending phase of a tantrum, answering based on how often their child had lengthy tantrums. When judging their child's ability to recover and calm down, respondents focused on protracted episodes, and they did not consider minor upsets or *"daily frustrations"* that had relatively quick recoveries. As one respondent, who answered 'Some of the time,' explained, "*Yeah, I guess those are those tantrums we were talking about earlier. They're rare, but sometimes she gets herself really worked up, and it's hard to calm down.*"

Less often, respondents thought about 'calming down' from three other types of situations: 1) other emotional upset, such as being sad, anxious, or scared 2) being physically hurt, or 3) being overly energetic or hyperactive.

Respondents thought of 'having trouble' calming down as referring to taking a *"long time to breath and relax"* and return to 'normal' after an episode (such as a tantrum, for example). In discussing these protracted tantrums, respondents discussed just having to wait for it to pass, attempting to distract their child, or giving into their demands. As one respondent said,

> *"Sometimes the tantrum just escalates to a point where we just have to let it ride. So, we usually take him up to his room and stay with him. We don't really do 'time out' by himself. We just sit with him and let him, just kind of let the tantrum ride, and sometimes he can calm down quicker than others."* (Answered 'Some of the time')

A child's process for calming down, as described by respondents, was related to age. For three-year-old children, only time could help them calm down. Whereas some respondents reported that older children had been able to learn and practice self-soothing techniques. Even though, as one respondent said, this age group is *"too young to understand what coping skills are,"* some respondents did talk about their four or five-year old children utilizing learned techniques like taking a long breath, counting to four, or talking through their feelings to help calm themselves down.

> *"And he has the ability sometimes to literally calm himself down. Like, go in another room, he calls it some 'self-time' – we're kind of a Daniel Tiger family. So he does 'take a deep breath and count to 4.' And sometimes he's willing to deploy these tools, and when he does, they are very effective. And sometimes he's just not there. He either can't or won't. And I think a lot of that has to do with being over tired, or hungry or other things."* (About half the time, age 4)

Formulating a response

Respondents selected an answer in one of two ways. They either 1) answered based on how often their child had trouble calming down overall, as in over the course of their day or, 2) they thought about the times when their child was already upset, how often did they have trouble calming down, as opposed to not. Those who used the second selection method were considering their response within a specific scenario – periods where their child was already upset – and so they answered at a higher frequency than they would have if they used the first method, considering the course of the whole day. For example, one respondent said she answered 'Some of the time' because *"it's a very rare occasion and it's typically triggered by being over-tired"*. In that, tantrums themselves occur only 'Some of the time.' Whereas another respondent answered 'About half the time' because, of the times his daughter was in tantrum, *"Half the time she'll be able to breathe and calm down on her own. The other half it takes her a long time to breathe and relax."*

30. How often does this child play well with others?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	0	0	0	0
Some of the time	2	2	0	0
About half the time	4	1	2	1
Most of the time	35	6	15	14
All the time	19	4	6	9

Respondents interpreted 'play well' in one of two overarching ways: 1) playing interactively, as in sharing, taking turns, and engaging with others, and 2) playing nicely, as in being friendly, getting along, and not fighting. Most often, respondents thought of the question in the first way, focusing on their child's ability to share, take turns, and interact. Therefore, for some, this question paralleled Question 23 ("How often does this child share toys or games with others?"), with respondents considering the same situations.

Some respondents, whose children were not attending an in-person daycare or school, felt that the social restrictions around the Covid-19 pandemic limited their child's ability to play with others. This affected on what interactions respondents based their answers. For example, one respondent based her answer on how her son played with others before the pandemic started. She said, *"I wouldn't really know it's been a year and a half since we really did that. Before then…call it 'Most of the time.'"* Whereas another respondent based her answer, 'Most of the time,' only on sibling interactions and explained, *"With strange children when we go to the park, she is not willing to play with other kids, because she was 3 and she was in the quarantine, so she is reluctant to play with the other kids."*

Formulating a response
Most respondents considered an average of all the scenarios in which their child plays with others – at school, if applicable, at home with siblings and cousins, or on playdates with friends. However, a few respondents specifically excluded sibling interactions and answered a higher frequency response than they would have if they had included siblings. For those with restricted social circles, a few took into account pre-pandemic behaviors. For example, one respondent, who answered 'All the time,' explained that she primarily considered her child's playtime with her cousins. She explained, *"Those are the only kids she's been interacting with, but before the pandemic she interacted with other kids perfectly as well."*

Often, respondents who selected 'All the time' were considering this question in terms of the second interpretation of 'play well' described above. They explained that their children get along with others, and some discussed their child's overall friendliness and ease at making friends. They felt that an answer of less than 'All the time' indicated a social conflict.

On the other hand, several respondents who selected 'Most of the time' said they felt that 'All the time' was not viable or could not possibly be true for any child. As one respondent said, *"She does play well with other kids. I can't say 'All the time' because, you know, kids are kids."* Additionally, one respondent who selected 'About half the time' specifically noted that she had no concerns about her child being friendly and sharing well. She explained, "S*ometimes he will be more involved with actual inter-actional [*interactive*] play. But sometimes not, and he'll kind of do his own thing near other people. I just wrote 'half the time' because I think for most of his life playing with other kids it's more been parallel play*."

