GOODMAN RESEARCH GROUP, INC.

Program Evaluation • Consultation • Market Research

Design Squad:
Website
Addendum
Report

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DESIGN SQUAD WEBSITE ADDENDUM REPORT

TABLE OF CONTENTS

INTRODUCTION

Design Squad is a PBS television series produced by WGBH for 9- to 12-year-olds. The overall goal of the program is to provide these youth with hands-on experiences and positive images of engineering through a television series; an outreach initiative including community engineering events and activities for afterschool groups; and an interactive website.

Goodman Research Group, Inc. (GRG), a research firm specializing in the evaluation of educational programs, services, and materials, conducted a comprehensive multi-method external evaluation of the first season of *Design Squad*. The primary evaluation goals were to:

1) assess the extent to which children's knowledge, interest, and awareness of engineering increased as a result of watching the *Design Squad* series,
2) document the implementation of community events over several months following the November 2006 Engineering Summit,
3) assess the effectiveness of the Afterschool Educators Guide with leaders and students, and
4) obtain formative data from children about their expectations for and impressions of the *Design Squad* website.

A full report on the first three evaluation components (i.e., the series, community events, and afterschool activities) was submitted to WGBH in fall 2007. This document is an addendum to that report, summarizing the findings from two focus groups about the *Design Squad* website.

METHODS

In late October and early November 2007, GRG conducted two focus groups with boys and girls ages 10 and 11 to obtain information about children's expectations about, opinions of, and preferences for the *Design Squad* website.

SAMPLE SELECTION

GRG recruited participants from Cambridge and Boston, MA by sending email invitations directly to families in our internal database of potential study participants, sending flyers to Cambridge public schools, and posting electronic flyers on a public school parent listserv. Parents contacted GRG to give consent for their 10 or 11 year-old child to participate in the focus group at GRG's Cambridge office. GRG sent each child a DVD with two *Design Squad* episodes and asked them to view the episodes and review the *Design Squad* website before attending the focus group. In all, 12 children participated (eight girls in the first group; two boys and two girls in the second group).

DATA COLLECTION

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GRG developed the focus group protocol in collaboration with the WGBH *Design Squad* website producer to ensure children would provide information that would be most useful as the web team modified the website for the program's second season. See Appendix for focus group protocol.

Each group session lasted approximately an hour and a half, during which children:
- reviewed the website as a group (i.e., projected on a screen during the group session),
- completed brief written surveys rating the appearance of the *Design Squad* website as well as their perceptions of the importance to include various elements and features on the site, and
- participated in a group discussion about their expectations for the site based on watching the program, their opinions and preferences for the various elements of the site, and suggestions for modifications to improve the site.

The focus groups were audio-taped with the permission of the students, and two GRG staff members took active notes during the sessions. All children received a pair of movie tickets after their participation in the study.

RESULTS

Findings from the focus group discussions are presented here. Early in the session, children shared some websites they visit regularly and described what they liked about those sites. Most commonly, children listed sites with interactive features including games, challenges that are difficult and make them think, and opportunities to share and communicate with friends via the Web. They explained that these types of activities made them feel "*kinda like you're in the website*."

Children prefer websites with bright colors and features that pop out and engage them. They enjoy sites with interactive games and opportunities to share and communicate with others.

Websites that typically attracted children had bright colors that "*pop out*" and appealing layouts that draw them in, and have information about the site features clearly marked. Websites considered "boring" were those with the same few games to play "*over and over,*" and those with too much text to read, whether it be long instructions for a game, or too much information to read without opportunities for interaction.

Throughout the discussion of the *Design Squad* website, children referred back to the website features they prefer in general. In the following sections, children's comments about the *Design Squad* website are summarized and presented by common themes and ideas mentioned. These are supplemented with comments about children's general website preferences, and representative quotes are integrated throughout.

EXPECTATIONS FOR THE *DESIGN SQUAD* WEBSITE

Before specific discussion about the *Design Squad* website, GRG conducted a Mind Map exercise where children described what they thought of, or would expect from, a website associated with a TV show. Responses focused on children's interest in being able to watch episodes of the TV show and play games related to the show, as well as interest in seeing bright and contrasting colors and shapes and seeing an overall look that corresponds with the TV program.

> *The looks of the website draw you to want to do it. If it looks boring you think it will be boring and you won't want to do it.*

> *Plain white background and black text doesn't make me want to look at it-really boring. If they can only do default colors, seems like they don't know much.*

> *I don't like flat websites. I like when everything looks almost as if it could be popping out or everything is really well drawn.*

Children also would expect to see background information about the show, including the program schedule, descriptions of episodes, other viewers' comments about the show, and background about the characters, including who they are and what they like to do for fun.

> *When I think of a TV website I think of things about the show like… what times it is going to be on and what channel and also things that other people had thought about it that they posted. There are lots of sites where people say what they thought about the show.*

> *Characters that are on the TV show, sometimes they describe them and their favorite sports.*

Children's expectations for the *Design Squad* website, in particular, matched those key characteristics. They perceived as strengths of the site the games, interactive viewing options, and promotion of the site via the TV show. Across both groups, six children had visited the website before watching the TV show, four visited the website after watching the show, and two did not visit the website prior to the focus group.

Children were quite pleased to be able to watch full Design Squad *episodes on the website.*

Most noted they expected to see at least some episodes and games on the site, and expected that the site would look similar to the TV show. After visiting the site, they were pleased not only to see the episodes online, but particularly to see that they "*worked.*" Supporting participants' strong interest in sharing information with friends, even at the focus group, one girl encouraged others to check out some of the episodes that she had watched on the website.

> *I was watching the show on TV and someone at the end had ten seconds to describe the website and they just said to go, so I did.*

It's nice that you can re-watch the episodes because some people might not be able to see an episode and want to watch it. And it worked! I usually can't play the videos on websites.

