The Families and Media Project

Learning at home:

families' educational media use in america

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The Joan Ganz Cooney Center

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preface

Since 1999, a series of studies undertaken by academic experts, consumer advocates like Common Sense Media, and philanthropies such as the MacArthur Foundation, Kaiser Family Foundation, and the Pew Charitable Trusts has documented the rise of media consumption by youth. More research, however, should be done on children during the preschool and middle-childhood periods, which scholars in child development, cognitive psychology, and neuroscience have pointed to as critical for all that follows. Surely a real understanding of the new norms of behavior among younger children and their families in what we at the Joan Ganz Cooney Center have termed "the digital Wild West" will help prepare educators, parents, and policymakers to promote learning and healthy development.

The national survey report *Learning at Home: Families' Educational Media Use in America* was written by Vicky Rideout, who is well known for her expertise and pioneering research in the fields of children and youth policy and media studies. It was conducted with the generous support of the Bezos Family Foundation, the Heising-Simons Foundation, AARP, and the LIFE Center, as part of a larger effort developed by the Joan Ganz Cooney Center, and led by our Research Director Dr. Lori Takeuchi, to better understand the new family media ecology that is shaping interactions in every community in the U.S. and around the globe. Through the efforts of the Families and Media Research Project which includes colleagues at Sesame Workshop, Stanford University, Northwestern University, Arizona State University, Rutgers University, and AARP, the Cooney Center has mounted a multiyear, multimethod initiative to dig deeply into the ways in which families with children under the age of 13 are learning with media. Over the next five years, we will undertake a series of deeply textured ethnographic studies, zeroing in especially on the impact of media use in underserved communities, as well as a longitudinal study of media's impact on learning. We will also field a periodic national quantitative study (using the baseline findings in this report) to further track changes over time.

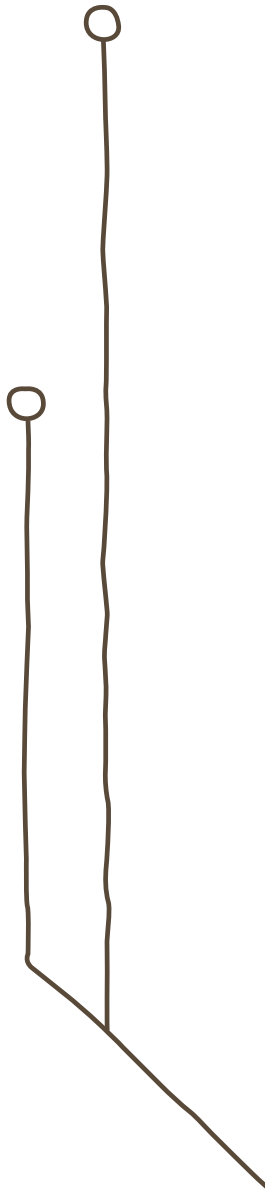
Learning at Home was designed by the Cooney Center and VJR Consulting and fielded by the survey research firm GfK. It is intended to provide the first-ever comprehensive analysis of parental reports on the use of educational media in the home and the manner in which parents jointly engage with their children in media viewing and interactive play. The study also delves deeply into key issues such as early reading as households begin to transition from print to digital literacy experiences, and it answers important questions about variations in media use across income and ethno-culturally diverse populations. As Vicky Rideout observes in her concluding section, the study challenges our colleagues in research and media production to keep a close eye on what young children and their families are doing now and what the educational value of their experiences truly are. The study findings make the case for new investments in better content, especially for underserved children, and for new research so that we can more reliably understand what children are doing now — and will soon be doing — and which media choices might best promote their academic performance and healthy development.

The findings confirm some trends from other national reports, such as the ongoing importance of educational television in young children's lives and the difficult gaps in access to and deployment of technologies that many low-income families face (Common Sense Media, 2013). But the study also raises key concerns about whether our nation is focused clearly on production of media for low-income families, especially those from Hispanic-Latino heritage, and how best to get essential family engagement in the rapid transition from print books to digital reading technologies. It also casts reasonable doubt on some journalistic and academic accounts that children are isolated from their families while using media.

We sincerely hope that *Learning at Home* and the ongoing research products released by the Families and Media Project will lead to a more informed discourse and stimulate thoughtful action by industry, scholars, practitioners, and parents.

We can imagine a day when young children will produce their own media, but for the time being they are still counting on us!

Michael H. Levine
Executive Director
The Joan Ganz Cooney Center



introduction

Ever since the dawn of electronic media, educators and children's advocates have been working to maximize its use as a tool for children's social, emotional, and cognitive development. Each time a new medium is invented — from television to computers to mobile devices — it offers new potential as an educational tool for children.

Today there are more platforms for educational media content than ever before. There are scores of cable channels, hundreds of computer games, thousands of apps, and millions of websites. There are e-readers, tablets, and smartphones; Wiis, Xboxes, Leapsters, and DSes — the list goes on and on. With young children spending hours a day with these screen media, one question has never been answered: How much of this content is educational?

Due in large part to the falling costs of electronics, lower-income and minority families are catching up to their middle-class and White counterparts in device ownership (Common Sense Media, 2013; Livingston, 2011; Zickuhr & Smith, 2012). However, as the access gap narrows, there is evidence of an emerging "participation gap" demarcating more and less enriching uses of media (Neuman & Celano, 2012; Watkins, 2011). Studies have shown that children who use educational media learn more in the short term (Penuel et al., 2009) and do better in school later on compared to children who do not (Anderson, Huston, Schmitt, Linebarger, & Wright, 2001). Research has also demonstrated that using educational media with adult guidance leads to greater learning than if used alone (Reiser, Tessmer, & Phelps, 1984).

This study concerns media used in the home by children ages 2 to 10. It is the first study we know of to attempt to quantify, on a national level, how much of children's media time is devoted to educational content — platform by platform, age by age. It also provides a measure of parents' experiences with the educational media their children use: Which subjects do parents feel their children are learning the most about from media? Which platforms do they perceive as being most effective? The study also explores obstacles to greater use of educational media: What are the reasons some children don't use educational media? Finally, all of these issues are explored by age, gender, race/ethnicity, and socioeconomic status.

In the United States, the companies that produce children's media usually get to decide for themselves which content is labeled as "educational" — whether in product packaging, Federal Communications Commission filings, or parental ratings. In this survey, it is parents who say whether the media their children use at home is educational. We defined educational media for parents who took this survey as content that "is good for your child's learning or growth, or that teaches some type of lesson, such as an academic or social skill." The survey does not independently evaluate or certify the educational value or quality of the media children are consuming, nor does it objectively assess its impact or effectiveness. As the findings of the survey are considered, this broad definition of educational content, and the fact that the survey is based on parents' assessments, should be taken into account.

The study also measures the degree to which children and parents use media together, which researchers call "joint media engagement" (JME) (Stevens & Penuel, 2010). Many leaders in the educational media community believe that joint media engagement is an important way to enhance the impact of educational media (Takeuchi & Stevens, 2011). For instance, when parents ask questions and repeat key lessons while watching television shows with their children, children benefit more (Ball & Bogatz, 1970; Reiser, Tessmer, & Phelps, 1984). The same may be true for content on other platforms, such as games and software. But to date we do not know what portion of children's media time is spent in joint engagement with their parents. This survey documents the amount of time spent in JME overall and by platform. It also looks at how JME changes as children get older, and it examines other differences that emerge by demographic factors such as gender, race, or socioeconomic status. In addition, this survey explores children's joint media use with household members other than parents.

Finally, this study also examines children's reading behaviors. We believe it is the first nationally representative sample to document both the proportion of children's reading that occurs online or on electronic reading devices and the amount of time that parents spend reading along with their children. In addition, the study measures parents' attitudes about their children's use of e-books — why some parents support e-reading and others do not.

This research was conducted by the Joan Ganz Cooney Center, in collaboration with VJR Consulting. Building on the remarkable accomplishments of Sesame Workshop over four decades in defining a high-quality standard for educational media production, the goal of the Cooney Center is to catalyze needed changes in the research, design, and creation of interactive, engaging, and popular educational content for new platforms. It is hoped that the insights from this study will help inform the work of all of those who share an interest in using the power of media to benefit children and families.

key findings

1. **Nearly half (44%) of the screen media 2- to 10-year-olds use is considered educational by their parents** (56 minutes out of a total of 2:07 screen media per day). Eight in ten children (80%) use educational media at least once a week, including a third (34%) who are daily users.

2. **Most parents think that their child has learned from educational media.** Among parents of weekly educational media users:

   a. More than half (57%) say their child has learned "a lot" about one or more subject areas (e.g., reading/vocabulary, math, or cognitive skills) from educational media.

   b. Fifty-four percent say their child "often" takes specific actions as a result of their exposure to educational media, such as talking about something they saw (38%), engaging in imaginative play based on it (34%), asking questions about it (26%), or asking to do a project or activity inspired by it (18%).

3. **Educational media use occurs most frequently among very young children** (1:16 a day among 2- to 4-year-olds), with a large drop-off in use as children get older (:50 a day among 5- to 7-year-olds, and :42 a day among 8- to 10-year-olds). As children get older, the amount of time they spend with screen media goes up (from 1:37 to 2:36 a day), and the proportion that is educational goes down (from 78% to 27%).

4. **Children spend far more time with educational TV (an average of :42 a day) than they do with educational content on other platforms** such as mobile devices (:05),

computers (:05), or video games (:03). For every subject except math, parents are more likely to say their child has learned a lot about it from educational television than from any other platform. Educational content on mobile devices was ranked lowest in learning by parents in every subject area.

5. **Parents don't believe their children learn as much from educational media about science as they do about other subject areas.** Nineteen percent of parents say their child has learned "a lot" about science from an educational media platform, compared to 37% for reading and cognitive skills development and 28% for math.

6. **Across every platform and almost all subject areas studied, Hispanic-Latino parents are the least likely to say their child has learned from educational media.** For example, among Hispanic-Latino parents of weekly educational media users, 63% say their child has learned a lot or some about math from computers, compared to 91% of Black and 79% of White parents.

7. **Many children have access to and are using electronic reading devices.** Nearly two-thirds (62%) of 2- to 10-year-olds now have access to either an e-reader or a tablet device. However, only half (49%) of all children with access to such a device have read or been read to on it. On average, children now spend :05 a day with e-books, compared to :29 a day reading in print. Young children (2- to 4-year-olds) with e-platforms in the home are just as likely as older children (8- to 10-year-olds) to have used them (49% and 53% respectively, not a statistically significant difference.)

methodology

This report is based on a nationally representative survey of 1,577 parents of children ages 2- to 10-years-old, including an oversample of Black (290) and Hispanic-Latino (682) parents. The survey was conducted for the Joan Ganz Cooney Center by GfK. The full text of the questionnaire and all topline results can be found at the end of this report.

The survey covers children's use of television, DVDs, video games, books, e-readers, smartphones, tablets, and other mobile devices. Only use of these media at home is included. Media that are used specifically for homework or as an assignment from school are excluded.

It should be noted that all findings in this report are based on parents' responses to questions about their children's use of media. No parent's estimate of his or her child's media use is likely to be exact. However, when dealing with children ages 10 and under, time and frequency estimates from parents are more likely to be reliable than those obtained from the child. By asking parents to focus on a specific "focal" child and a specific day in their child's life (the day prior to taking the survey), we hope to elicit more precise estimates of children's media use than by asking about a "typical day." Fielding of the survey was spread out across the seven days of the week during the field period.

The survey was offered in both English and Spanish. Parents were asked about a particular randomly selected child in their household. The margin of error for the full sample is +/- 2.1 percentage points. The completion rate for the survey was 40%.

GfK has recruited the first online research panel that is representative of the entire U.S. population (the KnowledgePanel). KnowledgePanel members are randomly recruited through probability-based sampling, and households are provided with access to the Internet and hardware if needed.

The use of a probability sample means that the results are substantially more generalizable to the population of the U.S. than are results based on so-called convenience panels. Convenience panels include only participants who are already online and who volunteer through word-of-mouth or advertising to participate in online surveys. By contrast, KnowledgePanel members were randomly recruited to participate using address-based sampling and random-digit-dial telephone surveys, using dual sampling frames that include both listed and unlisted telephone numbers, cell-phone-only households, households with and without telephones, and households with and without Internet access.

Unless otherwise noted, all findings refer to the full sample of 2- to 10-year-olds. Many findings are broken out by age, among 2- to 4-year-olds, 5- to 7-year-olds, and 8- to 10-year-olds. Occasionally, the report uses the word "children" as shorthand for children ages two to ten; likewise, the word "parents" refers to parents of children in this age group.

The field period for the survey was from June 28 – July 24, 2013. Because most students were out of school during this time, it is possible that the results do not reflect media use patterns during the school year among the school-aged portion of the sample. Parents may relax rules for media use in the summer; children may use more media because they are not in school, or, conversely, they may spend less time with media because they are occupied with other activities.

