

THE UNIVERSITY OF CHICAGO

Exploring Children's Everyday Activities through Parent and Child Utterances

By

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June 2021

A paper submitted in partial fulfillment of the requirements for the Master of Arts degree in the
Master of Arts Program in the Social Sciences

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Abstract

The present study examines the activities a child experiences and the amount of speech they are using and hearing from the surrounding environment. Studying childhood activities in early development is important due to their potential to impact a child's linguistic and cognitive skills. Using one visit from a twelve-visit longitudinal study focused over the first five years of life, we were able to look at the preliminary findings of a much larger study at hand. The 61 participants at their 38-month mark, were split into high- and low-income groups to get an understanding about what activities were done in certain households as well as parent involvement. The most frequent activities children engaged in were Pretending and Performing Knowledge/Showing Off. We found that the activities that elicited the most speech from children was Performing Knowledge/Showing Off and Pretending. The activities that elicited the most speech from parents were Playing Games with Rules and Performing Knowledge/Showing Off. The most frequent activities for high-income groups were Doing Arts and Pretending and for the low-income group they were Pretending and Eating/Preparing Food/Drink. Using these findings, we can build a landscape of time of how child and parents are interacting while spending their time together doing these activities. Future research will look at the same child before and after their 38-month visit to further understand the stability of the activities and verbal exchanges over time.

Introduction

Children experience a multitude of different learning environments that have impacts on their early development (Goldin-Meadow, 2003). The present study is concerned with the relationship between the activities that take place at home during a child's everyday life and understanding just how much these activities promote language between child and caregiver. Getting an understanding of what a child is doing every day, whom they are doing it with, and how much language is going on, can give insight to their early life course. This study will be using observations of children's home environments from a longitudinal study exploring language development over the first five years of children's lives.

Background

Early in child development, the amount of child-directed speech parents produce predicts later differences in children's cognitive abilities (Goldin-Meadow et al., 2014). Suggesting that children who receive more linguistic input may exhibit better linguistic cognitive skills than those who do not receive as much, Huttenlocher et al. (2010) also found, with the same data set, that more diverse speech from parents predicted more diverse speech from children. Additionally, Huttenlocher et al. (2010) studied the effects of SES differences on child speech and parent speech. They found that when including SES effects in parent speech analysis, they saw that child speech diversity was partially mediated by parent speech. Thus, some central findings from this particular group of participants that we should be aware of when going into the study are; (1) The quantity of word learning input from the parent was positively related to SES but not the quality of parent input, (2) when the participants were 14- and 18-months the parents varied in their quality of word-learning experiences given to the participants, (3) this

variability in quality was correlated three years later with the children's comprehension vocabulary scores when controlling for parent input quantity at the 14- and 18-month mark.

During moments at home when a parent and child spend time together, that child is exposed to adult speech that is directed to the child that can then positively influence language growth even starting as young as 18 months (Hurtado et al. 2008; Shneidman and Goldin-Meadow 2012; Weisleder and Fernald 2013). Gaining perception into a parent and child's dynamic at home can show variation in how families spend their time together. Some families have structured activities, while some go for more spontaneous relations. Sometimes the parents and children do activities together, while others spend their time doing them separately. However, a child's development is positively influenced by time engaged in activities that can offer up verbal exchanges that are meaningful and complex through certain tasks that require some level of critical thinking (Hsin and Felfe, 2014). Thus, in activities where a child may be alone, creating little to no verbal interaction, we may not see these positive effects from verbal exchanges in a child's development. For example, activities like watching television or playing on the computer that goes on for a prolonged amount of time can be more detrimental to development than beneficial (Koolstra et al. 1996).

Much of the previous research looking at a variation of children's activities at home have been recorded through time diaries, and case studies, and self-report measures all with fewer activity labels than our own (Bryant and Zick, 1996; Campbell 1999; Wood 2002). A previous longitudinal study done by Wood (2002) studied the impact and patterns of at-home parent-child preschool activities and how they relate to literacy gains. Using their self-report measure they found there to be a difference in the amount and the nature of parent-initiated activities in the home of their participants. Many of these self-reported studies (Juster and Stafford 1985; Marini

and Shelton 1993; Sandberg and Hofferth 2001) have suggested looking at this same topic through observation at home which is how this study is structured.