I would want to see all the episodes, like, what was the episode before and what happens after that?

I had a feeling that it was going to have the same background as the show. It does and that's cool.

Children felt strongly that games on the website should be related to the content of the TV show. Many were not able to locate the games on the *Design Squad* website, but were pleased to learn that games were included. A couple of the children had clicked on "String Thing" and realized it was an interactive game to create one's own music. One representative child commented that although he thought it "*was really cool*" he was surprised that "String Thing" was on the website since, in his opinion, music did not fit with the design theme.

Group participants expressed a strong interest in a variety of games that are clearly labeled and tied to specific episode content and design challenges.

Children expected to see a game that was directly related to a particular episode's design challenge. Overall, children agreed that having a variety of types of games to choose from, multiple games available at one time, and periodically adding new and different games to choose from would sustain their interest in the site.

They should make the games more clear and have more than one.

I was surprised that there wasn't a section on games.

You should probably have something different but not completely different, like a few of the same things but not all the same things. Like a pop quiz on some [episode] pages and a game for a different episode.

IMPRESSIONS OF THE *DESIGN SQUAD* WEBSITE

Overall Look of the Website

Generally, children's comments about the Website focused on the color scheme. Both boys and girls felt that the site should be more colorful, with brighter colors that contrast each other. Specifically, while they felt that a black background was too dark, they liked the idea of a dark colored background contrasted with bright colors for the different features. On the pages within the site, students commented on the appearance of metal in the background and they liked the "*ripped page look,*" particularly because those matched the feel of the TV show.

I think that the metal is there because they work in the shop and there is lot of metal there.

I think the metal is good too and I think that if it were a bubble it would pop or you would go into the bubble.

Instead of the wavy dark metal background it would be cool if it was half red and half blue to represent the teams.

Examining and commenting on each page of the website separately, (i.e., Homepage, Episodes, Meet the Cast, For Parents and Educators, Just for Engineers), children noted the Episodes page and the Homepage were most appealing and interesting to them. They found the pages intended for adults (For Parents and Educators; Just for Engineers) to be less appealing[1]. Rating their interest in each web page on a scale from 1 (*Not appealing, I would not be interested*) to 5 (*It looks great, I would check it out*), over 75% of the children gave both the Homepage and Episodes page a rating of 4 or higher, while over 65% rated the Parents and Educators page, and the Just for Engineers page a 3 or lower. See Table 1.

Table 1
Children's Ratings of Appeal and Interest

	Mean (Scale: 1-5)
Episodes Page	4.08
Homepage	4.00
For Parents Educators Page	3.25
Event Guide	3.17
Meet the Cast Page	2.92
Just for Engineers Page	2.92
Educator's Guide	2.83

N=12

Children found the Design Squad Homepage appealing and were interested enough by it to want to explore the site further. They would find it even more useful with additional labels, particularly labels for games associated with the episodes.

Through discussion following their written ratings, children described their impressions of each page and provided suggestions to increase their interest.

Homepage

On the Homepage, children were attracted particularly to the ability to scroll and navigate through the episode previews, and the "Watch Now" button. They liked that the Homepage had labels on the right side of the page to help navigate to other parts of the website, and they felt it would also be helpful to have a clearly labeled link to a "Games" page.

It's really cool how the photo and the words come in [on the episodes preview] and how some things are on the side [of the page].

The homepage is better than the other [pages] because it said things to do that were around it.

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[1] Rating the pages intended specifically for adults, children were asked to consider whether, based on the appearance of the page, they would encourage a parent or teacher to visit the website.

To increase interest, children suggested omitting the mailbag at the bottom of the screen, and moving the link to the games to the upper right corner of the website.

Episodes

The Episodes page generated the most enthusiastic responses from the children. They liked the options provided on this page and said that the episode preview pictures piqued their interest. Being able to see the creative episode titles added to their interest.

> *The picture was cool and it draws your attention to it (the picture). Also, just looking at the names of the episodes is cool.*

Some children suggested adding different colors to the page, and making the picture previews less boxy to enhance the appeal of this page. In keeping with their interest in clear labels and information, children suggested other ways to navigate and learn about the different episodes; these would help them choose which episodes to watch.

> *I would make different colors, maybe like when I was setting up the pictures ...I would have one picture in the middle instead of the picture on the left, and then have circles around it. Squares look more boring.*

> *On this page, the Episodes page, instead of having to scroll through and see all the pictures they could have a circle of pictures and it says what episode number it is and what it's called, then you click on it and it shows a small picture above it about it with all of the information. It would show up when you rolled over it.*

Feedback on Redesigned Episodes Page

Children found the Episodes page appealing, and were even more interested in the redesign. Particularly, children appreciated seeing even more information about the show on the new page design.

The WGBH web team redesigned this page after children's initial feedback and five children from the focus groups reviewed and commented on the new page. All five children preferred the re-design. They approved of the better use of color and the organization of the headings, the additional information about the episodes and what was happening in the picture, and the ability to see the bonus features up front, rather than at the bottom of the page.

Meet the Cast

On the Meet the Cast page, children appreciated the chance to learn more about the cast members and felt this was important and interesting information. Just over half of the children (n=7) indicated they found this page "*neither appealing nor unappealing,*" with an average rating of 2.9 out of 5. A few said they had been hesitant to visit the page when they reviewed the website at home because they worried it might include "*a boring video of someone talking in a chair.*"

> *It's cool that you can click on the cast members because you can find out more about the people you are watching on TV.*

> *I like that they show their faces.*

A few children suggested that pictures of the cast would be more interesting if they showed action shots "*like pictures of them sawing wood or doing something*" instead of only head shots. They found it valuable to see cast members explaining their approach to design challenges, and would be interested in seeing cast blogs or diaries, provided they were, "*Not like secret diaries because that would be rude*."

