

Cyberchase



Parent Web Survey

Research conducted for Thirteen/WNET

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Executive Summary

To gain insight into the *Cyberchase* audience, a Web survey was conducted with parents through the PBS Web site during June and July, 2005. Participants were 94 parents of children who were current or past users of at least one *Cyberchase* media component (e.g., TV, Web site, outreach materials, etc.) Roughly equal numbers of boys and girls were represented, and one-third of the children were identified as minorities.

Parents were recruited through the *Cyberchase* Web site and online mailings, and were asked to complete the online survey. Rather than being representative of U.S. parents as a whole, participants in this survey are most likely dedicated and knowledgeable parents of *Cyberchase* viewers/users -- well suited to providing insight regarding uses of *Cyberchase*.

Overview of Results

Taken together, the data reinforce the high appeal and educational value of *Cyberchase*, and paint a portrait of the course through which children come to *Cyberchase* and stay with it over time.

Among the various media components of *Cyberchase*, the children represented in this survey were most likely to watch the *Cyberchase* television series (89%), followed by the Web site (44%). Approximately one-half used more than one type of *Cyberchase* media.

Their ages ranged widely, from less than 5 to greater than 12, with one-half aged seven or older. They tended to first view the television series at younger ages than the Web site, starting even before they reached the target age of the series. Ninety-six percent were currently using *Cyberchase* media in some form. Three-quarters of the children viewed *Cyberchase* at least three times a week, and slightly less than one-half (43%) visited the Web site at least twice a week.

Children's reasons for initial viewing of the television series centered primarily on aspects of its entertainment content rather than mathematics. Their reasons for continued loyalty to the series and Web site were also dominated by entertainment -- adventures, characters, and humor -- with the addition of mathematics/problem solving as well. Parents saw *Cyberchase*'s value in terms of its potential impact on their children's knowledge of and attitudes toward mathematics -- and, indeed, a large majority felt *Cyberchase* was successful in benefiting their children. Rather than attracting children who already had a strong interest in math, *Cyberchase* seems to draw a more general audience through its stories and characters. Its appealing context provides a window through which a wide range of children experience its mathematics content.

Finally, to gain insight into the persistence of *Cyberchase* viewing/using, parents were asked for the age at which their child first viewed the TV series and/or visited the Web site, as well as the age when they stopped watching (if, in fact, they had stopped). Of the

94 parents in this sample, 90 said that their children were still watching *Cyberchase*; only 4 had stopped viewing. The children were still watching *Cyberchase* more than 1.5 years (on average) after they began watching the TV series and more than 1.3 years (on average) after they started visiting the Web site. Since the series has only been on the air for three broadcast seasons, it may be too soon to establish truly accurate estimates of the duration of viewing. Nevertheless, the fact that so many children were still watching is encouraging in itself.

In all, then, this survey complements and extends the findings of past formative and summative research. Consistent with data from past studies, the parents' responses in this survey once again point to *Cyberchase*'s success in both entertaining and benefiting its audience.

Purpose

To gain insight into a variety of issues regarding the nature of the *Cyberchase* audience and their use of *Cyberchase*, a Web survey was conducted with parents through the PBS Web site during June and July, 2005. This report summarizes the findings of that survey.

Participants

Participants were 94 parents of children who were current or past users of at least one *Cyberchase* media component (e.g., TV, Web site, outreach materials, etc.) Parents were recruited among adult users of the *Cyberchase* Web site and through online *Cyberchase* mailings to educators, and were asked to complete an online survey about their children's uses of *Cyberchase* and its impact. (See the Appendix for a list of the survey questions.)

The resulting data should not be taken as representative of U.S. parents as a whole. Rather, the participants in this survey are probably fairly dedicated and knowledgeable parents of children who have been exposed to *Cyberchase* – precisely the parents who might be in the best position to lend insight into issues regarding use of *Cyberchase* materials.

Approximately 50% of the parents had more than one child who had watched *Cyberchase*. (The two most common responses were one child viewer [49%] or two viewers [29%]). When parents had more than one viewer in their homes, we asked them to think about just one of their children for the purpose of this survey. Thus, the present data represent information concerning 94 children.