Throughout the report, times are presented in hours:minutes format. For example, "1:30" indicates one hour and 30 minutes, and ":05" indicates five minutes. In tables where statistical significance has been calculated, the results are noted through a series of superscripts (such as a, b, or c). Only those items with different superscripts differ significantly ($p<.05$); those that share a common superscript do not differ. Percentages may not total 100 due to rounding or refused/don't know responses, or because multiple responses were allowed.

The survey was approved by the institutional review board Ethical and Independent Review Services, and the questionnaire was preceded by a statement noting that it was conducted by "the Joan Ganz Cooney Center, a nonprofit research and development organization," along with "researchers at AARP, Stanford, Northwestern, and Arizona State University."

The survey is based on parents' opinions about whether the media their children use at home are educational or not; it does not independently assess the educational value of the media children are using. "Educational media" was defined for parents as content that "is good for your child's learning or growth, or that teaches some type of lesson, such as an academic or social skill." This is a broad definition of educational content that is meant to encompass content that teaches social lessons as well as literacy, math, or science. The survey does offer a sense of the specific kinds of content parents do and do not consider educational (for example, 96% of parents consider *Sesame Street* to be very or somewhat educational, compared to 88% for *Dora the Explorer*, 73% for *Mickey Mouse Clubhouse*, and 9% for *SpongeBob SquarePants*).

The survey also asks parents' opinions about how much, if anything, their child has learned from educational media on a variety of topics. Again, it does not include an independent or objective measure of the educational impact of any media content. As the findings of the survey are considered, these factors should all be taken into account.

results

Educational media use

Amount of time spent with educational media

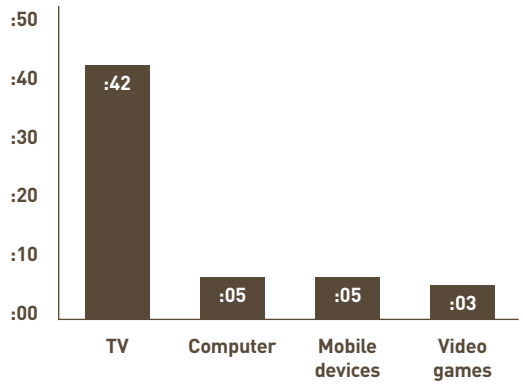
On average, children ages 2- to 10-years-old spend just under an hour a day (:56) consuming educational screen media, which in this report means media their parents say is "good for their child's learning or growth, or that teaches some type of lesson." This includes an average of 42 minutes a day of educational TV or DVDs, 5 minutes of educational games or software on a computer, 5 minutes of educational activities on mobile devices like smartphones or tablets, and 3 minutes of educational video games (see Chart 1).

These data are useful in illustrating which media platforms families are currently using to access educational content. Television is clearly the dominant medium being used for delivery of informal educational content in the home. Seventy-six percent of all educational media being used in any given day in this country is delivered through the TV.

National averages are useful in getting a broad perspective on the use of educational media. But of course, averages mask big differences in how children use media. There are some 2-year-olds who don't use any screen media at all, and some 8-year-olds who use four or five hours a day, none of it educational. One way to illustrate some of these differences is to look at the proportion of children who fall into different time categories of educational media use. For example, in any given day 47% of 2- to 10-year-olds use no media content their parents consider educational, 14% spend under an hour with it, 21% consume one to two hours of it, and 18% use two or more hours of educational media.

Chart 1: Time spent with educational media, by platform

Among 2- to 10-year-olds, average amount of educational media used in a typical day



Proportion of screen time that is educational

On average, 2- to 10- year-olds spend 2:07 a day with screen media, of which 56 minutes — or 44% — is content their parents consider educational. Television (including DVDs) is the medium parents say delivers the highest proportion of educational content to their children. Parents report that more than half (52%) of children's TV time is spent watching shows that are good for their children's learning or growth. By contrast, only 18% of the video games children play are considered by parents to be good for their children.

Chart 2: Time spent with educational media, by hours

Among 2- to 10-year-olds, amount of time spent with educational media in a typical day

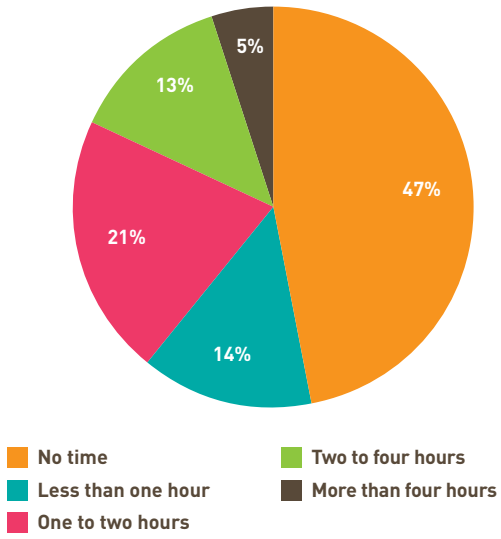


Table 1: Proportion of time spent with educational media, by platform

Among 2- to 10-year-olds, average time spent in a typical day with:

	Total media time	Educational media time	Proportion of media time that is educational
Television/DVDs	1:21	:42	52%
Video games	:17	:03	18%
Computer	:14	:05	36%
Mobile device	:14	:05	36%
Total screen media	***2:07***	***:56***	***44%***

Sidebar: Parents' opinions about what constitutes educational media

This survey is based on parents' opinions about whether the media their children use at home is educational or not. The survey defined "educational media" for parents as content that "is good for your child's learning or growth, or that teaches some type of lesson, such as an academic or social skill."

The following table offers an indication of parents' views as to what constitutes educational content. For example, 96% of parents consider *Sesame Street* to be very or somewhat educational, compared to 88% for *Dora the Explorer*, 73% for *Mickey Mouse Clubhouse*, and 9% for *SpongeBob SquarePants*.

We asked: "Here is a list of popular TV shows as well as some electronic games. If you are familiar with them, indicate how educational you think they are for children: very, somewhat, not too, or not at all."

	Very educational	Somewhat educational	Not too educational	Not at all educational
Sesame Street (n = 1516)	58%	38%	3%	1%
Dora the Explorer (n = 1501)	35%	53%	10%	2%
Mickey Mouse Clubhouse (n = 1353)	24%	49%	23%	4%
SpongeBob SquarePants (n = 1473)	2%	7%	26%	65%
Victorious (n = 705)	3%	12%	33%	52%
Angry Birds (n = 1107)	2%	9%	31%	59%
Minecraft (n = 817)	4%	23%	31%	42%
Just Dance (n = 878)	2%	17%	37%	44%

Note: n's indicate the number of respondents who provided a rating for each title.

Frequency of educational media use

The vast majority of children (80%) use some type of media their parents consider to be educational at least weekly (see Table 2). Educational television is the most frequently used (56% watch at least weekly); educational video games and online videos are the least frequently used (24% and 28% of children are weekly users, respectively). A third (34%) of children are daily users of some type of educational media, meaning they use one or more types of educational media at least once every day.

Table 2: Weekly users of educational media, by platform

Among 2- to 10-year-olds, percentage who do each activity at least once a week:

56%	Watch educational TV/DVDs
38%	Use non-game educational activities on a computer or mobile device
36%	Play educational computer games
35%	Play educational games on a mobile device
28%	Watch educational videos online
24%	Play educational video games
80%	***Use any educational media***

Variations in educational media use by children's age

The amount of time spent using media that parents consider to be educational declines significantly as children get older (see Chart 3) while their total screen time increases (see Table 3). The youngest group — 2- to 4-year-olds — spends an average of 1:16 a day using educational media. This drops to 50 minutes a day among 5- to 7-year-olds and 42 minutes a day among 8- to 10-year-olds. The proportion of children who are daily users of educational media also drops markedly (see Table 5). For example, 45% of 2- to 4-year-olds watch educational TV at least once a day. By comparison, that rate has dropped almost in half by the time children are 5 to 7 years old (down to 24%) and in half again among those in the 8- to 10-year-old age range (12%). Finally, the proportion of total screen media time that is educational also varies by children's ages (see Table 4), going from 78% of all screen time among 2- to 4-year-olds down to 39% among 5- to 7-year-olds and 27% among 8- to 10-year-olds. This drop-off in educational media use among older children may be due to any number of factors, such as fewer compelling educational media options for these older age groups or greater competition for children's time from other activities such as school or sports (or some other reasons).

Chart 3: Time spent with educational media, by age

Average amount of time spent with educational media in a typical day, by age:

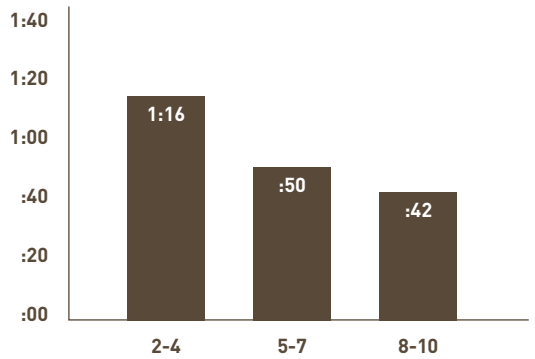


Table 3: Time spent with screen media, by age

Among 2- to 10- year-olds, average amount of time spent per day with:

	Among all	2- to 4-year-olds	5- to 7-year-olds	8- to 10-year-olds
Television	1:21	1:20	1:18	1:24
Video games	:17	:03[a]	:20[b]	:27[b]
Computers	:14	:02[a]	:15[b]	:25[b]
Mobile devices	:14	:10[a]	:14[b]	:18[b]
Total screen	***2:07***	***1:37[a]***	***2:08[b]***	***2:36[c]***

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.

Table 4: Proportion of screen time that is educational, by age

	Among all	2- to 4-year-olds	5- to 7-year-olds	8- to 10-year-olds
Average amount of time spent using any screen media in a typical day	2:07	1:37[a]	2:08[b]	2:36[c]
Average amount of time spent using any educational screen media in a typical day	:56	1:16[a]	:50[b]	:42[b]
Proportion of total screen media time that is educational*	***44%***	***78%***	***39%***	***27%***

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.
*Bottom row could not be tested for statistical significance.

Table 5: Daily users of educational media, by platform and age

Percentage of children who do each activity on a daily basis:

	Among all	2- to 4-year-olds	5- to 7-year-olds	8- to 10-year-olds
Watch educational TV/DVDs	27%	45%[a]	24%[b]	12%[c]
Use non-game educational activities on a computer or mobile device	10%	13%[a]	12%[a]	6%[b]
Play educational computer games	7%	5%[a]	9%[b]	6%[ab]
Play educational mobile games	9%	12%[a]	10%[a]	5%[b]
Watch educational videos online	7%	8%[ab]	10%[a]	5%[b]
Play educational video games	6%	4%[a]	9%[b]	5%[a]
Use any educational media	***34%***	***51%[a]***	***31%[b]***	***19%[c]***

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.

Variations in educational media use by family income

Lower-income children are more frequent users of media their parents consider educational than higher-income children are (see Table 6). For example, more than a third (35%) of lower-income children are daily viewers of educational TV, compared to 18% of those from high-income families. Even educational games on mobile devices are more likely to be used regularly by lower-income than higher-income children (despite differences in access): 12% of low-income children are daily users, compared to 5% among high-income families.

Lower-income children consume more screen media and devote a higher proportion of their screen time to content their parents consider educational than higher-income children do (57% of screen time among the lowest-income group, compared to 40% among the highest; see Table 7). This may reflect a difference in the types of content children are engaging with, or it may be that lower- and higher-income parents hold different views of what constitutes "educational" media. Indeed, lower-income parents are more likely to rate specific media titles as educational than higher-income parents are (see Table 8).

Table 6: Daily users of educational media, by platform and income

Among 2- to 10-year-olds, percentage who do each activity on a daily basis:

	Among all	< $25K/yr	$25-49K/yr	$50-99K/yr	$100K/yr+
Watch educational TV/DVDs	27%	35%[a]	33%[a]	25%[b]	18%[b]
Use non-game educational activities on a computer or mobile device	10%	14%[a]	13%[ab]	9%[ab]	8%[b]
Play educational computer games	7%	7%[a]	11%[b]	5%[a]	5%[a]
Play educational mobile games	9%	12%[a]	13%[ab]	8%[c]	5%[c]
Watch educational videos online	7%	10%[a]	11%[ab]	6%[c]	4%[c]
Play educational video games	6%	11%[a]	6%[ab]	5%[ab]	2%[b]
Use any educational media	***34%***	***43%[a]***	***40%[a]***	***31%[b]***	***25%[c]***

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.

