A Report on the Technological Enhancements Project Evaluation:

Deepening early learning experiences through technology

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EDC

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Executive Summary

Context for the Study: Education Development Center's Multi-Part Evaluation

As part of the *Ready to Learn* Initiative, Education Development Center, Inc. (EDC), was charged with addressing the evaluation of Technological Enhancements for the outreach efforts of three producers: Out of the Blue's Super WHY*!* Technology Add-On; Sesame Workshop's The Electric Company School's Initiative Curriculum; and WordWorld's eBook Library.

Overview

The report presents information about each of the properties, provides logic models describing each program's components and expected outcomes, describes evaluation methods for data collection and analysis, discusses findings for individual properties, presents a discussion of findings across properties, and finally offers recommendations to further the use of technological enhancements to increase the reach of media products targeting early literacy skills.

Methods:

Researchers collected data from multiple sources to inform the evaluation, including print and Web-based documents; interviews with teachers, parents, and property producers; site visits that included observations of adults and children interacting with each evaluated property; and online surveys.

Qualitative data analysis methods were used to review, code and analyze the range of data collected. Print and web-based material was reviewed and catalogued; interview data were transcribed, entered into Atlas.ti, a qualitative data analysis tool, and coded; observations were reviewed and analyzed for common themes as well as property-specific themes; and survey data were analyzed through generation of response frequencies and review and coding of responses to open-ended questions.

Research Questions

The evaluation addressed three central research questions:
- Do the supplemental materials or activities address a gap or missing link in the overall dissemination and communication plan of the product, filling a void that would otherwise go unmet by existing products and services?
- Do the supplemental materials meet the needs of the end user (caregiver, teacher, or child) in a way that provides a novel/innovative/valued experience?

- Do the supplemental materials alter the interactions between caregivers and young children with respect to early literacy experiences?

Technological Enhancements

Out of the Blue's Super WHY! Technology Add-On

Out of the Blue Enterprises developed an online games extension that built on their existing Super WHY! Summer Reading Camp. The camps provide access to literacy-oriented games, hands-on activities, video viewing that is linked to early literacy skill activities, and computer games that reinforce early literacy skills**.** The computer games introduce practice targeting a different early reading skill each day. Each game focuses on the particular literacy "power" possessed by one of the four Super WHY! Characters including: alphabet power, spelling power, word power, and reading power.

Overall, responses from camp facilitators were positive with regard to the content, design, and implementation of the Super WHY! Summer Reading Camp with technology add-on. The program was described as engaging, fun, colorful and stimulating for campers, and also offered a chance to engage with technology. Some facilitators stated that the program included games that were too challenging for their campers and others suggested that games requiring more basic early literacy skills were more popular choices for participating children.

Recommendations for this property include:
- Provide a digital tour of the curriculum materials so that teachers can have access, on their own time, to a guided introduction to the program, its characters and the underlying literacy goals.
- Provide teachers with a set of the Super WHY! games on a CD so that teachers do not have to rely on internet access to fully implement the curriculum.

Sesame Workshop's The Electric Company School's Initiative Curriculum

Sesame Workshop's The Electric Company partnered with Success for All to develop a hands-on curriculum using whiteboard technology. The result is a curriculum that allows teachers to deliver Success for All phoneme lessons using videos and games that borrow characters from The Electric Company story line.

Teachers were generally very satisfied with The Electric Company School's Initiative Curriculum, reporting that it was engaging, fun, and encouraged student participation in activities that are otherwise unappealing or less interesting. Some teachers indicated that the pacing of lessons could be faster, and others indicated that there was not always a good match between student grade level and content, and between the Success for All lesson and The Electric Company School's Initiative Curriculum.

Recommendations for this property include:

- Review pacing of the games, which was too slow for some teachers, and also the overall time requirement of 45 minutes for full implementation. Both the game time and overall program time could be shortened.
- Provide more opportunities for interaction during the games, and have games reflect student interaction, such as providing different scores based on different playing levels.

WordWorld's eBook Library

WordWorld's eBook is an electronic book that provides audio and animation as part of the book reading experience. When viewed the eBook will "read" the text out loud, highlight each word as it is read, and encourage page exploration through animations that demonstrate how letters come together to form words.

Parents were positive about their experience reading an eBook with their child, and indicated that the pacing of the highlighted words, the visual images and the animations were all positive qualities of the book. Children also enjoyed and were engaged by the eBook. Parents who were Spanish speaking indicated they would like to know what the story is about and would benefit from having the story text available in Spanish, which would allow them to help their children better understand the English words incorporated into the book.

Recommendations for this property include:
- Provide additional common elements of book design by including a title page, author and illustrator to support children's exposure to these aspects of book reading.
- Provide a Caregiver Guide that is more simplified and offers suggestions for caregivers that can be implemented individually or as a series of activities.
- Provide a Spanish language version of the Caregiver Guide.
- Provide the book's text in Spanish to support parent's understanding of the story so that they can help their children with comprehension.

Discussion and General Recommendations

Discussion

Despite the substantial differences in the goals and methods of the three supplemental technological enhancement efforts, some elements are common to all three. The most prominent of these is the focus producers had on supporting literacy skills for underserved children and the adults who care for them, and the use of technology to reach out to these communities in innovative ways. Although the producers used unique technologies to address different child and adult populations (from age 3 through 8; and teachers or parents), all sought to ensure that every child had access to experiences that would support early literacy learning. All three also took advantage of current and innovative technology to support this goal. If we return to the three central

evaluation questions when considering the outcome of all three properties, we must consider some other common findings. Our analysis of data from each property indicate that each property produced positive outcomes in response to one or more of the study's three central research questions.

Question one asked whether the supplemental materials or activities address a gap or missing link in dissemination and communication that would otherwise go unmet by existing products and services. Of the three properties, two appeared to meet this need: the Super WHY! Summer Reading Camp with technology add-on and The Electric Company School's Initiative Curriculum both address specific gaps raised by teachers and identified by producers as they sought to develop their technological enhancements. There was no evidence of a gap or need filled by the development of an eBook Library CD; however, it should be noted that parents said they thought having an eBook on a CD would encourage a child to use it more often because the simple act of seeing the CD would be a reminder.

Question two asked whether the supplemental materials meet the needs of the end user in a way that provides a novel experience. All three properties were able to address this issue in ways that reflect their individual goals. The Super WHY! Summer Reading Camp games provided young children with engaging experiences that supported practice of early reading skills. Although not all games were considered academically appropriate for all children, camp facilitators were able to support their children's use of at least two of the four games and indicated that children benefited from the experience and would not have had the same experience without the games. The Electric Company School's Initiative Curriculum exposed students to phoneme practice in ways that were engaging, visual, and fun, and provided some relief from what was perceived as an otherwise less visually interesting curriculum. Lastly, the WordWorld eBook provided children and their caregivers with a reading experience that could be modified to meet their needs (with or without reading aloud) and encouraged parent engagement in the early reading experiences of young children.

Question three asked whether the supplemental materials alter the interactions between caregivers and young children with respect to early literacy experiences. In this case we suggest that only the eBook provided some evidence of altering interactions between a child and caregiver because of the engaging animations, story line, and visual and auditory information about letters, sounds, and the words they make. However, we also suggest that the other properties have the potential to alter informal interactions between adults and students because of their engaging nature and their use of humor, physical activity, and singing to encourage participation. Both The Electric Company/Success for All video segments and the games included in the Super WHY! Summer Reading Camp seek to engage children in age-appropriate activities such as singing, or game-play in ways that reinforce a specific concept (such as the alphabet or a phonic element). Once children are engaged they are more focused on a task, more likely to retain the information that is presented and are more likely to receive positive

reinforcement from a teacher (who may not provide as much positive reinforcement in a setting where children are not engaged or focused). In this way the technological enhancements may support altered interactions between adults and children in different settings.

Exploring innovative uses of technology to achieve the goals laid out by the three properties included in this study is a highly challenging undertaking, but it also can be a rewarding process. Technology has provided a broad range of new approaches to reaching out to children, parents, and educators, but exploring which of these approaches is best suited to a particular audience or task will require a considerable amount of experimentation. Efforts such as the Technological Enhancements project will provide guidance and leadership for future work in this area.

Recommendations

Ongoing support for the development of programs and outreach efforts that include digital tools requires a willingness to experiment with new and existing technologies, and with innovative approaches to integrating media into learning experiences for young children and their care-providers. Undertaking such a development process may be out of the ordinary for many traditional public media producers. Yet fostering an environment where this kind of development is encouraged and supported must take place if new ways of reaching new and existing audiences are to be discovered. We recommend that CPB and its partners continue supporting this kind of innovation and exploration by integrating the following into their current and future programs:

- Support communication across producers and public media stations experimenting with digital tools in a range of learning contexts. In this way different properties may be able to build on the experiences of others, which may lead to opportunities for collaboration across properties and will contribute to a shared culture of innovation and iterative development.

- Conduct ongoing needs assessments of target audiences. Although technology may offer innovative ways to reach out to those whom public media is seeking to support (e.g., families, teachers, and learners), access to different kinds of technology is still limited for some populations. Ongoing needs assessment can help producers and stations determine which audiences have access to which technologies, and which audiences are benefiting from newly introduced technological enhancements.

- Recognize that developing new and innovative uses of technology requires room for experimentation and for mistakes. Providing opportunities for producers to experiment and to recognize and learn from mistakes may help to create an environment where innovation leads to new ways of reaching out to children who are most in need of support.

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Introduction

This report contains findings of the evaluation of the Technological Enhancements project conducted by Education Development Center, Inc. (EDC), for the Corporation for Public Broadcasting (CPB). The study examines the role that added technology in the form of whiteboards, computer games, and electronic books has played in increasing the outreach efforts and early learning impact of three properties working under the *Ready to Learn* umbrella of programming. Each of the three properties— Out of the Blue's Super WHY! Technology Add-On, Sesame Workshop's The Electric Company School's Initiative Curriculum and WordWorld's eBook Library —builds on the potential of technology in different ways, yet all seek to further the early literacy learning experiences of young children and engage digital tools to accomplish this goal.

In fall 2009, CPB sought to further the outreach efforts of some of its grantees that were well positioned to build on existing programming using technology. Three producers were selected to receive supplemental funding for the development of technological enhancements that would further the reach of their existing programs and materials. These grantees began modification and development of their products in late 2009, and rolled out their products to target audiences beginning in May of 2010, with the final roll-out taking place in September of 2010. Our evaluation coincided with the development activities. Scheduling of start dates for technological enhancements was delayed by some months for each of the properties; however, researchers included all properties in the evaluation and worked with individual producers to accommodate shifts in scheduled implementation.

CPB and its partners, including Out of the Blue Enterprises, Sesame Workshop, and WordWorld, have demonstrated a commitment to developing programming that addresses the educational needs of children from traditionally underserved communities. In recent years, through support from the *Ready to Learn* Initiative, these producers have developed and delivered programming to children, parents, and educators that targets a range of early learning skills identified by the National Reading Panel (2000) as central to learning how to read. In doing so they have built on current and new technologies and have drawn on recent research about the skill components necessary for reading acquisition. The Supplemental Outreach funding provided added resources for producers to further explore the possibilities of reaching out to target audiences, or reaching further to extend depth of knowledge or experience with a target skill or task.

Educators are acutely aware of the challenges inherent in reaching underserved and academically at-risk populations, yet they are also aware of the consequences of not

reaching out and exploring every avenue of access available to make this effort successful.

A substantial amount of research has demonstrated that acquiring early literacy skills is a crucial step in the life of a young child. Children who are not proficient in their early elementary grades in such key early skills as letter naming, identifying letter sounds, and understanding basic concepts of print (Lepola, Poskiparta, Laakkonen, & Niemi, 2005; Roth, Speece, & Cooper, 2002) and reading comprehension (Kendeou, van den Broek, White, & Lynch, 2009; Storch & Whitehurst, 2002; Whitehurst & Lonigan, 1998) struggle in later grades as readers. They often do not catch up to their peers (Juel, 1988; Torgesen, 2004) and are more likely to experience reading difficulties as they progress through school (Snow, Burns, & Griffin, 1998). Reaching out to these children early and often may make the difference between academic struggle and academic success. Identifying alternate pathways to reach all students with engaging content that supports literacy learning has been a challenge to educators across the country.

Technology often has been identified as a viable tool to support learning in general and literacy learning in particular, and several studies have noted its potential to support learning among young children (Linebarger, Taylor-Piotrowski, & Vaala, 2007) and to support targeted early literacy skillls in particular (Penuell et al., 2009). Digital media can increase student engagement (Clements, 2002; Clements, Nastasi, & Swaminathan, 1993), may increase attention to narrative (Crawley et al., 2002), and can support social interactions when engaged in jointly (Dugan, Stevens, & Mehus, 2010). Digital media show particular promise when they are engaged within a setting that includes adult or peer guidance (Collins, Sobol, & Westby, 1981; Lemish & Rice, 1986; Linebarger & Walker, 2005; Nathanson, 2001a, 2001b; Reiser, Tessmer, & Phelps, 1984; Reiser, Williamson, & Suzuki, 1988; St. Peters, Huston, & Wright, 1989).

The three programs identified in this report all build on these findings and extend them to different student and adult populations. They also draw on different elements of available digital tools to achieve a particular goal. The potential for technology to transform and extend the reach, with respect to depth and breadth, is explored in these three programs and provides an opportunity for educators to push the boundaries of common practice in supporting young children as they develop essential literacy skills.

This report describes the goals of each property with regard to its added technological components, and then addresses three central research questions:
1. Do the supplemental materials or activities address a gap or missing link in the overall dissemination and communication plan of the product, filling a void that would otherwise go unmet by existing products and services?
2. Do the supplemental materials meet the needs of the end user (caregiver, teacher, or child) in a way that provides a novel/innovative/valued experience?
3. Do the supplemental materials alter the interactions between caregivers and young children with respect to early literacy experiences?

We have organized findings in this report so that they are first discussed for each property. We then discuss cross-property themes. The final section offers recommendations for individual properties as well as overall programming with regard to the role of technology to support outreach, and early learning goals.

Program Descriptions

Below we provide program descriptions of each property in this study. These descriptions were drawn from print and Web-based documents collected by research staff, and provided by producers and their staff from Out of the Blue, The Electric Company, and WordWorld. These descriptions provide a context for the findings presented later and also helped to inform the development of interview, observation, and survey protocols. In addition to preparing these descriptions, researchers developed logic models for each property based on materials and information available. We updated the models with new information as data were collected to present an external view of each program's inputs, activities, and intended outcomes.

Out of the Blue's Super WHY! Summer Reading Camp Technology Add-On

Why, Super WHY! character, drawn by a Volunteer Universal Pre-Kindergarten student in Florida.

Out of the Blue Enterprises developed an online games extension that built on its existing Super WHY! Summer Reading Camp. The camps target children age 4 to 5 who attend a weeklong summer session and provide access to literacy-oriented games, hands-on activities, video viewing that is linked to early literacy skill activities, and computer games that reinforce early literacy skills.

The camp facilitators are educators who are classroom teachers during the school year. Camp facilitators receive detailed curriculum materials that lay out the components of the camp day, the materials needed to complete activities, and the language they can use to introduce the video segments, computer games, and hands-on activities to their campers.

Background

Before it received funding for technological enhancements, Super WHY! Summer Reading Camp included all elements of the current program except for inclusion of computer games: video clips, hands-on activities, and games for children that built on themes addressed in the video segments.

Description of the Technological Enhancement

Out of the Blue worked with a pre-kindergarten teacher to develop a modified Super WHY! Summer Reading Camp curriculum that incorporated five Super WHY! computer games in ways that support target skills introduced through Super WHY! characters. All available on the PBS KIDS website, one Super WHY! computer game was incorporated into each day's activity plan, with a camp facilitator either guiding the mouse while a group of children play, or children playing the game by themselves in groups of two or three. Children spend approximately 10 minutes each day playing these computer games.

Target Setting and Literacy Topics Addressed

The Super WHY! Summer Reading Camp with Technology Add-On program is designed for implementation in a classroom setting for pre-kindergarten children. Classrooms must have access to a computer that has Internet access and a sound card and speakers so that children can play the program's computer games, and a video monitor so they can watch Super WHY! episodes as a group activity. In addition, the program requires that camp facilitators have access to a printer (for printing materials such as bingo cards), and to basic art and craft materials to support the activities in the program's curriculum document.

The Super WHY! Summer Reading Camp program builds on a single Super WHY! episode which is introduced and viewed each day. The episode introduces each of the four Super WHY! characters and the reading skill that they possess: letter identification; rhyming and decoding; spelling and encoding; and reading and comprehension. In the episode the characters attempt to use these different skills to solve a problem. The computer games introduced each day target one of these four skills; for example, on Day 2, campers practice rhyming with Wonder Red's Freeze Dance Rhyming game and practice making word families. The Camp Facilitators guide outlines specific skills: for example, identifying letters such as W, O, L, F and making a word family with "all" including Ball, Call, Hall, etc.

Dissemination: User Access to the Product

Public television stations disseminate the Super WHY! Summer Reading Camp program. Within each station an education or outreach coordinator makes contact with local schools and offers the program to them. For example, in one location the outreach coordinator established a relationship with a local Title I coordinator and this resulted in the participation of multiple classrooms. Eighty-six classrooms across the country implemented the Super WHY! Summer Reading Camp with Technology Add-On program in the summer of 2010.
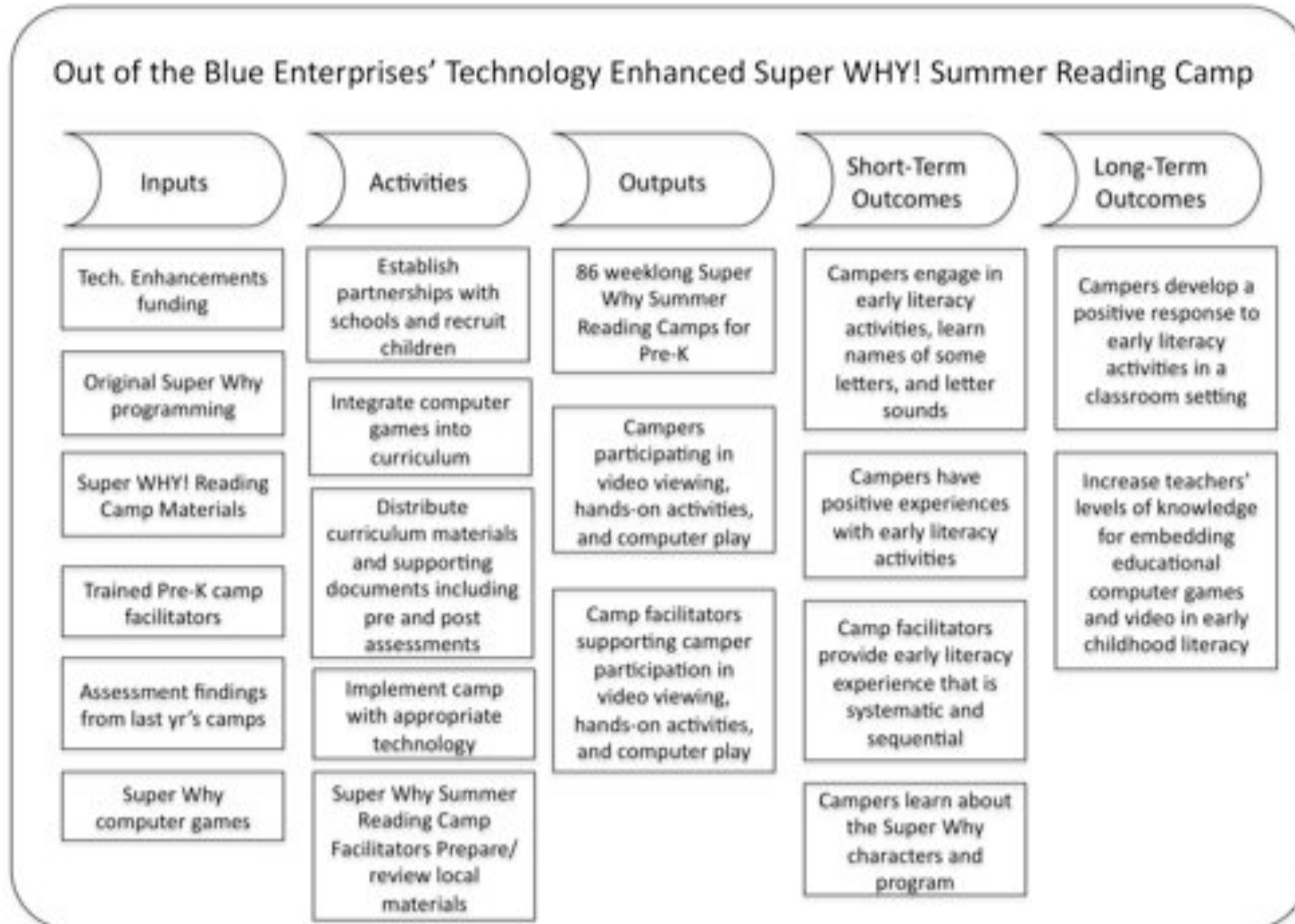
Product Training

There is no specified training for this program; materials are designed to support facilitator implementation without the need of any additional guidance. The program provides a highly detailed curriculum guide that is scripted and offers facilitators a clear schedule integrating all activities throughout the day. These materials are designed to provide a complete implementation package that any camp facilitator could implement regardless of background or experience.