Child demographics: The children represented in this survey were a fairly even mix of girls (43%) and boys (57%).

The following table shows the distribution of their ages:

Age	Percentage of Children (N=88)
Younger than 5	13%
Five	17%
Six	19%
Seven	14%
Eight	9%
Nine	10%
Ten	6%
Eleven	6%
Twelve	1%
Older than 12	6%

As this table demonstrates, the *Cyberchase* viewers/users in this survey extended far beyond *Cyberchase*'s target age range of 8-11. Significant numbers of older and younger children were using *Cyberchase* media as well.

Approximately 2/3 of the parents (68%) described their children as white, and 1/3 said their children were minorities: Asian (15%), African-American (7%), Latino (7%), or some other minority (often a mix of ethnic groups; 7%).

Parents' education: Most parents in this survey were fairly well educated; nearly ¾ had at least a college degree. The following table summarizes their responses:

Education	Percentage of Parents (N = 88)
Some high school	7%
High school graduate	8%
Some college	13%
College graduate	32%
Some graduate school	9%
Post-graduate degree	32%

Higher levels of education were found among non-minority parents than among minority parents.

Use

General: To participate in the survey, all of the parents had to have at least one child who had watched *Cyberchase* at some point, but they did not have to be current viewers. Nevertheless, 90% of the parents said their children currently used at least one form of *Cyberchase* medium (TV, online, CD-ROMs, books, and/or outreach materials).

Which *Cyberchase* media do they use?: By far, the *Cyberchase* medium that was used most often was television, followed by the Web. Approximately 20% used at least one of the other *Cyberchase* media (i.e., CD-ROMs, books, and/or outreach materials). The following table summarizes the parents' responses. (Note that parents could choose more than one medium, so the sum of the percentages is greater than 100%.)

<i>Cyberchase</i> Media	Percentage of Parents (N = 94)
TV series	89%
Web site	44%
CD-ROMs	14%
Books	14%
Outreach activities	12%

How many different *Cyberchase* media do they use?: Roughly one-half (46%) of the parents reported that their children use one form of *Cyberchase* media, and one-quarter (27%) said they used two. Of the parents who said that their children use one medium, all but one cited the television series. Of the parents whose children use two media, all but two said that their children use the television series and Web site.

Boys, older children, and non-minority children were more likely to use multiple media than their counterparts.

How often do they watch?: As the following table illustrates, 3/4 of the children (75%) typically watched the *Cyberchase* television series three or more times per week.

Number of Times Per Week	Percentage (N = 84)
Less than one	4%
One	6%
Two	16%
Three	23%
Four	12%
Five	20%
More than five	20%

These figures were consistent for boys and girls, for younger and older children, and for children of different ethnicities.

How often do they visit?: In contrast to the television series, most parents said that their children visited the *Cyberchase* Web site somewhat less often. Of the 41 children who had visited the site, most visited once per week or less (56%).

Number of Times Per Week	Percentage (N = 41)
Less than one	34%
One	22%
Two	7%
Three	15%
Four	2%
Five	7%
More than five	12%

Parents reported that their girls and minority children visited the site more often than boys and non-minority children. In addition, there was a marginally significant trend for older children to visit the site more often than younger children (except for children under five years old, several of whom visited the site two or three times per week).

How long did they stick with *Cyberchase*?: To gain insight into the persistence of *Cyberchase* viewing/using, parents were asked for the ages at which their children *first*

started watching the TV series and/or visiting the Web site, as well as the ages when they *stopped watching* (if, indeed, they had). The following table presents the ages at which they started watching the TV series and visiting the Web site:

Age	Began TV Series (N = 84)	Began Web Site (N = 41)
Younger than 5	43%	17%
Five	23%	15%
Six	14%	24%
Seven	6%	22%
Eight	6%	5%
Nine	2%	5%
Ten	2%	7%
Eleven	1%	0%
Twelve	0%	0%
Older than 12	2%	5%

As this table shows, children typically began using the *Cyberchase* television series at younger ages than the Web site. Indeed, most of these children began using both media even before they reached the target age group of 8-11.