> *Video of the cast members talking about design is important, very important, because it's kind of interesting to see why they would pick to do that and what was going on in their head when they decided to do it.*

A few children noted that the current organization of information on the page was too crowded and was difficult to navigate.

> *When they show the cast it's all squishy and I think they should have more space and their name under, and when you click the name it shows background information.*

Feedback on Redesigned Meet the Cast Page

The five children who reviewed the redesigned page agreed the new look was better. They appreciated seeing all of the information about a cast member on the same page. It felt as though there was more information than on the initial design and, generally it was more interesting to look at. If anything new was to be added, children would still like to see more colors on the pages and more pictures of the cast in action.

For Parents and Educators and Just for Engineers

For the pages intended for use by adults (i.e., parents, educators, and engineers), mean ratings were 3.2 and 2.9 out of 5. Children noted that the pages lacked sufficient photos for them to decide whether and what to look at on the page. Students suggested adding colors and more pictures to attract adults who may wish to view the page.

> *For the pages, they might want to change for each one, so each page is different, like a different color.*

> *For some things if they put photos on it you could see what it looks like, like for the educators guide, to give you an idea of what to look at, make it look more interesting to click on, maybe add photos.*

During the groups, children shared their preferences for seeing more information all in one place on the cast pages. They preferred the redesigned page, which incorporated that suggestion and had a more interesting and colorful look.

The Just for Engineers page was kind of dull. There are no pictures or anything, just paragraphs and links. If you added more colors and pictures it would be more interesting to look at.

DESIGN SQUAD WEBSITE FEATURES

Most children were unaware of the bonus features at the bottom of each Episode page. When reviewing the website, they either did not scroll down to the bottom of the screen or did not click on elements that were not clearly labeled (i.e., children did not know what the feature would be). For example, one student expressed a desire to be able to read some facts about engineering; such information already exists in the bonus features for several of the episodes.

After the moderator showed children the bonus features during the group sessions, children said the features seemed hidden and poorly-labeled. They suggested placing more features at the top of the page. For example, a poll about which team should win a challenge or about what makes the best peanut butter could be placed directly adjacent to the relevant video, "*…because I don't think a lot of the people will scroll down.*"

I think most of the stuff on the website is hidden.

I didn't really know [the bonus features] were on the bottom, I just looked up top at all the episodes. I didn't think there would be something down there [at the bottom of the page]."

Overall, children liked the existing bonus features and they stressed the importance of having different types of features for each episode. For instance, some bonus features sections could have a game tailored to the theme of that episode, and others could have a quiz.

Boys and girls expressed slightly different preferences for what they were attracted to as they navigated through the site. While boys and girls were both interested in games and quizzes, girls were more interested in leaning about the relationships between the characters and said they would be curious enough to click on something even if they did not know what it was (i.e., was not clearly labeled). Boys were more interested in learning more about the specific activities the characters were working on and said they would be less likely to click on a feature if they did not know exactly what it was.

Important Site Features

The *Design Squad* web team was interested in children's preference for a variety of current and potentially new website features. Corresponding with website characteristics children enjoy, the elements considered most important for inclusion were interactive challenge opportunities and video of *Design Squad* episodes. Children rated a list of items using a scale of:
  1: (*I don't want this to be on the Design Squad website*),

2: (*It's OK if this is on the Design Squad website*), or
3: (*I definitely want this to be on the Design Squad website*).

Items that at least nine out of 12 (three quarters) of the children *definitely want* to see on the site included the following.

- Online games similar to what you've seen on the show
- On-line design studios (where you can build your own bike or create your own instrument by dragging elements into a field and putting them together using different tools)
- Video of all the TV episodes
- Photos of what each team built
- Photos of the team's final designed inventions with some text telling you more about the "final" product

Students expressed a desire to see more games, tied to specific episode challenges, on the website. They believed this would increase their interest in both playing the game and watching the TV episode. In keeping with their strong interest in interactivity, children provided some very specific ideas for games that would enhance their overall experience with *Design Squad.*

> *One game would be really cool if you had to invent something and they give you all these materials and you could design something. They could tell you the idea like they did in the show and you would get a person and they should make the person's real head and a little body and you could make your person buy stuff with a budget…you have a certain amount of material and you would have money and you could earn money and use a bank and take money from and use it and you had a certain amount of days to do something and then race it with someone else's.*

> *You could make your own character and then vs. someone else on a computer and theirs, [there would be] judges, and it says who won.*

Items considered *OK if it is* on the site, rated this way by six to eight out of 12 children each, included the following.

- A wall or space to post pictures or information about things you've designed at home or at the website to share with other viewers
- Information about what the cast members do for fun and at home
- Reading more about how you can use parts or machines used by the teams to make different things yourself
- Extra behind the scenes video clips of the cast working
- Information about how the cast members come up with their ideas
- Links to similar challenges you can try at home
- Photos of teams brainstorming
- Behind the scenes photos of the teams working on their product
- Cast favorite photos from the different challenges
- Links to other websites about engineering
- Reading a description of the different things each team tried when they were building the product

- Reading instructions on how to make something yourself that is like what they built on the show
- Design challenges you can do on your own, away from the computer
- Video of interviews with professional engineers
- Background information about the cast
- Cast blogs or diaries
- Examples of other designs made by professionals

The following were items rated as *I don't want this to be on the Design Squad website* from a few children each.

- Video hearing from engineers or designers about their careers and daily experiences (n=6 children)
- Video of a cast member talking about their design and the process they used (n=4 children)

Children in one of the groups viewed the "Make the Splash" Question & Answer interview during the group session. They liked the idea of it, but agreed it had too many words and they would rather see a video or face-to-face interview; however, if there were going to be descriptive narrative instead of a video interview, students would like to see no more than four lines of text for each question in the Q&A section.