Target Audience: Description of End Users

The target audience for the Super WHY! Summer Reading Camp with Technology Add-On is pre-kindergarten students living in low-income households. One document provided by the program's producer indicates that campers should be school-ready pre-kindergarten students. Settings must also have access to functioning technology (as mentioned above) and must include facilitators who are somewhat familiar with computer games for children or are willing to try using games in a classroom setting. The camp program also requires some time and funding resources to prepare a classroom for the weeklong session.

Below we show a logic model of the program's inputs, activities, outputs and intended short- and long-term outcomes (see Figure 1).

Figure 1: Logic model for Super WHY! Summer Reading Camp with Technology Add-On.

Out of the Blue Enterprises' Technology Enhanced Super WHY! Summer Reading Camp

Inputs	Activities	Outputs	Short-Term Outcomes	Long-Term Outcomes
Tech. Enhancements funding	Establish partnerships with schools and recruit children	86 weeklong Super Why Summer Reading Camps for Pre-K	Campers engage in early literacy activities, learn names of some letters, and letter sounds	Campers develop a positive response to early literacy activities in a classroom setting
Original Super Why programming	Integrate computer games into curriculum	Campers participating in video viewing, hands-on activities, and computer play	Campers have positive experiences with early literacy activities	Increase teachers' levels of knowledge for embedding educational computer games and video in early childhood literacy
Super WHY! Reading Camp Materials	Distribute curriculum materials and supporting documents including pre and post assessments	Camp facilitators supporting camper participation in video viewing, hands-on activities, and computer play	Camp facilitators provide early literacy experience that is systematic and sequential	
Trained Pre-K camp facilitators	Implement camp with appropriate technology			
Assessment findings from last yr's camps	Super Why Summer Reading Camp Facilitators Prepare/ review local materials		Campers learn about the Super Why characters and program	
Super Why computer games				

Sesame Workshop's The Electric Company School's Initiative Curriculum

Screen shot from The Electric Company website.

Sesame Workshop's The Electric Company (TEC) partnered with Success for All (SFA) to develop a hands-on curriculum using whiteboard technology. The result is a set of curricula that allows teachers to deliver SFA phoneme lessons using videos and games that borrow characters from TEC story line.

Target Setting and Literacy Topics Addressed

The Electric Company School's Initiative Curriculum uses SFA's Fast Track Phonics lessons infused with TEC content, and allows teachers to integrate media and games as they build students' skills in letter-sound correspondence (phonemic awareness) and word-level reading and spelling. The target setting for TEC School's Initiative Curriculum is a classroom equipped with interactive whiteboard technology where students (grades 1 and 2) are being taught phoneme concepts. The outreach model provides curriculum materials to 24 teachers who have been trained in the Fast Track Phonics program.

Dissemination: User Access to the Product

In participating classrooms TEC School's Initiative Curriculum was distributed on a CD and installed on the teacher's computer. The computer, desktop or laptop, was connected to the classroom's projector and interactive whiteboard, such as a Promethean or Smartboard product. The interactive whiteboard technology allows teachers to interact with media by viewing videos or playing games. Although the interactive whiteboard technology is the intended platform for interacting with and delivering the TEC/SFA content, teachers can also use the computer's mouse to execute the content without touching the whiteboard interface. The whiteboard technology allows for the presentation of material to an entire classroom full of students and supports large-group instruction more than the use of single computers. TEC School's Initiative Curriculum does not rely on the Internet; rather lessons are made accessible

online for teachers in case of problems with the program's CD. This option also allows teachers to access the material from home for planning and lesson preparation.

Product Training

All participating teachers receive training in the use of TEC School's Initiative Curriculum from an SFA reading coach with the support of a Sesame Workshop curriculum specialist. Trainings generally take place in classrooms equipped with a laptop, projector, and interactive whiteboard technology. The trainings highlight the alignment between TEC videos, games, and SFA lessons and include modeling good practices for teachers, such as how to organize game play and manage group viewing of TEC videos.

A goal of the training is to provide teachers with instructional support in structuring and scheduling their Fast Track Phonics lesson plans with TEC School's Initiative Curriculum, which requires 45 minutes for full implementation of the day's lesson. Generally, all SFA schools are required to implement a 90-minute literacy period, and TEC producers expect TEC School's Initiative Curriculum to be delivered during that time.

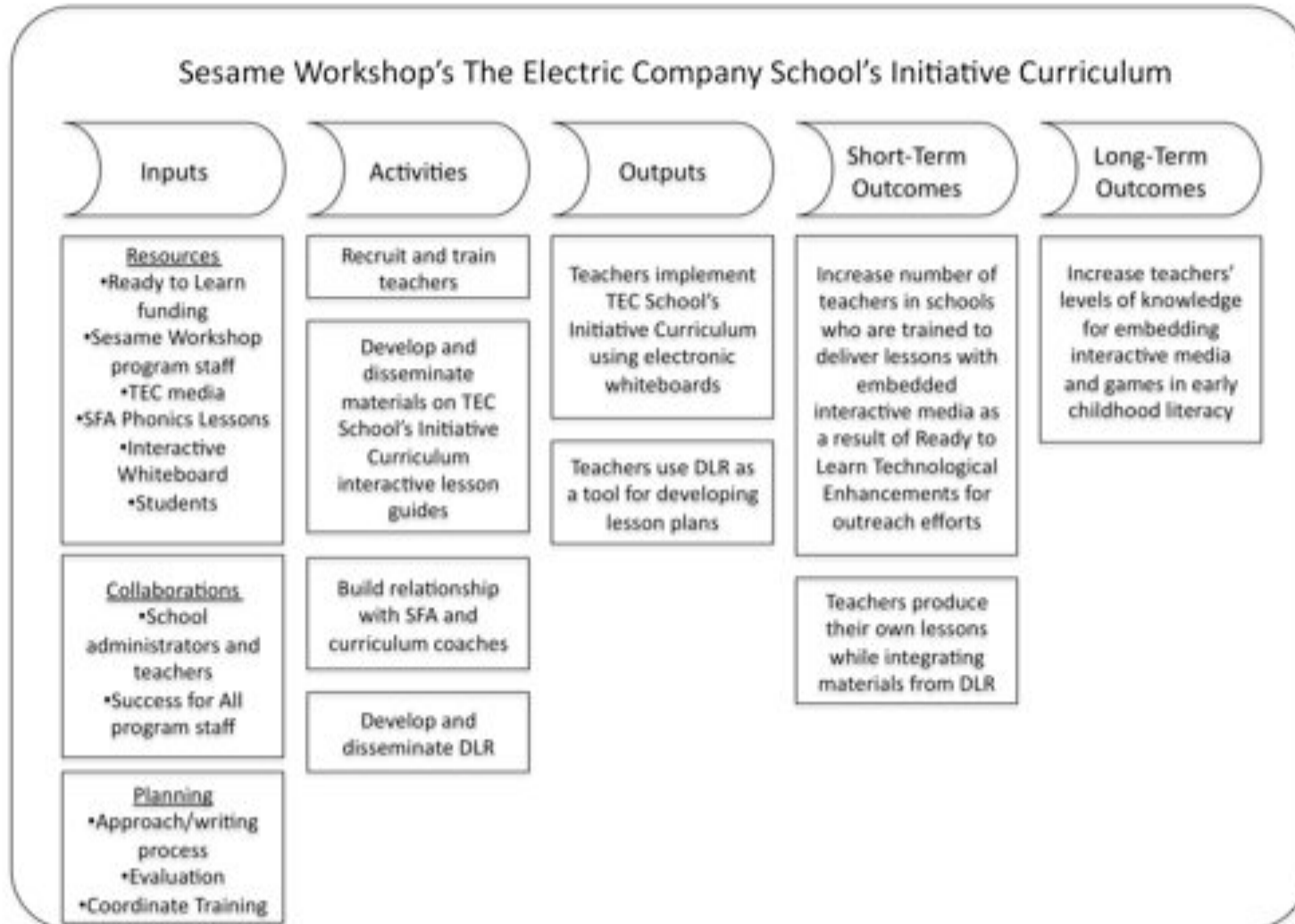## Target Audience: Description of End Users

The end users of TEC School's Initiative Curriculum fall into two groups: teachers and students. Teachers who implement TEC School's Initiative Curriculum should be experienced users of the SFA program and familiar with teaching literacy during the daily 90-minute literacy block. These teachers will deliver TEC School's Initiative Curriculum to their students during this period for 45 minutes.

Additional Resources

Sesame Workshop also developed the Digital Literacy Resource (DLR), an online curriculum database made available through an independent link provided to teachers. Teachers locate lesson plans, depending on their literacy interests and access to digital and print materials, to use as an accompaniment to their lessons or as additional homework activities. Although the DLR contains all the material from TEC School's Initiative Curriculum, as well as additional literacy tools, it is presented in a database format rather than the more interactive format used for TEC School's Initiative Curriculum.

Below we show a logic model of the curriculum's inputs, activities, outputs, and intended short- and long-term outcomes (see Figure 2).

Logic Model: Figure 2, The Electric Company / Success for All

Sesame Workshop's The Electric Company School's Initiative Curriculum

Inputs	Activities	Outputs	Short-Term Outcomes	Long-Term Outcomes
Resources •Ready to Learn funding •Sesame Workshop program staff •TEC media •SFA Phonics Lessons •Interactive Whiteboard •Students	Recruit and train teachers	Teachers implement TEC School's Initiative Curriculum using electronic whiteboards	Increase number of teachers in schools who are trained to deliver lessons with embedded interactive media as a result of Ready to Learn Technological Enhancements for outreach efforts	Increase teachers' levels of knowledge for embedding interactive media and games in early childhood literacy
	Develop and disseminate materials on TEC School's Initiative Curriculum interactive lesson guides	Teachers use DLR as a tool for developing lesson plans		
Collaborations •School administrators and teachers •Success for All program staff	Build relationship with SFA and curriculum coaches		Teachers produce their own lessons while integrating materials from DLR	
Planning •Approach/writing process •Evaluation •Coordinate Training	Develop and disseminate DLR			

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WordWorld's eBook Library

Screen shot from the Totally Terrific Duck eBook on the WordWorld website.

WordWorld's eBook is an electronic book that provides audio and animation as part of the book reading experience. When viewed the eBook will "read" the text out loud, highlight each word as it is read, and encourage page exploration through animations that demonstrate letters coming together to form words.

Background

WordWorld is an animated children's television show on PBS. The show is set in a three-dimensional world full of letters and words, where characters called WordFriends have adventures while solving problems. In each episode WordFriends look for letters and spell words. Letters "morph" together to depict their meaning. For example, the letters M-U-G in the word *MUG* will push together into the shape of an actual mug. This type of "word building" is the main educational focus of the program, as it illustrates the connection between letters, words, and meaning. The objects, scenery items, and characters in the show are all made from the letters that spell them. Currently five eBooks are available on the WordWorld website: www.wordworld.com.

Description of the Technological Enhancement

The eBook Library technological enhancements and outreach plan aims to provide an enhanced format that presents the pedagogical goals of the television series more interactively and on additional platforms such as CD ROMs and smart phones. Producers intended the new eBook to be a richer overall experience for the user than the original eBook format. The new book is longer and follows a more in-depth story line. It aims to offer the reader a more interactive and playful experience, with expanded options for animation and word-building opportunities, audio, and text narration. The new eBooks include additions to the interactive activities and games that the original eBooks introduced. Enhanced visual graphics give the user a more engaging and exciting experience. Additional elements will make the new eBook easier for young children to navigate through and read. For example, when the user scrolls over a "hot

spot" on the screen, the pointing finger is enlarged, signaling to select that spot to see an animation.

Target Setting and Literacy Topics Addressed

The eBook Library stories are intended to foster a love of language, words, and story telling in children by making the reading experience more fun. The eBook Library stories have silly characters, animations that involve letters and words, and rhymes that help children make connections and build an understanding of letters, sounds, and words. The educational goals of the books focus on important pre-literacy skills identified by the National Reading Panel. In addition to the word-building focus the eBook Library pinpoints vocabulary, phonics, and phonemic awareness skills. One strategy the books use to reach these goals is repetition. Throughout a book, words, phonemes, and sounds are repeated to help the young user internalize these new skills. The books also introduce rhymes to enhance phonemic awareness and increase reading success.

Users can click "hot spots" throughout the books to hear a word read out loud or see an animation. All text on the page is a hot spot, as well as some pictures. If a child chooses to read the book independently, without narration, he or she may click any unfamiliar word to hear the word read out loud. A child may also click on certain objects or characters to initiate animation. In addition, the words on the screen are highlighted as they are read, supporting important early reading skills like one-to-one correspondence and tracking.

Woven into an eBook are opportunities for children to interact with the story. When doing these activities the child chooses the letters to "build a word" that is in the story. Children use a mouse to click on letters spread around the page of the eBook. If a child does not click on a letter within a few seconds, the letters will automatically move to form the word. Once one letter is chosen, the others "pulse" on the screen making them more visible to the young user. When the word is completely formed the narrator pronounces the word slowly, enunciating each of the different sounds in the word.

At the end of the eBook another interactive game reviews a skill introduced in the story.

Dissemination: User Access to the Product

The eBook Library will be disseminated to educators, children, and caregivers through different platforms. They will be available online at websites www.wordworld.com and www.pbskids.org, where they can be accessed on demand by a single click and read over and over again. The eBook Library and caregiver guides will be distributed on a CD, with help from a variety of partner organizations such as First Book and Head Start, which serve low-income children and families. And children and caregivers will receive the CDs at home through HIPPY (Home Instruction for Parents of Preschool Youngsters) and the Parent-Child Home Program, both of which send service providers directly into homes to work with children and parents. Lastly, an iPhone/iPad application is in

development and will allow the interactive books to be downloaded and read on a mobile, hand-held device such as a smartphone.

Product Training

Each eBook includes a Caregiver Guide that highlights vocabulary words and letters introduced in the story; suggests possible questions to ask a child before, during, and after reading the story; and provides extension activities and ideas for adults to help children make connections between the text and their own lives.

Target Audience: Description of End Users

Like the *WordWorld* television series, the eBook was developed for an audience of three- to six-year-old children. A child can choose to read the eBook with an adult, have the book "read" to them with a voice-over narration, or mute the sound and read the book independently. To navigate through the book, users click pulsing arrows at the bottom of the page to "turn the page" forward or backward in the story. When navigating across the page with the cursor, an enlarged duck wing signals a hot spot to the child who can click on that spot to activate it.

It is also the intent of this technological enhancement outreach project to involve caregivers in the shared eBook reading experience. The Caregiver Guide provides suggestions and ideas for adults to maximize a child's learning while reading the eBook. For example, in *Totally Terrific Duck*, Duck borrows clothes from his friends so he can look terrific in a photograph. The Caregiver Guide suggests that adults encourage children to talk about a time when a friend helped them out with something. These text-to-self connections are a common goal for early literacy.

Logic Model

Below we show a logic model of the product's inputs, activities, outputs, and intended short- and long-term goals (see figure 3).

Figure 3: WordWorld Logic Model

WordWorld's eBook Library

Inputs	Activities	Outputs	Short-Term Outcomes	Long-Term Outcomes
Resources • Existing eBook template • Ready to Learn funding • WordWorld program staff • WordWorld curriculum • WordWorld site	Develop new eBook	New eBook with longer storyline, enhanced visuals, more interactivity, expanded curriculum, easier navigation	Children read eBook	Children better prepared to read
	Write the Caregiver Guide		Children, parents, friends, family, educators read eBook together	Parents better able to help children learn to read
Collaborators • Ready to Learn stations • pbskids.org and other websites • Outreach organizations	Revamp WordWorld website to host eBook library	Caregiver Guide	Parents use caregiver guide to read eBook and do literacy skill-building activities with their children	
	Distribute eBook Library			
Planning • Formative research to understand optimal learning conditions				

Methods and Procedures

Drawing by Volunteer Universal Pre Kindergarten student in Florida

Below we outline the types of data collected and the methods researchers used to collect and analyze data for the evaluation of Technological Enhancements to support the outreach efforts of three producers. Given the variation in type of technology employed and in project timelines, we treated each producer as a separate entity for the purpose of the evaluation, though we addressed common threads and themes where possible.

Before any data collection activities were undertaken, all Institutional Review Board (IRB) requirements were complied with, and an exemption from IRB review was granted for this project.

Data Collection

To initiate the evaluation, researchers talked by phone with producers from each of the properties to introduce themselves, discuss the purpose of the evaluation, and identify the technological enhancement. Researchers also established a set of expectations for participation among producers in the data collection process.

We collected three types of data:
- Print and online materials
- Interview and site visit data
- Survey data

Print and online materials
Researchers collected print and online materials for each property and organized them in a secure online system for storing data. We requested documents about the development of the property and received access to the project website to download and store the properties' artifacts. Some examples of the categories of documents collected were training manuals, teacher guides, descriptive internal documents (such

as detailed scope-sequences or focus group research), curricula, and product website links.

Interview and site visit data
Researchers developed instruments for three levels of interviewees—producers, teachers, and parents—and a general observation tool for site visits (see Appendix B for all interview and site visit protocols).

We first created a generic set of interview and observation protocols with a core set of questions that would be used for each property. We developed the interview and observation protocols using a format and set of core themes that had been developed during the large-scale evaluation of *Ready to Learn* and that built on previously tested and refined instruments. We then customized the generic survey and observation instruments for each producer's technological enhancement through multiple rounds of review by the evaluation team in consultation with CPB staff. During the customization process, we altered the interview protocols to reflect the specifics of each program. Out of the Blue interview protocols targeted issues about the recent inclusion of online games into the Super WHY! Summer Reading Camp curriculum and daily structure, WordWorld protocols targeted shared parent-child experiences with the eBook, and Sesame Workshop interview protocols targeted the integration of TEC video and games into phoneme lessons with the use of in-classroom interactive whiteboard technology.

Researchers conducted the following interviews:

Phone interviews
- **The Electric Company School's Initiative Curriculum:** Researchers conducted three separate phone interviews with three different TEC producers to understand Sesame Workshop's goals in the development of TEC School's Initiative Curriculum and to gain a clear understanding of the overall dissemination and communication plan, and target audience. ***(May 17, 19, and 24, 2010)***

- **Super WHY! Summer Reading Camp Technology Add-On:** Researchers conducted a group phone interview with three Out of the Blue Enterprise members to discuss their role and goals in the development of the Super WHY! games. ***(June 1, 2010)***

- **eBook Library:** Researchers conducted a group phone interview with five WordWorld members to discuss their role and goals in the development of the eBook. ***(July 27, 2010)***

Researchers conducted the following site visits:

Observations and on-site interviews

- **The Electric Company School's Initiative Curriculum:** Researchers conducted a site visit including an observation of a teacher training for TEC School's Initiative Curriculum. An SFA reading coach led the training with the support of a Sesame Workshop curriculum specialist. This was the only structured product training provided by any of the properties. We used a general observational protocol for the training and did not conduct any interviews during the site visit. *(April 7, 2010)*

- **The Electric Company School's Initiative Curriculum:** Researchers conducted a site visit to observe the implementation of TEC School's Initiative Curriculum in two first grade classrooms. In addition, researchers met with a group of parents and caregivers to discuss their perception of how the materials aligned with and enhanced their educational goals and priorities for children in their care. *(May 14, 2010)*

- **Super WHY! Summer Reading Camp Technology Add-On:** Researchers conducted a site visit to observe the integration of Super WHY! games into the Super WHY! Summer Reading Camp in two pre-kindergarten classrooms. In addition, researchers conducted a group interview with two pre-kindergarten camp facilitators and conducted an interview with a station director. *(July 15–16, 2010)*

- **eBook Library:** Researchers conducted a site visit to observe four parent-child pairs using a prototype version of the eBook at a community center that has partnered with a local PBS station. Researchers also interviewed parents on their experience and collected their responses to a set of protocol questions, which were agreed upon by WordWorld staff members and CPB. Due to time constraints, interviews were not fully transcribed or coded. **(August 23, 2010)**

Survey Data
Researchers, in consultation with CPB staff, chose to develop and disseminate surveys to two sets of program participants after starting the evaluation. Researchers worked with staff members from Out of the Blue and Sesame Workshop to develop online teachers surveys for the adults responsible for implementing the programs developed by each of these properties. We created separate interview questions and distinct surveys for each teacher group.