Of the 94 parents in this sample, 90 said that their children were still watching *Cyberchase*; only 4 had stopped viewing. The children were still watching *Cyberchase* more than 1.5 years (on average) after they began watching the TV series and more than 1.3 years (on average) after they started visiting the Web site. Since the series has only been on the air for three broadcast seasons, it may be too soon to establish truly accurate estimates of the duration of viewing.

Reasons and Perceptions

We asked parents a series of questions about why their children watched *Cyberchase* or used the Web site, and which aspects they, the parents, valued most. The results indicate that most children came to *Cyberchase* (and continued to be loyal to it) because of its entertainment value, that many continued to watch because of its math and problem solving content, and that the vast majority of parents valued its focus on mathematics.

Why did they start watching?: To determine whether *Cyberchase* primarily attracts children who are already deeply interested in math, or a broader audience of children in general, we asked parents to tell us the primary reason why their children originally started watching *Cyberchase*. The following table summarizes their responses:

Started Watching Because:	Percentage (N = 84)
It looked fun/cool	39%
It was on TV at a convenient time	19%
He/she liked the problem solving	14%
He/she already liked math	8%
He/she liked science fiction/robots	7%

As this table illustrates, children tended to start watching *Cyberchase* because of its entertainment value, rather than its math content. (Several more parents cited its problem solving content, but it is not clear whether they intended “problem solving” in the sense of solving mysteries or overcoming obstacles, rather than mathematical problem solving.) Although children subsequently picked up the math content (as discussed below), it was not the principal driver that initially brought them to the series.

Why do they keep watching?: We also asked parents why their children continue to watch *Cyberchase* on television. Its entertainment content continued to predominate, with 88% of the parents pointing to at least one of the following factors: adventures, characters, mysteries, and/or humor. In addition, math and problem solving were also cited by many (42%) of the parents. (Note that parents could choose as many answers as they wanted, so the sum of the percentages is greater than 100%.)

Keep watching because of the:	Percentage
Adventures	60%
Characters	51%
Math/problem solving	42%
Mysteries	34%
Humor	28%

Why do they visit the Web site?: Similarly, although approximately 1/5 of the parents cited math as a reason why their children visit the *Cyberchase* Web site, the most popular response centered on entertainment – that is, playing games. (Again, parents could choose as many answers as they wanted, so the sum of the percentages is more than 100%.)

Visit Web site because of the:	Percentage
Games	37%
Fun	23%
Math/problem solving	22%
Stories	15%
Kids’ submissions to the <i>Cyberchase</i> club	11%

Value for parents: By contrast, from their *own* perspective as parents, two thirds (68%) of the respondents felt that the most important value of *Cyberchase* lies in its teaching and encouraging positive attitudes toward mathematics:

Most important value for parents	Percentage (N = 88)
Teaches my child math	43%
Helps my child feel good about math	25%
Non-violent TV programming	14%
Entertains my child	9%
Age-appropriate	3%

Benefits/Impact

There was broad agreement among the parents (88%) that their children had benefited from *Cyberchase* in some way. This was particularly true among more highly educated parents and, perhaps as a result, non-minority parents. (Recall that, in this sample, non-minority parents tended to be more highly educated than minority parents.)

When asked for examples of ways in which their children had benefited, parents offered responses that corresponded to nine aspects of mathematics: positive attitudes toward math, problem solving, fractions and decimals, arithmetic, geometry and patterns, measurement, general comments about “math” and/or *Cyberchase*, and mathematical vocabulary. (Note that some responses spanned more than one category, so the sum of the percentages is greater than 100%.)

Positive attitudes toward mathematics (26% of the parents) included mentions of the usefulness or applicability of math, children’s confidence in doing math, enjoyment of math, and interest in math. Sample responses included:

“She loves math and says that its because of Cyberchase,”

“She has related what she has learned in math at school to what she has seen on Cyberchase. She loves Cyberchase for Real. She sees the use of math in everyday life.”

“It has helped him look at math in a practical sense instead of just numbers on a page.”

Responses about **problem solving** (23%) included:

“His problem solving skills have increased. He looks for more than one way to solve a problem.”