Table 7: Proportion of screen time that is educational, by income

Among 2- to 10-year-olds from families earning:

	Among all	< $25K/yr	$25-49K/yr	$50-99K/yr	$100K/yr+
Average amount of time spent using any screen media in a typical day	2:07	2:33[a]	2:21[a]	1:57[b]	1:49[b]
Average amount of time spent using educational screen media in a typical day	:56	1:27[a]	1:04[a]	:44[b]	:44[c]
Proportion of total screen media time that is educational*	***44%***	***57%***	***45%***	***38%***	***40%***

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05).
Items that share a common superscript, or don't have a superscript, do not differ significantly.
*Bottom row could not be tested for statistical significance.

Table 8: Parental assessments of how "educational" specific media titles are, by income

Among parents of 2- to 10-year-olds, average rating of how educational each title is, with 1 representing "not at all," and 4 representing "very" educational.

	< $25K/yr	$25-49K/yr	$50-99K/yr	$100K/yr+
Sesame Street	3.61[a]	3.60[a]	3.47[b]	3.47[b]
Dora the Explorer	3.38[a]	3.39[a]	3.08[b]	3.05[b]
Mickey Mouse Clubhouse	3.13[a]	3.11[a]	2.84[b]	2.77[b]
SpongeBob SquarePants	1.67[a]	1.56[a]	1.43[b]	1.28[c]
Victorious	1.78[a]	1.69[a]	1.68[b]	1.41[b]
Angry Birds	1.69[a]	1.61[a]	1.52[b]	1.40[b]
Minecraft	1.83	1.84	1.86	2.03
Just Dance	1.93[a]	1.89[a]	1.71[b]	1.61[b]

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05).
Items that share a common superscript, or don't have a superscript, do not differ significantly.

Access to media platforms

Obviously, children can't take advantage of educational media unless they have access to the platform that educational content is delivered on. Accordingly, this study looked at the proportion of children who live in homes with various types of media devices and services (see Table 9).

Almost all (98%) children in this age group live in a home with at least one working TV set, and 75% have access to cable or satellite networks. More than eight in 10 (83%) have high-speed Internet access. Three quarters (76%) have a console video game player, and half (50%) have a hand-held one. Forty-one percent have some type of game device that is specifically designed for educational content, such as a Leapster or V. Smile. (In this survey, all respondents have a computer; those who did not have one when they were recruited to participate on the research firm's panel were given one.)

"Smart" mobile devices have been widely adopted among parents of young children. Nearly three quarters (71%) of 2- to 10-year-olds now live in a home with at least one smartphone, more than

Table 9: Access to media in the home

Among 2- to 10-year-olds, percentage living in homes with:	
98%	Television
83%	High speed Internet access
76%	Console video game player
75%	Cable or satellite TV
71%	Smartphone
55%	Tablet device
50%	Hand-held video game player (e.g. PSP, DS)
41%	Educational gaming device (e.g. Leapster, V-Smile)
41%	iPod Touch/similar

Table 10: Mobile, cable, and online access, by income

Among 2- to 10-year-olds, percentage with each item in the home:				
	< $25K	**$25-49K**	**$50-99K**	**$100K/yr+**
Cable/satellite TV	57%[a]	77%[b]	77%[b]	85%[c]
High-speed Internet	58%[a]	75%[b]	92%[c]	98%[d]
Smartphone	57%[a]	56%[a]	78%[b]	84%[b]
Tablet	27%[a]	41%[b]	63%[c]	77%[d]
iPod Touch/similar	23%[a]	34%[a]	45%[b]	56%[c]
e-reader	16%[a]	21%[a]	30%[b]	45%[c]

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.

half (55%) have a tablet device at home, and 41% have an iPod Touch or similar type of device. Access to cable or satellite television, high-speed Internet service, and mobile devices varies considerably by income (see Table 10).

Parental perceptions of the benefits of educational media

One goal of this study was to assess the degree to which parents believe educational media have benefited their children. The following section looks in depth at the opinions of parents whose children use educational media at least weekly (80% of all children). It explores whether parents think their children have learned about a variety of different subjects from educational media and, if so, how much they have learned about each subject. The findings are broken out by platform, subject matter, and the child's age. Where there are interesting differences by race, gender, or socioeconomic status, those are noted as well. These data record parents' perceptions of the impact of educational media on their children's learning; they do not constitute an objective or scientific assessment of the actual impact such media have had on children's learning.

Which subjects parents think their children have learned the most about

Many parents whose children are weekly users of educational content believe their children have learned "a lot" about cognitive skills such as memory and problem-solving (37%), reading or vocabulary (37%), and math (28%). The topics parents think their children are least likely to have learned a lot about from media (among those the survey asked about) are science (19%) and arts/culture (15%; see Table 11). All together, 57% say their child has learned a lot about one or more subjects.

Which platforms parents think their children learn from the most

For every subject except math, parents are more likely to say their child has learned a lot from educational television than from educational content on any other platform. Educational content on mobile devices (such as educational games, apps, and videos) was ranked lowest by parents in every category. Again, these results are among parents who report that their children use educational content on each platform at least once a week. This indicates that parents whose children use educational content on mobile devices are not as likely to believe they have learned a lot from those devices as are parents whose children use educational media on other platforms. This survey doesn't explain why parents attribute lower levels of learning to mobile content. It could be because children don't spend as much time with mobile devices as they do with TV; because they have been watching educational TV for more years and thus have learned more from it; or because the educational content on mobile devices is less effective; or because of some other reasons altogether.

Table 11: Perceived impact of educational media, by subject area

Among parents of 2- to 10-year-olds who use educational media weekly, percentage who say their child has learned "a lot" about each subject, from any platform:

37%	Cognitive skills
37%	Reading/vocabulary
28%	Math
25%	Social skills
21%	Healthy habits
19%	Science
15%	Arts/culture

Table 12: Perceived impact of educational media, by subject area and platform

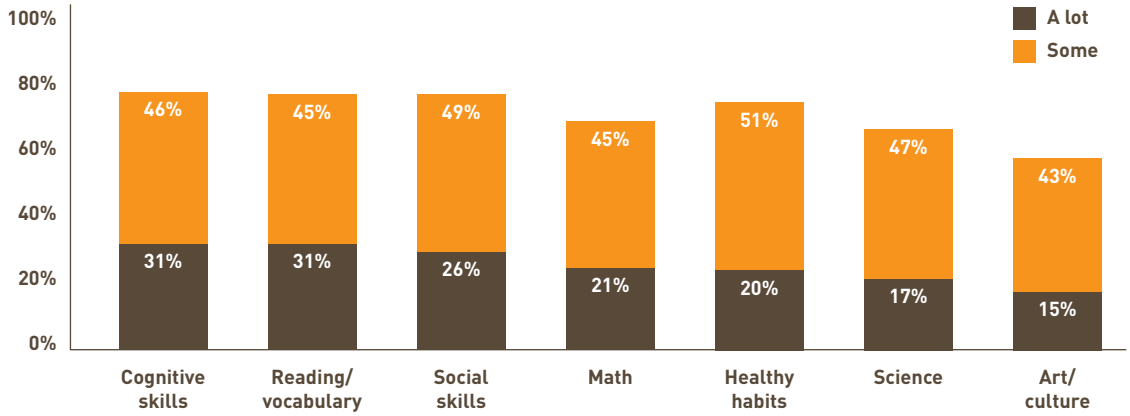
Among parents of 2- to 10-year-olds who use educational media on each platform weekly, percent who say their child has learned "a lot" about each subject:

	Educational TV/DVDs (n=1086)	**Educational video games** (n=434)	**Educational computer activities** (n=629)	**Educational activities on mobile devices+** (n=615)
Cognitive skills	**31%**	29%	28%	*27%*
Reading/vocabulary	**31%**	24%	30%	*21%*
Math	21%	24%	**31%**	*18%*
Social skills	**26%**	14%	14%	*11%*
Healthy habits	**20%**	14%	15%	*9%*
Science	**17%**	16%	16%	*8%*
Art/culture	**15%**	12%	12%	*6%*
Any subject	***52%***	***41%***	***47%***	***39%***

Highest percent in each category is **bolded**. Lowest percent in each category is *italicized*. It was not possible to test differences between devices for statistical significance.

Chart 4: Perceived impact of educational television, by subject area

Among parents of 2- to 10-year-olds who are weekly users of educational TV, percentage who say their child has learned a lot or some about a given subject



Television. As mentioned above, 80% of children are weekly users of educational television. Parents are most likely to say their child has learned "a lot" about reading or vocabulary (31%), cognitive skills such as memory and problem-solving (31%), and social skills (26%) from educational TV. Math (21%) and science (17%) rank further down. One in five parents of weekly users (20%) say their child has learned "a lot" about healthy habits from educational TV (see Chart 4).

Computer use. Parents are most likely to say their child has learned "a lot" about math (31%), reading or vocabulary (30%), and cognitive skills (28%) from the educational activities they engage in on a computer (such as playing games, using software, or visiting websites). Science (16%), healthy habits (15%), social skills (14%), and art or culture (12%) rank further behind. Again, these findings are among parents whose children are weekly users of educational content on the computer.

Mobile devices. Parents whose children use mobile devices for educational activities are most likely to say their children have learned "a lot" from them about cognitive skills (27%) and reading or vocabulary (21%). Fewer parents say their child had learned "a lot" from mobile devices about social skills (11%), healthy habits (9%), science (8%), or art and culture (6%; see Chart 6).

Video games. The smallest group of parents have children who are weekly users of educational video games (24%). Among these parents, 29% say their child has learned "a lot" about cognitive skills from educational video games, 24% say they've learned "a lot" about math, and the same proportion say they've learned "a lot" about reading and vocabulary. Parents are less likely to say their child has learned "a lot" from educational video games about science (16%), social skills (14%), healthy habits (14%), or art and culture (12%).

Learning English from media

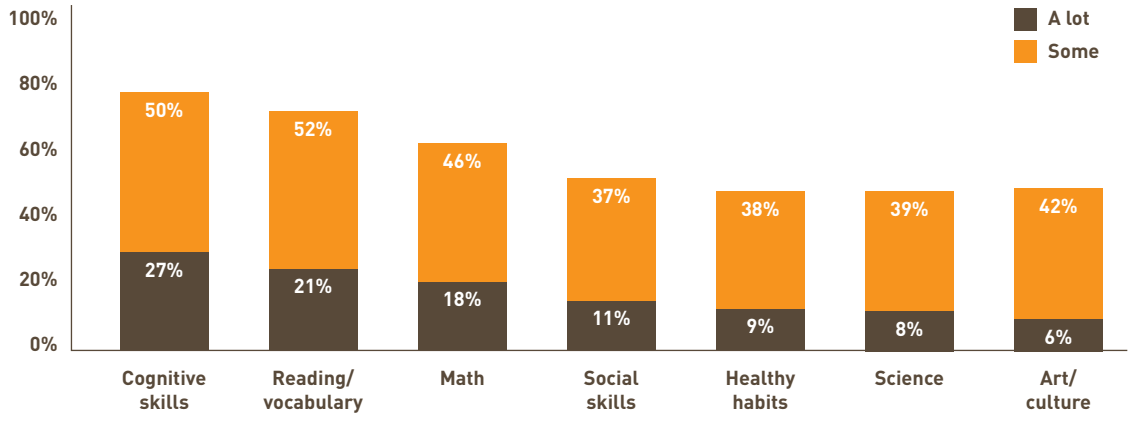
Among parents whose families speak languages other than English in the home, 71% say that media have helped their child learn English, including 30% who say media helped "a lot" and 41% who say "some."

Demographic differences in parents' perceptions of the benefits of educational media

In order to explore variations in parents' perceptions of how much their children have learned from educational media, the study compared parents of children of different ages,

Chart 5: Perceived impact of educational activities on mobile devices, by subject area

Among parents of 2- to 10-year-olds who are weekly users of educational content on mobile devices, percentage who say their child has learned "a lot" or "some" about a given subject:



genders, race/ethnicities, and socioeconomic groups. For these comparisons, we examined the proportion of parents who said their child had learned "a lot" or "some" about each topic area and from each platform.

Child age. Not surprisingly, there are some age-based differences in parents' perceptions of how much their children have learned from educational media. For example, parents of 5- to 7- and 8- to 10-year-olds are more likely than parents of younger children to say their children have learned "a lot" or "some" about science from TV (70% and 80% respectively, compared to 49% of younger children), which is not surprising given that older children have likely been exposed to such content for a longer period of time. On the other hand, 2- to 4-year-olds are more likely to have learned about social skills from educational TV. This too makes sense given that educational TV shows for younger children often present social as well as academic lessons. There is a similar situation with regard to the relationship between age and children's learning from both computers and mobile devices: Older children are more likely than younger ones to have learned about science and math.