We developed survey protocols for two of the three properties as an additional data collection activity; these served to reach out to a broader range of participants from which to gather data. The information collected also allowed for some triangulation of data across data collection points to support general statements about the products and their implementation in education settings (see Appendix B for survey protocols).

Surveys were developed for teachers who facilitated the Super WHY! Summer Reading Camp and for teachers who implemented the TEC School's Initiative Curriculum. Because the eBook required a different dissemination and implementation approach, it was not feasible to develop a survey for this audience. In addition, the eBook was behind in its development schedule and therefore we did not have the opportunity to collect additional information from adult users of its products.

Teachers who delivered TEC School's Initiative Curriculum received questions about their experience delivering lessons with integrated TEC videos and games. Researchers worked with SFA reading coaches to distribute the online survey and contact was made by email communication with teachers. Twenty-five teachers submitted their responses (a 100% response rate), and all received a $20 gift certificate to Amazon.com once they completed the survey. The collected data were coded for analysis.

Super WHY! Summer Reading Camp facilitators also received survey questions about their experience with Super WHY! games and their integration with the Super WHY! Summer Reading Camp curriculum. Researchers designed the survey tool and relied on Super WHY! Summer Reading Camp coordinators to distribute the survey to station managers. Station managers or outreach coordinators were then asked to forward a link to the online survey to their camp facilitators. Twenty-three camp facilitators submitted their responses (a 27% response rate), and all received a $20 gift certificate to Amazon.com once they completed the survey. The collected data were coded for analysis.

Data Analysis

Print and online materials

Researchers read and catalogued print and online materials. These documents provided overall descriptions of each program, additional information to inform survey and interview question development, and context for site visits and later data collection and analysis.

Interview and observation data

Interview data were transcribed and entered into Atlas.ti, a qualitative data analysis tool. Researchers developed a preliminary set of themes to use during an initial coding of these documents and then modified the themes to respond to additional issues found in the data. We developed 14 codes for use across all interviews. These covered issues such as the ability of the program to address the needs or skills of the target audience; the comments about technology including challenges, previous experience, current use, and ease of use; responses about a target population such as teachers, care providers, or students; comments about the potential for future use of a product; and comments about product development (see Appendix C for Observation Summaries, and Appendix E for Interview Summaries).

Two researchers developed codes and jointly reviewed coding of interviews periodically throughout the coding process. Once coded, frequencies of codes across all interviews, across teacher interviews, and across producer interviews were run for further analysis.

Researchers recorded and summarized the observation data to provide information about key elements of the project such as children's responses to the product or challenges observed. Observation data provided researchers with contextual information about each product. This allowed the researchers to situate interview, textual, and online information within implementation settings and provided opportunities to confirm interview responses with observed activities.

Survey data
Survey data were collected in SurveyMonkey. Downloaded data were reviewed and summaries were prepared of response frequencies to survey items. Each survey also contained several open-ended questions and researchers grouped these by common themes (see Appendix D for survey summaries and Appendix F for Survey protocols).

Limitations

Limitations to the data collected for this evaluation exist, as findings are based on qualitative data gathered from a non-representative sample of sites. While the information presented is based on the data gathered, it is possible that the sites visited, or the teachers interviewed, were not representative of all sites or all teacher experiences. In addition, one producer had not yet completed its product, and evaluation findings are based on a prototype that may not adequately represent the final product.

Findings

Findings presented below are described in three sections. First we present findings based on each property as it related to the three overarching research questions. (See the appendices for additional details and a further elaboration of the findings.) Then we present cross-property findings, and finally we present a summary and recommendations.

Super WHY! Summer Reading Camp Technology Add-On
Data from classroom observations, interviews with camp facilitators and program producers, and responses to a camp facilitator survey, all contributed to this section.

In addition, informal conversations with a station outreach coordinator and a Title I coordinator who support program implementation helped to inform our understanding of the program and how it has reached young children and the adults who work with them.

General findings on the technological enhancement

Overall, responses from camp facilitators were positive with regard to the content, design, and implementation of the Super WHY! Summer Reading Camp with technology add-on. Camp facilitators indicated in interviews and in the survey that children responded with enthusiasm to the computer games, and that many had made connections between the Super WHY! characters introduced in the classroom to those they had seen at home on television. Facilitators stated that the games were colorful, stimulating, and encouraged child engagement in activities, and provided age-appropriate practice of early reading skills. These facilitators also stated that the experience provided an opportunity for some children to work with a computer for the first time (see Appendix A for parent quotes).

However, some facilitators stated that the program included games that were too challenging for their campers. One facilitator indicated that her campers were not yet at the point where they could read words: "They are not reading words. They're just really getting a grasp of their sounds." She stated that some of the games might be more appropriate for her campers at the midpoint or end of kindergarten. Another facilitator indicated that the spelling requirements were too challenging for her children: "The Alpha Pig, that's the game that they're most successful at. It's the letter recognition and the sound recognition. That's pre-K appropriate." Survey responses indicated that children played the Alpha Pig's Alpha Bricks and Wonder Red's Freeze Dance Rhyming games most often, and used the Story Book Creator least often, suggesting that games requiring more basic early literacy skills were more popular choices for participating children.

Do the supplemental materials or activities address a gap or missing link in the overall dissemination and communication plan of the product, filling a void that would otherwise go unmet by existing products and services?

Producers indicated that in previous years parents had requested activities that would extend children's experiences from the Super WHY! Summer Reading camp, and would allow them to continue engaging in these activities at home: "Some of the feedback that we had gotten from parents is how can I do this with my kids at home and what can I do to extend the learning when they're at home."

Integrating computer games into the Super WHY! Summer Reading Camp program provided children with experience playing the games, modeled through facilitator introduction how the games were related to a particular reading skill, and provided a classroom-home link supporting families' awareness of and access to games through the PBS website. In this way the program does address a gap (reaching parents and connecting home and classroom activities) and also furthers the reach of the program by connecting with adults beyond the classroom. Facilitators indicated that some parents do have computers available and do access the games at home: "They've been playing at home. And the parents like, 'Oh, we let them play while we get ready for

dinner.'" However, in survey responses the majority of facilitators indicated they were not aware of whether parents or their children were playing with the program's computer games at home.

Do the supplemental materials meet the needs of the end user (caregiver, teacher, or child) in a way that provides a novel/innovative/valued experience?

Facilitators indicated that they thought students benefited from the Super WHY! computer games, and that the games reinforced skills introduced during the camp day; however, of those who responded to the survey, only about half of facilitators who had participated in the camp last year felt that the computer game additions this year added substantially to the experience. Yet nearly all facilitators indicated a preference for facilitating the summer camps with the computer games rather than without.

Most camp facilitator survey respondents stated that the training provided was adequate and that they did not require more training; however, a small number of facilitators indicated a desire for additional training: "I think a day of training. Maybe half a day of introducing the curriculum, what is Super WHY!. Because I didn't know what Super WHY! was until I got the curriculum and the book. I was like, 'Who is this?'"

Facilitators indicated that the games were engaging, reinforced skills, were paced appropriately, and for the most part were academically appropriate: "So the simple fact that they were able to actually play, laugh, learn, and have fun was the best part."

In survey responses and interview comments, camp facilitators generally believed that at least some of the games were a good match for the children, and they indicated that the overall camp experience including the computer games, was positive, engaging, and supported learning.

Do the supplemental materials alter the interactions between caregivers and young children with respect to early literacy experiences?

Facilitators did not indicate that their role was altered as a result of the supplement to the Super WHY! Summer Reading Camps. However, during observations the facilitator-camper interactions that took place were likely different from those that might have taken place in the absence of computer games. Facilitators appeared to engage in conversation both about the logistics of a computer game (Where should I click first?) and also about the elements of early reading skills evident in the game (What rhymes with *ake*? Is it *snake*?). In addition, observers noted facilitators engaging with campers in conversations about technological challenges, with campers attempting to troubleshoot problems along with their facilitator.

Because the Super WHY! Summer Reading Camp curriculum included non-digital games, video viewing, and hands-on activities in its earlier iteration, it is unlikely that the addition of electronic games would alter camper-facilitator interactions considerably.

One element of the computer games is that they are relatively easy to manipulate and are intended for self-directed use by young children. It is possible that an unintended outcome of the addition of computer games is that it provided some children with opportunities to interact with a computer without adult support. Most facilitators responding to the survey indicated that campers had opportunities to play the computer games either independently or in pairs.

Recommendations

Two key recommendations emerged from these findings and relate specifically to camp facilitator concerns. The first is facilitator's interest in additional training or an introduction to the materials before implementation, and the second is support for technical difficulties encountered by facilitators in classrooms.

Providing on-site training to facilitators for a nationally implemented program can be challenging on many levels and may not be the best use for limited resources. However, providing facilitators with more guidance on program implementation could help them sustain implementation over multiple years, spread information to peers about the program, and have greater success with campers during implementation. We suggest an alternative to in-person trainings might be an online walk-through of materials that facilitators can view on their own time either as a group at a school site, or individually at home or in their classroom. This program tutorial can introduce the overall concept of the Super WHY! Summer Reading Camp, the basic elements of the program, and any materials or other resources needed before implementation. Making a tutorial available online would allow facilitators access to program information, and flexibility in retrieving that information at convenient times and locations.

Providing technical support to multiple sites that are geographically dispersed is another challenging task and is one that may not be easily addressed. However, it is possible that providing DVDs to sites may overcome some of the challenges facilitators face. The cost of distributing DVDs to every site may be prohibitive and may not be an economical choice, but making these available to locations that anticipate difficulties loading or opening programs from the Web may give facilitators a sense of having options and may help them overcome some fears about dependence on the Web during an instructional unit.

The Electric Company School's Initiative Curriculum

General findings about the technological enhancement

Overall teachers were very satisfied with TEC School's Initiative Curriculum, and they reported that it engaged students and encouraged participation in activities that might otherwise be repetitive and uninteresting. Teachers indicated that the program was fun and that students enjoyed their experience when the games and videos were introduced. Two thirds of teachers stated that the pacing of the games was appropriate,

and most teachers indicated that the vocabulary, number, and length of video segments and games were also appropriate (see Appendix A for quotes). However, several teachers reported that the videos were more relevant to the phonics lessons than were the games. Nearly all teachers indicated their students benefited from TEC School's Initiative Curriculum because of increased engagement and also improved lesson structure. Two teachers stated that students' test scores improved as a result, and another teacher indicated this provided a needed review for struggling readers. Another teacher noted that the program provided access to the SFA material in a much more visual way. It is possible that this approach allows students with different strengths to have easier access to the content.

Despite noting that their students were engaged and enjoyed the program, nearly half of teachers reported that some TEC School's Initiative Curriculum lessons were not compatible with their students' grade level and were also inconsistent with the SFA phonics lessons. And approximately one third of teachers indicated that the pacing of the lessons could be better adjusted to meet children's needs. A quarter of teachers stated that there were many technical challenges, particularly with graphics and sound, and in some instances the Smartboard program did not function properly.

Do the supplemental materials or activities address a gap or missing link in the overall dissemination and communication plan of the product, filling a void that would otherwise go unmet by existing products and services?

In interviews, producers and staff talked about listening to teachers to inform the development process and stated that they had attempted to respond to the needs of the classroom. During conversations with producers, teachers had indicated a need to improve instruction in vocabulary because they saw that the SFA program did not provide enough support in this area. In addition, some teachers had indicated the repetition of the SFA program could be boring to students and having something to encourage repetition in a fun, engaging way would address this need.

Teachers had also stated that the TEC videos were very useful in supporting phonics instruction and that students enjoyed them, found them engaging, and had noted their absence when they were not available for additional SFA instructional units.

Do the supplemental materials meet the needs of the end user (caregiver, teacher, or child) in a way that provides a novel/innovative/valued experience?

Teachers indicated in interviews and survey responses that TEC School's Initiative Curriculum was useful both to their own teaching and to their students' learning. One teacher explained that the games and videos were great for reviewing sounds and introducing new sounds, saying that the students "get it" and they know what's coming. Another teacher stated that what is done with the interactive whiteboard would be too complicated to reproduce in a printed text. For example, a third teacher noted that

having the student "see" how a word changes when you substitute a letter is so important. The Smartboard allowed for this.

Parents also indicated that participation in this program supported their children's home computer use for educational activities, stating that their children would go home and turn on the computer to seek out the games they had played at school.

Teachers valued the experience because of the opportunity it provided to integrate their Smartboards with their instruction. And one teacher indicated that it helped engage her in the lessons as well as engaging her students.

Do the supplemental materials alter the interactions between caregivers and young children with respect to early literacy experiences?

Teachers regularly indicated that using the whiteboard and curriculum materials was "fun" and "engaging," and that it made the instruction of phonics less boring. It is possible that the less boring nature of these lessons altered the interactions between teachers and their students, but we do not have any evidence of this aside from teachers' assertions that the current experience is fun and that nearly all preferred the current program with the whiteboard integration to the "business as usual" program from SFA.

It is possible that the program has changed the interactions between parents and children because children were reported to be playing the TEC computer games at home. One parent noted that if their child could not say a word, then the parent would recommend sounding it out and the child would know how to do this as a result of the program. Access to *The Electric Company* on television in homes may encourage students to tell their parents about use of the program in school, and this may lead to greater communication and understanding of school activities in the home.

Recommendations

Responses from teachers in interviews, surveys, and during site visits suggest two potential areas of improvement for TEC School's Initiative Curriculum. First, several teachers had concerns about the pacing of the games, and some mentioned that time in general was an issue because the overall curriculum requires 45 minutes to implement. Teachers suggested that the pacing of some games could be sped up, specifically the pacing of the celebration window, which they stated took too long to finish. They suggest keeping this element but making it shorter.

Teachers also suggested that greater interaction with the games would benefit their students. Because they see the primary advantage of this program as engaging students in tasks that they might otherwise consider dull, providing more ways to engage them will build on this benefit. Somewhat relevant to this is a comment several students made during our observation. Students noted that regardless of how one performed on

a game, the score was always the same. Many students are very familiar with computer game play and quickly recognized that this was not a typical outcome for a computer game; it is possible that this lack of reflection of a student's performance may impact that student's engagement in the game. Modifying games to provide greater interaction and an accurate reflection of that interaction may support the goal of engaging students fully in lessons and in practicing target skills.

eBook Library

General findings about the technological enhancement

Parents and young children positively received the eBook developed by WordWorld. Parents stated they liked the book and felt that the pacing of reading, the visual images and animations, and the reading out loud of text were all positive qualities. Children also appeared to enjoy the book, and all but the youngest (age 3) showed a sustained interest in reading or looking at the book.

Spanish-speaking parents were concerned they would not be able to follow the content of the book because both the text and suggestions for parents or caregivers were provided only in English. These adults indicated that they did not want to read the book to their children in Spanish; rather, they wanted to encourage their child's reading in English by having a better understanding of the content and by helping them understand the meaning of the words in the story.

Do the supplemental materials or activities address a gap or missing link in the overall dissemination and communication plan of the product, filling a void that would otherwise go unmet by existing products and services?

WordWorld's website includes eBooks that are available for children or adults to click through. The newly developed eBook includes additional clickable elements and hot spots but does not differ significantly from the previous eBooks. However, the approach to disseminating the eBooks will be augmented through the provision of the eBook Library on CDs and increased outreach efforts resulting from partnering with new organizations. These partnerships will increase visibility of the WordWorld website and eBook Library, and they will increase distribution of information about WordWorld's website and new CDs.

Do the supplemental materials meet the needs of the end user (caregiver, teacher, or child) in a way that provides a novel/innovative/valued experience?

The eBook Library provides children and their parents with an engaging activity. Parents indicated that having the book read aloud and allowing for children to click on individual words to hear them read, was valuable. Two of the four parents interviewed stated that they had computers at home, and this suggests that some portion of the target audience for the eBook will have home access; however, it is likely that other children

and families will have access to the WordWorld website, or will be able to view a CD, at an alternate location such as a library or community center.

Do the supplemental materials alter the interactions between caregivers and young children with respect to early literacy experiences?

The eBook can alter the interactions between a parent or care provider and child. The reading out-loud function can support a shared reading experience, the animations and hot spots that produce humorous elements in the story can engage a child and his or her parent, and an adult can make use of one or more suggestions in the Caregiver Guide to help structure interactions with a child. In these ways, the product seeks to support adult-child interactions, and during the observation, some of these interactions took place with children acting as the driver behind communication with their parent.

Recommendations

Although the eBook was well received, we offer some suggestions drawn from parent comments, and from our experience as evaluators of other technology initiatives that may help the product achieve its outreach goals more effectively.

Because a goal for the eBook Library is to support early literacy learning that includes concepts of print, the eBook design can further this goal by providing common elements of a book cover or title page, including the book title, author, and illustrator. Children are often assessed on these elements, and giving them opportunities to be exposed to this information will help them prepare for such assessments.

A second WordWorld goal is supporting parent-child interactions with text. Providing a simplified Caregiver Guide that is paired down and offers suggestions for co-reading with a child and that can be implemented individually or as a group will help invite parents into the activity.

Third, we suggest addressing the needs of non-English-speaking parents by providing a Spanish version of the Caregiver Guide so that this population of parents can also help children read and understand an eBook.

Our fourth suggestion is that the eBook include a single-page Spanish translation of the text so that parents can support their children's comprehension of the information in the eBook, which will also help to achieve WordWorld's goal of supporting children's early literacy experiences.

Discussion and Recommendations

Drawing by Volunteer Universal Pre Kindergarten student in Florida

Discussion

Despite the substantial differences in the goals and methods of the three supplemental technological enhancement efforts, some elements are common to all three. The most prominent of these is the focus producers had on supporting literacy skills for underserved children and the adults who care for them, and the use of technology to reach out to these populations in innovative ways. Although the producers used unique technologies to address different child and adult populations (from age 3 through 8; and teachers or parents), all sought to ensure that every child had access to experiences that would support early literacy learning. All three also took advantage of current and innovative technology to support this goal. If we return to the three central evaluation questions when considering the outcome of all three properties, we must consider some other common findings. Although our analysis of data from each property did not produce positive outcomes in response to each of the three guiding research questions, our findings indicate that all three properties did produce positive outcomes in response to at least one of these key research questions.

Question one asked whether the supplemental materials or activities address a gap or missing link in dissemination and communication that would otherwise go unmet by existing products and services. Of the three properties, two appeared to meet this need: the Super WHY! Summer Reading Camp with technology add-on and TEC School's Initiative Curriculum both address specific gaps raised by teachers and identified by producers as they sought to develop their technological enhancements. There was no evidence of a gap or need filled by the development of an eBook Library CD; however, it should be noted that parents did say they thought having an eBook on a CD would encourage a child to use it more often because the simple act of seeing the CD would be a reminder.

Question two asked whether the supplemental materials meet the needs of the end user in a way that provides a novel experience. All three properties were able to address this issue in ways that reflect their individual goals. The Super WHY! Summer Reading

Camp games provided young children with engaging experiences that supported practice of early reading skills. Although not all games were considered academically appropriate for all children, camp facilitators were able to support their children's use of at least two of the four games and indicated that children benefited from the experience and would not have had the same experience without the games. TEC School's Initiative Curriculum exposed students to phoneme practice in ways that were engaging, visual, and fun, and provided some relief from what was perceived as an otherwise less visually interesting curriculum. Lastly, the eBook provided children and their caregivers with a reading experience that could be modified to meet their needs (with or without reading aloud) and encouraged parent engagement in the early reading experiences of young children.

Question three asked whether the supplemental materials alter the interactions between caregivers and young children with respect to early literacy experiences. In this case we suggest that only the eBook provided some evidence of altering interactions between a child and caregiver because of the engaging animations, story line, and visual and auditory information about letters, sounds, and the words they make. However, we also suggest that the other properties have the potential to alter informal interactions between adults and students because of their engaging nature and their use of humor, physical activity, and singing to encourage participation. Both TEC/SFA video segments and the games included in the Super WHY! Summer Reading Camp seek to engage children in age-appropriate activities such as singing, or game-play in ways that reinforce a specific concept (such as the alphabet or a phonic element). Once children are engaged they are more focused on a task, more likely to retain the information that is presented and are more likely to receive positive reinforcement from a teacher (who may not provide as much positive reinforcement in a setting where children are not engaged or focused). In this way the technological enhancements may support altered interactions between adults and children in different settings.

Exploring innovative uses of technology to achieve the goals laid out by the three properties included in this study is a highly challenging undertaking, but it also can be a rewarding process. Technology has provided a broad range of new approaches to reaching out to children, parents, and educators, but exploring which of these approaches is best suited to a particular audience or task will require a considerable amount of experimentation. Efforts such as the Technological Enhancements project will provide guidance and leadership for future work in this area.