In order to narrow down the scope of what children are doing throughout the day; this study will also be looking at the effects of income level on what activities a child participates in and the amount of talk that is happening during the activities. Children that come from lower SES backgrounds have been seen to engage in fewer activities with their parents (Heath 1993, Hess & Shipman, 1965) and potentially experience less talk between parent and child (Hoff-Ginsberg 1990, Hart and Risley, 1995). American middle-class parents have been found to heavily structure their child's time through the day by fostering the children's talents through organized activities (Lareau, 2003). The participants in this study were chosen to mimic the city of Chicago's distribution from the 2000 U.S census in order to include a fair distribution of families from varying income levels and racial backgrounds.

The goal of this study by using descriptive statistics we can show a landscape of time of how a parent and child spend their day at home. While we are not looking at the complexity of the verbal exchanges during activities, the presence of any verbal exchange at all can give a foundation to understand the language learning environment of a particular child. With the amount of data this study has available, this analysis is the first step into understanding a broader picture of what role everyday activities have on children's development.

We are looking to get answers for (1) what activities do children more frequently engage in, (2) are there activities that promote more language than others, (3) how does SES affect which activities children do and how much speech is contained in them.

Method

Participants

During the year 2000, 64 families (34 firstborns; 31 girls) with a child that had no known physical or cognitive disabilities and were presumed typically developed (Goldin-Meadow et al., 2014) were recruited to participate in a longitudinal study on children's language development. Families were recruited from the greater Chicago area by sending out direct mailings to approximately 5000 families in targeted zip codes and placing advertisements in a free monthly parenting magazine. Parents who responded were asked to confirm demographic information over the phone. This demographic information included questions about if their child was being raised in an English-only language environment (via parent report, approximately 85-90% English), as verifying background characteristics to make a sample that was representative of the greater Chicago area as it was presented in the 2000 U.S census.

The final sample of the 64 families resulted in 14 African Americans, 9 Latino, 35 White, and 6 identifying as mixed race. As for income levels, 14 families reported an income greater than \$100,000, 11 reported an income between \$75,000 and \$99,000, 13 reported an income between \$50,000 and \$74,999, 8 reported an income between \$35,000 and \$49,999, 13 reported an income between \$15,000 and \$34,999, and 5 reported an income below \$15,000. The average income level for this sample was \$61,000 ($SD=\$32,000$), as per estimates by using the midpoint of each income category. These income levels have been split between high (\$100,000 - \$50,000) and low (\$49,999 – below \$15,000).

For 56 of the families, the mother was listed as the primary caregiver, two had the father listed as the primary caregiver, and six said that both parents shared the role equally. The education levels of the primary caregiver were that about slightly less than a bachelor's degree, which was an average of 15.6 years of education (range 10 to 18 years, $SD = 2.2$ years

Procedure

The children were videotaped every 4 months during the ages 14 to 58 months, each session lasting 90 minutes. Parents were advised to do what they would have done if the experimenter was not present to ensure the most naturalistic setting. This resulted in parents, children, and other characters in the child's life doing a range of activities during the 90-minute session, from doing arts and crafts to playing outside at a playground. Some participants were not able to complete every session but out of a total of 768 sessions, 726 visits were completed with only 5.5% of visits missing.

After each session, the experimenter transcribed all spontaneous speech from the child and the primary caregiver listed. The parts of the child's transcribed speech included all dictionary words, onomatopoeic sounds (e.g., choo choo), and evaluative sounds (e.g., uh oh) with memorized or ritualized speech like songs were not transcribed. The caregiver's speech was transcribed as long as it was directed at the child that was the participant or a sibling younger than 13 years of age. When there were two caregivers listed, both caregivers' speech was transcribed. If there were other individuals present like siblings, cousins, friends, or other parents not listed as a caregiver, their speech was not transcribed. This study particularly looked at what we defined as utterances which were the sequence of words led and trailed by a pause that then was a change in conversational turn or variation in intonation pattern (Rowe, 2012). Reliability of the transcriptions was established by having 20% of the videotape transcribed by another coder. The two coders achieved reliability when they agreed-upon 95% of the transcription decisions for the utterances heard in the videotapes.