PREFERENCES FOR VIDEO WATCHING

Currently, the website allows students to watch video of full episodes, one segment at a time; users can click on each segment in any order they choose. Children's preferences for viewing varied. Girls were interested in watching segments in order, and appreciated having the choice to watch one segment at a time and to pause or fast forward while viewing. Boys appreciated being able to watch a brief description of the challenge for a particular episode and would use that to decide whether or not to watch the whole episode or to move to a different one.

> *I think that you should have the whole episode available but sometimes you could have like little sections where you could watch some of it but you need the fast forward thing like if you wanted to see what was happening in the photo.* (Girl)

> I *would probably want to know what they have to build first and then I would want to like watch the whole episode. I watch the challenge and if it appeals to me I'd watch the episode and if it didn't I go to the next one.* (Boy)

Children enjoyed being able to view full episodes on the website and would like opportunities to share ideas and interact with other users after viewing.

A few children thought it would be nice to be able to stop the video before the judging, be able to vote on who they thought should win the challenge, and be able to see which team others voted for. Both boys and girls felt that the viewing space for the video should be larger, and suggested that a schedule should be

added to the Episodes page of when the episodes would re-run on television again.

Regarding activities they would like to be able to do after watching an episode, children's responses matched their interest in interacting and sharing with other website users. They would like to find a game or activity to do that was related to the episode, post a comment or question that would other web users could read, send the episode to a friend directly, or copy and paste the URL for the episode for a friend.

> *If I had any questions while I was watching the episode, like in my head, I would want to go to a bonus feature that shows like some things so that you understand it better. Like if you have a question you might be able to type it down and it would answer it*

TV AND WEB PROMOTION

Promoting the *Design Squad* website through the TV program was highly effective; most of the children who visited the website after viewing the program did so because of the prompt at the end of the episode. Children in the second focus group discussed promotion ideas further. They were divided on whether or not the website should be advertised as a "pop-up" on the TV show; most agreed that if it was to be included, it should be only at the end of the show to decrease distraction.

In general, children expressed minimal interest in learning more about the program sponsors. During the second group, children screened two promotional spots by Intel and asked them which they liked better and why. Children preferred the promo that featured a group of students creating and setting into motion a Rube-Goldberg contraption because they felt like it matched the theme of the show.

> *I like the first one better (Rube-Goldberg). It was better because it has like more an idea of what you would find on Design Squad. The other one just tells you that Intel sponsors it and says that young engineers are good at doing projects.*

> *I liked the first one better because it seems kind of more interesting than just showing high school and college kids working together- they were just kind of talking to each other while the narrator talked about Intel.*

CONCLUSIONS AND RECOMMENDATIONS

Based on children's comments across the two focus groups, we conclude that the *Design Squad* website currently meets the needs and interests of the target audience of users. Children felt the look of the website accurately matched the look of the program, and web features they would expect to see based on

program viewing were, in fact, on the site. Children's suggestions for improvement primarily included adding more games, and more opportunities for interaction, as well as some reorganization to fit more on a page, and more information about the website's existing elements.

Children's preferences for this website and for websites in general, lead GRG to make the following recommendations to the *Design Squad* web team.

Add brighter colors and more contrast to the existing pages.

Children liked that the color scheme and the look of the website matched the TV program. They suggested that the background be dark, but not black, and that some pages be red and blue, to match the team's colors. The web team should consider making certain pages, perhaps the cast pages, or certain pages associated with an episode in red and blue, while keeping the overall *Design Squad* color scheme and using contrasting colors that stand out and get children's attention.

Highlight and clearly label bonus features.

Most children did not scroll down on the various episode pages to see the bonus feature offered. It would be useful to place those features more prominently on the page where children will first look. These features provide the kinds of interactive options and information that children are interested in on a website. As long as children know what is there, they will continue to make use of the website.

Include a variety of games that relate to the different episodes and change them periodically.

Children are interested in games on a website, but will lose interest if they complete all the games available and then do not see new activities offered. If they see that new information, games, and interactive opportunities are on the website when they visit, they will be interested in checking back often.

Present information about engineering in a highly engaging format.

Children are interested in learning about engineering in a way that corresponds with the enthusiasm generated by the TV program. Video clips should be lively and not too long. Text should be brief and include photographs of professional engineers actively engaged in their work.

Overall, in this first season of the new program, the *Design Squad* website serves as a natural extension of the TV series and has successfully engaged children's interest in using both media interchangeably.

APPENDIX: FOCUS GROUP PROTOCOLS

Appendix L: Design Squad Website Focus Group Protocols

DESIGN SQUAD WEBSITE FOCUS GROUP GUIDE
10-23-07

Participant Introductions (3-5 minutes):

Have these written on a flip chart or chalkboard.
- Name
- Favorite thing to do when you have free time and you don't have any homework
Go around room and have each kid introduce themselves – the moderator does it too.

Let's go around the room, and each person please say your name, and your favorite thing to do when you have free time and you don't have any homework.

(Don't ask a/b age, grade, where they live)

Mind Map exercise: (5 to 7 minutes)
Have kids list things they think of when they see: "TV web site"
- jot down the words onto the easel as they say them. Write quickly and just get a bunch of things down on the paper.

To begin our discussion -- I have two words written on this paper in a circle. "**TV Website**" I'd like you to take a moment to think about what you think of when you see these words. When you think of a word or phrase, please just say it out loud. I'd like to hear at least one idea from all of you. I'll write down your ideas as you call them out.
    Probe: Who else has a word or phrase?
    Probe: Let's get 3 more ideas down.
    Probe: Any others?

General Website Usage and Preferences (10 minutes)
1. I'd like to start our discussion talking about some web sites you like. Think about websites you visit often. Let's go around the table and I'd like you each to share your favorite web site and what you like about it. It's OK to have the same favorite as someone else, and it's OK to have different favorites.
(Go around table and ask each to list a favorite site and what they like about it.)
        Probe: What do you like best about that site?
        Probe: What makes that a good web site?