Recommendations

Ongoing support for the development of programs and outreach efforts that include digital tools requires a willingness to experiment with new and existing technologies, and with innovative approaches to integrating media into learning experiences for young children and their care-providers. Undertaking such a development process may be out of the ordinary for many traditional public media producers. Yet fostering an

environment where this kind of development is encouraged and supported must take place if new ways of reaching new and existing audiences are to be discovered. We recommend that CPB and its partners continue supporting this kind of innovation and exploration by integrating the following into their current and future programs:

- Support communication across producers and public media stations experimenting with digital tools in a range of learning contexts. In this way different properties may be able to build on the experiences of others, which may lead to opportunities for collaboration across properties and will contribute to a shared culture of innovation and iterative development.

- Conduct ongoing needs assessments of target audiences. Although technology may offer innovative ways to reach out to those whom public media is seeking to support (e.g., families, teachers, and learners), access to different kinds of technology is still limited for some populations. Ongoing needs assessment can help producers and stations determine which audiences have access to which technologies, and which audiences are benefiting from newly introduced technological enhancements.

- Recognize that developing new and innovative uses of technology requires room for experimentation and for mistakes. Providing opportunities for producers to experiment and to recognize and learn from mistakes may help to create an environment where innovation leads to new ways of reaching out to children who are most in need of support.

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Appendix A:

Document Prepared in Response to CPB Request Before GPRA Presentation

Snapshot of Teacher and Parent responses to the Technological Enhancements integrated into Sesame Workshop's The Electric Company School's Initiative Curriculum, and Out of the Blue's Super WHY! Summer Reading Camps.

Sesame Workshop's The Electric Company School's Initiative Curriculum:
Sesame Workshop partnered with Success for All (SFA) to develop a hands-on curriculum using interactive whiteboard technology. This has resulted in a set of lessons that allow teachers to deliver SFA phoneme instruction using videos and games that borrow characters from The Electric Company (TEC) story line. The Electric Company School's Initiative Curriculum uses SFA's Fast Track Phonics lessons infused with TEC content, and allows teachers to integrate media and games as they build students' skills in letter-sound correspondence (phonemic awareness) and word-level reading and spelling. The target setting for The Electric Company School's Initiative Curriculum is a classroom equipped with interactive whiteboard technology where students are being taught phoneme concepts (Grade 1 and 2).

Out of the Blue's Super WHY! Summer Reading Camps
Out of the Blue Enterprises developed an Online Games Extension that built on their existing Super WHY! Summer Reading Camp. The camps target children age 4 and 5 who attend a weeklong session during the summer. The camps provide access to multiple literacy-oriented games, hands on activities, video viewing that is linked to early literacy skill activities, and computer games that reinforce early literacy skills. Camp facilitators/teachers are provided with detailed curriculum materials that lay out each aspect of the camp day, the materials needed to complete activities, and the language that teachers can use to introduce the video segments, computer games and hands on activities to their campers. Target settings for the Super WHY! Summer Reading Camps are pre-Kindergarten classrooms where a camp facilitator has access to a computer and video monitor.

Data Collection
Researchers collected three types of data during the evaluation process:

- *Print and online materials:* Collected from each property and organized in a secure online system for storing data. Researchers requested documents relating to the development of their property, and received access to the project website to download and store the properties' artifacts.

- *Interview and observation data:* Developed for three levels of interviewee: producers, teachers and caregivers. A general observation tool was developed for observing both classroom activities and teacher training events.

- *Survey Data:* Researchers, in consultation with CPB staff, chose to develop and disseminate surveys to two sets of program participants after evaluation activities had been initiated. Researchers worked with members from Out of the Blue Enterprises and Sesame Workshop to develop online teachers surveys for the adults responsible for implementing the programs developed by each of these properties. Separate interview questions and distinct surveys were created for each teacher group.

Data Collected

The following are selected quotes from teachers gathered through the online surveys and in person interviews, along with parent/caregivers' responses to interview questions.

The Electric Company School's Initiative Curriculum:

Teachers

I completely love it because it has saved us tons of time, engaged the students in a positive manner, and improved our reading scores overall. The students love to do phonics and pay attention because they know they are going to play a game. They also watch the videos carefully and associate with the sound that they have learned. It has made learning to read a lot more fun for the students. – The Electric Company/Success for All Teacher

I LOVED the videos, the music, and the games. I really enjoyed seeing a lot of the "quick erase" component into the program. Having the students "see" a word changing by substituting a letter/s is crucial in their spelling and reading. I also liked how during most of the videos there was a quick definition to the word. It is something I incorporate in my own teaching. It saved me time. – The Electric Company/Success for All Teacher

The students responded very positively to the videos. The students also enjoyed the games. It's funny to hear some of the students memorize the lines of some of the characters in the videos. I just recently finished all the Electric Company videos and I have been teaching the phonics without the Electric Company segments. The kids are so disappointed that there aren't any more electric company videos/games in our lesson 7 phonics. I have been playing the DVD that was given to us just to review certain sounds. The kids really love them and they are so into it that it makes teaching phonics a lot of fun. – The Electric Company/Success for All Teacher

Born in 1965, I probably learned to read by watching [Electric Company] EC (I was surprised that I can remember all of the lyrics to the original 70s show), so I am a bit sentimental about it. Also, as a parent of a first grader hooked on Disney pseudo sit-coms, I encouraged her to switch to Public TV for EC. She loves it! – The Electric Company/Success for All Teacher

I liked the fact that now they are more interactive and I get to use a Smart Board for the benefit of my students' learning. I can't wait to use it at the beginning of the year with my new class. – The Electric Company/Success for All Teacher

Parent/Caregiver
It just teaches them a lot. It teach them a lot and I'll be right there with her as she is watching the show, I'll be right there with her. Looks like some of the stuff I had. – The Electric Company/Success for All Parent/Caregiver

I felt fine considering an educational tool [would be] on [in school], because they watch it on TV [at home] and then they come to school and they see it in there and then they get a feel of what's going on the TV and they learn more. They're able to learn more at the school. – The Electric Company/Success for All Parent/Caregiver

Super WHY! Summer Reading Camp Games:

Teachers
The children love to use the computer and I was happy that it reinforced the goals of the day. – Super WHY! Summer Reading Camp Teacher

The kids LOVED the chance to play on the computers. They took turns with partners and were eager to participate. The skill -level-appropriate games reinforced the day's lesson. – Super WHY! Summer Reading Camp Teacher

Definitely, they were more attentive to the show when told what game would be played that day. So very close attention was paid to those portions [where] they felt they were in the action! Having taught this camp for the last several years, I noticed better results on the post tests. – Super WHY! Summer Reading Camp Teacher

It gave another dimension to the show and helped the children experience more success and confidence in the skills they were learning. – Super WHY! Summer Reading Camp Teacher

I loved how the games extended the skill of the day for each character. I loved the stimuli. They were colorful, there was zipping, and popping. The kids loved the way they were able to interact with each character and sing their special songs especially with Wonder Red (all-ball- call...... so catchy!) – Super WHY! Summer Reading Camp Teacher

Well, it's repetition, repetition, repetition. And they're able…every time they do it, it builds on that and it reinforces what we're learning during the day. And especially with [special needs] students you need repetition, repetition, repetition. And it's predictable. Once they see Alpha Pig they know how the game is played and they can kind of predict and they know. And that gives them the confidence to keep trying versus if it's a work book, they're not really interested in that. And they like the graphics. "Oh, you're flying." And the sounds and so forth. – Super WHY! Summer Reading Camp Teacher

And my class is a blended class. I have nine students, four of them are ESE and one of them is autistic. And all four of my ESE [students] are either speech or language delayed and developmentally delayed. They enjoy the computer games because they can kind of pick what they want to do. They can put the headphones on and they're in their own world, they can work at their own level. I like the beginner, medium, hard, because they can pick their own. – Super WHY! Summer Reading Camp Teacher

Appendix B: Data Collection Protocol

RTL Technological Enhancements Observation Protocol

Date:	Observer(s):
RTL Producer: ☐ WordWorld ☐ Sesame Workshop ☐ Out of the Blue Enterprises, Inc.	Name of Event:
Location:	Purpose:

About the Participants

Total # of Participants:	Observer:
# of parents:	# of educators (indicate type, e.g., preschool teachers):
# of children: (Indicate age range):	# of others (describe):
Ethnicity:	Gender:

About the RTL Producer

Event Coordinator:	Length of event:
Community/School partner:	Materials distributed:
Language(s) of content delivery:	Artifacts collected:

Description (or diagram) of Setting

Brief Description of Event/Activity
- A. Format/type of event/activity:
    - a. Target Audience
    - b. Purpose of event/activity
    - c. Instructional strategies
- B. Technological Enhancement (Product):
    - a. Description of Product
    - b. Description of End User
    - c. Medium/Platform of Technology (Computer, handheld, mobile, etc.)
    - d. Observed interactions Between Caregivers and Young Children (with respect to early literacy experiences & the product)

       e.   Literacy Topics or Skills Addressed Using the Product
       f.   User Access to the Product (Public/Private)
  C. Materials in use (Teacher/Student/Family-directed):
  D. Materials available to send home:

Detailed Description and Reflection of Event
Provide a "running record" of the event (unrestricted length). As much as possible, use active voice and make the agents of action clear. Quote participants directly, as feasible. Describe not only the formal activities going on, but also how the audience responds and interacts with the producer staff. Use the reflective notes column for any impressions or interpretations you have of what you have recorded in the descriptive column. "Time stamp" each new episode of activity in a new row and be sure to align your reflective notes with the description. Pay attention to particular behaviors, words, or symbols that have traction in an activity.

Time	Descriptive Notes	Reflective Notes

Date:	Lead Interviewer:
Producer:	Interviewee Name:
City:	Title of Interviewee:
Names/roles of others present, if any:	Role of Interviewee:
Artifacts collected:	

Producer Interview Protocol

This protocol is appropriate to use with producers involved in coordinating the SuperWHY! Reading Camp games.

Introductory Script

Thank you for agreeing to do this interview. My name is [NAME], and I'll be talking with you today about your role in producing the Super WHY! Reading Camp and the computer games that have been added to camp activities. As part of the evaluation of the Ready to Learn initiative's Supplemental Outreach effort, we are conducting interviews with individuals involved in producing the computer games that have been added to the Super WHY! Reading Camps . This interview will take about one 1 hour.

Everything you tell us today will be confidential. To protect your privacy, we won't connect your name with anything that you say. At any time during our conversation, please feel free to interrupt me if you have any questions or if you would rather not answer any specific question. You can also stop the interview at any time for any reason.

Please remember we want to know *your opinion* about the questions we are asking and that there are no right or wrong answers.

Is it OK if I audiotape this interview today? We review our audiotapes to check what we've heard, as we write up our reports.

Background Information on Ready to Learn Technological Outreach

1. Could you describe the games developed for the Super WHY! Reading Camp?

2. What is the main message you hope to convey with the games for the Super WHY! Reading Camp? (Probe for main learning goals.)

3. What was your role in producing the games for the Super WHY! Reading Camp?

4. What is your content focus for the games?

5. How do the games for the Super WHY! Reading Camp differ from what you have done in past years? What component of the Camp is new and what is part of the original outreach effort?

6. Could you tell me about how the games for the Super WHY! Reading Camp came to be part of your supplemental outreach activities? How do they extend the overall dissemination and communication plan for RTL?

Games Target Audience

1. For what target audience or audiences did you develop the games for the Super WHY! Reading Camp*? Probe for whether target audiences include children (including their ages), parents, educators, and/or hard to reach populations.*

2. How do you envision the new games being implemented by the SuperWHY! Reading Camp instructors?

3. What need do you see the games for the Super WHY! Reading Camp fulfilling?

4. What materials are distributed to the camp facilitators to support their use of the Super WHY! games??

   a. How do you know if camp facilitators have used the games for the Super WHY! Reading Camp? Do you provide training to facilitators? If yes, what was the goal of the training?

   b. How do you know if campers (children) have used the games for the Super WHY! Reading Camp? Do you provide any instructions for use? If yes, what was the goal of that instruction?

5. Do adults or kids enjoy using the games for the Super WHY! Reading Camp?

6. In your view, how successful are the games for the Super WHY! Reading Camp in reaching parents, educators and children?

   a. How do you know?

Responses to the Outreach

7. Did you have a role in implementing the games for the Super WHY! Reading Camp with adult end users? If so, what responses do they have to the camp program and materials?

8. Describe any formal or informal ways you have of finding out how well Super WHY! Reading Camps are working once they're launched.

9. Do you feel Super WHY! Reading Camp games accomplished their goals? What did they do well? What would you change if you could?
10. What feedback about the Super WHY! Reading Camp games have you received from parents or caregivers?
11. Is there anything else you'd like to tell us? (Prompt: about the games, activities, outreach efforts or target audience)

Thank you for your time.

Date:	Lead Interviewer:
Producer:	Interviewee Name:
City:	Title of Interviewee:
Names/roles of others present, if any:	Role of Interviewee:
Artifacts collected:	

Teacher Interview Protocol

This protocol is appropriate to use with teachers/facilitators for Super WHY! Reading Camps.

Introductory Script

Thank you for agreeing to do this interview. My name is [NAME], and I'll be talking with you today about the Super WHY! Reading Camp. I work for the Education Development Center and we are evaluating the use of technology as part of camp activities. We are conducting this interview with you so that we can learn more about your involvement and role with the Super WHY! Reading Camp. This interview will take about one 1 hour.

Everything you tell us will be confidential. To protect your privacy, we won't connect your name with anything that you say. At any time during our conversation, please feel free to interrupt me if you have any questions or if you would rather not answer any specific question. You can also stop the interview at any time for any reason.

Please remember we want to know what you think and feel and that there are no right or wrong answers.

Is it OK if I audiotape this interview today? We review our audiotapes to check what we've heard, as we write up our reports.

Implementation Background

1. How did you find out about the Super WHY! Reading Camp? Did you facilitate a Super WHY! camp last year?

2. Have you used computer games in the past? How does what you're doing now compare with those prior games?

3. WHY! did you decide to facilitate a Super WHY! Reading Camp?

4. Can you tell us about the campers who participated in your Super WHY! *Reading Camp? Probe for age and backgrounds of children and parents served.*

5. What are some of the primary educational needs of the young children and families who attended the Super WHY! Reading Camp?

Using the Program

6. What was your role in implementing the Super WHY! Reading Camp and the new games?

7. How easy was it to use the Super WHY! Games?

8. Did you receive training in use of the Super WHY! games? Was it helpful, and if so, in what way? Would any additional training or support have been helpful?

9. What is the content focus of the Super WHY! Games? Was this focus helpful to your campers? WHY! or WHY! not?

10. Are any Super WHY! Reading Camp materials distributed to parents for use at home? What was the purpose of these materials?

11. What media or technology (computers, consoles, etc.) did you use to implement the games and how many did you have access to? Had you used them before for teaching? How do you feel they worked for you and your campers?

12. Describe any challenges you faced in adding the Super WHY! games to the reading camp. Do you have any recommendations for avoiding or addressing these challenges in the future?

Reflecting on the Program

13. Overall, how have campers and parents responded to the Super WHY! games? Did use in different contexts (for example, in classrooms, or at home) prompt different responses to the Super WHY! games?

14. Do you believe students benefitted from using the Super WHY! games? In what ways, if any? How can you tell?

15. Have the Super WHY! games benefitted your camper group management, instruction, or delivery of curriculum in any way? Did it meet your needs? If so, how? If not, WHY! not?

16. Based on your experience with including the games in the Super WHY! reading camp, would you do it again? Do you think it would be useful for you or your campers to do it again? WHY! or WHY! not?

17. How did you like using the Super WHY! games? How did the campers like using them?

18. Did you find the program to be unique? Valuable? Innovative? If so, how?

19. What feedback did you receive about the Super WHY! games from campers and/or parents? Any memorable stories?

20. Had the campers used computer games for learning purposes before?

21. How well did the Super WHY! games fit in with your curriculum? Did the program meet any of your campers' needs? What needs were met, how were they met, or WHY! weren't they met?

22. If you used Super WHY! materials last year, what do you think about the added games this year? What are the benefits of the Super WHY! games? What are the weaknesses?

23. Is there anything else you'd like to tell us about your experience using the Super WHY! Reading Camp and computer games?

 Thank you for your time.

Date:	Lead Interviewer:
Producer:	Interviewee Name:
City:	Title of Interviewee:
Names/roles of others present, if any:	Role of Interviewee:
Artifacts collected:	

Parent Interview Protocol

This protocol is appropriate to use with parents whose children have participated in ae Super WHY! Reading Camp.

Introductory Script

Thank you for agreeing to do this interview. My name is [NAME], and I'll be talking with you today about the Super WHY! Reading Camp. I work for the Education Development Center as an evaluator for this project. As part of the evaluation, we are interviewing the parents of children who have participated in a Super WHY! Reading Camp. We would like to hear what you think about the camp. This interview will take about 30 minutes.

Everything you tell us today will be confidential and we will not connect your name with anything you say. At any time, please feel free to ask me any questions. You can also stop the interview at any time for any reason.

Please remember we want to know what you think and feel and that there are no right or wrong answers.

Is it OK if I audiotape this interview today? We review our audiotapes to check what we've heard, as we write up our reports.

Exposure to Outreach Efforts: Technological Enhancements

1) Is this your child's first time participating in the Super WHY! Reading Camp? Have you participated in other activities like this one? (If so, how many?)

2) How did you hear about the Super WHY! Reading Camp?

3) WHY! did you decide to have your child attend the Super WHY! Reading Camp? Is there anything that caught your attention?

4) What does your child think of the camp (e.g.: fun, boring, wants to go home, wants to do it again, etc)? Do you think he/she liked it? Do you think he or she learned anything, and if so, what?

5) Did you see or hear of any activities that have to do with learning to read while you were here? If so, what did you see/hear? Which activities?

6) Did you see or hear anything that surprised you today?

7) Did you see any activities that you or your child might continue to do at home? If so, which ones?

8) Do you think your child has learned anything from the Super WHY! Reading Camp games?

9) If this is not your first time participating in the Super WHY! Reading Camp:
    a. WHY! did you decide to return?
    b. How is it different from you last time participating?

10) Were you familiar with the games for the Super WHY! Reading Camp used today? Would you use them again? Did they seem easy to use? WHY! or WHY! not?

11) Where do you look to find out more about programs and activities for young children?

12) Is there anything else you would like to tell us about the Super WHY! Reading Camps and the games?

Thank you for talking the time to talk with me about this camp.

Date:	Lead Interviewer:
Producer:	Interviewee Name:
City:	Title of Interviewee:
Names/roles of others present, if any:	Role of Interviewee:
Artifacts collected:	

Producer Interview Protocol

This protocol is appropriate to use with producers involved in coordinating The Electric Company/Success for All Curriculum, videos and Digital Literacy Resource.

Introductory Script

Thank you for agreeing to do this interview. My name is [NAME], and I'll be talking with you today about technological outreach materials/activities that are part of *Ready to Learn*. I work for EDC and we are the evaluators for the *Ready to Learn Supplemental Outreach.* As part of the evaluation, we are conducting interviews with members involved in creating and providing training for the RTL producer's materials/activities. The purpose of this interview is to learn specifics about your involvement and role with The Electric Company/Success for All Curriculum, videos and Digital Literacy Resource and educational efforts that are related to *Ready to Learn*. This interview will take about one 1 hour.

Everything you tell us today will be confidential. To protect your privacy, we won't connect your name with anything that you say. At any time during our conversation, please feel free to interrupt me if you have any questions or if you would rather not answer any specific question. You can also stop the interview at any time for any reason.

Please remember we want to know *your opinion* about the questions we are asking and that there are no right or wrong answers.

Is it OK if I audiotape this interview today? We review our audiotapes to check what we've heard, as we write up our reports.

Background Information on Ready to Learn Technological Outreach

7. Could you describe The Electric Company/Success for All Curriculum, videos and Digital Literacy Resource (also called DLR) for me?

8. What was your role in producing the The Electric Company/Success for All Curriculum, videos and DLR?

9. What is the main message you hoped to convey with The Electric Company/Success for All Curriculum, videos and DLR (Probe for main learning goals.)

10. What is your content focus for The Electric Company/Success for All Curriculum, videos and DLR ?

11. How does The Electric Company/Success for All Curriculum, videos and DLR differ from what you did in past years with The Electric Company? How do the materials/content differ from last year's outreach effort?

12. Could you tell me about how The Electric Company/Success for All Curriculum, videos and DLR came to be part of your supplemental outreach activities? How do they extend the overall dissemination and communication plan for RTL?

Audience for Technological Outreach

13. When developing The Electric Company/Success for All Curriculum, videos and DLR, who was your primary target audience (eg: teachers or students)? Probe: *WHY! did you make this decision?*

14. How did you originally envision the new applications being used?

15. What need do you see The Electric Company/Success for All Curriculum, videos and DLR fulfilling?

16. Describe what you provide for end users of The Electric Company/Success for All Curriculum, videos and DLR.

    a. What materials are distributed to the audience?

    b. Do you know whether teachers had any prior experience with the media or technology (Interactive WhiteBoards, computers, projectors, etc.) ?

    c. Did you provide training? If yes, what was the goal of the training?