Socioeconomic status. There are a handful of differences in how parents from differing socioeconomic groups rate the impact of educational media on their children, but no clear pattern emerges. For example, with regard to television, the only subject matter on which parents from different economic groups differ is math, with the lowest income group more likely than the highest one to say their child has learned "a lot" or "some" about math from educational TV

Table 13: Perceived impact of educational media, by platform, subject area, and race/ethnicity

Among parents of 2- to 10-year-olds who are weekly users of educational media, percentage who say their child has learned a lot or some about a given subject from each platform

	Television			Computers			Mobile media		
	White	Black	Hispanic -Latino	White	Black	Hispanic -Latino	White	Black	Hispanic -Latino
Math	65%^{ab}	**78%^{a}**	*64%^{b}*	79%^{a}	**91%^{a}**	*63%^{b}*	64%^{ab}	**79%^{a}**	*59%^{b}*
Science	67%^{a}	**68%^{ab}**	*54%^{b}*	64%^{a}	**80%^{a}**	*47%^{b}*	47%	54%	48%
Reading/vocabulary	74%	75%	77%	77%^{a}	**90%^{a}**	*69%^{b}*	73%^{ab}	**87%^{a}**	*68%^{b}*
Social skills	73%^{a}	**94%^{b}**	*70%^{a}*	51%^{a}	**70%^{b}**	*43%^{a}*	*42%^{a}*	**69%^{b}**	51%^{ab}
Cognitive skills	79%^{a}	**90%^{b}**	*69%^{c}*	81%^{a}	**93%^{a}**	*66%^{b}*	78%^{ab}	**89%^{a}**	*68%^{b}*
Art/culture	*56%^{a}*	**75%^{b}**	58%^{a}	52%^{a}	**77%^{b}**	*46%^{a}*	44%^{a}	**71%^{b}**	*51%^{ac}*
Healthy habits	*69%^{a}*	**82%^{b}**	71%^{a}	53%^{a}	**72%^{b}**	*53%^{a}*	*43%^{a}*	**65%^{b}**	48%^{ab}

Note: Within platforms, the highest rating for each subject area is **bolded** (where there is a statistically significant difference), and the lowest rating is in *italics*.

Statistical significance should be read across rows, within each platform. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly. Significance should be read across rows within each section.

or DVDs (74% vs. 57%). From the perspective of parent education, the one subject area where parents differ (for television) is science, and in this case the higher-educated group is more likely that the less-educated one to say their child has learned "a lot" or "some" from educational TV (70% vs. 59%).

Race and ethnicity. The most substantial and consistent differences in how parents assess the impact of educational media on their children's learning are located by race and ethnicity (see Table 13). For example, with regard to the impact of educational TV, Blacks are significantly more likely than Whites and Hispanic-Latinos to say their children have learned "a lot" or "some" about six out of the seven subject areas covered in the survey, and sometimes by large margins (for example, 94% of Black parents say their child has learned "a lot" or "some" about social skills from educational TV, compared to 73% of Whites and 70% of Hispanic-Latinos). Across platforms, Hispanic-Latino parents tend to be the least likely to say their child has learned from educational media, while Black parents tend to be the most likely to attribute learning to media.

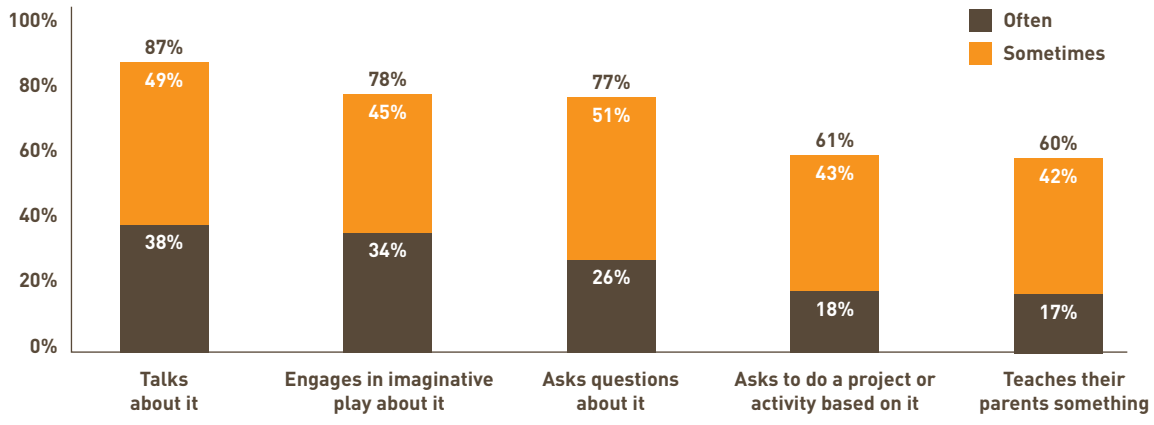
It is not possible to know from this survey what explains these differences, but several possibilities are worth exploring in future research. It may be that there is a shortage of effective educational media content for Hispanic-Latino children. Another possibility is that educational media may play a more important role for Black parents when it comes to their children's education. Indeed, as noted in the section "Perceived Sources of Learning" later in this report, both Black and Hispanic-Latino parents are more likely than White parents to consider media as a very or somewhat important source of learning for their children.

Actions taken as a result of educational media use

Many parents report that their children have taken specific actions as a result of their exposure to educational media (see Chart 6). According to their parents, 87% of children who are weekly users of educational media often or sometimes talk about something they saw in educational media, 78% often or sometimes engage in imaginative play based on something they saw in such media, 77% often or sometimes ask questions based on content in educational media, 61% often or sometimes ask to do an activity or project inspired by that media, and 60% often or sometimes teach their parents something they (the parents) didn't know before, because of what the child learned from educational media.

Chart 6: Actions taken as a result of educational media

Among parents of 2- to 10-year-olds who use educational media weekly, percentage who say their child takes a particular action as a result of something they saw or did with educational media:



No gender differences emerge in the likelihood of children to take some action based on their educational media use. But children's responses to educational media do vary by age (see Table 14). Older children are more likely to ask to do a project, ask questions, and teach their parent something they didn't know because of the educational media they have been exposed to, and younger children are more likely to engage in imaginative play.

Reports of actions taken in response to educational media are fairly consistent across parent education, race/ethnicity, and family income. However, there

Table 14: Actions taken as a result of educational media, by age

Among parents of children who use educational media weekly, percentage who say their child often or sometimes takes a given action as a result of something they saw or did with educational media:

	2- to 4-year-olds	5- to 7-year-olds	8- to 10-year-olds
Talks about it	84%	88%	87%
Engages in imaginative play based on it	83%[a]	78%[ab]	71%[b]
Asks questions about it	69%[a]	83%[b]	80%[b]
Asks to do a project or activity based on it	54%[a]	65%[b]	66%[b]
Teaches parent something about it	43%[a]	67%[b]	73%[b]

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.

Table 15: Actions taken as a result of educational media, by race/ethnicity and socioeconomic status

Among parents of 2- to 10-year-olds who use educational media weekly, percentage who say their child often or sometimes takes a given action as a result of something they saw or did with educational media:

	Race/ethnicity			Parent yearly income				Parent education		
	White	Black	Hispanic -Latino	< $25K	$25-49K	$50-99K	$100K/ yr+	HS or less	Some college	College or advanced degree
Asks to do a project or activity	59%[a]	74%[b]	61%[ab]	66%[a]	71%[a]	59%[b]	50%[b]	68%[a]	62%[ab]	53%[b]
Teaches the parent some-thing new	52%[a]	73%[b]	72%[b]	69%[a]	68%[a]	53%[b]	54%[b]	70%[a]	58%[b]	50%[b]

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.

are some instances where differences emerge (see Table 15). Among weekly users of educational media, Black children are more likely than Whites or Hispanic-Latinos to ask to do a project based on educational media and to teach their parent something new they learned from media. Similarly, children in lower-income families or whose parents did not attend college are also more likely than other children to take both of those actions.

Obstacles to educational media use

Why some families don't use educational media

One of the goals of this survey was to explore the reasons why some families don't use educational media very often, or at all — whether it is due to a lack of age-appropriate content, a desire to use other educational tools, or some other reason. Parents were asked about possible reasons why their children don't use educational media more often, and then asked to select from the most important reason from that list (see Table 16).

Table 16: Obstacles to educational media use

Among parents of 2- to 10-year-olds who use educational media less frequently, percentage who cite each of the following as the "main" reason for not using educational media more often	
31%	They don't want their child using too much screen media
19%	Their child is too young to be using educational media
18%	The parent believes there are better things to do for their child's development
11%	Their child isn't interested in "educational" media
6%	There is not enough quality educational content available
5%	Media are mainly for relaxing

Some of these parents say their children are simply too young to be using educational media (19% cite that as the main reason). But the most common reason, cited by 31% of parents whose children don't use educational media very often, is that they don't want their child using too much screen media (see Table 16). Another 18% of these parents say the main reason their child doesn't use educational media more often is because there are better things to do for their child's development. Eleven percent say their child isn't interested in "educational" media. Very few of these parents cite a lack of quality educational content: Just 6% named that as the main reason for not using educational media more often (12% selected that as "a" reason).

The reasons for not using educational media more often vary by children's age. Parents of younger children (ages 2 to 4) are more likely to say it is because they don't want their child using too much screen media (37%, v. 26% of parents of 8- to 10-year-olds). Parents of older children are more likely to say their child isn't interested in "educational" media (20% of parents of 8- to 10-year-olds, vs. 8% of 5- to 7-year-olds and 2% of 2- to 4-year-olds) or that they can't find enough high-quality educational content (10%, vs. 2% of parents of the youngest children). There are no differences in the main reason cited by parents from different socioeconomic or racial groups.

Perceived sources of learning

One reason parents may not take advantage of educational media could be that they simply don't perceive of media as a source of learning. In order to assess the degree to which parents think of media as a learning tool for their children, the survey asked them to think about the lessons their children most need to learn, and then to rank the importance of various sources for learning those lessons. Not surprisingly, parents themselves (96%), teachers (73%), siblings (69%), books (67%), and grandparents (61%) head the list of "very" important learning sources. Most parents don't consider television (6%) or interactive digital media such as computers, video games, and mobile devices (10%) to be very important sources of learning. But when the discussion is broadened to include learning sources considered at least

"somewhat" important for children, a total of 44% of parents name interactive digital media, and 34% name TV.

Parents' views on where media ranks as a source of learning for children are consistent across socioeconomic groups, including those based on income and on parent education. However, there are modest variations by race/ethnicity (see Table 17). Black and Hispanic-Latino parents are more likely than White parents to consider media as a "very" or "somewhat important" source of learning for their children — especially interactive media such as computers, video games, and mobile devices. Sixty percent of Black and 52% of Hispanic-Latino parents say these media are a "very" or "somewhat important" source of learning for children their child's age, compared to 37% of non-Hispanic White parents. (The proportion who say these media are "very" important ranges from 7% of non-Hispanic White parents to 17% of Blacks and 15% of Hispanic-Latinos.)

How parents find educational media

Another reason some families don't use educational media could be because they haven't been made aware of the options they have. The most common way parents who do use educational media find them is simply by coming across them while browsing (50%). Other ways parents find educational media are through recommendations from teachers (40%), suggestions from friends or family members (35%), and by the child coming across them on his/her own (20%), or hearing about them from his/her friends (20%).

Table 17: Sources of learning, by race/ethnicity

Among parents of 2- to 10-year-olds, percentage who say each of the following are a very or somewhat important source for learning the lessons their child most needs at their age:

	White	Black	Hispanic -Latino
Parents	98%	98%	97%
Teachers	91%	92%	93%
Siblings	97%	96%	97%
Books	93%	96%	96%
Grandparents	91%	90%	90%
Friends	85%a	72%b	71%b
Toys and games	71%	69%	71%
Sports	59%a	66%a	79%b
Interactive media+	37%a	60%b	52%b
Television	27%a	43%b	35%ab

+ Computers, video games, mobile devices.

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.

Table 18: Parents' desires for more information on educational media, by demographics

Among parents of 2- to 10-year-olds, percent who want more information about how to find quality educational media for their children, by:

Race/ethnicity			Parent education			Family income			
White	Black	Hispanic -Latino	High School or less	Some college	College or advanced degree	< $25K	$25-49K	$50-99K	$100K/yr+
46%[a]	57%[b]	74%[c]	61%[a]	50%[b]	51%[b]	61%[a]	60%[a]	48%[b]	55%[ab]

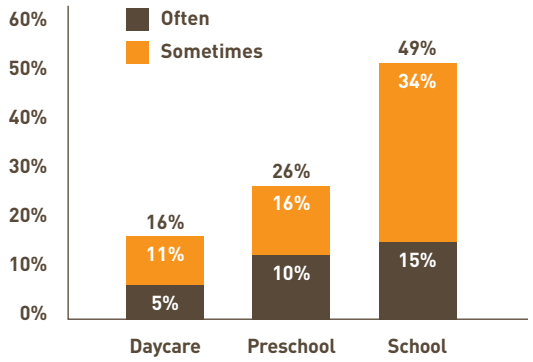
Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.

Just over half (55%) of parents agree strongly (20%) or somewhat (35%) that they would like more information from experts about how to find good TV shows, games, and websites to support their child's learning. Lower-income, Hispanic-Latino, and less-highly educated parents are more likely than others to agree with this statement.