2. What kinds of things do you like to do when you go to [*fill in website from previous responses*]?
        Probe: Who has ever submitted questions or an idea to the site? Can anyone tell us about a time they did that? What made you decide to do it? What happened?

Probe: Who has sent something to a friend through a website (like an e-card or game)? Tell me more about that.
Probe: When would you visit a website together with friends or family members?

3. We've heard some things that make a website interesting. What makes a boring website?
      Probe: What would make you not want to look at or stay for a long time at a web site?
      Probe: What makes that [*fill in negative word listed*]

4. What about the way a web site looks? How does that affect whether or not you'll use/look around on the site?
      Probe: What about that is appealing?
      Probe: What about that makes you decide not to stay on the site?

→ *Pass out rating sheets,*

<u>Ratings of Look and Feel: (5 minutes)</u>
In a few minutes we'll start talking about the Design Squad web site. Before we start, I'd like you to think about how the way something looks affects whether you're interested in checking it out or not. Please look at the paper in front of you. I'm going to show you a few things associated with Design Squad, and I want you to think about whether the way it looks DOES or DOES NOT make you interested in seeing more. For each one, take a look, and then rate it by circling a number from 1 to 5. 1 means, "It's not appealing. I would NOT be interested in seeing more" and 5 means "It looks great! I'd like to check it out and see more."

a) *Show front cover and an activity page from Event Guide and have kids rate it.*
b) *Show front cover and an activity page from Educator's Guide and have kits rate it.*
c) *Show (on screen) Design Squad homepage and have kids rate it.*
d) *Show Episodes page and have kids rate it.*
e) *Show Meet the Cast page and have kids rate it.*

The next two pages are a little different. They're meant for your parents or teachers or for engineers who might work with teachers or with students. When you look at these pages, think about how they look and whether you'd show them, or recommend them, to your parents or teachers to look at with you or on their own.

f) *Show Parent and Educator page and have kids rate it.*
g) *Show Just for Engineers page and have kids rate it.*

5. OK. Let's talk about your ratings. What did you notice about the <u>numbers you circled</u>?
      Listen for things like, "I liked xx because yyy."
      Probe: Were there any **patterns** in your ratings?
      Probe: How did you decide what you'd be interested to see more of and what you wouldn't?

6. Is there a certain impression you got when you looked at those pages?
> **Probe**: What words would you use to describe how those pages looked?
> **Probe**: Anyone have another word?

Design Squad Website (5 min)
→ *Confirm all of them have seen the DS series.*
→ *Confirm all of them have visited the DS website at least once before today.*

7. How many of you visited the Design Squad web site for the first time AFTER watching the program on TV? *(Show of hands)*

If not all:
8. How many of you visited the site for the first time BEFORE you watched the program? *(Show of hands)*

Only ask this if some raised their hand for the previous question:
9. Finally, how many of you watched the program for the first time WHILE you were on the web site? *(Show of hands)*

General: Describe the site (5 min)
10. If you had a friend you thought would like the Design Squad web site, what you tell them about it (to convince them to check it out)?
> **Probe**: Can we get a description from a few others?

General: Expectations/Impressions (5 min)
11. When you first visited the Design Squad website, what did you hope to find there?
> **Probe:** What made you decide to visit? (*refer back to their answer about whether they watched the program first, or visited the site first in follow up.)*

→ *Show homepage:*
12. Did anything you saw on the web site surprise you?
> **Probe:** Were there things you didn't expect to see but that you liked?
> **Probe:** Were there things you hoped to find, but didn't?

Specific Elements of the Design Squad Site: (5 min)
I'd like to discuss some of the different areas of the web site in more detail. First, please look at the list of items on your ratings sheet. Some of these items are on the Design Squad web site now, and some aren't. Please rate how important each one is to you for this web site.
> 1 = I don't want that on this Web site
> 2 = It's OK if that's on the web site (a little important)

3 = I definitely want that to be on the web site (very important)
→ *Give a few minutes for them to rate each item.*

Watching Video Online (10 min)
13. Where [would/did] you expect to find video on the Design Squad website?
(Listen for these responses, but don't provide them right away.)
- On the homepage, the first thing I see
- In a section called "Episodes"
- In a section called "The Show"
  Probe: What would make you look there first?
  Probe: Where else would (other) people look first?

14. When you visit the Design Squad website and watch the episodes online, would you rather watch the half hour straight through, watch it in segments in the same order as on the show, or watch segments in no particular order (watch parts you're interested in first)
      Probe: What would be your **preference** for watching?
      Probe: Others?

→ *Show Episodes page of site:*
15. Right now, you can watch a segment at a time. I'd like to hear how you have watched video segments on the web site the way it's set up now.
      Probe: Who watches all of the segments in order? Explain.
      Probe: Who watches all of the segments, in no particular order? Explain.
      Probe: Who watch only some segments? **Which ones**?

16. After you finish watching video of a Design Squad episode on the website, what's the next thing you'd like to do on the site?
      Probe: Tell us a little about that.
      Probe: What about some others?

Listen for these things, ask about some if not mentioned. In the form of: "
      What about going to a place where you could…
- See even more video of them building their project
- Find out more about what happened when they were making this show (like funny stories and bloopers)
- Find out more about the different tools they used
- See other inventions that are like the things that the teams built
- Vote on what team should have won the challenge
- Send a message to the cast to tell them what you thought of their designs
- Send a message to the cast asking questions about the experience
- Send a message to suggest a challenge for a future show
- Learn how to make something like what they made
- Learn more about the client that gave them the challenge

- Find out how you can learn more things from the show like how cameras work, how welding works, how sound works

Ideal DS Website (15-20 min)

17. The web site producers are considering making some changes to the site for the next season. If you could change the Design Squad website to make it more interesting to you, what would you <u>add</u>?