17. Did adults or kids enjoy their experience with The Electric Company/Success for All Curriculum?

18. How successful is The Electric Company/Success for All Curriculum, videos and DLR, in your view, in reaching your target audience?

Responses to the Outreach

19. Do you have a role in implementing your outreach materials with adult end users? If so, what responses do they have to the outreach program and materials?

20. Describe any formal or informal ways you have of finding out how well The Electric Company/Success for All Curriculum, videos and DLR was worked once it was launched or distributed.

21. Do you feel the materials accomplished their goals? What did they do well? What would you change if you could?

22. What feedback about The Electric Company/Success for All Curriculum, videos and DLR have you received from parents or caregivers?

23. Is there anything else you'd like to tell us? (Prompt: about the materials, activities, outreach efforts or target audience?)

Thank you for your time.

Date:	Lead Interviewer:
Producer:	Interviewee Name:
City:	Title of Interviewee:
Names/roles of others present, if any:	Role of Interviewee:
Artifacts collected:	

Teacher Interview Protocol

This protocol is appropriate to use with teachers involved in implementing The Electric Company/Success for All *Curriculum.*

Introductory Script

Thank you for agreeing to do this interview. My name is [NAME], and I'll be talking with you today about The Electric Company/Success for All Curriculum. I work for the Education Development Center and we are evaluating the use of technology as part of this curriculum. We are conducting this interview with you so that we can learn more about your involvement and role with The Electric Company/Success for All Curriculum, videos and Digital Literacy Resource. This interview will take about one 1 hour.

Everything you tell us will be confidential. To protect your privacy, we won't connect your name with anything that you say. At any time during our conversation, please feel free to interrupt me if you have any questions or if you would rather not answer any specific question. You can also stop the interview at any time for any reason.

Please remember we want to know what you think and feel and that there are no right or wrong answers.

Is it OK if I audiotape this interview today? We review our audiotapes to check what we've heard, as we write up our reports.

Implementation Background

24. How did you find out about The Electric Company/Success for All Curriculum, videos and Digital Literacy Resource (also called the DLR)?

25. Have you used digital media materials in the past? How does what you're doing now compare with those prior materials?

26. WHY! did you decide to participate in the program? What did you think would be valuable about participating?

27. Can you tell us about the students who participated in your delivery of The Electric Company/Success for All Curriculum? *Probe for age and backgrounds of children, teachers, and/or parents served.*

28. What are some of the primary educational needs of the young children and families who experienced The Electric Company/Success for All Curriculum?

Using the Program

29. What is your role in delivering The Electric Company/Success for All Curriculum?

30. How easy is it to use the materials?

31. Did you receive training in use of The Electric Company/Success for All Curriculum? Was it helpful, and if so, in what way? Would any additional training or support have been helpful?

32. What is the content focus of The Electric Company/Success for All Curriculum? Was this focus helpful to your students? WHY! or WHY! not?

33. "Are any materials distributed to parents for use at home? What is the purpose of these materials?

34. What media or technology (Interactive white board, computers, projectors, etc.) did you use to implement the program? Have you used them before for teaching? How do you feel they worked for you and your students?

35. Describe any challenges you faced in implementing The Electric Company/Success for All Curriculum. Do you have any recommendations for avoiding or addressing these challenges in the future?

Reflecting on the Program

1. Overall, how have students responded to The Electric Company/Success for All Curriculum? Did different technologies (for example: computer programs, video or whiteboards) generate different responses? Do you believe your students benefitted from participating? In what ways, if any? How can you tell?

2. Has the program benefitted you in any way? Did it meet your needs? If so, how? If not, WHY! not?

3. Based on your experience with The Electric Company/Success for All Curriculum, would you do it again? Do you think it would be useful for you or your students to do it again? WHY! or WHY! not?

4. How did you like using The Electric Company/Success for All Curriculum? How did the children like using or learning with them?

5. Did you find The Electric Company/Success for All Curriculum to be unique, valuable, or innovative? If so, how? If not, WHY! not?

6. What feedback did you receive about The Electric Company/Success for All Curriculum from students, teachers, and/or parents? Any memorable stories?

7. Have your students used interactive whiteboards for learning purposes before?

8. How well do The Electric Company/Success for All Curriculum fit in with your Success for All lessons? Does the program meet any of your students' needs? What needs were met, how were they met, or WHY! weren't they met?

9. Is there anything else you'd like to tell us about your experience using the program?

Thank you for your time.

Date:	Lead Interviewer:
Producer:	Interviewee Name:
City:	Title of Interviewee:
Names/roles of others present, if any:	Role of Interviewee:
Artifacts collected:	

Parent Interview Protocol

This protocol is appropriate to use with parents, whose children have been exposed to producer's materials/ activities.

Introductory Script

Thank you for agreeing to do this interview. My name is [NAME], and I'll be talking with you today about The Electric Company/Success for All Curriculum. I work for the Education Development Center as an evaluator for this project. As part of the evaluation, we are interviewing the parents of children who have The Electric Company/Success for All Curriculum would like to hear what you think about this activity. This interview will take about one 30 minutes.

Everything you tell us today will be confidential and we will not connect your name with anything you say. At any time, please feel free to ask me any questions. You can also stop the interview at any time for any reason.

Please remember we want to know what you think and feel and that there are no right or wrong answers.

Is it OK if I audiotape this interview today? We review our audiotapes to check what we've heard, as we write up our reports.

Exposure to Outreach Efforts: Technological Enhancements

1. Is this your child's/your first time participating in TEC classroom activities/lessons? Have you participated in other activities like this one? (If so, how many?)
2. How did you hear about this The Electric Company Curriculum?
3. Is there anything that caught your attention?

4. What does your child think of the program (e.g.: fun, boring, wants to go home, wants to do it again, etc)? Do you think he/she liked it? Do you think he or she learned anything, and if so, what?
5. Have you heard of any activities or lessons that have to do with learning to read? If so, what did you hear? Which activities/lessons?
6. Have you heard of anything that surprised you about TEC activities/lessons?
7. Did you see any activities that you or your child might continue to do at home? If so, which ones?
8. Do you think your child has learned anything from his/her participation?
9. Were you familiar with the (computer games, white board, other technology) used during TEC activities/lessons?
10. Where do you look to find out more about programs and activities for young children?
11. Is there anything else you would like to tell us?

Date:	Lead Interviewer:
Producer:	Interviewee Name:
City:	Title of Interviewee:
Names/roles of others present, if any:	Role of Interviewee:
Artifacts collected:	

Producer Interview Protocol

This protocol is appropriate to use with producers involved in developing the WordWorld eBooks.

Introductory Script

Thank you for agreeing to do this interview. My name is [NAME], and I'll be talking with you today about technological outreach materials/activities that are part of *Ready to Learn*. I work for EDC and we are the evaluators for the *Ready to Learn Supplemental Outreach.* As part of the evaluation, we are conducting interviews with producers involved in creating WordWorld's ebooks. The purpose of this interview is to learn specifics about your involvement in developing these ebooks. This interview will take about one 1 hour.

Everything you tell us today will be confidential. To protect your privacy, we won't connect your name with anything that you say. At any time during our conversation, please feel free to interrupt me if you have any questions or if you would rather not answer any specific question. You can also stop the interview at any time for any reason.

Please remember we want to know *your opinion* about the questions we are asking and that there are no right or wrong answers.

Is it OK if I audiotape this interview today? We review our audiotapes to check what we've heard, as we write up our reports.

Background Information on Ready to Learn Technological Outreach

1. Could you describe the WordWorld eBooks?

2. What is your role in producing the WordWorld eBooks?

3. What is the main message you hope to convey with the WordWorld eBooks? (Probe for main learning goals.)

4. What is your content focus for the WordWorld eBooks?

5. Could you tell me about how the WordWorld eBooks came to be part of your supplemental outreach activities? How do they extend your overall dissemination and communication plan?

Audience for Technological Outreach

12. For what target audience or audiences did you develop the WordWorld eBooks? *Probe for whether target audiences include children (including their ages), parents, educators, and/or hard to reach populations.*

13. How do you envision the new WordWorld eBooks being used?

14. What need do you see the WordWorld eBooks fulfilling?

15. Did you conduct any needs assessment or market surveys to determine the needs of your target audience(s) before developing the WordWorld eBooks? If so, what are some of the literacy needs for this audience?

16. What media or technology does the target audience already use? Describe what you provide for end users of the WordWorld eBooks. What materials are distributed to the audience?

    a. If your target audience is parents, have they used this media or technology before? Did you provide training? If yes, what was the goal of the training?

    b. If your target audience is children, have they used this media or technology before? Did you provide any instructions for use? If yes, what was the goal of that instruction?

17. Do adults or kids enjoy using the WordWorld eBooks?

18. In your view, do the WordWorld eBooks successfully reach the adult end user? How do you know?

19. In your view, do the WordWorld eBooks successfully reach the child end user? How do you know?

Responses to the Outreach

1. Do you have a role in disseminating WordWorld eBooks to adult end users? If so, what responses do they have to the WordWorld eBooks?

2. Do you have a role in disseminating WordWorld eBooks to chiuld end users? If so, what responses do they have to the WordWorld eBooks?

3. Describe any formal or informal ways you have of finding out how well WordWorld eBooks are working once they're launched or distributed.

4. Do you feel that WordWorld eBooks accomplish their goals? What do they do well? What would you change if you could?

5. What feedback about the WordWorld eBooks have you received from parents, caregivers or others (ie: partner organizations that distribute the ebooks)?

6. Is there anything else you'd like to tell us? (Prompt: about the WordWorld eBooks and supplemental outreach award?)

   Thank you for your time.

WordWorld's eBook Parent Interview Protocol

Date:	Lead Interviewer:
Producer:	Interviewee Name:
City:	Title of Interviewee:
Names/roles of others present, if any:	Role of Interviewee:
Artifacts collected:	

Parent Interview Protocol

This protocol is appropriate to use with parents, whose children have been exposed to Word World eBooks.

Introductory Script

Introductory Script

Thank you for agreeing to do this interview. My name is (our names are) [NAME], and we'll be talking with you today about a development version of the Word World eBook. The eBook we will be showing you is a work in progress, at the "alpha" stage, which means that it has a number of bugs that still need to be fixed. We are asking parents with young children to help us to find out what parts of the eBook are interesting and fun. This will help us create a better, finished eBook. Because the eBook is not yet finished, there may be some interactive parts (pictures and words that move around) that are not yet highlighted, and there may be other parts that don't work as well as they should. This is part of the process of testing an eBook before it is finished, and we hope you will be patient with these interruptions because we need your comments to help create the best eBook possible. This interview will take about 30 minutes.

We work for the Education Development Center as an evaluator for this project. Everything you tell us today will be confidential and we will not connect your name with anything you say. At any time, please feel free to ask me any questions. You can also stop the interview at any time for any reason.

Please remember we want to know what you think and feel and that there are no right or wrong answers.

Is it OK if I audiotape this interview today? We review our audiotapes to check what we've heard, as we write up our reports.

Exposure to Outreach Efforts: Technological Enhancements

12. Is this your child's/your first time using Word World eBooks? Have you used books like this one before? If so, how many?

13. How did you hear about the Word World eBooks?

14. WHY! did you decide to participate in today's Word World eBooks activity?

15. What does your child think of the Word World eBook (probe: level of enjoyment, engagement, reaction while reading.)? Do you think he/she liked it?

16. Do you think your child has learned anything using the Word World eBook? If so, what? (probe: vocabulary, letters, words, tracking, page turning)

6) If this is not your first time using Word World eBooks:

      a.   How is the new Word World eBook different from the old ones?

7) Were you familiar with the technology used for the Word World eBooks (e.g., laptop, desktop, CD-ROM)? Did they seem easy to use? WHY! or WHY! not?

8) What did you like best about the Word World eBook? What did you like least about it?

9) Would you use Word World eBooks with your child again? If so, how would you use them? If not, WHY! not?

10) Where do you look to find out more about educational activities and materials for young children?

11) If you could recommend that changes be made to the Word World eBooks, what changes would you recommend? (probe: story, navigation, placement of activity, text, audio)

12) Is there anything else you would like to tell us about the WordWorld *eBooks*?

Thank you for your time.

Appendix C: Observations at Site Visits and Pilot eBook Presentation

Observation of The Electric Company School's Initiative Curriculum

Brief Description of Event/Activity

A school site visit was organized in conjunction with the Success for All reading coach. The purpose of the site visit was for researchers to observe teachers delivering phoneme lessons from with the Success for All Curriculum incorporating videos and games from The Electric Company. Furthermore, teachers were later interviewed on their experience delivering The Electric Company School's Initiative Curriculum and perceived student response.

The target audience for The Electric Company School's Initiative Curriculum is a classroom environment where students were being taught phoneme concepts that aligned with SFA's Fast Track Phonics' lessons. Two 1st grade classrooms were observed were students were already exposed to the SFA program structure and teachers were familiar with the SFA Fast Track Phonics model. Teachers delivered the curriculum borrowing from their knowledge, previous experience inside the classroom, and training provided by SFA and Sesame Workshop The Electric Company School's Initiative Curriculum. In both classrooms there were five African American students, and one white student. The teachers were both white.

The following is a diagram of the classroom setting (see Figure 4):

Figure 4: The Electric Company School's Initiative Curriculum classroom observation diagram.
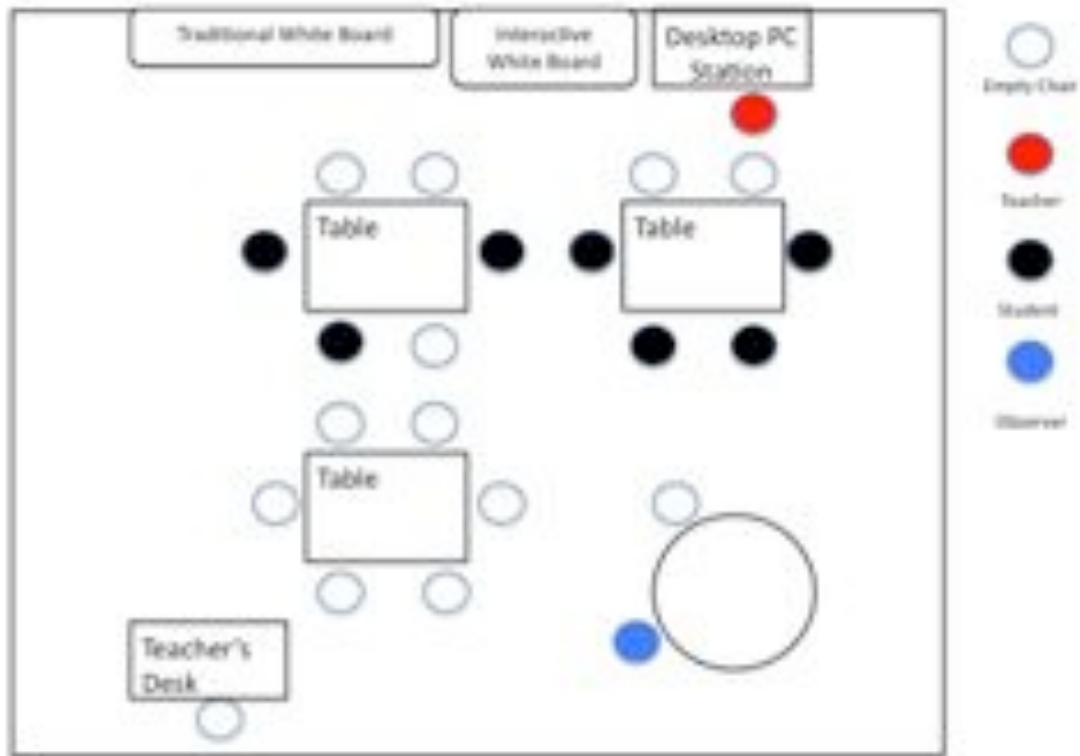
Prior to beginning the lesson, the teacher voiced her concern that the assistant teacher was missing and that the class would not run as smoothly as it usually does. Although it was a small group of students, and while the teacher displayed a strong set of classroom management skills, such as addressing disruptive behavior and interruptions, it was evident that the classroom environment would have benefitted from additional staff. During the observation, one student had to be removed from the classroom because of his behavior. One student with autism and a speech impediment required additional assistance to complete the scheduled activities. The teacher used "Pal Bucks" for supporting good behavior and used a point system (1-3) for identifying behavioral issues. Students shared stories from home with the teacher. Overall, the teacher was busy managing the classroom environment and delivering the lesson to the students.

The teacher delivered lesson 13 /ow/ (cow) 1/1 from The Electric Company School's Initiative Curriculum. As planned, the lesson was integrated with the Fast Track Phonics portion of the SFA Curriculum. The Electric Company School's Initiative Curriculum was approximately 45 minutes of the 90 minutes literacy period.

A computer's hard drive executed The Electric Company School's Initiative Curriculum. The teacher later stated that she did not have access to the PBS Kids website, where the curriculum and other materials could be found online.

The teacher used the following hardware: desktop PC, projector, and interactive white board. The teacher implemented the lesson using the SFA's Fast Track Phonics Booklet and SFA's literacy curriculum in conjunction with The Electric Company/Success for All product.

The following is an outline of the scheduled activities:
- Collection of homework assignments (10 Minutes)
- Discussion of the day's activities (1 Minute)
- "Say It Fast" lesson, Interactive White Board (10 Minutes)
- Word Level Blending Activity (2 Minutes)
- "Say What" Video (2 Minutes)
- "Word Transformer" Game (6 Minutes)
- "Stretch and Read" Video (3 Minutes)
- Journal Writing (12 Minutes)
- "A Farm in China," Book Discussion (10 Minutes)
- Book Vocabulary (12 Minutes)
- "A Farm in China," Book Reading (10 Minutes)
- Story Test and Writing Assignments (15 Minutes)

The teacher called on students to provide a "7-up sentence," a sentence with seven words including the word on the screen. Students were quick to respond and many raised their hands to participate. Additionally, the teacher used The Electric Company videos as a review for the previous lesson or as an accompaniment for the next activity. Transitions between activities were smooth and the interactive white board responded instantaneously and without any technological glitches or challenges. Students were eager to participate and they were given several opportunities to interact with the lessons.

Next, students had the opportunity to play The Electric Company School's Initiative Curriculum games. Some students had the opportunity to play the games, but not all. In general, The Electric Company/Success for All Curriculum games allow for only one student to interact with the screen at a time. The classroom teacher managed game play by continuing with the next child in line from the previous game. The teacher announced, "The students who did not get a chance to play will be the first ones to use the board for the next class." During game play, students clicked their selections on the screen over and over again with the pen, often hitting the wrong spot and not correctly dragging letters with the whiteboard pen. Students were observed talking out loud while playing the game. One student responded at the conclusion of the "Say What"

game by stating that "He always wins!" Another student asked "How come we always get at 100 points and how come we do not get big points, 102,103?"

While the lesson moved at a fast pace, the teacher managed The Electric Company School's Initiative Curriculum and use of the interactive white board. The Electric Company parts of the lesson were interweaved with SFA's Fast Track Phonics activities and seemed to have strengthened the structure of the curriculum. This was evident in the transitions between activities and the student engagement from one activity to the next.

Observation of Super WHY! Summer Reading Camps

Brief Description of Event/Activity

Researchers conducted a site visit to observe Super WHY! Summer Reading Camps integrated with Super WHY! Computer games in a school district where multiple sites were implementing the program for one week as part of the state's Volunteer Universal Pre-Kindergarten program. The program is run through the district's Title I office and generally serves students who have not yet participated in a Pre-Kindergarten program, or who have been identified as needing additional classroom experience to prepare them for the coming school year.

Three observers spent time in two classrooms in a single school. The students in each class were 4 and 5 years old, African Americans, and one Caucasian student. One teacher was Caucasian and the other African American. Camp Facilitators in each room were classroom teachers during the regular school year and this was their first time teaching the Super WHY! Summer Reading Camp. Following the observation teachers from both classrooms participated in an interview.