Teachers and educational media use in the home
Teachers' suggestions are one of the top sources of recommendations of educational media for parents who use them (40% cite that as a way they find such media). Among parents whose children are in some type of preschool or school setting, many say their child's teacher often (13%) or sometimes (27%) assigns, recommends, or suggests media for the child to use at home (see Chart 7).

Chart 7: Teachers and educational media recommendations

Among parents of 2- to 10-year-olds whose children are in school, percentage whose child's teacher/provider recommends educational media:



Joint media engagement

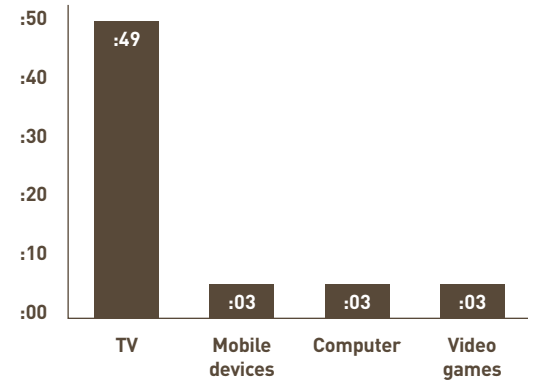
Many educators and content creators believe the educational value of media is enhanced when children and parents use media together (see Takeuchi & Stevens, 2011). In an era when media devices are increasingly designed for individual use or use on-the-go, researchers are particularly interested in how much of children's media time — whether educational or not — is spent using media alone or with someone else, such as parents, siblings, peers, or others. This survey quantifies, by platform, the amount and proportion of children's media time that is spent jointly engaged with parents. It also offers a more general assessment of the frequency of co-engagement with others.

Percent of children who use media with a parent
In a typical day, 58% of all children will spend some time co-engaged with media with one of their parents. This includes 52% who co-view TV with a parent, 9% who use mobile devices with a parent, 7% who use a computer with a parent, and 7% who play video games with a parent (some do more than one of these).

Amount of time spent in joint media engagement
On average, parents and children spend about an hour a day using media together (:59). This includes :49 watching television together, :03 using mobile devices, :03 using a computer together, and :03 playing video games together (see Chart 8).

Chart 8: Time spent in joint media engagement, by platform

Among children ages 2-10, average amount of time spent using media with a parent each day:



Proportion of children's media time that is spent with a parent
According to parents' reports, about half the time their children are watching TV the parent is watching with them (55%). For all other media, joint use accounts for approximately a quarter of the total time children spend with each medium (29% for mobile devices, 26% for video games, and 25% for the computer).

Table 19: Joint media engagement, by age

In a typical day:

	2- to 4-year-olds	5- to 7-year-olds	8- to 10-year-olds
Television			
Among those who watched TV, average percent of time that was spent co-viewing	65%[a]	51%[b]	51%[b]
Average amount of time spent co-viewing TV, among all	:59	:45	:42
Computers			
Among those who used a computer, average percentage of time that was spent using computers together	Less than a minute / :01	29%	17%
Average amount of time spent using computers together, among all	:01	:03	:03
Video games			
Among those who played video games, average percent of time that was spent co-playing	49%	27%	20%
Average amount of time spent co-playing video games, among all	:02	:04	:04
Mobile devices			
Among those who used mobile media, average percent of time that was spent using such media together	35%[a]	37%[a]	19%[b]
Average amount of time spent using mobile media together, among all	:02	:05	:03

Note: Statistical significance should be read across rows. Items with different superscripts differ significantly (p <.05). Items that share a common superscript, or don't have a superscript, do not differ significantly.

Parents spend a larger proportion of time using media with their younger children, and a smaller proportion as their children grow up (see Table 19). For example, 65% of TV-watching time among 2- to 4-year-olds is spent co-viewing with a parent, compared to 51% among older children. The proportion of time that parents spend in joint media engagement does not vary based on the family's race, income, or the parent's educational level. The one exception occurs with mobile devices: Hispanic-Latino parents spend 43% of their children's mobile media time in joint engagement compared to 25% for White parents and 21% for Blacks.

Frequency of joint media engagement with parents and others

Among the 99% of children who use screen media, the most frequent co-viewers are siblings (48% of those with brothers or sisters "often" co-view with them), followed by parents (43% use media with them "often"), then friends (7%), grandparents (7%), and other relatives (7%). Not surprisingly, younger children are more likely than older ones to co-view with their parent (60% often do, compared to 40% among 5- to 7-year-olds and 29% among 8- to 10-year olds).

There are no differences in the percentage of parents, siblings, or friends who often or sometimes use media with children based on race, income, or parent education. There are differences regarding the frequency of media co-engagement with grandparents, however. Black children, those from lower-income families, and children whose parents did not attend college are more likely than other children to co-engage with media with their grandparents. Hispanic-Latino children are less likely than White or Black children to do so, even though multigenerational families (ones in which at least two generations of adults live under the same roof) are more likely among Hispanic-Latinos (10.3%) than they are among Blacks (9.5%) or Whites (3.7%; Pew Research Center, 2011).

Reasons parents do and don't engage with media with their children

For those who want to encourage more (or more productive) joint media engagement, it is important to understand why parents do and don't use media with their children. Does joint media engagement occur because parents believe it helps their child learn from media, or is the main motivation to spend some time together having fun? Is the lack of joint engagement among some parents due to time constraints, or a perception that joint engagement might have a negative impact on the child?

Among parents who say they "often" or "sometimes" use media together with their child, the most-cited reasons for doing so are to protect the child from inappropriate content (60%) and because the child asked the parent to watch or play with them (56%). Many also say it is "together" time for the parent and child (45%). The least-cited reason is to help the child benefit more from media (41%).

Among those parents who don't co-engage with media with their children at all, or who do so only once in a while, time is the biggest obstacle: 48% say the reason they don't use media with their child is because they need that time to get things done, and 16% say it's because they aren't home enough. Twenty-three percent say it's because they believe it's better for their child to use media independently, and 10% say their child doesn't want the parent to use media with them. Parents of young children (2- to 4-year-olds) are more likely than those with older children to say the main reason they don't use media together is because they need that time to get things done (38% v. 22% of parents of 8- to 10-year-olds).

Reading

Time spent reading

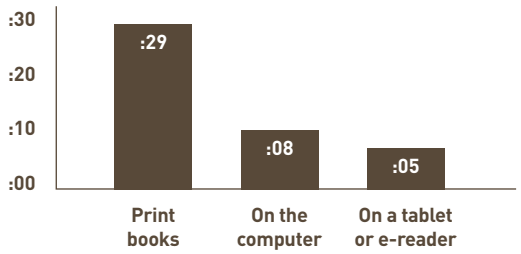
Children ages 2 to 10 spend an average of 40 minutes a day reading or being read to, including almost half an hour (:29) reading print books, 8 minutes reading on a computer, and 5 minutes reading on a tablet or e-reader (see Chart 9).

There are no statistically significant differences in the total amount of time spent reading among the different age groups (e.g., 2- to 4-year-olds vs. 8- to 10-year-olds) or based on race, income,

or parent education. On the other hand, there is a significant difference between boys and girls, with girls spending a total of :46 a day reading, compared to :34 among boys (see Chart 10).

Chart 9: Time spent reading, by platform

Among 2- to 10-year-olds, average amount of time per day spent reading:



Parents and children reading together

On average, 21 minutes of children's reading time is spent co-reading with parents. Parents spend more time reading with their younger children (44 minutes for 2- to 4-year olds) than with their older children (24 minutes a day among 8- to 10-year-olds).

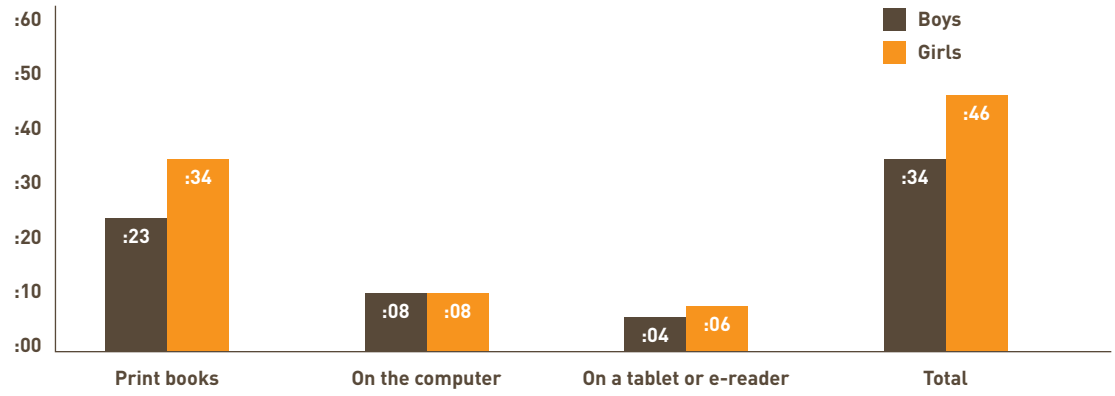
There are differences in the amount of time parents spend co-reading with their children among families from different economic groups. Lower-income parents report that they spend more time reading with their children each day (:52) than higher-income parents do (:33).

Percentage of children who engage in e-reading

A majority of children ages 2 to 10 have access to a device for electronic reading: 55% have a multipurpose tablet in the home, and 29% have a dedicated e-reader (62% have access to at least one of these devices). Among children with one of these devices in the home, half (49%) engage in electronic reading, either on their own or with their parent (30% of all children). Younger children who have an e-reading device in the home are just as likely as older ones to use them — 49% of 2- to 4-year-olds, compared to 46% of 5- to 7-year-olds and 53% of 8- to 10-year-olds (not a statistically significant difference). Nor is there any difference by age in the average amount of time spent reading on an electronic device — 5 minutes a day for 2- to 4-year-olds, 4 minutes a day for 5- to 7-year-olds, and 5 minutes a day for 8- to 10-year-olds. However, girls are more likely to use e-readers than boys are (54% vs. 44% have ever used one).

Chart 10: Time spent reading, by platform and gender

Among 2- to 10-year-olds, average time spent per day reading:



Time spent e-reading

Among all 2- to 10-year-olds, an average of 5 minutes a day is spent e-reading — still much less than the 29 minutes a day spent reading print books.

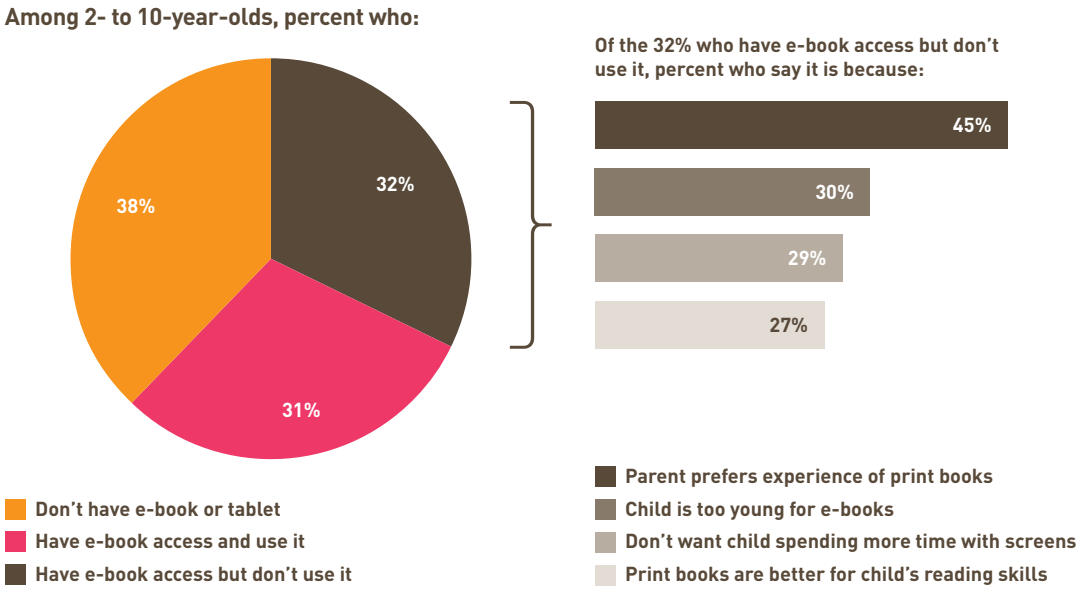
Why some children whose families have e-readers don't use them

Half of all parents who have an e-reading device say their child doesn't use it. Among these parents, 45% say the reason their child doesn't use the e-reader is because the parent prefers them to have the experience of print books. Twenty-nine percent say they don't want their child to spend more time with screens, and 27% say print books are better for children's reading skills. Thirty percent say it's because their child is too young to use the e-reader (see Chart 11).