“He has learned how to take the time to work out problems.”

“My child was beginning to do simple math at 3 and likes to problem solve along with the kids. He will continue to think about the problems in different contexts for days afterward and bring up different ways of doing the problem while on car trips.”

Responses about **fractions and decimals** (9%) included:

“Through the fun applications, the program has helped my children gain a more thorough grasp of decimals, multiplication, and fractions.”

“He is studying fractions in school (kindergarten) and the show on fractions helped him to visualize the concept and see fractions in different ways.”

Responses about **arithmetic** (9%) included:

“He understands concepts because they are presented in a fun, engaging way. He grasped multiplication, for example, because of the way it was presented -- a very different approach than his teacher might have taken.”

“He is (was) a kindergartener and from watching Cyberchase he understands negative numbers and can add and subtract with them appropriately. He understands the concept of fractions and decimals. The math skills he has are reinforced and he will watch Cyberchase.”

Responses about **geometry and patterns** (9%) included:

“She feels confident that it is preparing her for first grade. She also remembers the lessons--the other day she gave me a definition of the radius of a circle that came straight from Cyberchase.”

“She recognizes different math concepts and uses math vocabulary appropriately. A few nights ago, she arranged some scraps of fabric in a pattern and began telling us about tessellations.”

Responses about **measurement** (3%) included:

“It has helped her understand some of her math homework. We were able to remember what they did on Cyberchase to help her figure something out with measurements.”

General responses (26%) included:

“Helps with math skills.”

“She likes it.”

“His Cyberchase background will give him prior knowledge and will help him to understand new concepts which are introduced in math.”

And, finally, the parent who mentioned **mathematical vocabulary** (1%) said, *“He already knows the meaning of mathematical terms that are far above his age level.”*

Additional Comments

Near the end of the survey, parents were given an open-ended opportunity to share any others comments about *Cyberchase*. Virtually all of the comments were highly positive, with a few parents offering constructive critical suggestions.

General enjoyment (13%). The largest category of responses expressed how much they and their children enjoy *Cyberchase* in general:

“Great show !!!”

“Keep up the good work!”

“I’m glad I found this show for my kids.”

Entertainment/Education (11%). The next largest category praised *Cyberchase*’s blend of entertainment and education:

“I love the show because my kids enjoy watching the story lines, the characters and the problem solving and they are learning while they watch.”

“Hooray! What a wonderful show. You have gotten my kindergarten daughter interested in math without her even knowing it! She looks forward to this show. It is one of the few programs that she watches.”

New episodes please (10%). A similar number requested more new episodes and fewer repeats:

“More new episodes! The repeats do reinforce challenging concepts, but the kids get bored after the 4th or 5th time.”

Other comments

A few parents requested new *Cyberchase* features and/or products:

“We love it!!! Please come out with more merchandise and books!!!”

“How about a Cyberchase Leap Pad or something similar?”

“Please develop games on the website that 3-5 year olds can play.”

Several parents (some of whom were teachers) talked about *Cyberchase*'s potential in school, home schooling, or even remedial adult education:

“I think Cyberchase does a great [job] of illustrating/explaining math concepts. As a former teacher (I currently stay at home with my children), I appreciate your show, and if I were still in the classroom would probably use this show as a teaching aid.”

“Keep up the good work. The skills Cyberchase teaches are so fundamental to success in math and are taught in such a fun, easy way to understand. I teach remedial math at a junior college and have encouraged my students to watch this with their kids.”

Several parents remarked in perceptive ways on the impact of the series on their children:

“My child has benefited greatly from the program because her confidence in her ability to do math has increased.”

“Children enjoy it in preschool, before they understand much of the math, because of the humor and characters. Later, they enjoy it even more, when they understand enough about math to participate.”

“It is a wonderful cartoon. My fourth grade students (ages 9-10) love it. My 6 year old son loves it. AND my 2 year old daughter loves it. What a wide range of interest levels! ALL ages seem to benefit in a variety of ways.”

Of the 94 parents, only two requested specific changes -- requesting either that scripts avoid the word “stupid,” or that continued stories not end with Hacker apparently winning.