Below is a general diagram of the classrooms observed (see Figure 5):

Figure 5: Super WHY! Summer Reading Camp observation diagram.
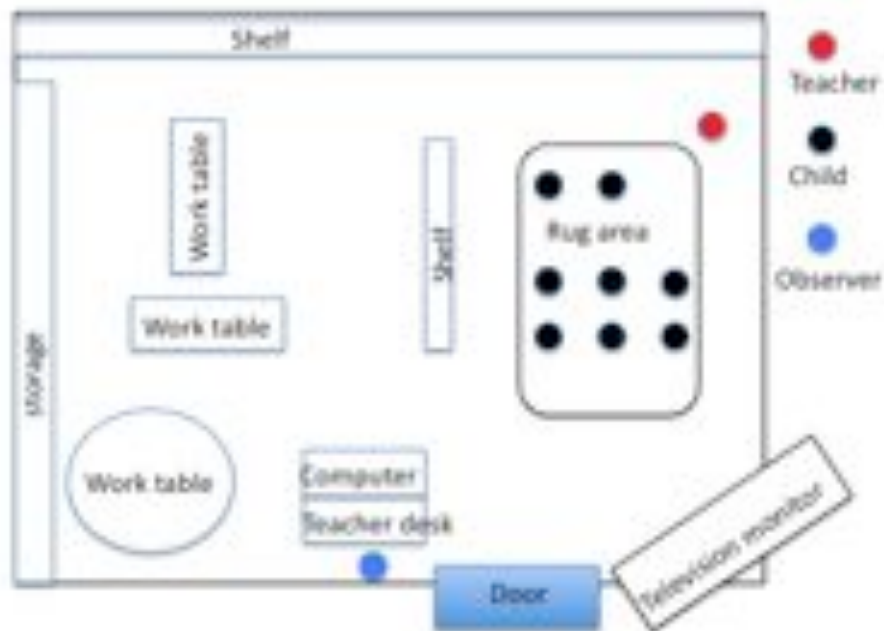
Every teacher facilitating a Super WHY! Summer Reading Camp receives the same materials including a scripted curriculum guide. At the beginning of the observation

teachers lead discussions with their students about word families ('–all and '-ig'). The teachers wrote a list of words as children named them (ball, wall, call, etc) and the students practiced reading the words. Teachers used a lot of repetition in this activity by writing the words in the word family, reading them out loud to the students, and by having students take turns reading the words.

In each of the two classrooms, several students asked their teacher if they were going to watch Super WHY!. Following the scripted curriculum, the teachers introduced the Super WHY! video, The Three Little Pigs, to the students. The teachers reviewed each of the main characters they had been introduced to already and their related super powers. During the viewing, students interacted with the video, singing along with the show, answering questions, doing the movements encouraged by the characters, and reciting the characters' lines. The same episode was shown each day of the camp, so students were familiar with the story.

While the students were watching the video, the teachers loaded Super WHY! games onto desktop computers in the classroom. In one classroom, the game's audio was repeating a line inviting players to begin to play. In this same room, the teacher and another adult were talking while the children watched the video. Some children were distracted, listening to the adults' conversation and not to the and not to the video. When the video had finished, teachers reviewed the story with the students, asking them what happened and reviewing the characters' super powers again.

Next, students received a Super WHY! character mask to wear. Teachers and assistants put the masks on the children's faces. Teachers introduced the next activity, playing a computer game. In each room students gathered around the teacher as she introduced the game. The teacher was in control of the mouse while verbalizing instructions for game play. The students advised the teacher where to move the Super Why, Why flyer on the screen ("go faster, go up!"). The Why flyer has to drive over letters that appear on the screen and once accumulated, the system makes a word that fills in a blank in a short sentence. One teacher informed her students that they would have ten minutes after lunch to play the game, but that they couldn't play it now.

Following the game, students did a drawing and writing activity. In one classroom, students were instructed to "Draw a story". In the other room they were told, "Today we are going to draw pictures and tell a story." In the latter class, the teacher gave detailed instructions about what the students were going to do. In both classrooms, teachers went around and talked to students about their work. They helped the students write about the pictures they drew.

One child was observed playing the computer game after he finished his drawing. Upon completing of his picture, a student gave the paper to the teacher and asked permission to use the computer. The teacher allowed and the student sat down in front of the desk top computer. He put on head phones and began to play the game. For a few minutes,

until the other students finished up their work, he played the Super WHY! Why Flyer Adventure game independently. When all of the students in that classroom had finished working, the teacher asked the boy to stop playing the computer game and rejoin the group as they shared their work with each other.

The teachers led students to the next activity "Pin the tail on the word". The teacher read a sentence with a blank space and the students had to choose the word that best fit into the sentence (ex: big, bad / little, scared). The students were active during the discussion, each having a turn to choose a word. One of the teachers was constantly revisiting the curriculum guide. She explained that she was up late the night before and did not have time to read it ahead of time.

The final activity observed in one of the classrooms was called the "Super WHY! opposite relay". Words are taped on to a giant cut out of the character Super WHY!. The students stood at the opposite end of the rug from the cut out, each holding a word written on a card. One student cried because he didn't have a turn, though the teacher had just begun calling names. Other students were fidgeting while they waited. They took turns 'running' to the cut out to find the opposite word to the one they had.

The teachers both followed the curriculum, with some variation in implementation. Overall the students in both classrooms were engaged with the video viewing and the activities. As described above, only one student was observed playing the computer game independently.

Summary Observation of the initial Presentation of the Word World eBook pilot

Description (or diagram) of Setting

Figure 6: Initial presentation of the WordWorld eBook Pilot observation diagram.
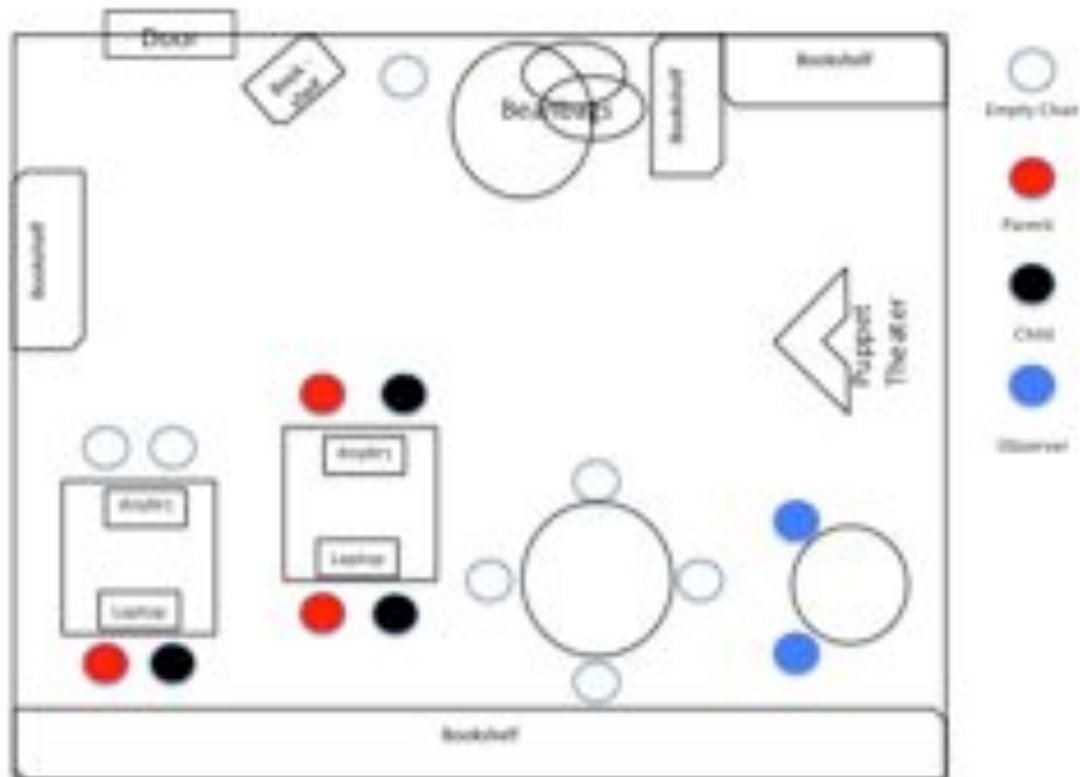
Brief Description of Event/Activity

A site visit to observe parents and children using a new Word World eBook was conducted in the library of a school during an afterschool program (see Figure 6). In cooperation with a local Ready to Learn Outreach Station, EDC's researchers observed and interviewed 4 parents of children ages 3, 4, 5, and 6. One parent/child pair was African American, two were Hispanic, and one N/A based on observation. Each of the Hispanic parents were interviewed in Spanish, and the other two in English.

Parents/caregivers arrived sporadically at the school and were directed to the "Library" room. Four laptop computer stations were set up on two tables. Each laptop was connected to the local network via a wireless connection, and consisted of a USB connected mouse, mouse pad, and headphones. The Word World eBook web link was accessed using a Firefox web browser. The cursor size was enlarged (approximately three times its size) using the operating system's universal access settings. In addition,

the web browser window was zoomed-in to expand the eBook without cropping its width or length.

Upon arriving, parent/caregiver-child pairs were welcomed to the event and introduced to the researchers. They were then briefed on the planned activities. Parents signed a consent form agreeing to participate, and each received a $40 gift card as a thank you for their participation. Parents were situated at a laptop computer next to their child. Researchers introduced the WordWorld eBook to each pair, using the following script in their introduction:

The eBook we will be showing you is a work in progress, at the "alpha" stage, which means that it has a number of bugs that still need to be fixed. We are asking parents with young children to help us to find out what parts of the eBook are interesting and fun. This will help us create a better, finished eBook. Because the eBook is not yet finished, there may be some interactive parts (pictures and words that move around) that are not yet highlighted, and there may be other parts that don't work as well as they should. This is part of the process of testing an eBook before it is finished, and we hope you will be patient with these interruptions because we need your comments to help create the best eBook possible.

Researchers encouraged parents to look for interactive elements in the e-Book, which can be recognized by the duck wing, and modeled viewing using the first two pages of *Totally Terrific Duck*. First, researchers showed the parent/child pair how to click the succession of 3 pictures of Duck in the picture frame. They were also shown how to click on "BARN" to see letters spread apart and hear the voiceover "Barn!". The next page of the book included a word build of the word T-I-E. Parents and children were reminded to listen for instructions to build the word. Lastly, researchers demonstrated how to click on 'BUG' to see letters spread apart and hear the voiceover "Bug!" Parent/Caregivers were directed to read the eBook "Totally Terrific Duck" together with their child and inform the researcher when they were finished.

Each parent/caregiver was individually interviewed after the reading, while the child was given the choice to re-read the Word World eBook, choose a bound book to read, or play with toys in the room.   Two interviews were conducted in Spanish with the Hispanic parents, and two interviews were in English.

Summary of Parent and Child responses
Use of eBook
1. Overall, the eBook was well-liked by parents who stated:
   a. * *"[My son] liked it very much, the colors of the little Duck were very attractive to him and the story line."*
   b. * *"It teaches you, it also helps [my son] get into using [technology] and get out of the daily routine of learning."*
   c. * *"The story is short but adequate for the kids of this age. And it is interesting, I like everything about it."*

2. Children navigated through the book with some/minimal assistance from their parent/caregiver. Parents stated:
   a. * "[My son] controlled it. I would guide him and he would move the mouse to change the page…Only the first time did I tell him what he was supposed to do, and then he went on by himself."
   b. "[My daughter] did most of it herself. I tried to help her manage the little mouse. I liked it highlighting in big when you came to something you could click on. She looked for it."
3. Two children reread the eBook a second time, at a faster pace, while their parent/caregiver was interviewed. Parents stated:
   a. "She said, Mommy I want to read it again."
   b. "If she had it at home she would read it again and again."
4. The eBook went at a good pace for the parent/child pairs and was scaffolded. Even when the pace seemed too quick for a child, the parent or child could click on the words to have them repeated. One parent explained:
   a. "It wasn't too fast. It helped that [my daughter] could go back through it, you know, even if it did go too fast she was able to go back and click on the words."

Reaction to eBook
5. All parents mentioned this is the first time they had been exposed to eBooks, stating:
   a. "This is my first one."
   b. "It is only my first time."
6. Children seemed to enjoy the interactivity, including clicking on the words, and seeing animations.
   a. Two parents suggested that the characters were very likeable.
      i. * "[My son] liked the Duck's hat, its tie along with its animation and colors."
      ii. "[My daughter] liked the duck."
7. Parents expressed happiness that their child was learning from the eBook (see skills mentioned below).
   a. Parents thought the eBook was colorful and children were engaged.
      i. "I liked that it's colorful."
      ii. "It reads itself like TV. [My daughter] can see it and understand."
   b. One parent mentioned that her child would choose to read an eBook over a real book because it is more fun.
      i. "It helps them participate in reading, instead of just reading a book."
      ii. "It reads to her."
8. Parts of the story most liked: Duck's expressions changing in the mirror, word morphs
   a. "The mirror part is good."

b. *"She liked the duck, when you clicked on it and it changed to the sad face."*

c. *"She likes when [the words] transform."*

9. One parent, of 4-year-old child, mentioned she did not feel eBooks had enough variety, like traditional print books.

a. * *"A child can hold the traditional print book in their hands. If they don't like it, they can grab another one….but in a center, one can have a variety of books available, which I don't think its like that with something on the computer."*

10. All parents mentioned they would use the eBook again.

a. * *"As long as one guides [my son] and says 'Look, we are going to do this program.' And if it interests him, as long as it's creative."*

11. One parent mentioned it supported a positive use of technology, rather than watching inappropriate videos/movies in children's spare time.

a. * *"I would recommend the eBook, rather than using other movies that are inappropriate for them. Instead they can enter and read the books that are found on the PBS site or other programs on the computer. Give them more information about these programs."*

12. Two parents of dual-language learners asked researchers to return to present more eBooks.

a. * *"Please return so we can read some more books… Are you going to send us more information on where to find them?"*

Participants' Expressed Views of Educational Media Tools:

- The parent of a 3-Year-old dual language learner mentioned that her child already has experience with computers, and enjoys online educational software.
  - o * *"My older daughter shows him some programs and he really likes it on the computer. He controls the mouse and uses it. Also here in the center, he plays on the computer."*
- Both Spanish-speaking parents use Curriculo Creativo (Creative Curriculum) as a starting point for finding more educational tools.
  - o * *"I go to the internet for things. I enter the Creative Curriculum. It is a program we use here at the school. I look for it in Spanish, and from there I begin to get ideas. They have activities and procedures and materials."*
- Two Spanish-speaking parents, of dual language learners, mentioned the older siblings in the family are the main source for bringing educational materials/activities into the home. Older siblings use their own experience as resources
  - o * *"My older daughter has some programs she uses at the school where she is at and it has a program for younger children and she enters the webpage for him and he learns colors, words, the basics. And he likes it a lot, he entertains himself."*
- Two parents mentioned they trust that producers will implement the best pedagogy and educational practices into their product.

- o * *"To me, everything that is educational is okay with me. Because you are not going to put something that is not adequate for learning."*
- Two parents of dual-language learners said they felt they constantly ask teachers from the after-school program for more educational resources but are not provided with enough tools or attention to their child.
- Two of the four parents mentioned they own a computer at home.
  - o One parent mentioned she owned other electronic educational tools.

Parents' Statements about Skills Addressed by eBook
13. Phonemic Awareness:
   a. Choosing letters to put together to make a specific word (ex: t-i-e)
      i. *"It is good to show how to write a word."*
      ii. *"I like the t-i-e part."*
14. Phonics
   a. The connection between sounds and letters – 't' sound is pronounced as the letter 't' inflates
      i. *"Seeing the words put together, knowing that each letter has a sound."*
      ii. *"[The eBook] is good for pronunciation."*
   b. The understanding that sounds blend together to make a word: Parents liked that the words put together (ex: t-i-e) were read separating the sounds
      i. *"She knows letter sounds. Putting the sounds together is where we are going next. It is good for her, seeing the word put together, knowing that each part has a sound."*
15. *Concepts of Print*
   a. Tracking (words highlighted)
      i. Directionality: they can see the left to right movement of reading
         a. *"She can see it and hear it and so she can follow it."*
         b. *"They highlight the word and she can understand [the story]."*
   b. One-to-one correspondence: they can see and hear the word at the same time- Parents liked that the words could be clicked and repeated
      i. *"It helped that she could go back through and click on the words."*
   c. Not all parents know how to read a book in a way that teaches literacy skills, like pointing to words as they read. The eBook does this for them as it highlights
      i. *"If she picks up a regular book she has to get an adult to read it to her and adults are going to just read it. They don't know to point to the words."*

16. *General reading skills and engagement*
   a. Overall confidence as a reader. Reading the eBook gives the child a chance to recognize words they know and click them to hear the word

      i. *"We've been working on site words and she can click on a word she knows and hear it. She feels more confident."*

   b. Understanding that words have meaning

      i. *"The words actually mean something and it shows what they mean when they are formed, and then children can associate the word with what it means."*

   c. Vocabulary – the word "awry" is a new word

      i. *"I was surprised when it said "went awry" rather than 'going crazy' or something. They used another word. I wished that there was more of those words."*

Suggestions from parents:

1. All parents mentioned this is the first time they were presented with an eBook and were not able to compare its educational value to another eBook.
2. Parents said they would prefer to receive a CD-ROM of an eBook, rather than a link to the internet. Parents stated:
   a. ** "I would prefer the CD, they are more practical….I have three kids total and they all have CDs. My 11 year old daughter helps [my son] out a lot with it…Email would work, but you don't have it. I like the CD. "*
   b. Parents suggested that a CD is better because children can hold it and see it, as a reminder
      i. *"Something tangible that I can see and remind me."*
   c. Also they stated that a CD seems to be more practical
      i. *"CDs always work for me."*
   d. Parents also stated that there was no time for email/internet during the day
      i. *"We don't really get online during the day."*
3. Some parents would like more interactivity on each page
   a. More word morphs and clickable items like the Barn
      i. *"If there were more things she could click on, like the BARN."*
4. The caregiver guide was not discussed as something parents liked about the eBook.
5. One parent wanted Pig to be introduced as the photographer earlier in the story, rather than just sitting in the background, not doing anything.
   a. *"The pig is just there in the background. Maybe at the beginning they could say something about the pig. Like he is the photographer."*
6. Two parents suggested making the eBook longer
   a. ** "Depending on time, I would like to have it be longer. Yes, so it lasts longer."*
   b. *"It is too short for me."*
7. Two parents suggested the book be translated into other languages
   a. ** "Not all of us understand. There are a lot of parents who have children that come from different countries and they don't understand the [English] language."*

     b. One parent suggested the eBook provide a handout that includes a translated version of the story.

     c. Two Spanish-speaking parents feel a translated copy would also allow the adult to learn as they accompany the child. Spanish-speaking parents indicated they would like to know what their child is reading (with regard to content).

         i. * *"Translated, it would also help one understand the other language. I follow along, but I don't understand what is going on. The other language is necessary."*

         ii. * *"They learn the second language in the school. Maybe I can learn a bit at home with them. I would add support for more languages."*

8. Adding more new vocabulary like "awry" that a child doesn't hear every day

     a. *"I would like to see more bigger words, more vocabulary, not just words they already hear and know."*

* Please note, these responses have been translated from Spanish.

Appendix D: Summary of Survey Findings

Summary of Survey Results

Super WHY! Summer Reading Camp
Camp Facilitator Survey Findings:

In June 2010 we distributed a survey of 37 items to Super WHY! Camp Facilitators following their weeklong summer reading camp implementation period. Station education outreach coordinators, emailed the survey to camp facilitators who were provided with a gift card of $20 upon completion on the survey. Of the 86 camp facilitators, 23 completed surveys. We speculate that the indirect method of reaching out to camp facilitators had a negative impact on the response rate to this survey. Because Out of the Blue staff worked with regional education outreach coordinators who in turn reached out to individuals in school districts across the country, there was no central contact for teachers and therefore no direct way to communicate with teachers to ask that they complete the survey. Therefore we suspect that either few teachers received information about the survey or few understood its purpose or were reminded to complete it.

Survey Overview

The survey included a range of questions including 6 that required a yes/no response, 27 multiple choice and matrix questions, and 5 open-ended questions.

The questions that elicited a yes/no response asked teachers about their past experiences with computers and with the reading camp, if they saw value in the addition of the Super WHY! games, and how the games were used in the reading camp curriculum.

Multiple-choice questions aimed to collect information about which games were used and liked, how and when students played the games, if the pacing and content was age appropriate, and if the games were meeting their needs and those of their students.

The 4 open ended questions allowed teachers to share their thoughts about the educational value of the games, what they liked most and least about the Super WHY! games, how students responded to the games, and if the over all needs of their students were met. One open ended question asked teachers to describe their past experience with computers. A fifth open-ended question was a follow-up to a yes/no question about previous use of computers and computer games with students.
1. What did you like best about the computer games?
2. What did you like least about the computer games

3. How did your students benefit from using the games? (If teacher reported they did benefit)
4. Is there anything else you'd like to tell us about your experience using the computer games
5. Have you used computers or computer games with students in your classroom in the past? If yes, please explain how.

Responses to multiple-choice questions:

Most of the teachers who completed the survey had experience using computers and computer games in the past with students. Only 2 teachers had never used computers in their classes in the past (see Figure 7). Of the 21 teachers who had used computers in the past, they mainly used computers in their classrooms for learning games and educational websites. About an equal amount used computers to help reinforce and review skills they were teaching. Five teachers used computers for both instruction and as a center in the classroom. The least common ways teachers used computers in the past were for test preparation, watching videos, and introducing new topics.