This particular study focused on the 7th session which was when children were 38 months of age with 61 of the 64 participants taking part. We selected this time point as it is when

children are beginning to have more autonomy over the activities they wish to participate in and play a more equal role in conversations with their parent.

Activity Coding Criteria

Activities were coded using a strict coding manual establishing the details for coders to follow to ensure reliability. There were 90 total minutes recorded at each visit and each minute had an activity coded. Two coders first started coding the same 15 minutes for each participant's visit then compared their activities coded to determine their shared understanding of the criteria stated in the coding manual. Once 95% reliability was established for each video, the coders then went to code the full 90 minutes of all 61 participants

Each minute had a primary activity coded as well as a place to include a participant that could include the primary caregiver or another individual. These coded activity minutes lined up alongside the previous transcriptions to keep track of the utterances from the child and caregiver included for that minute. For an activity to be significant, the activity must be sustained for 15+ seconds of the minute. In cases where an activity is being set up or cleaned up, that is still seen as significant and was coded accordingly.

There are 14 total activities, each with its own set of details to establish a clear understanding of what the activity entails. The activities included Pretending (Pretend), Building, Playing Games with Rules (Games), Interacting with Electronic Screen Media (Electronic), Interacting with Print Media (Print), Physically Playing (Physical), Doing Arts (Arts), Performing Knowledge/Showing Off (Knowledge), Being Disciplined (Discipline), Eating/Preparing Food/Drink (Food), Doing Chores (Chores), Doing Basic Care (BasicCare), Resting/Relaxing (Rest), and Transitioning/Unstructured (Unstruct). The specific criteria can be found in **Appendix A**. Activities correspondingly had an option of participants which included

mother, father, older sister, younger sister, older brother, younger brother, older female (non-sibling), younger female (non-sibling), older male (non-sibling), younger male (non-sibling), grandmother, grandfather, stepmother, and stepfather. While only caregiver utterances were transcribed and counted for this study, it is still important to note who is doing the activity with the child (if anyone at all) to get a clear understanding of the dynamic of the child's everyday life.

Utterances & Activities

After activity coding was done for all 90 minutes of the 61 participants, we then calculated the rate of utterance per minute for each activity for every participant. We did this for the children's utterances and the parent's utterances. For each participant, we found the total amount of utterances per activity then divided that by the total minutes of that activity to find the rate. This rate for children and parent utterances per min has been used for the following analysis.

RESULTS

All statistics were performed using JASP Version 0.14.1.

Overall Utterance Rates

Due to the number of activities in the study, an ANOVA was done to see if there was any difference in child utterance rate between all activities. The ANOVA shows a significant difference among the child utterance rate between activities ($F = 6.202, p = <.001$). We did see a significant difference for income levels for child utterance rate ($F = 5.145, p = 024$). Using descriptive statistics, we got a good look at the range of activities that produce the most utterances in households. When simply looking at the most common activities done during the 90-minute sessions across all participants, Pretending had the highest average of 17.984 ($SD =$

17.846) minutes and Being Disciplined having the lowest average of 0.213 ($SD = 0.551$) minutes. Looking at the average children utterance rate per activity, Performing Knowledge/Showing Off had the highest average with 11.732 ($SD = 4.384$) utterances per minute. The lowest average rate was Electronic Media with 4.433 ($SD = 2.762$) utterances per minute. A summary of all means for children is included below in **Table 1** and **Figure 1**.