31. How often does this child have difficulty waiting for their turn?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	9	1	4	4
Some of the time	31	7	11	13
About half the time	12	0	6	6
Most of the time	7	4	2	1
All the time	1	1	0	0

Respondents considered this question across a range of scenarios where their child needed to wait. These scenarios included taking turns with a toy or game, waiting in line at the grocery store, amusement park, or playground, waiting at a doctor's office, waiting for their parent's attention, waiting for their turn at a sports practice, and waiting to eat. As one respondent who answered, 'None of the time,' said,

> *"It can be that there is chalk going, and she has to wait for a color [sidewalk chalk]. She plays soccer, so there are basically ten kids on the team, they line up in groups of five and they have to wait in line to have their turn to kick the ball into the goal. She has no problem waiting for that."*

Oftentimes, respondents considered a variety of scenarios, and answered based on a perceived average of those times their child had to wait for something. For example, one respondent, who answered 'Some of the time,' considered her daughter both waiting twenty minutes at the dentist's office and waiting 30 seconds for her sister to finish her turn with a toy. She said, *"So maybe it's a difference here of generally how did she do at waiting versus waiting for your turn. It kind of merged together. Is it asking about sharing or the aptitude for waiting?"* As this respondent suggested, the question captured how respondents viewed their child's overall capacity to wait.

Respondents viewed 'having difficulty' for this question as either expressing frustration at waiting, such as being loud and demanding, losing their temper, or whining, or not waiting at all, for example, 'jumping' the line, grabbing a toy before their turn, or requiring repeated reminders to wait. For example, one respondent, who answered 'About half the time,' said that sometimes her daughter requires oversight to make sure her daughter takes turns with a toy. She said, *"With her brother she would definitely steal it back if we didn't intervene."*

Formulating a response
One factor that affected answer selection was how respondents viewed the context of the question. Most respondents thought about how often their child had difficulty among the times they had to wait, averaging their child's difficulty across various scenarios. For example, one respondent who answered 'About half the time' commented on how her son is different at home versus at daycare. She said, *"I suspect at school he dutifully waits his turn, but at home he has a really hard time waiting his turn. If his sister goes first that's a really big problem for him."*

Those who thought of specific circumstances or those who measured difficulty across their whole day, rather than when their child had to wait, answered a lower frequency than they would have if they answered based on all the times their child had to wait for their turn. For example, one respondent, who answered 'None of the time,' said she considered contexts outside the home when answering, like at birthday parties or at camp. She said, *"So that's with other kids she's really good. At home…I'd maybe move that to 'Some of the time,' because at home she has a really hard time, not a really hard time…but there definitely are difficulties with waiting with her cousins."*

32. How often does this child show concern when they see others are hurt or unhappy?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	3	1	1	1
Some of the time	3	1	0	2
About half the time	8	2	4	2
Most of the time	20	5	9	6
All the time	26	4	9	13

For this question, respondents thought about their child's overall sensitivity and awareness of other's feelings – often using the word 'empathetic' in their discussion. Respondents considered their child's reaction to hurt or unhappy members of the family, peers at school or daycare, and strangers, such as other children at the playground or even, in one case, characters in a movie.

'Showing concern' was something that varied from child to child, and respondents thought about how their own child showed concern when considering this question. For some, 'showing concern' meant asking what was wrong, giving a hug, or patting someone on the back. For others, 'showing concern' meant actively going and getting band-aids if someone was injured or making a card for someone in mourning. For example, one respondent, who answered 'All the time,' said, *"She is my empathetic baby. She feels for everyone, everyone. And she just notices – asks about homeless people. She can tell by looking at them, something about their experience is very heavy…She'll ask 'Why are they sad?'"*

Formulating a response
When choosing an answer, respondents tended to consider their child's overall empathetic nature. Those who chose 'All the time' described their children as always being sensitive, thoughtful, and caring when someone is hurt or unhappy. For example, one respondent explained, *"She's very sensitive, so when other people are 'hurt or unhappy' – if her sister is hurt, even if she caused her to get hurt, she goes 'oh she's not happy!' and pet her on the head, give her a hug. She's genuinely pretty concerned."*

Those who selected less than 'All the time' either discussed some situations in which their child did not show concern (such as when they were the person who caused a sibling to be upset) or, as in a few cases, the respondent felt that the option 'All the time' was unrealistic for any child. One respondent explained, for example, that the only times her daughter will not comfort her brother when he is upset, *"essentially if she is the one who inadvertently caused it."*

Response error
There were a few cases of response error, in which a respondent should have answered at a higher frequency than they did. Two respondents, who answered 'Some of the time,' should have answered 'Most of the time,' because they both indicated that their child usually showed concern when they see other people hurt or upset. For example, one of these respondents said that the question was difficult to answer, since his son rarely sees people hurt or upset. He then said, *"He almost always asks what happened if someone stubs their toe. If something does*

happen, he is frequently cued into it." Another respondent answered 'None of the time' when she should have answered 'All the time,' noting that she has no concerns about her son. This could be a case of misreading since the prior question asks about how often their child 'has difficulties.'