18. What would you <u>take away</u>?

19. How would you arrange/structure/set it up?
    Probe: Tell me more about that.
    Probe: What do others think?

Please look at your ratings of importance for parts of the Web site. Let's discuss each different section. I'd like to hear which areas are or aren't important to you, and what other ideas you have for things to have in each area, and different areas to include. First, let's talk about <u>video</u> on the site.

20. Which things on the list are people most interested in seeing on the site?
    Probe: What would be good about that?
    Probe: Other thoughts?
    Probe: What other types of video footage would you like to see?

21. Next, let's talk about the <u>cast</u>.
Which things on the list are people most interested in seeing on the site?
    Probe: What would be good about that?
    Probe: Other thoughts?
    Probe: What other types of information about the cast you would you like to see?
    Probe: What about <u>other ways</u> to show you the information (pictures, things to read, video, other?)

22. Next, let's discuss the <u>interactive parts</u> of the site.
Which things on the list are people most interested in seeing on the site?
    Probe: What would be good about that?
    Probe: Other thoughts?
    Probe: What other types of interactive options would you like to see?

23. Next let's talk about <u>links</u> to other sites.
Which things on the list are people most interested in seeing on the site?
    Probe: What would you do after following that type of link?
    Probe: Other thoughts?
    Probe: What other types of information would you like to be able to link to?

24. Now, let's talk about <u>information you can **read**</u> on the site:
Which things on the list are people most interested in seeing on the site?

Probe: What would be interesting about that?
Probe: Other thoughts?
Probe: What other types of information would you like to be able to **read**?
Probe: Would there be <u>another way</u> you'd like to see those types of information rather than reading it?

<u>**Wrap up (3-5 min)**</u>
25. We've talked a lot about the Design Squad web site today. Is there anything we missed?
Probe: Anything you'd like to say about the web site that you didn't get a chance to say yet?

Thank you.

DESIGN SQUAD WEBSITE FOCUS GROUP GUIDE
11-1-07

Participant Introductions (3-5 minutes):

Have these written on a flip chart or chalkboard.
 • Name
 • Favorite thing to do when you have free time and you don't have any homework
Go around room and have each kid introduce themselves – the moderator does it too.

Let's go around the room, and each person please say <u>your name,</u> and <u>your favorite thing to do when you have free time and you don't have any homework</u>.

(Don't ask a/b age, grade, where they live)

Mind Map exercise: (5 minutes)
Have kids list things they think of when they see: "TV web site"
- jot down the words onto the easel as they say them. Write quickly and just get a bunch of things down on the paper. THIS CAN BE MORE UN-STRUCTURED. Don't need to go around the table and hear from everyone.

To begin our discussion -- I have two words written on this paper in a circle. "**TV Website"** I'd like you to take a moment to think about what you think of when you see these words. When you think of a word or phrase, please just say it out loud. I'd like to hear at least one idea from all of you. I'll write down your ideas as you call them out.
    Probe: Who else has a word or phrase?
    Probe: Let's get 3 more ideas down.
    Probe: Any others?

Add in a probe about examples of favorites here – if it seems appropriate.

➔ *Pass out rating sheets,*

Ratings of Look and Feel: (3-5 minutes)
In a few minutes we'll start talking about the Design Squad web site. Before we start, I'd like you to think about how the way something looks affects whether you're interested in checking it out or not. Please look at the paper in front of you. I'm going to show you a few things associated with Design Squad, and I want you to think about whether the way it looks DOES or DOES NOT make you interested in seeing more. For each one, take a look, and then rate it by circling a number from 1 to 5. 1 means, "It's not appealing. I would NOT be interested in seeing more" and 5 means "It looks great! I'd like to check it out and see more."

➔ *Move pretty quickly through – especially for first 2 and last 2.*

→ The first two things are activity guides that adults would use to work with kids. We'll just look at these quickly, and then move on to pages of the Design Squad web site.

a) *Show front cover and an activity page from Event Guide and have kids rate it.*
b) *Show front cover and an activity page from Educator's Guide and have kits rate it.*
c) *Show (on screen) Design Squad homepage and have kids rate it.*
d) *Show Episodes page ** **slide all the way down to show Bonus Features*** and have kids rate it.*
e) *Show Meet the Cast page * **show whole page top to bottom*** and have kids rate it.*

The next two pages are a little different. They're meant for your parents or teachers or for engineers who might work with teachers or with students. When you look at these pages, think about how they look and whether you'd show them, or recommend them, to your parents or teachers to look at with you or on their own.

f) *Show Parent and Educator page and have kids rate it.*
g) *Show Just for Engineers page and have kids rate it.*

26. OK. Let's talk about your ratings. How did you decide what you'd be interested to see more of and what you wouldn't?

27. Is there a certain impression you got when you looked at those pages?
    Probe: What words would you use to describe how those pages looked?
    Probe: Anyone have another word?

General: Describe the site (3 min)
28. Before we go over a lot of the specific features of the Design Squad website, I'd like to hear some of you give a description of the site overall. Imagine you had a friend you thought would like the Design Squad web site, what would you tell them about it (to convince them to check it out)?
    Probe: Can we get a description from a couple others?

Design Squad Website (3 min: Move quickly through this section)
→ *Confirm all of them have seen the DS series.*
→ *Confirm all of them have visited the DS website at least once before today.*
Now I just have some quick questions on when you visited the Design Squad website for the FIRST TIME before or after watching the TV program. Please listen carefully to the sentences I will read and tell me which one best describes you. I will read all of the options one time, and the second time, please raise your hand for the option that fits you.

1) I visited the website for the first time AFTER I watched the show on TV.
2) I visited the website for the first time BEFORE I watched the show on TV.
3) I *watched the show* for the first time WHILE I was looking at the website.