Figure 7: Facilitators who have used computers or computer games with students in the past.

Facilitators Who Have Used Computers or Computer Games With Students in the Past

No 9%

Yes 91%
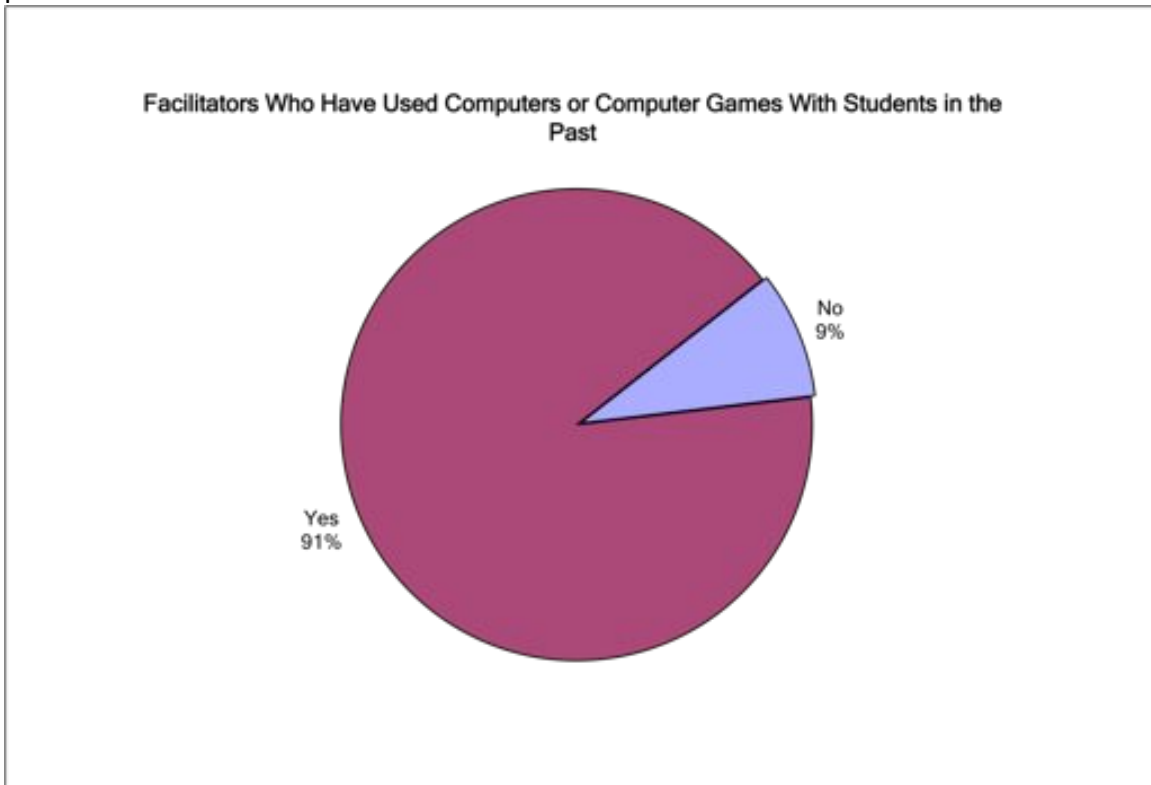
Teachers informed us of the ages of the students in their summer reading camp class. The majority of the teachers had students ages 4 and 5. There were very few 6 year

olds, and even fewer students who were 3. Most of the classes were of mixed ages, and only 4 out of 23 classes had children of all ages 3-6.

We asked teachers to rate their degree of agreement with statements about the computer games and their use. The response options were; strongly disagree, disagree, neutral, agree, and strongly agree. In general, teachers' responses about the games were positive (see Figure 8). Twenty-two of the 23 teachers agreed with the statement "I would be excited about using computer games in the Super WHY! Summer Reading Camp again in the future." The same number of teachers noticed their students interacting verbally while playing the computer games, calling out answers or discussing with a partner. Twenty-one teachers found it easy to make connections between the computer games and the Super WHY! Reading camp curriculum. Twenty-one of 23 teachers disagreed that they would rather have taught the camp without the games, further illustrating their fondness of the games. The most frequent 'neutral' responses were about what campers did outside of the classroom: talking about the games in another setting, or playing the games at home with their parents. It is likely teachers were neutral about these statements because they are unsure of students' activities outside of school. Teachers reported that an equal number of campers played the games independently as played with others. Seventeen teachers disagreed that their students only played games as a whole class.

Figure 8: Facilitator agreement with statements about Super WHY! web-based computer games and the Super WHY! Summer Reading Camp Curriculum.
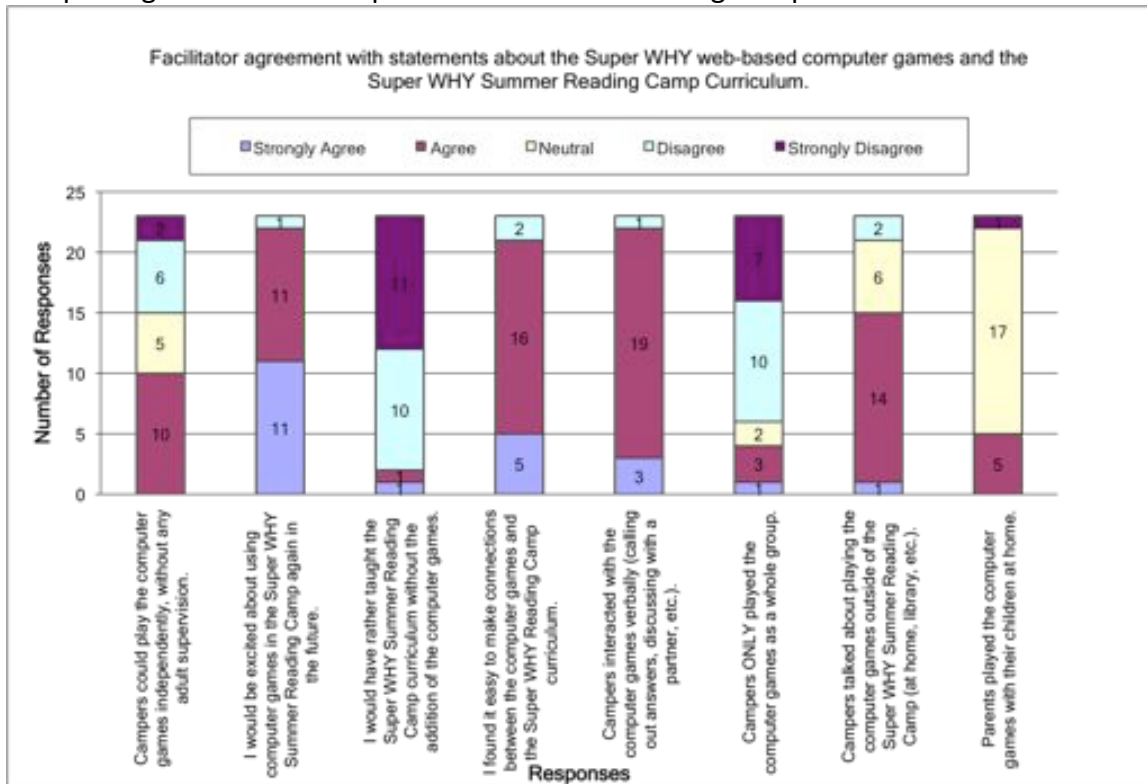
When asked about how successfully the computer games fit into the daily schedule, the majority of teachers liked the daily schedule of activities, including how the games were introduced to students (see Figure 9). Many students had the opportunity to play the games more than once during the day, though some teachers said their students only played once each day. Twenty-one out of 23 teachers were comfortable with the number of adults in the classroom to support the children while they played the games. Four classrooms had 3 adults present, and about half of all 23 classrooms had two adult supervisors. Several teachers stated that one adult is sufficient to supervise the students, as teachers were alone in their classrooms while students were playing the games.

Figure 9: Schedule and Supervision.
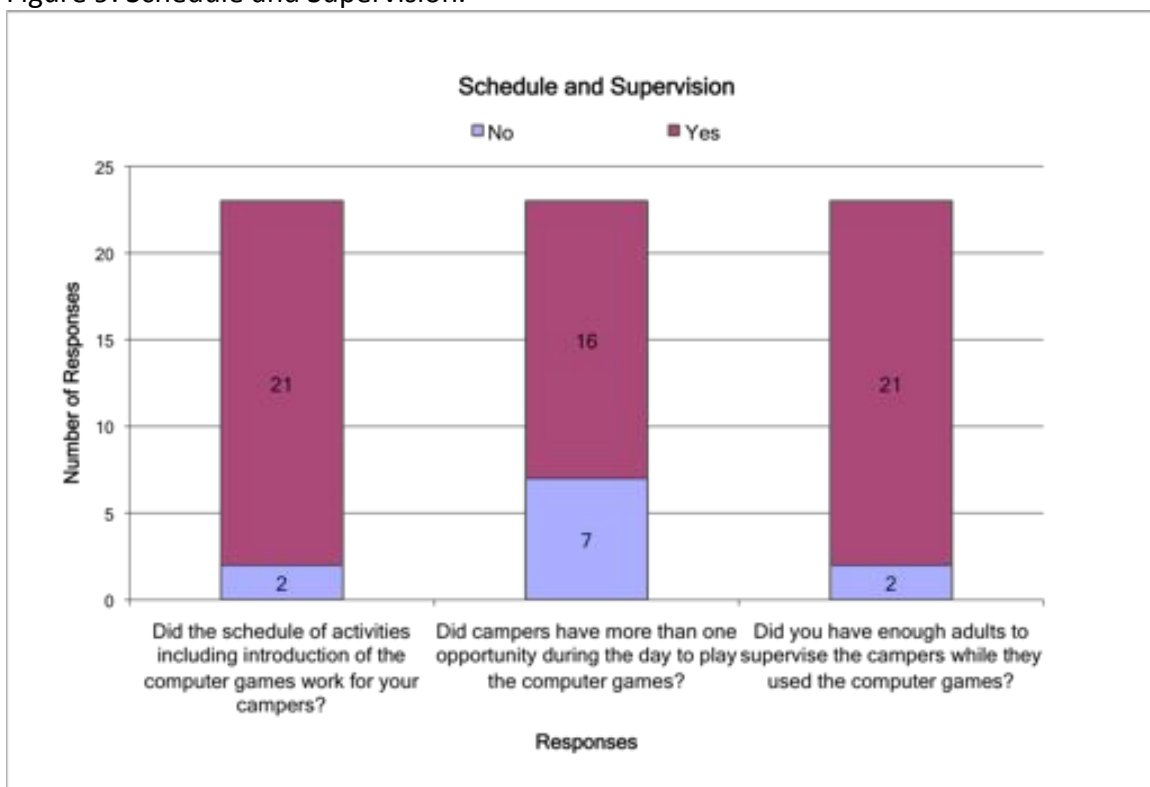
In addition to teachers reporting how much they agreed with statements about the games, they were also asked to report their thoughts about the games in relation to how their students used them (see Figure 10). There were three statements that no one disagreed with. Teachers overwhelmingly agreed that playing the computer games helped students feel more comfortable and familiar with technology. Twenty-one teachers agreed that their students enjoyed playing the games, the while two were neutral. All teachers agreed that, "the computer games helped to reinforce the skill of the day." About 75% of the teachers thought that overall the instructions for the 5 games were clear and easy for the campers to understand and that the games were appropriately paced. Fewer teachers agreed that the content and words used in the

games were at an appropriate level for their students. Overall, teachers were comfortable with their knowledge about the computer games with their young students. Twenty out of 23 teachers indicated they did not need more training on how to use the games.

Figure 10: Facilitator agreement with statements about the Super WHY! web-based games.
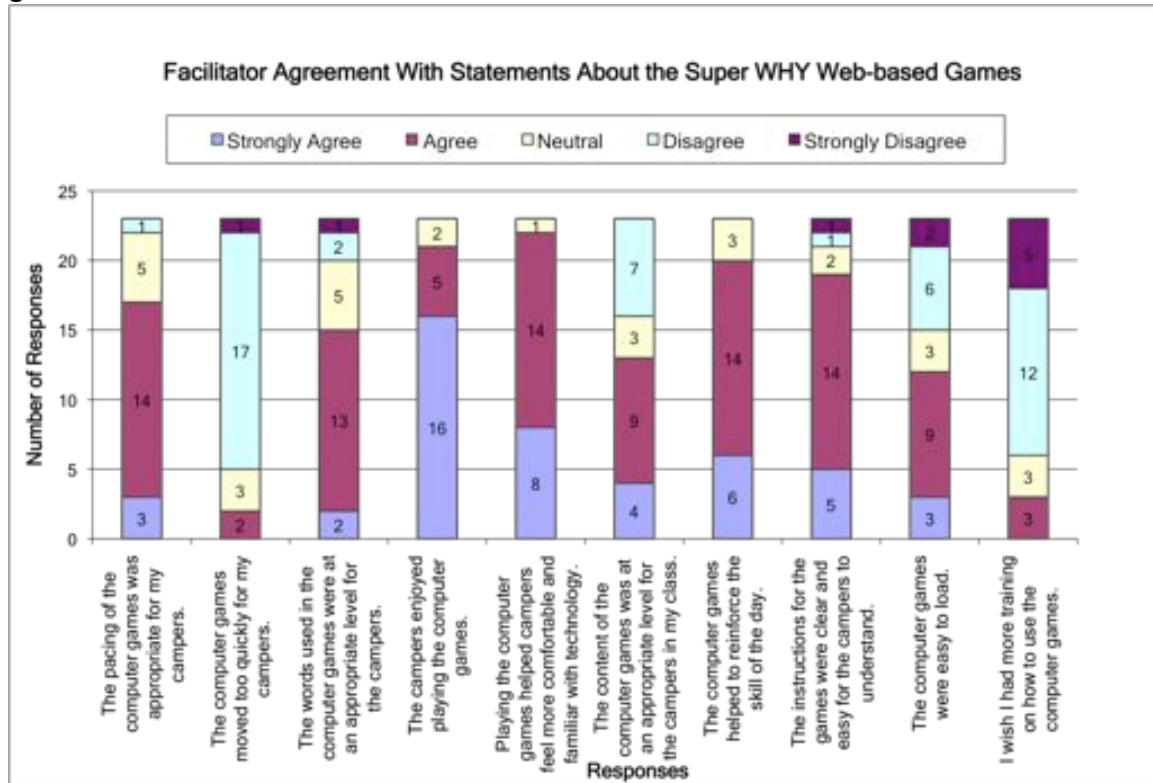
As part of the Super WHY! reading camp curriculum and schedule, teachers introduced the game of the day to their students as a whole class. The curriculum suggested allowing other time slots throughout the day for students to play the game that was introduced to them, but the exact time would be the teacher's decision. Other than the whole class introduction, it was up to the teacher whether the students played independently, in pairs, in groups, or by communicating responses to a teacher. Only 15 teachers reported that their students played the game as a whole group, given that the curriculum stated they should introduce the games to the whole class at once (see Figure 11). The next most common way students played the games was independently in 14 classrooms. Students played the games in pairs in 10 of the classrooms. The least common ways students played were in groups and with teachers. When explaining the 'other' way her students played the games one teacher wrote, "The first day I sat with each pair of students and helped them through."

Figure 11: How campers played the computer games.
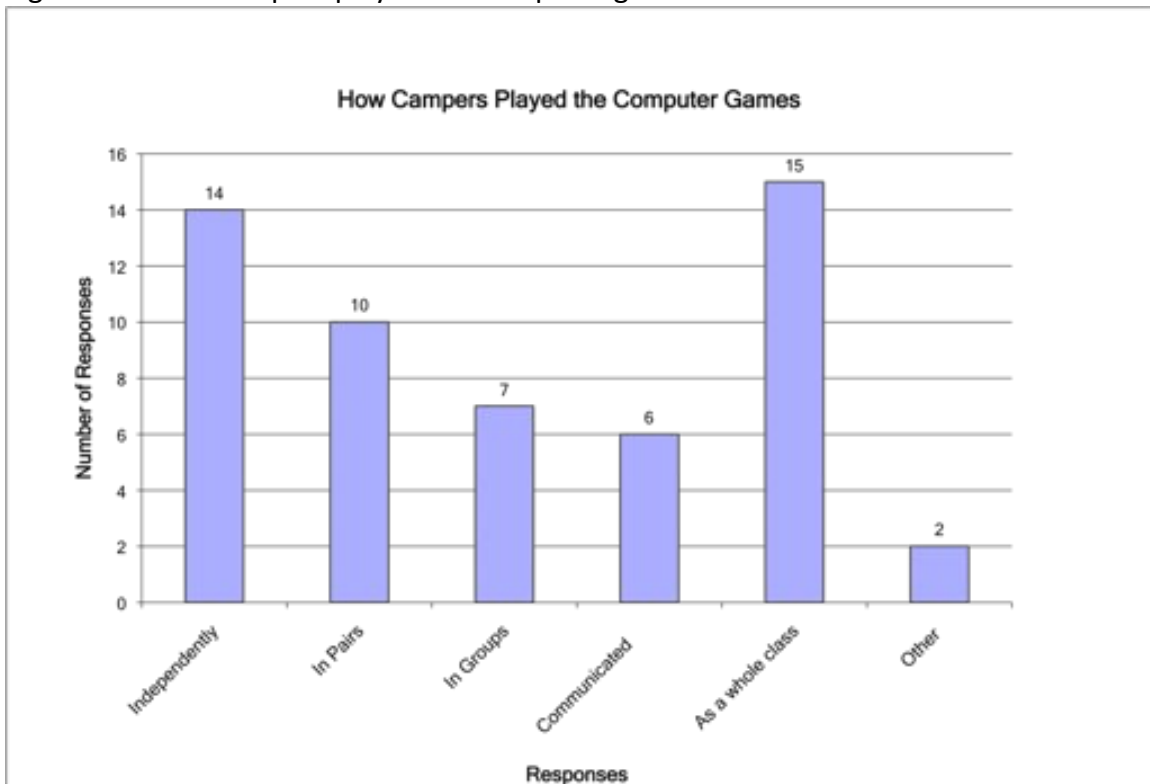
During the week of the Super WHY! reading camp, one computer game was introduced each day. Each of the five games related to a character in the Super WHY! show, and each character had a literacy-based super power. The games are:
- Storybook Creator
- Alpha Pig's Alpha Blocks
- Wonder Red Freeze Dance Rhyming
- Princess Presto's Golden Crown Spelling Bee
- WHY! Flyer Adventure

Students played Alpha Pig's Alpha Bricks and Wonder Red's Freeze Dance Rhyming the most (21 out of 23 classrooms) (see Figure 12). Students also often played Princess Presto's Golden Crown Spelling Bee and the WHY! Flyer Adventure. The computer game Storybook Creator was least commonly played, as only 9 teachers reported its use.

Figure 12: Games played by campers.
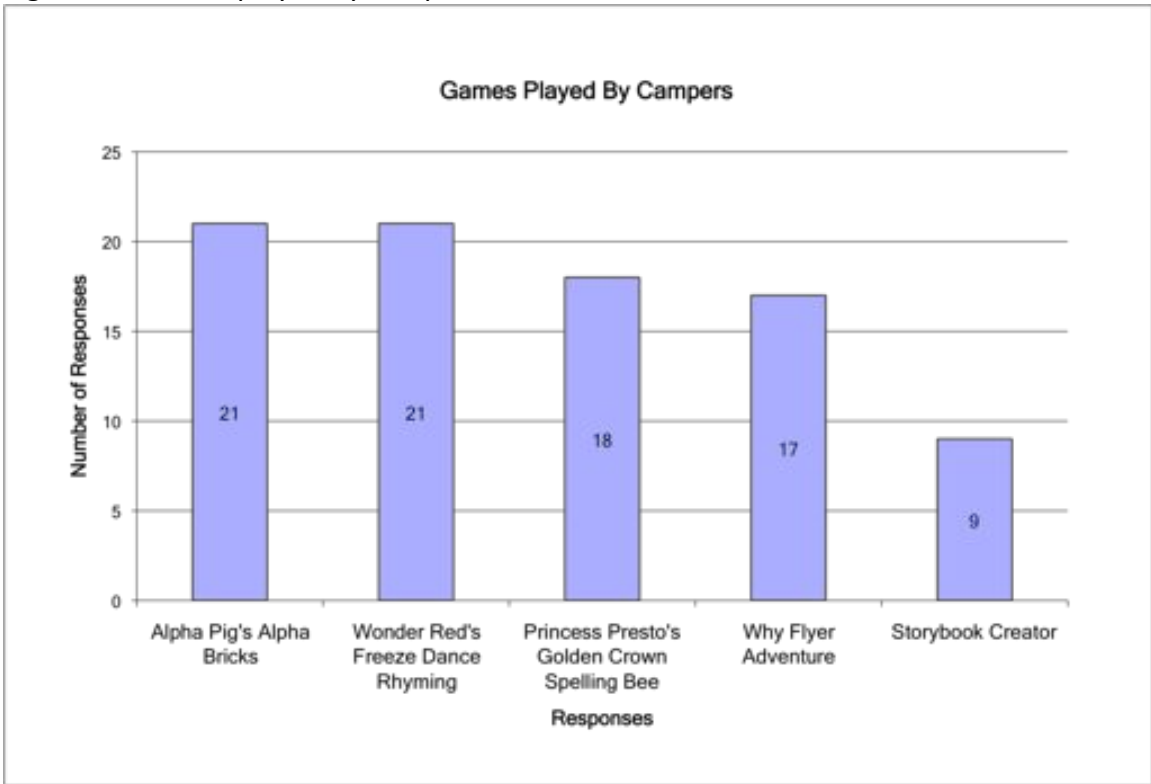
Of the five games, Alpha Pig's Alpha Bricks game elicited the most positive response from students (see Figure 13). About half of the teachers reported their students responding positively to the WHY! Flyer Adventure game. Only 1 teacher thought the Storybook Creator game got the most positive response. About a third of the teachers reported positive reactions to Wonder Red's Freeze Dance Rhyming and Princess Presto's Golden Crown Spelling Bee, 7 and 8 classrooms respectively. In the open ended responses a few teachers noted frustrations with the last two games mentioned. Teachers thought that the skill level was too high for their students. Therefore, Alpha Pig's Alpha Adventure game might be more appropriate for the literacy level of these young students as it focuses on letters rather than words.