33. How often does this child bounce back easily when things do not go their way?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
None of the time	2	0	1	1
Some of the time	11	5	4	2
About half the time	21	6	6	9
Most of the time	20	1	10	9
All the time	6	1	2	3

Respondents saw this question as asking about their child's resilience when they are told 'no' or when they are disappointed. They thought of their child's capacity to be redirected or, in some cases, their ability to, as one respondent said, *"roll with the punches."* For many children, as described by the respondents, 'not getting their way' was a potential trigger for losing their temper. Therefore, respondents frequently referenced their answers and considerations for Questions 24 ("How often does this child lose their temper?") and Question 29 ("How often does this child have trouble calming down?"). For instance, one respondent, who answered 'Most of the time,' said, *"This one played right into the 'whole tantrum thing' that we talked about from Question 24. Even if she loses it, it doesn't take her very long to kind of forget it ever happened and move on."*

Some also thought about Question 26 ("How often does this child keep working at a task after setbacks?"), and they referenced the same scenarios. For example, one respondent, who answered 'About half the time, said, *"I guess that was kind of like the other questions.* [pause] *The same type of thing like doing crafts and if it's not working out the way he likes it, it's a crapshoot whether or not it's going to work out"*

Respondents viewed 'bounce back easily' as their child avoiding a tantrum or relatively quickly moving past their initial disappointment or frustration. As one respondent who answered 'About half the time,' said, *"If we are leaving from somewhere, like a carnival, and he's not ready to go yet, you know, in a few minutes, you just kind of let time go by and a little bit of distraction go by*

and he's able to move on from it and he does kind of forget about it." On the other hand, as an example of not moving on, another respondent, who answered 'Some of the time,' said, *"He's very persistent. So, he will bug you until things do go his way."*

One respondent was unclear about the meaning of 'bounce back,' and when asked about her interpretation of that phrase, she said, *"That he go back? I don't know."* Ultimately, she decided to answer 'Most of the time,' but she was not clear as to the intent of the question.

Formulating a response
When selecting an answer, respondents aimed to represent their child's overall capacity to handle 'not getting their way.' Some respondents generalized all interactions throughout the day. As one respondent, who answered 'All the time,' said, *"About ten minutes, she bounces back pretty easily – one hundred percent."* Others focused on salient concerns when selecting their response. For example, one respondent, who answered 'About half the time,' explained, *"If she does not want to sleep in her bed, she wants to sleep with me, she might just stay in her room and go to sleep. Other times, she might come crying to me, and that is probably half the time that she does that.*"

Response error
A few respondents changed their answers during probing, from 'Some of the time' to 'Most of the time,' for instance, noting that they had read the question incorrectly at administration. And they mistakenly answered based on 'difficulty' rather than ability to 'bounce back.'

Question-by-Question Analysis: Alternate Questions

Alt1. How often can this child correctly add two numbers? For example, 2 plus 3?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	0	1	0
None of the time	13	6	7	0
Some of the time	13	2	3	8
About half the time	7	3	1	3
Most of the time	14	0	6	8
All the time	12	2	5	5

This question was an alternate question for the Early Learning domain. Interviewers probed this question after Question 9 ("How often can this child correctly do simple addition? For example, two blocks and three blocks add to a total of five blocks?")

Many respondents viewed this question as asking about their child's ability to complete an addition problem, either in their head, from *"rote memory,"* or reading an equation in a workbook, perhaps using only their fingers to help them. Taken in that sense, respondents considered it to be more challenging and abstract than Question 9, which gives the example of using physical blocks. As one respondent said,

> "*I think in the one above* [Question 9], *it's more like two blocks and three blocks. Two plus three* [Alt1] *seems way more academic. Something that I haven't seen…or it feels more like writing a two and writing a three and adding.*" (Answered 'None of the time' to Alt1; 'Some of the time' to Question 9)

Additionally, some respondents viewed this question as asking about adding any two numbers, not necessarily simple addition of small numbers. One respondent, who answered 'Most of the time' said that she did not think her son would *"get the large numbers."* Finally, other respondents did not see any difference between Question 9 and this question, and they considered their child's ability to count objects or do addition with small numbers (as in the question example) on their fingers.

Formulating a response
When selecting an answer, respondents considered where their child was in terms of mastering the skill of addition asked in the question. Those who thought of the question in a more academic sense tended to answer at a lower frequency than they did for Question 9, which asked about adding blocks. This was not the case, however, for respondents whose children had more advanced math skills, particularly those who were already completing math problems on worksheets.

One respondent who selected 'Some of the time' did so because addition is something the respondent is working on with her child. But, more commonly, respondents thought of how often their child could answer a question correctly and the range of numbers they could add.