Overall, then, parents' comments expressed strong appreciation of *Cyberchase*'s quality, in terms of both appeal and educational value.

**Appendix:
Questions Asked in the Survey**

- 1) How many children in your home have watched *Cyberchase*?
0 1 2 3 4 more than 4

IF 0, TERMINATE: Today's survey is only relevant for families that have watched *Cyberchase*. But thanks for helping out. (GO TO Q20).

IF MORE THAN 1: For the rest of this survey, please think about just one of your children who watches (or has watched) *Cyberchase*.

- 2) How old is your child?
Younger than 5 5 6 7 8 9 10 11
12 older than 12

- 3) Is your child a:
Boy Girl

- 4) Does your child CURRENTLY do any of the following:
(You can check more than one answer if you want)
Watches the *Cyberchase* TV show
Uses the *Cyberchase* Web site
Plays with *Cyberchase* CD-ROMs
Reads *Cyberchase* books
Does *Cyberchase* activities in school or after-school program
None of the above

IF ANSWER TO Q4 INCLUDES TV:

- 5) How many times per week does your child usually watch *Cyberchase* on TV?
Less than 1 1 2 3 4 5 more than 5
- 6) How old was your child when he/she FIRST STARTED watching *Cyberchase*?
Younger than 5 5 6 7 8 9 10 11
12 older than 12
- 7) When your child FIRST STARTED watching *Cyberchase*, why did he/she start watching?
(Please check only one answer)
It looked fun/cool
He/she already liked math
It was on TV at a convenient time
He/she liked the problem solving
He/she liked science fiction/robots
Other: (OPEN-ENDED SPACE)

8) Why does (or did) your child KEEP WATCHING *Cyberchase* on TV?
(You can check more than one answer if you want)

- The characters
- The mysteries
- The math or problem solving
- The adventures
- The humor

Other: (OPEN-ENDED SPACE)

IF ANSWER TO Q4 DOES NOT INCLUDE TV:

9) How old was your child when he/she STOPPED watching *Cyberchase*?
Younger than 5 5 6 7 8 9 10 11 12
older than 12

IF ANSWER TO Q4 INCLUDES WEB:

10) How old was your child when he/she FIRST STARTED visiting the *Cyberchase* Web site?
Younger than 5 5 6 7 8 9 10 11
12 older than 12

11) Usually, how many times per week does your child visit the *Cyberchase* Web site?

- Less than 1 1 2 3 4 5 more than 5

12) Why does (or did) your child visit the *Cyberchase* Web site?
(You can check more than one answer if you want)

- The games
- The fun
- The math or problem solving
- The stories
- The stuff kids submit to the *Cyberchase* club
- Other: (OPEN-ENDED SPACE)

13) As a parent, what do YOU see as the most important value of *Cyberchase* for your child?

(Please check only one answer)

- It entertains my child
- It teaches my child math
- It helps my child feel good about math
- It is age-appropriate for my child
- It provides nonviolent television programming
- Other: (OPEN-ENDED SPACE)

14) Has your child benefited from *Cyberchase* in some way?

- Yes No

IF ANSWER TO Q14 IS YES:

15) Please give an example of how your child has benefited from *Cyberchase*:
(OPEN-ENDED)

16) Finally, we'd like to find out a little bit about you. What state do you live in?
(DROP-DOWN MENU OF STATES)

17) What is your own highest level of education?

- Some high school
- High school graduate
- Some college
- College graduate
- Some graduate school
- Post-graduate degree

18) OPTIONAL: How would you describe your child's ethnicity?

- African-American
- Asian
- Latino/Hispanic
- White non-Hispanic
- Other: _____

19) Would you like to make any other comments about *Cyberchase*?
(OPEN-ENDED)

20) Can we contact you in the future, to ask for your input as we continue to develop
Cyberchase in the future?
Yes No

IF ANSWER TO Q20 IS YES:

21) Please enter an e-mail address that we can you can use to contact you:
(*We will not share it with anyone else.*) (OPEN-ENDED)

Thanks very much for your help! Your answers will help us continue to make
Cyberchase as good as it can be for children across the country.