General: Expectations/Impressions (7-10 min)
29. When you first visited the Design Squad website, what did you hope to find there?
> **Probe:** What made you decide to visit? (*refer back to their answer about whether they watched the program first, or visited the site first in follow up.*)

→ *Show homepage:*
30. Did anything you saw on the web site surprise you?
> **Probe:** Were there things you didn't expect to see but that you liked?
> **Probe:** Were there things you hoped to find, but didn't? *[If people mention things that ARE ON THE SITE, show them, and ask if anyone else found those things]*
>> **Probe:** Where should they be so people could find them more easily?

→ *Show Episodes page and slide down to Bonus Features:*
31. Who looked at these <u>Bonus Features</u> when they looked at this part of the website?
> *If anyone did:* **Probe:** What did you think about these?

If nobody did:

32. There are Bonus Features at the bottom of each episode page. Should the kinds of features you can access be the same for every episode?

→ *Point to a couple different Bonus Features, and ask what kids would expect to find based on the title of that Feature:*
33. Let's take a minute to look at them now. What do you think you'd see if you clicked on [this]? *(ask this about a few of the features)*
> **Probe:** How interested would you be in that?
> **Probe:** Anyone else?

Specific Elements of the Design Squad Site: (3-5 min)
I'd like to discuss some of the different areas of the web site in more detail. First, please look at the list of items on your ratings sheet. Some of these items are on the Design Squad web site now, and some aren't. Please rate how important each one is to you for this web site.
> 1 = I don't want that on this Web site
> 2 = It's OK if that's on the web site (a little important)
> 3 = I definitely want that to be on the web site (very important)

→ *Give a few minutes for them to rate each item.*

<u>Watching Video Online (7-10 min)</u>

34. Where [would/did] you expect to find video on the Design Squad website?
(Listen for these responses, but don't provide them right away.)
- On the homepage, the first thing I see
- In a section called "Episodes"
- In a section called "The Show"
   Probe: What would make you look there first?
   Probe: Where else would (other) people look first?

→ *Show (top of the) Episodes page of site:*

35. Right now, you can watch a segment of each Design Squad Episode at a time. What would be your preference for how to watch Design Squad episodes online?
   Probe: Is that how you watched it when you went to the site?
   Probe: Who watches all of the segments in order? Explain.
   Probe: Who watches all of the segments, in no particular order? Explain.
   Probe: Who watch only some segments? **Which ones**?

36. After you finish watching video of a Design Squad episode on the website, what's the next thing you'd like to do on the site?
   Probe: Tell us a little about that.
   Probe: What about some others?

→ *Slide down to the Bonus Features part again, and ask about some of those. Listen for the following things, ask about some if not mentioned. In the form of:* "

   What about going to a place where you could…
   - See even more video of them building their project
   - Find out more about what happened when they were making this show (like funny stories and bloopers)
   - Find out more about the different tools they used
   - See other inventions that are like the things that the teams built
   - Vote on what team should have won the challenge
   - Send a message to the cast to tell them what you thought of their designs
   - Send a message to the cast asking questions about the experience
   - Send a message to suggest a challenge for a future show
   - Learn how to make something like what they made
   - Learn more about the client that gave them the challenge
   - Find out how you can learn more things from the show like how cameras work, how welding works, how sound works

37. How interested would be in VOTING on things while you're on the web site?
   Probe: What kinds of things would you like to vote on? *(Get a few different responses form kids)*
   Probe: When would be the best time to be able to click on a poll like that? Best place on the web site?

<u>Ideal DS Website (15-20 min)</u>

38. The web site producers are considering making some changes to the site for the next season. If you could change the Design Squad website to make it more interesting to you, what would you <u>add</u>?

39. What would you <u>take away</u>?

40. How would you arrange/structure/set it up?
    Probe: Tell me more about that.
    Probe: What do others think?

Please look at your ratings of importance for parts of the Web site. Let's discuss each different section. I'd like to hear which areas are or aren't important to you, and what other ideas you have for things to have in each area, and different areas to include.

First, let's talk about <u>video</u> on the site. There are several different places that have lots of different types of video clips.

→ *Show Cast page at bottom where there are clips of the auditions and creating the set. Show the Episodes page TOP AND BOTTOM. Point out a few of the video clips that aren't segments from the show.*

41. Which things on the list are people most interested in seeing on the site?
    Probe: What would be good about that?
    Probe: Other thoughts?
    Probe: What other types of video footage would you like to see (anywhere on the site)?

42. Next, let's talk about the <u>cast</u>. I'll show you a few of the features that were on the list.
→ *On Cast page, click on a person and click on their photos. On Episodes page, click on a "Blue Team Process" and a "Drawing Board" from Bonus Features section.*
Which things on the list are people most interested in seeing on the site?
    Probe: What would be good about that?
    Probe: Other thoughts?
    Probe: What other types of information about the cast you would you like to see?
    Probe: What about <u>other ways</u> to show you the information (pictures, things to read, video, other?)

43. Next, let's discuss the <u>interactive parts</u> of the site. I'll show you a few of the ones that were on the list.
→ *Show/click on a "Quiz" and a "Design Challenge" from Bonus Features section.*
Which things on the list are people most interested in seeing on the site?
    Probe: What would be good about that?
    Probe: Other thoughts?
    Probe: What other types of interactive options would you like to see?

44. How would you feel about an option to work on team, on the web, to design something?
> **Probe:** How many people should be on a team?
> **Probe:** Are there certain things that would be better to work on by yourself instead of on a team? Tell me more about that.

45. Next let's talk about <u>links</u> to other sites. I'll show you a few of the ones that were on the list.
→ *Show/click on a "Link Up" and a "Build it yourself" from Bonus Features section.*
Which things on the list are people most interested in seeing on the site?
> **Probe:** What would you do after following that type of link?
> **Probe:** Other thoughts?
> **Probe:** What other types of information would you like to be able to link to?