Alt2. How often can this child sort several objects by length correctly?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	3	0	2	1
None of the time	1	0	0	1
Some of the time	10	6	3	1
About half the time	8	2	6	0
Most of the time	18	3	7	8
All the time	20	2	5	13

This question was an alternate question for the Early Learning domain. Interviewers probed this question after Question 11 ("How often can this child split up a number of objects in half? For example, split four objects into two groups of two?")

Respondents consistently viewed this question as asking if their child can arrange objects by length from shortest to longest. Some respondents were able to think of examples where they had seen their child sort objects by length, such as arranging railroad track toys, broken and full crayons, or sticks outside, sorting laundry, or correctly ordering pictures in a workbook or tablet game. More often, respondents thought about their child sorting objects by size instead. In their view, sorting from smallest to largest was a similar skill, and they answered based on that estimation. For example, one respondent, who answered 'All the time,' said, "*We spend a lot of time in the kitchen, we make a lot of cakes for people for birthdays and for ourselves…like, 'I need the big berries' she'll get the big berries*."

Formulating a response
Those who had seen their child sort objects by length based their answer on how experienced they felt their child was with this skill or how often they are able to sort objects correctly. One respondent, for instance, answered 'Most of the time' because, when sorting the laundry (such as shorts and pants), her son sometimes makes mistakes.

Many respondents had not seen their child sort objects by length, and they based their answers on similar skills, as in sorting objects by size or shape. Others made a best guess based on a feeling of their child's ability, which could contribute to response error or decreased data quality. As one respondent, who selected 'All the time,' said, *"It's not something I've ever tested, but I just feel certain he could. I don't know why. I just feel certain he could."* Respondents who left this question blank did not feel comfortable making a guess.

For a few respondents, their child's interest in sorting objects by length affected their answer selection, and their answer captured their child's willingness to do the task rather than their ability. As one respondent explained, her daughter had the ability to sort by size, but she just prefers to sort by color. She said, *"She can't sort the lengths because she's too focused on color. So, it's only 'Some of the time' because it depends on the object."*

Alt3. How often can this child tell which group of objects has more? For example, a group of seven blocks has more than a group of four blocks?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	3	0	1	2
None of the time	1	1	0	0
Some of the time	6	3	2	1
About half the time	7	2	5	0
Most of the time	17	4	7	6
All the time	26	3	8	15

This question was an alternate question for the Early Learning domain. Interviewers probed this question after Alt2 ("How often can this child sort several objects by length correctly?")

Respondents consistently thought about their child's ability to recognize quantity differences among piles of objects – be they pieces of food, toys, coins, or pictures on school worksheets. Most respondents readily provided an example of witnessing this in some form, either while purposefully trying this task or, for instance, when their child happened to recognize that a sibling received more pieces of candy. In fact, several respondents, whose child had siblings, thought about their child's desire to make 'fair,' even piles as evidence that they recognize smaller and larger pile sizes. For example, one respondent, who answered 'All the time,' said, *"If I gave him four pretzels and I gave his sister eight pretzels, he'd be like, 'you shorted me.' I feel confident he'd get this."*

Typically, respondents thought about their child's ability to recognize which group had more based on the size of the group – visually, without the need to count. And a few respondents also noted that the difference in the piles would determine if their child could distinguish which was larger. As one respondent, who answered 'All the time' said, *"I think so, he is able to distinguish. Maybe four blocks with five blocks it's not easy. But if there are ten blocks and four blocks he can distinguish which one has more blocks."*

Formulating a response
Factors respondents considered when selecting a response were how often they had practiced or seen this skill with their child, the size of the piles their child could distinguish between, and how often they could determine the larger pile correctly.

Respondents who did not practice these sorts of skills either made a best guess or left the question blank. As one respondent, who answered 'Some of the time,' said, *"Yeah. Because I don't ask her stuff like that. So...some of the time."*

While respondents typically did not discuss counting the objects in each pile, one respondent whose child was three years old answered 'Some of the time,' even though her daughter was able to visually see the difference between the pile sizes. She said, *"I don't think she understands 'more' as in numbers, I think it's more that this one looks little and this one looks big."*

Alt4. How well can this child draw a triangle?

☐ **Child cannot**
☐ **Not well**
☐ **Somewhat well**
☐ **Very well**

Answer	Cases	Age 3	Age 4	Age 5
No response	3	1	1	1
Child cannot	5	5	0	0
Not well	7	4	3	0
Somewhat well	27	3	15	9
Very well	18	0	4	14

This question was an alternate question for the Health and Motor domain. Interviewers probed this question after Question 18 ("How well can this child draw a circle?")

Respondents consistently interpreted this question as asking if their child could draw – not just recognize – a legible triangle. Respondents considered a triangle to be 'Very well' drawn if it had three, straight, connected lines. Several respondents, whose children were three or four years old, noted that they considered triangles more difficult than circles, requiring more coordination.

Formulating a response
Those who responded 'Somewhat well' did so because their child's triangle drawings were recognizable, but *"wonky"* in some way, squiggly or unconnected lines, or their child needed some guidance from them when drawing. For example, one respondent said, *"She can imitate. She knows her shapes and if I draw one for her and like 'ok, draw your own'"* A few respondents also said that they considered 'Somewhat well' to be appropriate for their child's age.