Parents' age and e-reading

One question the survey explored was whether older parents are more hesitant to engage in e-reading with their children. In fact, older parents are more likely than younger ones to own an e-reader or a tablet device. Forty percent of parents over age 40 have an e-reader, compared to 21% of those under age 30. Similarly, 59% of those over 40 years old have a tablet, compared to 47% of those under 30 (30- to 40-year-old parents fall in-between). And among those who own an e-reader or tablet device, older and younger parents are equally likely to use them with their children.

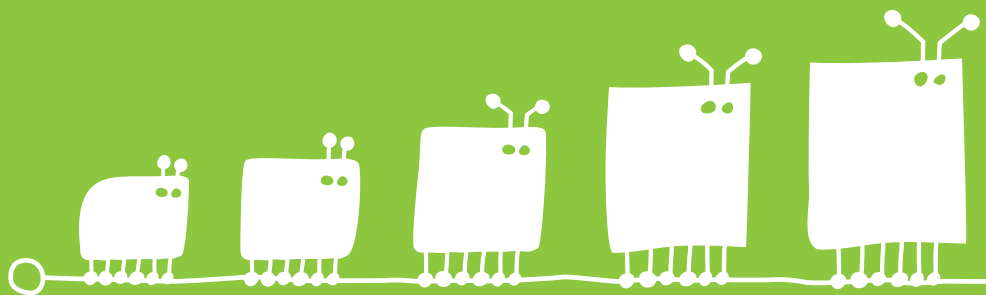
Chart 11: Why some children don't use e-readers



Note: Percentages do not total 100 due to rounding

conclusion

This survey provides the first in-depth, national exploration of families' use of informal educational media in the home. It is intended to provide practical insights to content creators, educators, parents, and policymakers. As noted throughout the report, the survey documents parents' reports about their children and the media they use. Undoubtedly, the many different actors in the children's media world will bring their own perspectives to the data and glean different lessons from it. In this conclusion, a few preliminary thoughts are offered about implications and next steps.



Comparing parents' opinions to independent assessments of the educational value of children's media

If parents' estimates are right, then just under half of all screen media that children use provides some lesson or benefit to the child — ranging dramatically from nearly eight out of every 10 minutes for younger children down to less than three in 10 minutes for older ones. These data pose one obvious question: How accurate are parents' assessments? If they are correct, then we can feel good knowing that at least among the very youngest children, a large portion of the screen media they are using is beneficial. But if parents are somehow just persuading themselves that these media are educational — perhaps influenced by advertising or wishful thinking — then this veneer of educational benefit may be contributing to too much media use that is inappropriately labeled as educational. And, on the other hand, if parents are under-assessing the educational value of media, there may be work to be done to persuade parents of media's possible positive impact.

From the limited data available in this study, it would appear that most parents have a relatively balanced view of what constitutes educational media. For example, as noted in the Sidebar on page 12, 58% consider *Sesame Street* "very" educational and 38% say it is "somewhat" so. About half (49%) consider *Mickey Mouse Clubhouse* "somewhat" educational, while 24% say it is "very" educational and 27% say "not too" or "not at all" educational. And 65% say *SpongeBob SquarePants* is "not at all" educational, with 26% saying it's "not too" educational, 7% saying "somewhat" and just 2% saying it is "very" educational.

However, it would be informative to study this issue in much greater depth. Time-use diaries could be used to record exactly which shows, games, and apps children are using, and an independent organization could code the content for its educational value. Such a study could yield a different perspective on the proportion of children's screen time that is educational, and it would offer a closer view of how parents evaluate the educational nature of media.

Getting parents more information about educational media

Independent efforts to provide ratings and reviews to parents about the educational value of various media titles should be supported and enhanced. The survey indicates that just over half (55%) of parents say they would like more information from experts about how to find good TV shows, games, and websites to support their child's learning; lower-income, Hispanic-Latino, and less-highly-educated parents are even more likely to express that need. Organizations such as Common Sense Media and the Children's Technology Review have provided much-needed ratings for many parents, but there are clearly many others who need easy access to this information. We should support efforts to expand these and other services and ensure that even more parents become aware of them and know how to use them. One challenge is to get good information about children's media to lower income and minority families. Foundations should support efforts that are specifically designed to expand the reach of existing services into these communities.

It may be that more work needs to be done to convince parents that their media choices matter for their children. Based on the survey results, it doesn't appear that parents are particularly intentional in the way they seek out educational media for their children (although this may be an artifact of the way the questions were framed and the response options that were provided). Most parents say they find media options for their children simply by coming across them while browsing around. We can do more to remind parents that the choices they make really do matter and get them the information they need to make informed judgments.

But in promoting the educational promise of certain media products, we also need to be careful not to imply that even titles that are only marginally "educational" are of such benefit that parents should permit their unfettered use. Parents are probably wise to understand that there are many other tools for teaching children; educational media use should be limited and be

part of a whole mix of activities that are critical for healthy development. Our goal should be to help parents be as accurately discerning as possible in their media choices, even as we work to raise the quality of all media for children.

The data from this and other studies should be examined to develop a profile of the parents who may be in most need of tools for assessing the educational value of children's media; outreach plans should then be developed with those parents in mind.

Meeting the needs of older children

Although this study offers evidence of widespread use of educational media, it also indicates a sharp drop-off in use among older children, down to just 27% of screen time among 8- to 10-year-olds — even as their total time spent with screen media increases.

The parallel (and precipitous) increase in screen time and drop-off in educational content is worrisome. One issue that needs further exploration is the relationship between early childhood screen use and screen use at later ages; this could be addressed through longitudinal research. Is screen media use in early childhood, even if educational, creating a habituation with media that then becomes part of the child's and the family's lifestyle? Does it lead to greater screen use — of which less is educational — later in life? If so, how do we weigh the effects of that larger amount of non-educational use against the benefits achieved from early educational media use?

We also need to explore why this drop-off in educational media use among older children occurs. As referenced in the report, it may be due to any number of factors, such as fewer compelling educational media options for these older age groups or greater competition for children's time from other activities such as school or sports (or some other reasons). As children get older, are they turning to media more and more for relaxation and escape, rather than for learning? How do children's motivations for using media change with age? How can we stimulate the creation of more content specifically designed for this older audience — content they will find engaging and entertaining at the same time that it is educational?

Improving access and content for low-income youth

While educational media can benefit all children, the most important group to reach are those who have a dearth of other educational opportunities in their lives — this is where the use of informal educational media in the home can help fill the gaps and reduce achievement disparities. But it is just these children — those who don't have an abundance of developmentally appropriate toys and books in the home or whose environments may not be as verbally rich as other children's — who are often lacking access to the newest media platforms.

Children from lower-income families are using educational TV at high rates, but they still have much less access to high-speed Internet connections and to tablets and smartphones. Policymakers should keep these data in mind as they debate funding for public television, requirements for educational TV, and policies to expand broadband access. And as funders and producers begin to shift their focus toward developing content for mobile platforms, they also need to keep in mind the fact that these platforms still don't reach many of the most needy children.

One option is to redouble efforts to expand access to smartphones and tablets. But before we undertake such an effort in the name of equity, we need to be sure to think through the ultimate effect on how children spend their time. Is the primary effect of greater access likely to be more educational or more noneducational screen time? If the latter, do the benefits outweigh any risks? In the meantime, it would behoove us to serve lower-income children by continuing to create as much engaging, educational content as possible for the platform that is omnipresent (TV) and free (over-the-air broadcast). As mentioned

elsewhere, it is also important to enhance outreach to these families to help parents select high-quality educational content and to stress the importance of having them constructively engage with media together with their child.

Continuing to develop better mobile content

More exploration should be done to determine why parents don't think their children have learned as much from mobile devices as they have from TV and other platforms (even among those who use mobile educational content at least weekly). Is it because their children simply don't spend as much time with mobile devices as they do with TV? Or perhaps because mobile devices, by virtue of their portability, are used in shorter bursts of time, during transitions in daily routines? Is it because children have been watching educational TV for more years than they have been using mobile devices? Because they spend more of their mobile time using noneducational content? Or is it because they just aren't learning as effectively from mobile devices as they are from other educational media? One possible answer is that content creators may have been more successful in developing educational TV shows that fully capture children's imaginations — shows that become highly popular by being entertaining and educational at the same time. We are still waiting for the educational app that is as popular as Angry Birds, one that pulls in new users every day and compels them to play it time and time again.

Exploring the need for more science-oriented media, especially for girls

Content funders and producers should consider whether there is a need for additional science-based educational media, particularly with a focus toward young girls. In this survey, when parents were asked how much their children had learned from media about various subjects, science ranked well behind other subjects, and parents were less likely to think their girls than their boys had learned about science from media. There could be a number of reasons for this. Further research might indicate that parents are simply thinking about science in a particularly narrow context — perhaps as beakers in a chemistry lab, rather than including nature, weather, animals, and geography in their concept of "science." An inventory of science-related educational media products may be a useful tool in helping to assess whether there are sufficient titles available, and a qualitative review would help indicate whether existing products are oriented toward one gender or the other (perhaps by channel placement, hosts, main characters, or other variables). Interestingly, science was the one subject area that higher-income families were more likely than lower-income ones to say their child had learned about from educational TV. It may be that there is a need for more science-based content on free over-the-air television to supplement existing shows such as *Sid the Science Kid* or the Science, Technology, Engineering, and Math (STEM) content on *Sesame Street*. Lower-income children have more access to broadcast channels than to cable, where additional children's programming on networks such as Discovery, National Geographic, and Animal Planet can be found.

Better understanding the needs of Hispanic-Latino families

The survey raises some warning flags regarding how well the educational media community is serving the needs of Hispanic-Latino families. Hispanic-Latino parents value media as a source of learning, yet across every platform and almost all subject areas studied, they are less likely than Black or White parents to say their child has learned from educational media. It is not possible to know from this survey why that is the case. Several possibilities are worth exploring in future research. It may be that there is a shortage of effective educational media content specifically designed for Hispanic-Latino children. Further research in the Hispanic-Latino community should be done, including an in-depth analysis of the 682 Hispanic-Latino respondents to the current survey. Such an analysis could control for child age, family income, parent education, and primary language. In addition, content analyses

should be reviewed and updated to assess whether there are particular qualities in existing English- and Spanish-language titles that should be addressed, such as a lack of ethnic representations. Finally, since Hispanic-Latino parents are more likely than others to express a desire for more information about quality educational media, funders should support efforts to promote existing ratings systems to the Hispanic-Latino community and, if necessary, to create new Hispanic/Latino-friendly information sources.

Continue to produce high quality children's books that appeal to both boys and girls, in print and electronic formats

Parents report that their children are spending a significant amount of time reading, especially print books. Many parents still prefer that their children read print; they will need a healthy and vibrant publishing industry to support them. At the same time, many children — even very young ones — use e-books, so an abundant supply of high-quality e-books for that age group is also important. Researchers have long recognized a substantial gender gap in reading (see Marinak & Gambrell, 2010), and this survey provides further evidence of such a gap. Funders should strongly support the work of educators and others attempting to address this disparity.

Encouraging high quality joint media engagement

Many media experts believe that we should encourage parents and children to use media together. This study indicates that there is a lot of JME occurring already. But what we don't know is what the quality of that engagement is — how effectively and intentionally are parents engaging their children when they use media together? Are they using primarily educational or entertainment media together? How much and what kind of interaction occurs during joint media use? One positive finding is that many children are extending their learning from media into other realms — for example, by asking to do a project based on something they saw in media or by teaching their parent something learned from media. This indicates that JME is not a unidirectional activity, but presents opportunities for learning across all ages.

This survey indicates that the main platform that parents and children are using together is television — perhaps because the smaller size of computers and mobile devices makes joint use more difficult, because TV is a more established routine in many families, or because watching TV together is less demanding than jointly engaging with other media. If joint engagement is important to maximizing children's benefit from educational media, then content providers should focus on producing television, since it is the platform parents use most often with children, or they should undertake more research to understand why joint use on other platforms is so limited. Finally, it may be that content developers should focus on creating media products that give children as much benefit as possible without their parents using with them, since many parents report that time constraints prevent them from using media with their children.

for the educational media community, there is much good news in this survey

A large majority of children use educational media at least weekly; parents consider just under half of the screen media their children use to be good for them. Many parents believe their children have learned a lot from media, and many report that educational media has sparked their children to take actions that extend their learning beyond the screen, such as undertaking projects inspired

by educational media. Encouragingly, lower-income children are more frequent users of media their parents consider educational than higher-income children are. Decades of creating educational television seems to be paying off — most children get their educational media content from television, and parents are more aware of the educational potential of TV, perhaps because they themselves grew up with and learned from it.

But there is much more to be done. In particular, the study highlights the need for more compelling content for older children, the development of popular and effective educational apps, more work with the Hispanic-Latino community to develop formats and content that will be of interest to that increasingly diverse audience, expanded efforts to reach parents with objective and reliable assessments of the educational value of media, and continued production of high-quality educational television, the platform that, at least for the time being, still reaches the widest audience of low-income children.