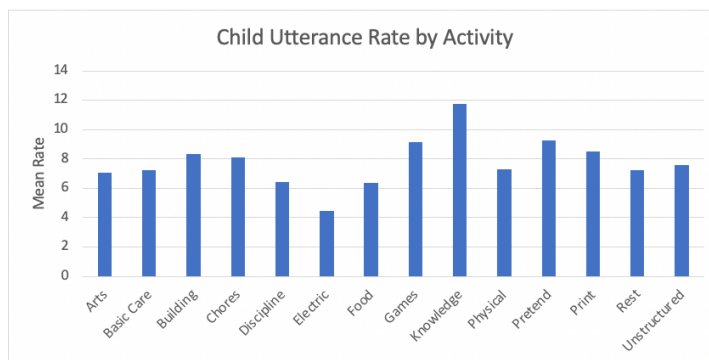


Figure 1. Average Rate of Child Utterances per minute, separated by Activity.

For parents, the activity with the highest utterance rate was Playing Games with Rules with an average of 18.587 ($SD = 5.400$) utterances per minute. The activity with the lowest utterance rate was Electronic Media with 6.202 ($SD = 5.456$) utterances per minute. A summary of all means for children is included below in **Table 2** and **Figure 2**.

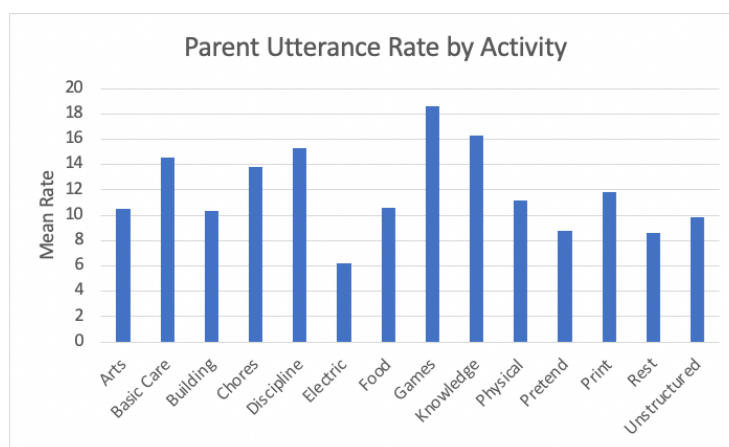


Figure 2. Average Rate of Parent Utterances per minute, separated by Activity.

Utterances and Income

In order to see the impact income can have on our participants activity choice and utterance rate we compared high (H) and low (L) income groups. Looking at Figure 3 we can get an overall idea about what kind of activities are done in these groups. Both high ($M = 15.77$, $SD = 15.675$) and low ($M = 20.962$, $SD = 20.350$) income groups share Pretending high average rates of utterances. Though when looking at **Figure 3** we can see where there are larger differences, like in Doing Arts where the high-income group has an average of 19.229 ($SD = 13.346$) utterances a minute and the low-income group has an average of 0.346 ($SD = 0.745$) utterances a minute. Both do share the same lowest average rate for Being Disciplined with high-income group having an average of 0.257 ($SD = 0.657$) utterances a minute and low-income group having an average of 0.154 ($SD = 0.368$)

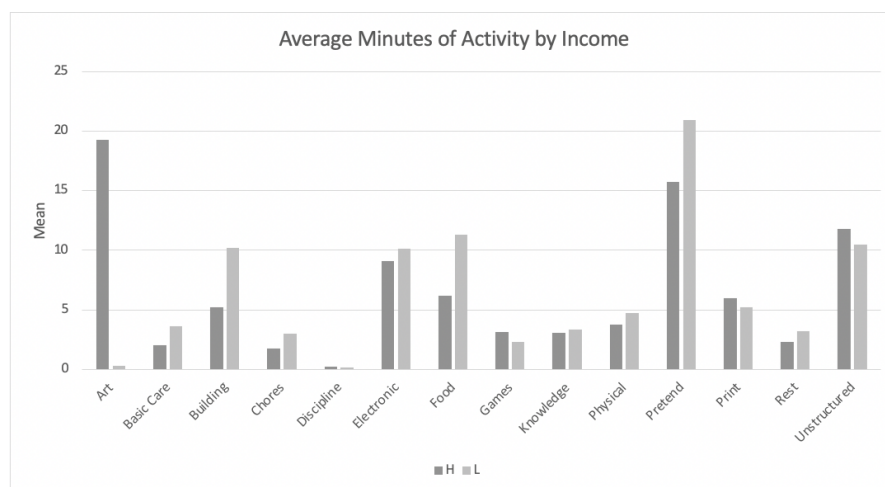


Figure 3. Average Minutes of Activity separated by Income Level.