Respondents who were not confident that they had ever seen their child draw a triangle either guessed, based on their child's knowledge of shapes or drawing ability overall, or left the question blank. As one respondent said, "*I can't remember him ever drawing a triangle, but again that's probably something he could do very well…but it's dishonest if I say that, so I'll say 'Somewhat well.' […] I don't spend all day long quizzing him on shapes.*" Those who guessed did not respond consistently, and they answered 'Not well,' 'Somewhat well,' or 'Very well.'

Alt5. How well can this child draw a square?

☐ **Child cannot**
☐ **Not well**
☐ **Somewhat well**
☐ **Very well**

Answer	Cases	Age 3	Age 4	Age 5
No response	2	1	1	0
Child cannot	4	4	0	0
Not well	4	2	2	0
Somewhat well	32	6	16	10
Very well	18	0	4	14

This question was an alternate question for the Health and Motor domain. Interviewers probed this question after Alt4 ("How well can this child draw a triangle?")

Respondents consistently considered this question to be asking about their child's ability to draw – not just recognize – a legible square. Respondents considered whether their child's drawings of squares had straight, connected, equal-length lines.

Formulating a response
Those who responded 'Somewhat well' typically mentioned that their child's square drawings were "crooked" or uneven in some way. One respondent, for example, said "*His squares are more like rectangles.*" Like Question Alt4 ("How well does this child draw a triangle?"), a few respondents also said that they considered 'Somewhat well' to be appropriate for their child's age. As one respondent explained, she considers what the shapes *"really"* look like, and not compared to other children. She said, *"Very well sounds like exceeding an expectation and somewhat well is like, he does it."* A response of 'Not well' indicated that a child was still in the process of consistently drawing squares.

Respondents who were unsure about their child's ability to draw a square either answered based on their child's overall drawing ability overall and their knowledge of shapes or they left the question blank.

Alt6. How often does this child have difficulty when moving between one activity and a new one?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	0	1	0
None of the time	9	1	4	4
Some of the time	36	8	13	15
About half the time	7	2	2	3
Most of the time	5	2	2	1
All the time	2	0	1	1

This question was an alternate question for the Self-Regulation domain. Interviewers probed this question after Question 25 ("How often does this child have difficulty when asked to end one activity and start a new activity?")

Respondents considered this question to be asking about transitions. However, the types of activities they thought about varied and affected their judgement on how to answer. Some thought about moving between two preferred activities whereas others thought about transitioning between a preferred activity, like playing outside, to a routine activity, like taking a bath.

Most respondents considered this question to be a repeat of Question 25, thought of the same examples, and answered in the same way. Also, a few respondents changed their answers between Question 25 and this question, from 'About half the time' to 'Some of the time,' but still viewed the questions as equivalent. This was, in part, because some respondents viewed those two answers as similarly 'in the middle.' As one respondent said, *"It's half of the time to some – it could go either way."*

Those who thought of this question as distinct from Question 25 considered this question to be asking more about transitions between 'like' activities, something the child initiates, or between subjects within a school day. Question 25, on the other hand, seemed to be asking about endings initiated by the respondent, such as turning off the television to start dinner or the bedtime routine. In explaining why she answered 'Some of the time' to Question 25 and 'None of the time' to this question, Alt6, one respondent said, *"To me* [Alt6] *is asking more about 'transitions' like, sort of, if we are talking about school readiness, there are kids who have*

trouble transitioning between 'we're finishing up math and were going to go to art class,' which doesn't have 'this one is better than the other.' It's just the transitions could be hard for kids and may be an actual concern.

Formulating a response
Valuation of this question depended both on what types of activities respondents considered transitioning between, how often the child has difficulty transitioning, and what respondents considered having 'difficulty' to mean – temper tantrums or simply requests for more time. Oftentimes, those who thought about transitions between similar activities tended to answer at a lower frequency than they would have if they considered transitions between a preferred activity and a non-preferred activity. Likewise, those who thought of transitions that their child initiates, rather than the respondent themselves, answered at a lower difficulty frequency as well.

Alt7. How often does this child keep working at a task even when it is hard for them?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	0	1	0
None of the time	0	0	0	0
Some of the time	19	4	8	7
About half the time	13	3	6	4
Most of the time	23	5	8	10
All the time	4	1	0	3

This question was an alternate question for the Self-Regulation domain. Interviewers probed this question after Question 26 ("How often does this child keep working at a task after setbacks?")

Much like Question 26, respondents considered this question to be asking about their child's resilience, *"stick-to-it-ness,"* or *"grit"* while working at a challenging task. Some respondents saw this question and Alt 8 below (How often does this child keep working at a task even when they face obstacles?) as essentially a repeated version of Question 26, and they considered the same scenarios and answered in the same way.