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appendix: toplines

N=1577
Focal child age: 2-10 years old

S6. What is the main language used every day in your home?

a. Only English	73%
b. Mainly English, but also some other language(s)	14%
c. Mainly other language(s), but also some English	10%
d. A non-English language only	3%

1. Please mark the box that best describes where [CHILD] fits in your family:
MARK ONE ONLY

a. An only child	22%
b. The youngest child	45%
c. A middle child	12%
d. The oldest child	21%

2. Does [CHILD] live with you full-time, or part-time?

a. Lives with me full-time	97%
b. Lives with me part-time	2%

3. Which other adults, if any, live at your home?
MARK ALL THAT APPLY

a. Grandparent(s)	8%
b. Other adult relatives	6%
c. Other adult nonrelatives	2%
d. Siblings age 18 or older	6%
e. [IF married or partnered] My spouse/partner	94%
f. No other adults live in my home	9%

4. How often does [CHILD] see any of [his/her] grandparents in person?
MARK ONE

a. Every day	14%
b. Several times a week	21%
c. Once a week	11%
d. Several times a month	16%
e. Once a month	8%
f. Once every few months	10%
g. Once or twice a year	10%
h. Less often than once a year	4%
i. Never sees grandparents in person	4%
j. Doesn't have any living grandparents	1%

5. When you think about the lessons [CHILD] most needs to learn at [his/her] age, how important do you think each of the following are in helping [him/her] learn those lessons? Very important, somewhat important, not too important, not at all important, not relevant for my child's age
RANDOMIZE

	Very	Somewhat	Not too	Not at all	Not relevant for child's age
a. Parents	96	2	2	0	1
b. Teachers	73	18	2	1	6
c. [IF Q4=a-i] Grandparents (if has living grandparents, N=1542)	61	30	6	2	1
d. [IF Q1=b, c, or d] Siblings (if any, N=1235)	69	28	2	*	*
e. Friends	31	48	16	2	1
f. Nanny or babysitter	12	25	20	17	25
g. Toys and games	22	49	22	5	1
h. Books	67	27	3	1	1
i. Sports	20	46	22	7	5
j. Television	6	25	43	24	2
k. Other electronic media (like computers, video games, mobile devices)	10	34	38	14	5

6. Do you have a working television set in your home, or not?

a. Yes	98%
b. No	2%

7. Which of the following, if any, do you (or anyone else) have in your home?
RANDOMIZE, KEEP E-G TOGETHER; CREATE YES/NO GRID

	Among all
a. [IF Q6=a] Cable or satellite TV	75%
b. [IF Q6=a] A video game player that hooks up to your TV (like an Xbox, PlayStation, or Wii)	76%
c. A handheld video game player (like a Game Boy, PSP, or Nintendo DS)	50%
d. A "smartphone" (in other words, you can send email, watch videos, or access the Internet on it)	71%
e. An iPod Touch or other type of video iPod	41%
f. A tablet device (like an iPad, Galaxy Tab, Nexus 7, Microsoft Surface, or Kindle Fire)	55%
g. A basic e-reader device (like a Kindle or Nook)	29%
h. [*If family received computer*] A laptop or desktop computer (do not include the computer provided by GfK, formerly Knowledge Networks)	—
i. High-speed Internet access (cable, wireless, or DSL)	83%
j. An educational game device (like a Leapster or a V.Smile)	41%

[IF Q7 f or g = YES]
8. Does your child use the tablet or e-reader for reading e-books, either independently or with someone else reading with [him/her]?

	Among those who own one:
a. Yes	49%
b. No	50%

[IF Q8=b]
9. Why doesn't your child use the tablet or e-reader to read e-books?
MARK ALL THAT APPLY. KEEP (A) FIRST, RANDOMIZE OTHER RESPONSES

a. [He/she] is too young	30%
b. I worry [he/she] might break it	14%
c. I prefer the experience that print books offer	45%
d. [He/she] gets too distracted by the features	8%
e. [He/she] is not interested in e-books	16%
f. Print books are better for children's reading skills	27%
g. I do not want [him/her] to spend more time with electronic screens	29%
h. I worry that [she/he] will want to use it all the time	12%
i. Not enough good e-books available	4%
j. Other reason (please specify):_____	14%

10. Does [CHILD] ever:
RANDOMIZE

a. Watch TV or DVDs	97%
b. Use the computer	70%
c. Play video games (on a console or handheld game player)	65%
d. Use a mobile device like a smartphone, video iPod, or tablet (for something other than talking or texting on the phone)	65%

[IF Q10 a, b, c or d = YES] Among screen media users (99% of all children):
11. How often does [CHILD] use media, such as [IF 10a=YES: watch TV,] [IF 10b=YES: use the computer,] [IF 10c=YES: play video games,] [and] [IF 10d=YES: use mobile devices] for the following reasons? Often, sometimes, once in a while, never
RANDOMIZE

	Often	Sometimes	Once in a while	Never
To be entertained	47	39	12	1
To learn something	36	44	17	2
To relax	24	41	22	12
So I can get things done	11	37	31	20
To keep him/her safe and out of trouble	12	27	24	37
To connect with other family members	12	27	25	36

Introductory text: These next questions are about what you and [child] did yesterday.
[IF Q2=b: If {CHILD} was not in your custody yesterday, please think about the most recent day you did have custody of {him/her}]

12. Thinking just about *yesterday,* how much time, if any, did [CHILD] spend reading or being read to at home? [Open-ended response in hours and/or minutes]
DO NOT ROTATE OR RANDOMIZE

	Among all
a. Reading print books	:29
b. [IF Q8=a] Reading on a tablet or e-reader	:05
c. [If Q10b=yes] Reading on the computer	:08
Average time spent reading among all 2- to 10-year-olds:	:40

[IF Q12a, b, or c = >0]
13. You said that [CHILD] spent about [TOTAL Q12 a, b, and c] reading yesterday. How much, if any, of that time were you [IF MARRIED/PARTNERED: or your spouse/partner] reading with [him/her]? [Open-ended response in hours and/or minutes; total must not exceed total from Q12; offer "none" option]
Among all children, 43% spent at least some time co-reading with their parents.
Average time spent co-reading among all children was :21.

14. Still thinking just about YESTERDAY, how much time, if any, did [CHILD] spend: [Open-ended response in hours and/or minutes]
RANDOMIZE

	Among all
a. [IF Q10 a, =YES] Watching TV or DVDs	1:21
b. [IF Q10c=YES] Playing video games (console or handheld game player)	:17
c. [IF Q10 b=YES] Using the computer	:14
d. [If Q10 d=YES] Using a mobile device like a smartphone or tablet	:14
Average time spent using screen media among all 2- to 10-year-olds:	2:07

[IF Q14a=>0]
15. You said that [CHILD] spent about [INSERT TIME Q14a] watching TV or DVDs yesterday. How much, if any, of that time: [TOTAL TIME MUST NOT EXCEED TOTAL IN Q14a; offer "none" option]

a. Were you [IF MARRIED/PARTNERED: or your spouse/partner] watching with [him/her]?

Average time coviewing among all:	:49
Percent of children who spent some time co-viewing television with a parent:	52%

b. Was spent watching shows that are good for your child's learning or growth, or that teach some type of lesson?

Average time watching educational television among all:	:42
Percent of children who spent some time watching educational TV:	45%

16. [IF Q15b = >0] If you remember, please list the names of the TV shows or DVDs [CHILD] watched yesterday that you consider to be good for him/her or teach some type of lesson.
TEXT BOX

[IF Q14b=>0]
17. You said that [CHILD] spent about [INSERT TIME Q14b] playing video games yesterday, either on a gaming console or on a handheld game player. How much, if any, of that time: [TOTALS MUST NOT EXCEED TOTALS IN Q14b; offer "none" option]

a. Were you [IF MARRIED/PARTNERED: or your spouse/partner] playing video games with [him/her]?

Average time co-playing among all:	:03
Percent of children who spent some time co-playing video games with a parent:	7%

b. Was spent playing video games that are good for your child's learning or growth, or that teach some type of lesson?

Average time playing educational video games among all:	:03
Percent of children who spent some time watching educational TV:	7%

18. [IF Q17b=>0] If you remember, please list the names of the video games [CHILD] played yesterday that you consider to be good for [him/her] or teach some type of lesson.
TEXT BOX

[IF Q14c=>0]
19. You said that [CHILD] spent about [INSERT TIME Q14c] using the computer yesterday. How much, if any, of that time: [TOTALS MUST NOT EXCEED TOTALS IN Q14c; offer "none" option]

a. Were you [IF MARRIED: or your spouse IF PARTNERED: or your partner] using the computer with [him/her]?

Average time co-using among all:	:03
Percent of children who spent some time co-using a computer with a parent:	7%

b. Was spent doing activities on the computer that are good for your child's learning or growth or that teach some type of lesson?

Average time playing educational video games among all:	:05
Percent of children who spent some time watching educational TV:	10%

20. [IF Q19b=>0] If you remember, please list the names of the websites, apps, games, videos, programs, or activities [CHILD] used on the computer yesterday that you consider to be good for [him/her] or that teach some type of lesson.
TEXT BOX

[If Q14d=>0]
21. You said that [CHILD] spent about [INSERT TIME Q14d] using mobile devices like smartphones or tablets yesterday. How much, if any, of that time: [TOTALS MUST NOT EXCEED TOTALS IN Q14d; offer "none" option]

a. Were you [IF MARRIED: or your spouse IF PARTNERED: or your partner] using the devices with [him/her]?

Average time co-using among all:	:03
Percent of children who spent some time co-using a mobile device with a parent:	9%

b. Was spent doing activities on the device that are good for your child's learning or growth or that teach some type of lesson?

Average time doing educational activities on a mobile device among all:	:05
Percent of children who did educational activities on a mobile device:	11%

22. [IF Q21=>0] If you remember, please list the names of the games, apps, videos, programs, or activities [CHILD] used on mobile devices yesterday that you consider to be good for [him/her] or that teach some type of lesson.
TEXT BOX

23. Here is a list of popular TV shows as well as some electronic games. If you are familiar with them, indicate how educational you think they are for children: very educational, somewhat educational, not too educational, not at all educational, not familiar enough with the show or game

	Very	Somewhat	Not too	Not at all	Not familiar enough
Sesame Street	56	36	3	1	3
Dora the Explorer	33	50	10	2	4
Mickey Mouse Clubhouse	21	42	20	3	13
SpongeBob SquarePants	2	7	24	61	6
Victorious	1	5	15	23	54
Angry Birds	1	6	22	41	28
Minecraft	2	12	16	22	47
Just Dance	1	9	21	24	43

Introductory text: The next set of questions concerns educational media, that is, products that teach a child some type of lesson, such as an academic or social skill, or are good for a child's learning or growth.

24. How often does [CHILD] do each of the following: several times a day (1), once a day (2), several times a week (3), once a week (4), several times a month (5), once a month (6), less than once a month (7), never (8). [KEEP A&B, C&D, AND E&F TOGETHER; ROTATE PAIRS]

a. [IF Q10 a =YES]Watch educational [MAKE "EDUCATIONAL" A ROLL-OVER WITH DEFINITION FOR Q 24a-f] television shows or DVDs
b. [If Q10 b or d = YES] Watch educational videos online on a computer or mobile device
c. [IF Q10 c =YES]Play educational video games on a console or handheld game player
d. [If Q 10 d = YES] Play educational games on a mobile device like a smartphone, iPod Touch, or tablet
e. [If Q 10 b = YES] Play educational games on the computer
f. [IF Q10 b or d =YES] Do other educational activities on a computer or handheld device like a smartphone or tablet (e.g., visit websites, use software, use apps)

	Several times a day	Once a day	Several times a week	Once a week	Several times a month	Once a month	Less than once a month	Never	Refused
Educational TV/DVDs	14	13	27	11	11	6	6	10	1
Educational online videos	3	4	12	9	12	6	15	36	1
Educational video games	3	3	11	7	10	5	11	49	1
Educational mobile games	5	4	17	9	10	5	8	42	*
Educational computer games	4	3	19	10	12	6	9	35	1
Other educational activities on computer or mobile device	5	5	18	10	11	7	11	32	1

[IF Q24a=1-4] Among those who use educational TV at least weekly (N=1086)
25. How much has [CHILD] learned about each of the following from watching educational TV shows or DVDs? A lot, some, only a little, nothing, not relevant for my child's age RANDOMIZE, HOLD ORDER FOR Q20-22

	A lot	Some	Only a little	Nothing	Not relevant
Math	21	45	25	4	4
Science	17	47	26	5	6
Reading or vocabulary	31	45	19	2	3
Social skills (cooperation, manners)	26	49	20	3	1
Cognitive skills (memory, problem solving)	31	46	19	2	1
Art or culture	15	43	29	7	4
Healthy habits	20	51	23	4	1