We also ran independent sample t-tests on utterance rates and income level. For the child utterances, looking at **Table 3**, the activities we found that were significantly correlated with income level were, Doing Art ($t(39) = 3.282$, $p = 0.002$), Building ($t(39) = 2.267$, $p = 0.032$),

and Eating/Preparing Food/Drink ($t(45) = 2.282, p = 0.027$). For parent utterances, looking at **Table 4**, we only found Doing Art ($t(39) = 4.612, p = < .001$) significant with income level.

	<i>t</i>	<i>df</i>	<i>p</i>
<i>Art</i>	3.282	39	0.002
<i>Basic Care</i>	1.997	35	0.054
<i>Building</i>	2.267	25	0.032
<i>Chores</i>	-0.299	30	0.767
<i>Discipline</i>	0.462	8	0.656
<i>Electronic</i>	-0.046	25	0.964
<i>Food</i>	2.282	45	0.027
<i>Games</i>	0.261	12	0.798
<i>Knowledge</i>	0.433	30	0.668
<i>Physical</i>	0.683	35	0.499
<i>Pretend</i>	-0.606	49	0.547
<i>Print</i>	0.406	31	0.687
<i>Rest</i>	0.124	34	0.902
<i>Unstructured</i>	1.514	58	0.136

Table 3. Independent Sample T-Test,

Child Utterance Rate and Income, $p < 0.50$

	<i>t</i>	<i>df</i>	<i>p</i>
<i>Art</i>	4.612	39	< .001
<i>Basic Care</i>	-0.659	35	0.514
<i>Building</i>	1.999	25	0.057
<i>Chores</i>	1.425	30	0.164
<i>Discipline</i>	-0.956	8	0.367
<i>Electronic</i>	-0.608	25	0.549
<i>Food</i>	1.630	45	0.110
<i>Games</i>	0.554	12	0.590
<i>Knowledge</i>	0.605	30	0.550
<i>Physical</i>	0.519	35	0.607
<i>Pretend</i>	0.923	49	0.361
<i>Print</i>	-1.166	31	0.253
<i>Rest</i>	-0.490	34	0.627
<i>Unstructured</i>	0.786	58	0.435

Table 4. Independent Sample T-Test,

Parent Utterance Rate and Income, $p < 0.50$

In order to see if income and utterance rate were correlated, we ran a Pearson Correlation for both child and parent utterance rate and income level. Looking at **Table 5**, for child utterance rate we found that only Pretending ($r = 0.345, p = 0.013$) was significantly correlated with income. For parent utterance rate, Electronic Media ($r = 0.391, p = 0.044$), Eating/Preparing Food/Drink ($r = 0.322, p = 0.027$), Pretending ($r = 0.313, p = 0.025$), and Transitioning/Unstructured ($r = 0.361, p = 0.005$).

Table 5

	<i>Income</i>	
<i>Income</i>	Pearson's r	-
	p-value	-
<i>Arts</i>	Pearson's r	0.237
	p-value	0.136
<i>Basic Care</i>	Pearson's r	0.336
	p-value	0.042
<i>Building</i>	Pearson's r	0.277
	p-value	0.162
<i>Chores</i>	Pearson's r	0.249
	p-value	0.169
<i>Discipline</i>	Pearson's r	0.071
	p-value	0.845
<i>Electronic</i>	Pearson's r	0.391
	p-value	0.044
<i>Food</i>	Pearson's r	0.322
	p-value	0.027
<i>Games</i>	Pearson's r	0.533
	p-value	0.050
<i>Knowledge</i>	Pearson's r	-0.063
	p-value	0.733
<i>Physical</i>	Pearson's r	0.135
	p-value	0.424
<i>Pretend</i>	Pearson's r	0.313
	p-value	0.025
<i>Print</i>	Pearson's r	0.236
	p-value	0.187
<i>Rest</i>	Pearson's r	0.022
	p-value	0.900
<i>Unstructured</i>	Pearson's r	0.361
	p-value	0.005