However, others viewed this question differently from Question 26, considering it to be asking about their child's ability to keep working independently on something that requires practice or extra effort, like working on a puzzle, putting on their shoes, or learning to ride a bike. This

resulted, at times, in different response selections. For example, one respondent, who answered 'Most of the time' to this question and 'About half the time' to Question 26 explained that a 'setback' (as in Question 26) indicated that *"you lost some of your work."* Whereas, for this question, *"When it's hard, it doesn't necessarily mean that the things that you did just got destroyed or fell apart. It's that it's hard; you have to keep at it. And usually he keeps at it."* Likewise, another respondent explained, *"There's no particular thing that goes wrong, it's a matter of practice."*

Formulating a response
An important factor in answering this question was how respondents considered 'asking for help.' Some respondents viewed this question as asking how often their child works independently and answered accordingly. For example, one respondent, who answered 'Some of the time,' said, *"He gives up faster, and with coaching will stick to something."* Others included their help as part of their child working through a difficult task. In explaining her answer, 'Most of the time,' a respondent said, *"Whenever she is struggling with something she goes like mommy, help please! Because she cannot do it. So, me or my husband – we go and we teach her, like we say ok you need to do it this way. And she says no, help, because she's getting frustrated. But after that, she continues doing it."*

Response error
A few cases of response error arose where a respondent answered 'Some of the time' when they should have answered 'Most of the time.' In both cases, the respondent misread the question as 'having difficulty' working at a task, perhaps due to many prior questions referring to 'difficulties.'

Alt8. How often does this child keep working at a task even when they face obstacles?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	0	1	0
None of the time	1	0	0	1
Some of the time	18	4	7	7
About half the time	15	3	9	3
Most of the time	21	5	6	10
All the time	4	1	0	3

This question was an alternate question for the Self-Regulation domain. Interviewers probed this question after Alt7 ("How often does this child keep working at a task even when it is hard for them?")

Respondents generally considered this question to be asking about their child's "*grit,*" "*stick-to-it-ness,*" or willingness to keep working on a challenging task. This consideration is similar to Question 26 ("How often does this child keep working at a task after setbacks?") and the previous alternative question, Alt7. Many respondents viewed these three questions (Question 26, Alt7, and Alt8) as equivalent. As one person noted, *"I thought I already answered this one."*

However, where some respondents felt this question differed from the other two was due to the term 'obstacles.' The term 'obstacles' prompted some respondents to think about external blocks to their child's progress in a task – something *"that gets placed in your way."* As one respondent, who answered 'Some of the time,' explained, "*I think of an obstacle being more like… if I hand her a Tupperware with a cookie inside, and it's really hard to open, she'll get it open [...] oh I really need to figure out how to climb over that one thing in the playground to get to the next thing."* One respondent considered 'obstacles' in terms of her daughter's learning and communication delays. She answered 'About half the time' saying, "*She's halfway better. She's halfway – she's not fully there yet, but she's not as far back as she was.*"

Formulating a response
Factors that affected answer selection included the types of tasks respondents considered and whether respondents interpreted the question as their child working independently or with assistance. As many respondents said, their child's willingness to keep working at a task was dependent on how much they enjoyed that task and how motivated they were to continue. And respondents' view of 'working at a task' as either including or excluding their assistance affected response selection. As one respondent, who answered 'Some of the time' said, *"I'm constantly trying to get her to remember her numbers. And it's like she'll forget and she's expecting my help."*

The way respondents viewed 'obstacles' – either as something distinct from 'hard tasks' and 'setbacks' or not – did not have a consistent effect on response selection. Some who saw no difference between this question, Question 26, and Alt7 still answered differently, and some who did consider the question differently ultimately selected the same answer category for all three.

Alt9. How often does this child get easily distracted?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	2	0	2	0
None of the time	0	0	0	0
Some of the time	37	7	14	16
About half the time	10	3	3	4
Most of the time	6	3	2	1
All the time	5	0	2	3

This question was an alternate question for the Self-Regulation domain. Interviewers probed this question after Question 28 ("How often does this child get distracted?")

Respondents generally considered this question to be asking about their child's ability to focus on a task or activity. As with Question 28, respondents often pointed out that their child's level of focus depended on their interest in the activity or task at hand. The activities respondents considered included playtime games, conversations, meals, chores, to learning activities and schoolwork.

Most respondents thought of this question in the same way as Question 28, discussing the same scenarios and answering in the same way. However, some respondents felt that the term 'easily distracted' made this question distinct from Question 28, leading some to answer it differently, though considerations of the phrase and answer selection outcomes varied. For instance, one respondent thought of how often her child is distracted by the television specifically, since that is what most easily distracts her. She answered 'About half the time' to this question as opposed to 'Some of the time' to Question 28. A few other respondents thought about how often their child is distracted from a favored activity – such as watching television, leading them to answer 'Some of the time' rather than 'About half the time.'

A few people felt that the term 'easily distracted' indicated that the question intended to capture a behavior or character trait that was not developmentally typical for a three- to five-year-old child. For example, one respondent, who answered 'Some of the time,' wondered if the question was really asking 'are there signs of ADHD in your child,' "*and I want to say 'no' we are good with that*."