46. Now, let's talk about <u>information you can **read**</u> on the site: I'll show you a few things from the list.
→ *Click on a few different formats: E.g., in the Pumped episode, there's a video of an engineer, and there's a Q & A to read "Making a Splash."*
Which things on the list are people most interested in seeing on the site?
> **Probe:** What would be interesting about that?
> **Probe:** What other types of information would you like to be able to **read**?
> **Probe:** Are there **<u>other ways</u>** you'd like to see those types of information rather than reading it?

General Website Usage and Preferences (5 minutes)
47. We've discussed a lot about the Design Squad web site, now I'd like talk a little about some other web sites you like. Think about websites you visit often. I'd like to hear about your favorite web sites and what you like about those sites. It's OK to have the same favorite as someone else, and it's OK to have different favorites.
> **Probe:** What do you like best about that site?
> **Probe:** What kinds of things do you like to do when you go to [*fill in website from previous responses*]? *Probe for interacting with others types of behaviors.*
> **Probe:** What makes that a good web site?

48. We've heard some things that make a website interesting. What makes a boring website?
> **Probe**: What would make you not want to look at or stay for a long time at a web site?
> **Probe**: What makes that [*fill in negative word listed*]

Wrap up (5 min)
49. We're just about done, but before we stop, I have just a few quick things to show you and ask about. These two clips are promotions for the Design Squad show. Please watch each one, and tell me which you prefer, and why.

50. This next question is about promotion too. How many people would like to see something about the website pop up on the TV screen while you're watching Design Squad? It might be telling you something like, "To find out more about how to make your own [*machine*], go to the Design Squad website.
Probe: Other thoughts about that?

51. Finally, is there anything else you'd like to say about the web site that you didn't get a chance to say yet?

Thank you.

Design Squad Website Rating Sheet

When prompted please rate the look of each item is by circling a number from
1 (Not appealing! I would not be interested) to 5 (It looks great! I would check it out).

Event Guide:				
Not appealing! I would not be interested 1	2	3	4	It looks great! I would check it out 5

Educator's Guide:				
Not appealing! I would not be interested 1	2	3	4	It looks great! I would check it out 5

Design Squad Web Site Homepage:				
Not appealing! I would not be interested 1	2	3	4	It looks great! I would check it out 5

Design Squad "Episodes" page:				
Not appealing! I would not be interested 1	2	3	4	It looks great! I would check it out 5

Design Squad "Meet the Cast" page:				
Not appealing! I would not be interested 1	2	3	4	It looks great! I would check it out 5

Design Squad Web site "Parents and Educators" page:				
Not appealing! I would not recommend it 1	2	3	4	It looks great! I would recommend it. 5

Design Squad Web site "Just For Engineers" page:				
Not appealing! I would not recommend it 1	2	3	4	It looks great! I would recommend it. 5

Items for the Website

1 = I don't want this to be on the Design Squad website
2 = It's OK if this is on the Design Squad website (a little important)
3 = I definitely want this to be on the Design Squad website (very important)

Video	
	Video of all the TV episodes
	Extra behind the scenes video clips of the cast working
	Video of a cast member talking about their design and the process they used
	Interviews with professional engineers
	Hearing from engineers or designers about their careers and daily experiences
Pictures	
	Photos of the teams brainstorming
	Photos of what each team built
	Behind the scene photos of the teams working on their product
	Photos of the team's final designed inventions with some text telling you more about the "final" product
	Cast favorite photos from the different challenges
Cast	
	Background information about the cast
	Cast blogs or diaries
	Information about what the cast members do for fun and at home
	Information about how the cast members come up with their ideas
Interactives	
	Online games similar to what you've seen on the show
	Design challenges you can do on your own, away from the computer
	On-line design studios (where you can build your own bike or create your own instrument by dragging elements into a field and putting them together using different tools)
	A wall/space to post pictures or information about things you've designed at home or at your Design squad to share with other viewers
	Quizzes
Links to other sites	
	Links to similar challenges you can try at home
	Links to other websites about engineering
Things to read	
	Reading a description of the different things each team tried when they were building the product
	Reading instructions on how to make something yourself that is like what they built on the show
	Reading more about how you can use parts or machines used by the teams to make different things yourself
	Examples of other designs made by professionals

Follow-Up Phone Interview Questions: Revised Web Pages

Thank you for spending a little more time to talk with me about the *Design Squad* website. After you told us some of your ideas to make the website even better in our focus group a few weeks ago, we told the people who made the site, and they've made some changes based on your ideas. The images we sent you yesterday are what they've done so far, they will make a few more changes before these are done. I'd like to hear what you think about the new images so far.

What was the first thing you noticed about these new page designs?

Think about what the show looked like on TV. How much do these new images have the same "FEELING" as the show?

Let's talk about Image 1, the Challenge on the page where you can watch *Design Squad* episodes.
- Do you think the design looks better now or was it better the way it looked before?
    (If they don't remember, encourage them to click on the link to compare the "old" version).
    - What makes [*whichever one they said*] more appealing to you?

- Does anything seem like its missing?
    - Is there something else that should be on this page?

Now, let's talk about Image 2, a page where you can learn about the cast members.
- Do you think the design looks better now or was it better the way it looked before?
    (If they don't remember, encourage them to click on the link to compare the "old" version).
    - What makes [*whichever one they said*] more appealing to you?

- Does anything seem like its missing?
    - Is there something else that should be on this page?

Do either of these new pages have "too much" of anything?
    - Too much text? Too many pictures? Too many colors? Etc.

In general, if the website looked like this (instead of how it looked before) do you think that girls would like it more, or boys would like it more, or both boys and girls would like it about the same?

Thank you for sharing your ideas with me again today.