Pearson Correlation,

Child Utterance Rate and Income,

p < .05

Table 6

	<i>Income</i>	
<i>Income</i>	Pearson's r	-
	p-value	-
<i>Arts</i>	Pearson's r	0.272
	p-value	0.085
<i>Basic Care</i>	Pearson's r	0.006
	p-value	0.970
<i>Building</i>	Pearson's r	0.018
	p-value	0.930
<i>Chores</i>	Pearson's r	-0.300
	p-value	0.095
<i>Discipline</i>	Pearson's r	0.433
	p-value	0.212
<i>Electronic</i>	Pearson's r	0.373
	p-value	0.056
<i>Food</i>	Pearson's r	0.199
	p-value	0.181
<i>Games</i>	Pearson's r	0.280
	p-value	0.331
<i>Knowledge</i>	Pearson's r	0.262
	p-value	0.147
<i>Physical</i>	Pearson's r	0.289
	p-value	0.083
<i>Pretend</i>	Pearson's r	0.345
	p-value	0.013
<i>Print</i>	Pearson's r	-0.160
	p-value	0.372
<i>Rest</i>	Pearson's r	0.329
	p-value	0.050
<i>Unstructured</i>	Pearson's r	0.061
	p-value	0.645

Pearson Correlation,

Parent Utterance Rate and Income,

p < .05

Discussion

The goal going into this study was to get an understanding of the what a day of a 38-month-old child looks like by studying what activities they partake in while also gaining an understanding of which activities promote speech. First, we sought to answer which activities children most commonly engage in which was Pretending. Next, we looked at what activities promote talk, which were Performing Knowledge/Showing Off for children and Playing Games with Rules for parents. Finally, we looked at how SES correlated with activities and talk along with our limitations and future directions for this study.

The most common activity was Pretending but Performing Knowledge/Showing Off produced the highest average utterance rate for children and Playing Games with Rules produced the highest average utterance rate for parents. Pretending still had a high utterance rate compared to other activities for both children and parents but it just did not produce the most utterances within each minute out of all the activities.

It is not surprising given our coding criteria, that the activities with the highest averages for utterance rates are Knowledge/Showing Off and Playing Games with Rules. For children, Knowledge/Showing Off is defined as practicing language like rhyming or ABCs, counting, or practicing labeling objects or object attributes. For parents, Playing Games with Rules involves a lot of guidance from the parent due to the child needing rules read to them or help throughout the game to make sure they are playing correctly. This activity also included moments where the parent was more likely to be present thus contributing to the conversation.

We saw that for child and parent utterance rate, the lowest average was during Electronic Media which is comprised of the child watching television or playing video games. This is concerning noting previous research has seen how Electronic Media negatively impacts

development (Koolstra et al. 1996). We also found that lower-income families spend more time doing Electronic Media than higher-income families. An activity like Electronic Media is seen to have resulted in the child spending more time alone with less interaction with the parent.

Regarding income levels, we saw that for child utterance rate that Doing Art and Building were associated with increased income. These particular activities involve strong parent involvement and/or additional material resources for parent utterance rate, Doing Art was the only activity that was correlated with income level. Looking at the average minutes for the activities split by income, **Figure 3**, we can see the large difference between the high- and low-income groups for Doing Art. For the lower-income group, Doing Art has almost the lowest average minutes, just above Being Disciplined (which is seen to be the lowest across all groups). This discrepancy in time spent Doing Art by income may explain why we see a significant difference in parent utterance rate potentially due to the criteria for Doing Art including additional material resources and parent involvement like supervision due to those resources. This can point back to the possibility of the relationship of lower-income level to lower parent interaction (Heath 1993, Hess & Shipman, 1965) but more research looking into our data over time can help to strengthen any evidence to support this previous finding.