Formulating a response
The activities respondents considered as well as how they viewed their child's overall disposition, as relatively focused or distractable, affected answer selection. For example, one respondent explained her answer in the following way: *"Because most of the time he's pretty easily redirected or he's already staying on task. I don't feel like most of the time I have to intervene or correct him most of the time, so that's why I picked 'Some of the time.'"*

Alt10. How often does this child have difficulty making or keeping friends?

☐ **None of the time**
☐ **Some of the time**
☐ **About half the time**
☐ **Most of the time**
☐ **All the time**

Answer	Cases	Age 3	Age 4	Age 5
No response	1	0	1	0
None of the time	41	9	16	16
Some of the time	13	2	5	6
About half the time	2	2	0	0
Most of the time	2	0	1	1
All the time	1	0	0	1

This question was an alternate question for the Social-Emotional domain. Interviewers probed this question after Question 33 ("How often does this child bounce back easily when things do not go their way?")

Respondents considered their child's overall sociability and friendliness when playing with new and familiar children their age in a variety of situations. They considered meeting and playing with new children at the playground, interacting with friends on playdates, at daycare or school, or even talking with friends and classmates during online schooling and video calls. Respondents considered both long-term friends and short-term acquaintances, depending on which interaction was relevant to their child's current social circle.

Most respondents focused on 'making friends' rather than 'keeping them,' and several respondents noted that 'making' and 'keeping' friends were two different skills. In fact, some respondents said that it is the parent's role to help their child 'keep' and maintain friendships. As one respondent said,

> *"This is a hard one because 'making and keeping' is very different. I know she has no trouble making friends because she just went to a new camp, and it was not a problem. But keeping friends…especially at this age it's a little more about the parents and the adults giving the opportunity to interact than anything that she's doing."* (Answered 'None of the time')

The social restrictions due to the Covid-19 pandemic played a determining role in what types of interactions respondents considered and even respondents' knowledge of their child's social skills. One respondent, whose child was three years old, made a guess and said, *"When she was in daycare she showed zero interest in other children…so I'll say, 'None of the time.' She was a little under two. Right at the beginning of* [shutdown] *she turned two. So, I don't know how she is with other kids."* Likewise, another respondent made a best guess based on her child's current

friendships. She said, *"In the last year we haven't really seen people, had the opportunity to make new friends."*

Formulating a response
Respondents who were able to come up with examples of their child in social situations based their answers on how friendly and outgoing they considered their child to be. Those who answered 'Some of the time' or 'About half the time' considered a small level of difficulty to include shyness, not initiating interactions, or being more selective in who they play with. For example, one respondent explained, *"She is not trying to be friends with everybody. I thought if it as she does have difficulty. She does a little bit, but not all the time."*

Response error
There were a few cases of response error in which respondents misread the question as 'how often does this child make and keep friends?' Both respondents who answered 'Most of the time' should have answered 'Some of the time.' As one respondent said about her daughter, *"Oh she has no issue making friends. She can go outside and see someone for the first time, and she'll come back and say, 'Mommy, I have a new friend.'"*

Section 1: Healthy and Ready to Learn items

The next questions are about the child's behaviors and skills. Please respond to the items to the best of your knowledge, and do not feel the need to test your child before answering each question. These questions refer to your child aged 3-5. Please mark the box that most closely describes your child for each item.

START TIME:_____

How often can this child:		None of the time	Some of the time	About half the time	Most of the time	All of the time
1	Write his or her first name, even if some of the letters are not quite right or are backwards?	☐	☐	☐	☐	☐
2	Recognize the beginning sound of a word? For example, the word "ball" starts with the "buh" sound?	☐	☐	☐	☐	☐

		None of the time	Some of the time	About half the time	Most of the time	All of the time
3	Come up with words that rhyme? For example, "cat" and "mat?"	☐	☐	☐	☐	☐
How often can this child:		**None of the time**	**Some of the time**	**About half the time**	**Most of the time**	**All of the time**
4	Come up with words that start with the same sound? For example, "sock" and "sun?"	☐	☐	☐	☐	☐
5	Follow instructions to complete a simple task?	☐	☐	☐	☐	☐
6	Recognize and name their own emotions?	☐	☐	☐	☐	☐
7	Focus on a task you give them for at least five minutes, for example, simple chores?	☐	☐	☐	☐	☐

		None of the time	Some of the time	About half the time	Most of the time	All of the time
8	Read one-digit numbers? For example, 2 or 8?	☐	☐	☐	☐	☐
How often can this child:		**None of the time**	**Some of the time**	**About half the time**	**Most of the time**	**All of the time**
9	Correctly do simple addition? For example, two blocks and three blocks add to a total of five blocks?	☐	☐	☐	☐	☐
10	Correctly do simple subtraction? For example, seven blocks take away three blocks leaves four blocks?	☐	☐	☐	☐	☐
11	Split up a small number of objects in half? For example,	☐	☐	☐	☐	☐

		Child cannot count	5	10	20	30 or more
	split four objects into two groups of two?					
12	If asked to count objects, how high could this child count correctly?	☐	☐	☐	☐	☐

		None of them	Some of them	About half of them	Most of them	All of them
13	How many letters of the alphabet can this child recognize?	☐	☐	☐	☐	☐