[IF Q24c=1-4] Among those who use educational video games at least weekly (N=434)
26. How much has [CHILD] learned about each of the following from playing educational video games on a console or handheld game player? A lot, some, only a little, nothing, not relevant for my child's age

	A lot	Some	Only a little	Nothing	Not relevant
Math	24	40	25	5	2
Science	16	35	26	16	3
Reading or vocabulary	24	48	20	3	2
Social skills (cooperation, manners)	14	36	32	12	2
Cognitive skills (memory, problem solving)	29	43	16	5	2
Art or culture	12	36	28	16	4
Healthy habits	14	36	25	19	2

[IF Q24e=1-4] Among those who use educational computer content at least weekly (N=629)
27. How much has [CHILD] learned about each of the following from educational activities on the computer (such as educational computer games, online videos, and websites)? A lot, some, only a little, nothing, not relevant for my child's age

	A lot	Some	Only a little	Nothing	Not relevant
Math	31	45	14	4	4
Science	16	45	23	10	5
Reading or vocabulary	30	46	17	2	2
Social skills (cooperation, manners)	14	37	33	12	1
Cognitive skills (memory, problem solving)	28	51	16	2	1
Art or culture	12	41	29	14	3
Healthy habits	15	40	31	11	2

[IF Q24d=1-4] Among those who use educational mobile content at least weekly (N=615)
28. How much has [CHILD] learned about each of the following from educational activities on mobile devices like smartphones or tablets (such as educational games, apps, and videos)? A lot, some, only a little, nothing, not relevant for my child's age

	A lot	Some	Only a little	Nothing/ Not relevant
Math	18	46	20	15
Science	8	39	31	20
Reading or vocabulary	21	52	17	8
Social skills (cooperation, manners)	11	37	34	15
Cognitive skills (memory, problem solving)	27	50	15	7
Art or culture	6	42	28	21
Healthy habits	9	38	32	19

[IF S6=b, c, or d] Among those who speak other than English (N=617)
29. How much, if at all, have media such as TV shows, computers, video games, or mobile devices helped [CHILD] learn English? A lot, somewhat, not too much, not at all, not relevant for my child's age, child doesn't use media

a. A lot	30%
b. Some	41%
c. Not too much	16%
d. Not at all	6%
e. Not relevant for my child's age	7%

[IF Q24a-f =1-4] Among those who use any type of educational media at least weekly (N=1295)
30. How do you and [CHILD] find the educational media [he/she] uses?
MARK UP TO 3 RESPONSES
RANDOMIZE

a. Recommendations or reviews (online, magazines, newspapers)	20%
b. Suggestions from teachers	40%
c. Suggestions from my friends or family	35%
d. [CHILD] comes across them [his/her] self	20%
e. [CHILD] hears about them from friends	20%
f. Ads for the products	12%
g. I come across them while browsing	50%
h. Other _____	6%

[IF Q 24 a, b, c, d, e, or f equals 5-8 (i.e., there is at least one type of educational media they use less than once a week] (N=1120)
31. Which of the following are reasons why [CHILD] doesn't use educational media more often than [he/she] already does? MARK ALL THAT APPLY; KEEP a AND b IN ORDER AND FIRST; RANDOMIZE THE REMAINDER

	A reason	Most important
a. [He/she] is too young	35%	19%
b. [He/she] is too old	2%	1%
c. There aren't enough high quality educational options available	12%	6%
d. I don't want [him/her] using too much screen media	49%	31%
e. There are better things to do for [his/her] development	33%	18%
f. [He/she] isn't interested in "educational" media	16%	11%
g. Media are mainly for relaxing and taking a break	14%	5%
h. Other [text box]	8%	6%

[IF MARKED MORE THAN ONE ITEM IN Q31]
32. Which is the most important reason [CHILD] doesn't use educational media more often?
MARK ONE RESPONSE ONLY [INSERT ITEMS FROM Q 27]

[IF Q24 a, b, c, d, e, or f=1-4] Among those who use educational media at least weekly (N=1295)
33. How often, if ever, does [CHILD] do the following: Often, sometimes, hardly ever, never
RANDOMIZE

	Often	Sometimes	Hardly ever	Never
Ask to do a project or activity inspired by educational media	18	43	24	15
Ask questions based on material in educational media	26	51	16	6
Talk about something he/she saw in educational media	38	49	9	3
Engage in imaginative play based on something he/she saw in educational media	34	45	14	7
Teach YOU something you didn't know, because of something he/she learned from educational media	17	42	25	15

Introductory text: This next section concerns all types of media — educational AND just for fun.

[IF Q10a, b, c or d=YES] Among those who ever use screen media (99%, N=1554)
34. When [CHILD] is using media — such as [INSERT TYPES OF MEDIA CHILD USES IN Q10] [watching TV], [playing video games], [using the computer], [using mobile devices like smartphones or tablets] — how often are each of the following people using media with [him/her]? Often, Sometimes, Only once in a while, Never
RANDOMIZE

	Often	Sometimes	Only once in a while	Never
You [IF MARRIED /PARTNERED: or your spouse/partner]	43	41	14	2
[IF Q4=a-h] Grandparents	7	25	32	35
[IFQ1=b, c, or d] Siblings	48	31	13	7
Friends	7	25	32	33
Other relatives (like aunts, uncles, cousins)	7	16	37	40
Nanny/babysitter	3	8	14	73

35. Which of the following are reasons you use media together with [CHILD] when you do?
RANDOMIZE; MARK ALL THAT APPLY

	A reason	Most important
a. It helps [him/her] get more benefit from it	41%	14%
b. I enjoy it	55%	16%
c. [He/she] asks me to	56%	16%
d. It's our "together time"	45%	18%
e. I happen to be in the same room	30%	6%
f. To make sure [he/she] doesn't break the equipment	16%	14%
g. To make sure [he/she] doesn't get exposed to inappropriate content	60%	27%

[IF MORE THAN ONE RESPONSE TO Q35]
36. Which is the main reason you use media together with [CHILD] when you do?
LIST ITEMS FROM Q35. MARK ONE ITEM ONLY

[IF Q34a=2-4] Only use media with their child "sometimes," "once in a while," or "never," N=853
37. Which of the following are reasons why you don't use media with [CHILD] more often?
MARK ALL THAT APPLY RANDOMIZE

	A reason	Main reason
a. It's better for [him/her] to do it independently	23%	12%
b. We have difficulty finding content we both enjoy	13%	8%
c. I need the time to get other things done	48%	28%
d. [He/she] doesn't want me to	10%	4%
e. I'm not home enough	16%	12%
f. I know my child is using safe content	33%	19%
g. [He/she] uses media in a different room from me	10%	5%
h. We have our own separate devices	13%	6%
i. Other:	5%	5%

[IF MORE THAN ONE RESPONSE TO Q37]
38. Which is the main reason you use media together with [CHILD] when you do?
LIST ITEMS FROM Q37. MARK ONE ITEM ONLY

39. During the 2012-2013 school year, was [CHILD] enrolled in:
MARK ALL THAT APPLY

a. Day care outside the home	10%
b. Preschool	13%
c. Head Start preschool	4%
d. School	53%
e. None of the above	22%

[IF Q39 a, b, c, or d= YES]
40. How often, if ever, does [CHILD's] [IF Q39=a: day-care provider] [IF Q39=b or c: preschool teacher] [IF Q39=d: teacher] assign, recommend, or suggest media for [CHILD] to use at home, such as computer games, TV shows, online videos, or websites? Often, sometimes, hardly ever, never

Often:	13%
Sometimes:	27%
Hardly ever:	26%
Never:	33%

41. Does [CHILD] have any special educational needs, such as attention deficit, dyslexia, autism, or some other special need?

Yes:	11%
No:	88%

Introductory text: These next questions are about you.

42. How often, if ever, do you personally use a computer, the Internet, or a mobile device to look up information or learn something new (look up a recipe, get health information, learn a language, take a class, do brain-training exercises, find the answer to a question):

a. Several times a day	49%
b. Once a day	11%
c. Several times a week	19%
d. Once a week	5%
e. Several times a month	6%
f. Once a month	2%
g. Less than once a month	4%
h. Never	4%

43. How often do you go online at each of the following locations: Often, sometimes, once in a while, never

	Often	Sometimes	Only once in a while	Never
Home computer	55	20	15	10
Work computer	32	9	8	50
Library computer	3	5	14	77
[IF Q7 d, e, or f = YES] On your smartphone or tablet (if own)	56	19	7	17
On someone else's smartphone or tablet	4	7	15	72
Computer at friend or relative's house	2	5	21	70
Computer at some other location	2	4	11	81

44. Which of the following best represents the amount of time you spend doing activities together with [CHILD] each week? "Activities" can include things like cooking, playing outside, riding bikes, doing arts and crafts, dancing, going to the park, playing sports, visiting the library, or playing games inside. Do not count time spent reading or using media together.

a. Over 15 hours a week	39%
b. Between 10-15 hours a week	19%
c. Between 5-10 hours a week	22%
d. Between 2-5 hours a week	15%
e. Between 0-2 hours a week	4%

45. Which of the following best represents the amount of time you spend using media together with [CHILD] each week? "Using media" can include watching TV, playing video games, using the computer, or doing something on a mobile device like a smartphone or tablet together.

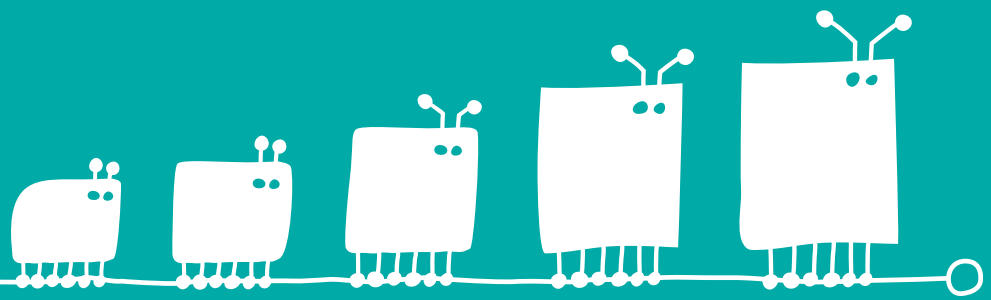
a. Over 15 hours a week	8%
b. Between 10-15 hours a week	12%
c. Between 5-10 hours a week	22%
d. Between 2-5 hours a week	31%
e. Between 0-2 hours a week	25%

46. Does [CHILD] participate in any of the following activities on a regular basis? Do not count time spent doing these activities at school.
MARK ALL THAT APPLY; RANDOMIZE; EXCEPT KEEP L LAST

a. Sports teams	25%
b. Youth development clubs (like Boy/Girl Scouts, 4H)	9%
c. Play groups	14%
d. After-school programs (like Boys and Girls Clubs of America, YMCA)	7%
e. Tutoring	4%
f. Technology clubs or classes (like computer, robotics)	2%
g. Performing arts classes or lessons (music, dance)	14%
h. Art classes	5%
i. Language classes	2%
j. Volunteering	5%
k. Other (SPECIFY _____)	7%
l. None of these	44%

47. Please mark how much you agree or disagree with each statement: strongly agree, somewhat agree, somewhat disagree, strongly disagree, not relevant for my child
RANDOMIZE

	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not relevant for my child
I would like more information from experts about how to find good TV shows, games, and websites that can support my child's learning.	20	35	20	17	6
I would like more information about how much TV, gaming, and computer time is good for my child's development.	17	32	24	18	7
I'd like more information on what age my child should be allowed to get a cell phone.	13	20	20	24	21
[Child] consumes more media than I would prefer	10	32	28	22	7
[Child] spends too much time using media instead of playing with friends or family	7	20	31	33	7
[Child] complains when I limit his/her media time	17	32	18	23	8



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VICTORIA RIDEOUT is president of VJR Consulting, specializing in media research, public interest media, and evaluation. She has directed numerous studies about media use among children and teens, including the decade-long Generation M study for the Kaiser Family Foundation, and the Zero to Eight series for Common Sense Media. She is the editor for Reviews and Commentaries at the Journal of Children and Media. Her research has been published in peer-reviewed journals such as Pediatrics and JAMA, and she has developed several high-profile media-based social change campaigns. Ms. Rideout received her B.A. from Harvard and her M.A. from the Maxwell School of Public Affairs at Syracuse. You can learn more about her work at www.vjrconsulting.com.

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About the Families and Media Project
The Families and Media (FAM) Project aims to unearth the potential that media may have for enriching family learning and routines. To accomplish these aims, members of the FAM Research Consortium are conducting a series of studies that link large-scale data with in-depth illustrations. The goals of this research are to stimulate the national conversation around the ways families use digital media together; inform policy on digital equity, family engagement, healthy development and education reform; inspire design of media and media-based interventions and curricula; and create resources for parents and educators to increase the amount and quality of interactions around media.

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