We also see that in some cases, the lower income group has higher average minutes in particular activities. As stated previously, Pretending is a very popular activity that the lower-income group spends more time doing than the higher-income group. The lower income families may not talk as much during pretend, but they do still do it a lot, meaning it is an accessible activity that affords a lot of rich opportunities so they still likely learning during it. When looking at the criteria for Pretending in the coding manual, we see it includes instances that may explicitly show Pretending through dress up or inanimate objects but may include “pretend talk”

that can be shown in parts of telling or re-telling stories about fictional characters, as per the coding manual. This “pretend talk” can be linked to personal narrative talk and higher-order thinking talk (HOTT), which have been studied recently using this particular group of participants (Frausel et al. 2020). The categorization of Pretending often relies on objects the child is playing with, but there is also a heavy focus on what the child is saying during those Pretending minutes. The focus on the child’s speech itself rather than the physical object the child is playing with shows that this is an activity that regardless of accessibility to outside objects, the child has the ability to do. Pretend play has major positive impacts on a child’s cognitive, physical, and emotional development (Copple & Bredekamp 2009; Hurwitz, 2002). More research should be done to understand the specifics of how the child is spending those Pretending minutes to understand if there is an effect from income. This further research can look into the complexity of the pretend talk happening during these minutes to understand potential personal narrative talk or higher-order thinking talk that is happening during that time.

The goal of this study was to get a first glimpse at how children spend their time. However, the present study does have limitations. We only have one time point to look at currently, but plan to look at more in the future. With more research from this particular sample, we can start to categorize the activities into larger overall categories with the original fourteen activities as subcategories. This could hopefully find a compromise on the number of categories since having variety is imperative to reliably contextualizing the findings from this observational study.

While this sample size is smaller, these children were studied every four months for four years which gives an abundance of future directions for this study. A goal for the future is to collect activity minute data for the time points before and after this 38-month-old visit. This will

give us a better sense of the complete landscape of children's home environment. Doing the same analysis on other time points will help to answer questions about consistency and possible changes that happen during the early years of the participant's lives. With this data originally being collected in 2000 and participants still being followed up with, we have the ability to study the long-term effects these activities may have on education later on down the line. This analysis was the first in understanding just how much daily activities can affect the development of children's language and cognitive skills and abilities.

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Table 1*Descriptive Statistics of Child Utterance Rate for each Activity*

Activity	Arts	Basic Care	Building	Chores	Discipline	Electric	Food	Games	Knowledge	Physical	Pretend	Print	Rest	Unstructured
Mean (SD)	7.071 (3.168)	7.249 (3.407)	8.333 (4.632)	8.101 (3.685)	6.400 (3.471)	4.433 (2.762)	6.374 (2.788)	9.129 (3.144)	11.732 (4.384)	7.299 (4.308)	9.282 (3.923)	8.490 (4.728)	7.258 (4.202)	7.574 (3.131)

Table 2*Descriptive Statistics of Parent Utterance Rate for each Activity*

Activity	Arts	Basic Care	Building	Chores	Discipline	Electric	Food	Games	Knowledge	Physical	Pretend	Print	Rest	Unstructured
Mean (SD)	10.495 (6.093)	14.572 (8.100)	10.327 (7.684)	13.832 (7.733)	15.317 (9.230)	6.202 (5.456)	10.608 (4.900)	18.587 (5.400)	16.285 (8.715)	11.173 (6.258)	8.796 (6.042)	11.820 (7.838)	8.615 (5.975)	9.882 (5.735)

Appendix A

Pretending (*Pretend*)

- *figures* (e.g., doll, action figure, stuffed animal)
- *puppet shows*
- *inanimate objects* (e.g., playsets)
- *vehicles* (e.g., trains, cars) - if moving around. If building track, see building below
- *Dress-up*
- *real object play* (e.g., pots and pans)
- *Telling or re-telling stories about fictional characters* (include re-telling a story they are familiar with, such as Goldilocks, as long as there is not a book present)
- Exception: if they are just holding a doll/action figure/stuffed animal and not obviously interacting with it.