		Poor	Fair	Good	Very good	Excellent
14	In general, how would you describe this child's health?	☐	☐	☐	☐	☐
15	How would you describe the condition of this child's teeth?	☐	☐	☐	☐	☐

		This child has no health conditions	Never	Sometimes	Usually	Always
16	During the past 12 months, how often have this child's health conditions or problems affected his or her ability to do things other children his or her age do?	☐	☐	☐	☐	☐

		This child does not have any health conditions	Very little	Somewhat	A great deal	
17	To what extent do this child's health conditions or problems affect his or her ability to do things?	☐	☐	☐	☐	

How well can this child:		Child cannot	Not well	Somewhat well	Very well	
18	Draw a circle?	☐	☐	☐	☐	
19	Draw a face with eyes and mouth?	☐	☐	☐	☐	
How well can this child:		Child cannot	Not well	Somewhat well	Very well	
20	Draw a person with a head, body, arms, and legs?	☐	☐	☐	☐	
21	Bounce a ball for several seconds?	☐	☐	☐	☐	

How often does this child:		None of the time	Some of the time	About half the time	Most of the time	All of the time
22	Explain things they have seen or done so that you know what happened?	☐	☐	☐	☐	☐
23	Share toys or games with others?	☐	☐	☐	☐	☐
24	Lose their temper?	☐	☐	☐	☐	☐
25	Have difficulty when asked to end one activity and start a new activity?	☐	☐	☐	☐	☐
How often does this child:		None of the time	Some of the time	About half the time	Most of the time	All of the time
26	Keep working at a task after setbacks?	☐	☐	☐	☐	☐
27	Physically fight with other children?	☐	☐	☐	☐	☐

	How often does this child:	None of the time	Some of the time	About half the time	Most of the time	All of the time
28	Get distracted?	☐	☐	☐	☐	☐
29	Have trouble calming down?	☐	☐	☐	☐	☐
30	Play well with others?	☐	☐	☐	☐	☐
31	Have difficulty waiting for their turn?	☐	☐	☐	☐	☐
32	Show concern when they see others are hurt or unhappy?	☐	☐	☐	☐	☐
33	Bounce back easily when things do not go their way?	☐	☐	☐	☐	☐

FINISH TIME:_____

Section 2: Alternate/Additional items

How often can this child:		None of the time	Some of the time	About half the time	Most of the time	All of the time
Alt1	Correctly add two numbers? For example, 2 plus 3?	☐	☐	☐	☐	☐
Alt2	Sort several objects by length correctly?	☐	☐	☐	☐	☐
Alt3	Tell which group of objects has more? For example, a group of seven blocks has more than a group of four blocks?	☐	☐	☐	☐	☐
How well can this child:		Child cannot	Not well	Somewhat well	Very well	
Alt4	Draw a triangle?	☐	☐	☐	☐	
Alt5	Draw a square?	☐	☐	☐	☐	

How often does this child:		None of the time	Some of the time	About half the time	Most of the time	All of the time
Alt6	Have difficulty when moving between one activity and a new one?	☐	☐	☐	☐	☐
Alt7	Keep working at a task even when it is hard for them?	☐	☐	☐	☐	☐
Alt8	Keep working at a task even when they face obstacles?	☐	☐	☐	☐	☐
Alt9	Get easily distracted?	☐	☐	☐	☐	☐
Alt10	Have difficulty making or keeping friends?	☐	☐	☐	☐	☐

References

Ghandour, R., Moore, K., Murphy, K., Bethell, C., Jones, J., Harwood, R., Buerlein, J., Kohan, M., Lu, M. (2018). School Readiness among U.S. Children: Development of a Pilot Measure. *Child Indicators Research*. 12(4), 1389-1411.

Miller, K. (2011). "Cognitive Interviewing." In Madans, J et al, eds. *Question Evaluation Methods: Contributing to the Science of Data Quality*, p 51-75. Hoboken, NJ: John H Wiley and Sons, Inc.

Miller, K., Willson, S., Chepp, V., & Padilla, J.-L. (Eds.). (2014). *Cognitive Interviewing Methodology*. Hoboken, NJ: John Wiley & Sons.

Scanlon, P. (2017). Cognitive Evaluation of the 2015-2016 National Center for Health Statistics' Research and Development Survey. National Center for Health Statistics. Hyattsville, MD. https://wwwn.cdc.gov/QBank/Report.aspx?1184 Accessed 12/10/2021.

Tourangeau, R., L. J. Rips, and K. Rasinksi. (2000). *The Psychology of Survey Response*. New York, NY: Cambridge University Press.

Willis, G. (2005). *Cognitive Interviewing: A Tool for Improving Questionnaire Design*. Thousand Oaks, CA: Sage Publications, Inc.

Willson, S., 2006, Cognitive Interviewing Evaluation of the Survey on Emerging Traumatic Events: Post-Event (Tier II) Questionnaire, Hyattsville, MD: National Center for Health Statistics. https://wwwn.cdc.gov/QBank/Report.aspx?1004 Accessed 12/10/2021.