Building (*Building*)

- *Puzzles*
- *Lego/Duplo*
- *Track/Road sets*
- *Barrel of Monkeys* (if point is to build chain)

Playing Games with Rules (*Games*)

- *Card Games* (e.g., Uno)
- *Board Games* (e.g., Connect 4, Chutes & Ladders, Candyland, Dominos)
- *'Active' Games* (e.g., Hullabaloo, Twister, Elefun)
- Exception: sports/games that require lots of physical activity (e.g., Tag, Hide-and-seek) - code as Physical instead.

Interacting with Electronic Screen Media (*Electronic*)

- *Computers* (e.g., email, Internet, online game/website)
- *Video Game* (e.g., Nintendo)
- *Small Electronic* (e.g., Leappad with a screen, calculator)
- *TV* (e.g., watch movies, TV show)
- Must have a screen (e.g., no flashlights)

Interacting with Print Media (*Print*)

- *Book-reading*
 - Includes books that ‘talk’ (e.g., some Leappads without screens)
- *Photo Album*

Physically Playing (*Physical*)

- *Wrestling* (e.g., 'rough-and-tumble')
- *Playground equipment* (e.g. swing set, slide)
- *Sports* (e.g., kicking soccer ball)
- *Tickling*
- *Jumping on the bed*
- *Hide and seek*
- *Tag*
- DOES NOT COUNT if they are just running for the sake of running (e.g., running from room-to-room)

Doing Art (*Arts*)

- *Crafts* (e.g., drawing, painting, paper crafts)
 - Origami, paper airplane

- *Clay/Playdough*
- *Music* (e.g., singing, listening to music)
- *Dancing* (e.g., ballet)
- *Stickers*

Performing Knowledge/Showing Off (*Knowledge*)

- *Language* (e.g., rhyming, ABC's, WITHOUT materials/manipulatives)
- *Rote Counting, Counting for the sake of counting* (WITHOUT materials/manipulatives)
- *Flashcards*
- *Homework* (e.g., worksheets)
- *Tracing letters/numbers; practicing writing name*
- *Labeling* (e.g., colors, shapes, if that's ALL they're doing)
- *Show & Tell* (showing room/toys, showing Christmas ornaments) - often done for E's benefit
- *Basic Info* (age, birthday, address, how to call 911)

Being Disciplined (*Discipline*)

- *Behavior management*
- *Time outs*
- *Telling on siblings (if it's extended activity)*
- ONLY COUNTS if it is extended--one-off telling kid off (e.g., for jumping on bed) does not count

Eating/Preparing Food/Drink (*Food*)

- *Food prep* (e.g., baking) (does NOT include discussing food prep in absence of actual food prep)

- *Eating* (e.g., meal or snack)
- *Clean-up*
- *Setting the table*
- *Drinking* (if it is the only thing they're doing--e.g., Going to the fridge to get a glass of milk. DO NOT CODE if C just happens to be drinking a juice while doing a puzzle)

Doing Chores (*Chores*)

- *Cleaning room*
- *Writing a thank-you card*
- *Checking the mail, retrieving packages*
- *Making a phone call; writing an email*
- *Cleaning an activity from earlier (e.g., did something else after activity then come back just to clean)*
- *Cleaning up after pet/taking care of pet*
- EXCLUDE food prep chores - count as part of Food above
- EXCLUDE setting up/putting away stuff for activities directly after the activity (e.g., cleaning up art supplies) - put this under relevant activity

Doing Basic Care (*BasicCare*)

- *Getting dressed*
- *Bathroom*
- *Washing/bathing*
- *Diaper*
- *Taking a vitamin*

Resting/Relaxing (*Rest*)

- *Stationary for an extended period in the absence of other activities* (e.g. sitting, lying, leaning)
- *Talking/conversation in the absence of other activities*
- *Chilling*
- *Hanging out*
- *Cuddling*

Transitioning/Unstructured (*Unstruct*)

- e.g., looking for toy; deciding what to do; walking between rooms in house; many activities in the same minute; anything that does not really clearly fall into any of the above categories.