Figure 13: Games that elicited the most positive response from students.
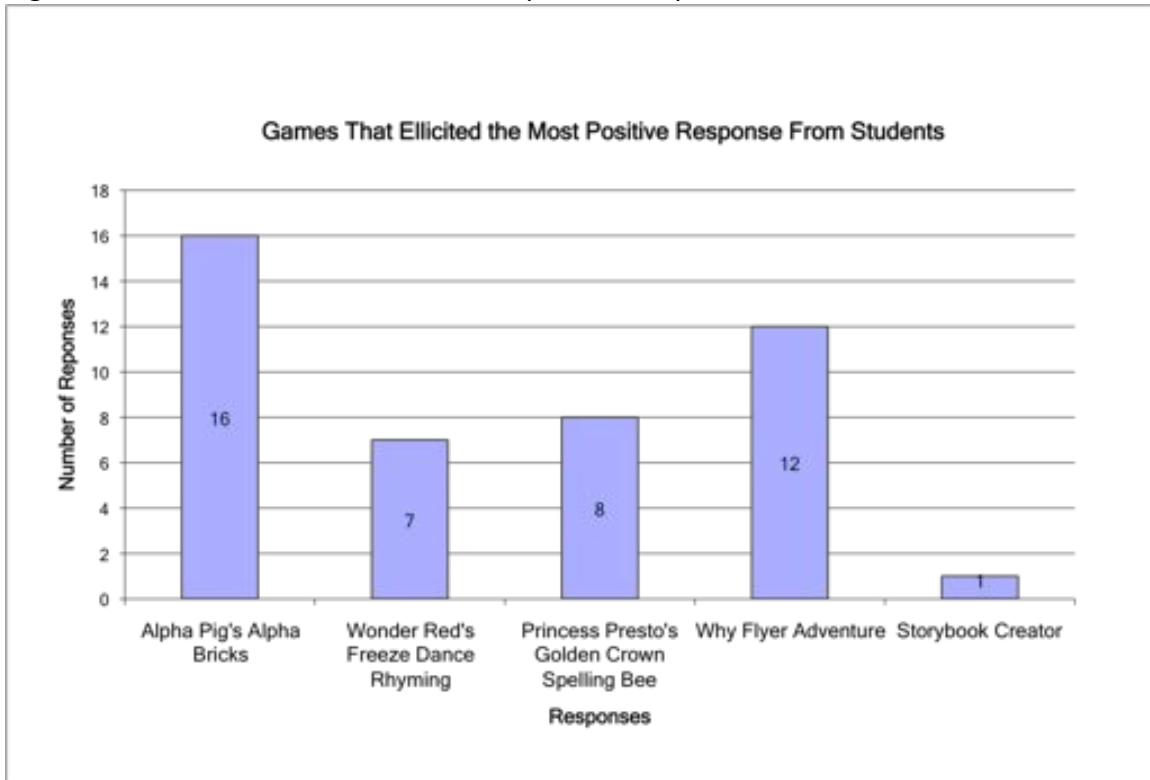
Of the 23 teachers who responded to the survey, about half (12) of them had taught the Super WHY! Summer Reading Camp in the past. The 12 teachers who had taught the camp before answered questions that compared the past camp to the new curriculum integrated with the computer games (see Figure 14). None of these teachers thought that compared to the original camp student participation, attention and laughter was "less than usual" with the addition of the games. Six of these returning teachers reported that their campers' participation was "about the same as usual" as the other 6 returning teachers thought their campers' participation was "more than usual". During the day 8 of 12 teachers reported that campers' attention was "about the same as usual". Similarly, about half of these teachers heard their students laughing "about the same as usual". Exactly half of the teachers who responded were as interested in the lessons before and after the addition of the computer games, and half were more interested after the addition of the games to the camp.

Figure 14: Differences between the original Super WHY! reading camp without computer games and the new camp with computer games.

Differences Between the Original Super WHY Reading Camp Without Computer Games and the New Camp With Computer Games
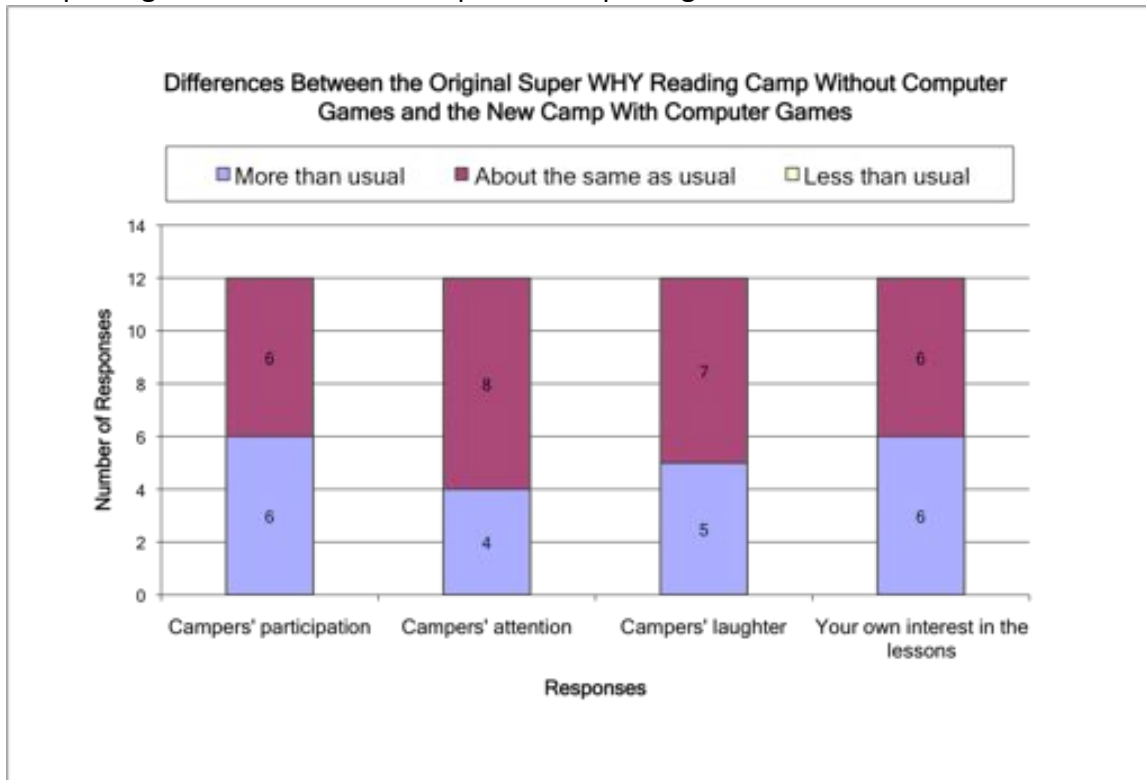
Overall the information collected from this survey conveyed a generally positive response from the facilitators of the Super WHY! summer reading camp integrated with computer games. All but one teacher thought their students benefitted in some way from the games. The one teacher who did not feel her students benefitted from the games was not able to use them because of technical problems. In addition to replying 'No' to the survey question, "Do you think your students benefitted from the computer games?" she explained WHY! she responded this way, "We could not use them. I think it will be a good addition to the camp when the program is working well." Therefore all of the teachers saw benefits of the games for their student, or saw the potential for these benefits.

Responses to open-ended questions:

What was most-liked about the games:
About half of the 23 teachers most liked seeing their students so engaged with the games and the amount of laughter and excitement students expressed as they played. One teacher commented enthusiastically, "*I loved the stimuli. They were colorful, there was zipping, and popping. The kids loved the way they were able to interact with each character and sing their special songs especially with Wonder Red (all-ball- call... so catchy!)*". Another mentioned*, "The kids LOVED the chance to play on the computers. They took turns with partners and were eager to participate. The skill level-appropriate*

games reinforced the day's lesson."

In addition to teachers liking how the games supported literacy skills in a fun and engaging way, three teachers thought that it was useful for students to have experience using computers. *"Some of my kids have never played a computer game or touched a computer. So the simple fact that they were able to actually play, laugh, learn and have fun was the best part."* Three teachers also thought the games were age appropriate for students. This could explain WHY! more than half of teachers noted their students would work independently at the computers. This could also be a result of the whole-class introduction to the games, which 13 teachers did with their class.

Fourteen out of 23 teachers who responded liked how the games supported students' literacy skill development. "*They seemed to progress throughout the week*" said one teacher. "*The children love to use the computer and I was happy that it reinforced the goals of the day." "They were able to put the new skills they had learned into practice immediately."*

What was liked least about the games:
When asked what they disliked most about the program, teachers most often identified the problems they had using the technology. About half of the teachers found loading the games to be frustrating. They said it took a long time to load the games, and some of the games rarely worked at all. A teacher explained her frustrations, "*The games at times kept freezing or never downloaded. We wasted a lot of time waiting for them to load."* One teacher mentioned other problems with the technology, *"One wrong click from the child, caused them to easily be diverted to another page. Also any game that depended on listening was difficult because we did not have head phones for all children and the sound was muffled at times that I could not even understand if the computer was saying "p" or "t" for example."*

In addition, seven teachers reported that some of the games were too difficult for their students, in particular three teachers said that Wonder Red Freeze Dance Rhyming was the most challenging and inappropriate for her students. One teacher noted*, "Some of them were too hard for this age group because they couldn't read yet so for example one of them like Wonder Red's fun, bun, run where you had to know what the word said to play independently was too hard for them."* One teacher also commented on the Princess Presto Spelling Bee game, "*being that we are working with small children, they love immediate feedback. With that being said, do we really have to get four answers for one jewel to appear in the crown each time? It just made a seemingly fun game drag on and each time students thought that they would see a complete crown and did not."*

Benefits of the games:
Of the 23 teachers who responded to the survey, all but one said they thought their students benefitted from playing the games. Two teachers reported students' test scores went up. One teacher stated: "*Having taught this camp for the last several years,*

I noticed better results on the post tests." The other wrote*, "I think the games gave students more review and practice of skills and I thought my students tested well"*. Teachers were aware that students were having positive experiences with the games because of the types of responses they observed. A teacher explained that she knew her students were benefitting from the games because *"the kids were actively and excitedly discussing the task at hand and laughing often."* Another teacher noticed her students were having a positive experience because of "*the conversations that were taking place between them and the excitement they showed by yelling out answers."* The one teacher who did not think her children benefitted from the games was not able to use them because of technical problems. She did note however, that she thought the games would be beneficial if they worked for her.

Recommendations from Teachers:

In their final comments about the Super WHY! computer games, some teachers suggested ways to improve the games and their use. As explained above, there were some feelings that the skill level of some games was too difficult. Teachers suggested making the skill level more appropriate:

"The rhyming games were too hard. It would be helpful if the students could see and hear the words because they could not read the words."

"In Princess Presto Golden Spelling Crown the 3-5 letter words were great until words like pumpkin and basket were introduced. Some of the choices the campers were given were illogical. There were 2 random letters together, not even blends, to choose."

In order to make the games a little more age-appropriate for the younger students it was suggested that the games *"use more praise in the game and give feedback that even the student can tell what they have done."* In terms of improving ease of navigation for little hands ,*"make buttons bigger that say start again, or simple words like Go/green and red/stop."*

It would be helpful for teachers to know how their students are performing on the games. It is important for teachers to know where their students' strengths are, and where they need to improve. A teacher noted that *"it would be nice if I as the teacher could see what the student played and how successful they were."*

Many teachers reported technical difficulties while playing the games, especially during the loading process. Teachers were frustrated with the amount of time it took to load the games. One teacher suggested, "*It would be nice to have them on a disk too, in case there was a problem with the internet connection.*

One teacher suggested to "*consider the ELL students".*

The Electric Company School's Initiative Curriculum Teacher Survey Summary

Researchers developed and disseminated an online survey for The Electric Company School's Initiative Curriculum teachers regarding their experience in delivering the Success for All Curriculum with integrated The Electric Company videos and games. While a total 25 responses were submitted via the online survey, 23 teachers completed the survey from start to finish. Some teachers skipped some questions, depending on their use of the curriculum and voluntary choice to answer specific questions.

The survey included 25 questions, including open-ended and multiple-choice questions.

Teachers' Background and Use of The Electric Company School's Initiative Curriculum

Of the 23 surveys completed by teachers, 21 reported that they delivered more than 6 lessons from The Electric Company School's Initiative Curriculum. A majority of the teachers, 16, stated that they delivered about 11-15 lessons. Three teachers delivered less than 5 lessons.

Findings suggest that 13 out of the 22 teachers have watched at least one full episode of The Electric Company at the conclusion of their participation with the program.

Using the technology
Our findings from the online teacher survey, about teacher's experience with The Electric Company School's Initiative Curriculum, shows the following:
    * Approximately 64% of teachers reported that they worked with students at or above the SFA Phonics Reading Level.
    * approximately 75% of The Electric Company/Success for All teachers have previous experience using an interactive white board in the classroom.
    * 90% of teachers reported that they have used videos/movies, or computer games prior to using The Electric Company School's Initiative Curriculum.
    *17 out of 20 SFA teachers reported that they had previously used some sort of online educational resource.
    * Two teachers out of 24, feel they could have benefitted from more training on how to use the technology to deliver The Electric Company School's Initiative Curriculum.

The Electric Company School's Initiative Curriculum Content
Teachers were asked to rate their degree of agreement for a set of statements regarding their experience with The Electric Company School's Initiative Curriculum on a five-level Likert scale. Our findings show that about half of the 24 teachers felt the SFA lessons with TEC content were well organized and easy to implement. Paired with the open-ended response of what teachers liked least about The Electric Company School's

Initiative Curriculum, these findings show that a large group of teachers would like to see improvement in way The Electric Company content is structured with SFA lessons. For example, teachers would like better alignment between TEC media and the appropriate grade level of SFA phonics lessons.

A small number of teachers, four out of 24, felt The Electric Company content confused students. While five teachers felt the content of The Electric Company was not appropriate for children in their class. Two teachers expressed concern that the character of the "Butcher" was too violent and inappropriate for their students.

The Electric Company School's Initiative Curriculum
Findings from the online survey show that 22 teachers found it "easy to build bridges, between The Electric Company content and the rest of the Success for All Curriculum." In addition, 21 out of the 24 teachers reported that they used the language/songs from The Electric Company School's Initiative Curriculum when they were teaching phonics concepts during the rest of the SFA Curriculum. These findings suggest that teachers were engaged with The Electric Company School's Initiative Curriculum enough to make connections between TEC content and the rest of the SFA Curriculum.

Teachers were asked to compare the SFA Lessons with The Electric Company content to the traditional SFA lessons on factors of student engagement, the length of time to deliver the lesson and their own interest. Findings suggest that at least 70% percent of teachers felt they witnessed "More than usual" student engagement in the areas of student participation; attention; and laughter. Additionally, teachers felt their own interest also increased "More than usual" when compared to the traditional SFA lessons. Our findings suggest that the length of time it took to teach The Electric Company School's Initiative Curriculum lessons remained about the "Same as usual" according to 11 teachers, but was deemed "More than usual" for about eight. The following figure (15) summarizes the findings on how teachers felt The Electric Company School's Initiative Curriculum compared to the traditional SFA lesson on the previous factors indicated.

Figure 15: How did the SFA lessons with The Electric Company content compare to the traditional SFA lessons.

How did the SFA Lessons with The Electric Company content compare to the traditional SFA lessons on the following factors:
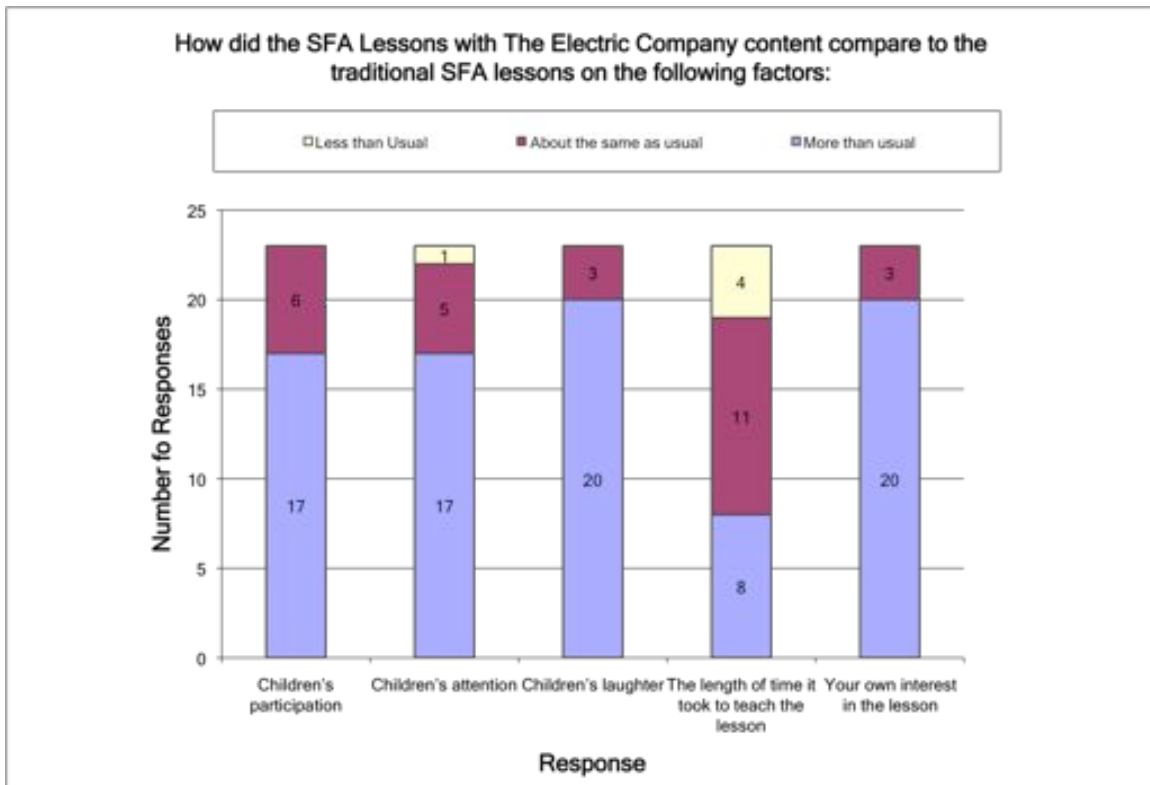
Responses about the technology
23 teachers delivering The Electric Company School's Initiative Curriculum deemed the interactive white board essential to delivering the curriculum.

Teachers' responses to the video segments
Further findings regarding the use of The Electric Company videos show that out of the 24 teachers who responded, most agreed or strongly agreed with:
* The pacing of The Electric Company content (20 teachers)
* The amount of text-on-screen in The Electric Company video segments (22 teachers)
* The word choice used in The Electric Company videos was appropriate (21 teachers)
* That students constantly interacted with The Electric Company videos (23 teachers)
* The number of videos clustered around each phonics goal (23 teachers)

The following figure (16) summarizes the findings on the teachers' degree of agreement for each of the statements about The Electric Company videos.

Figure 16: Teacher's agreement with statements about The Electric Company games.
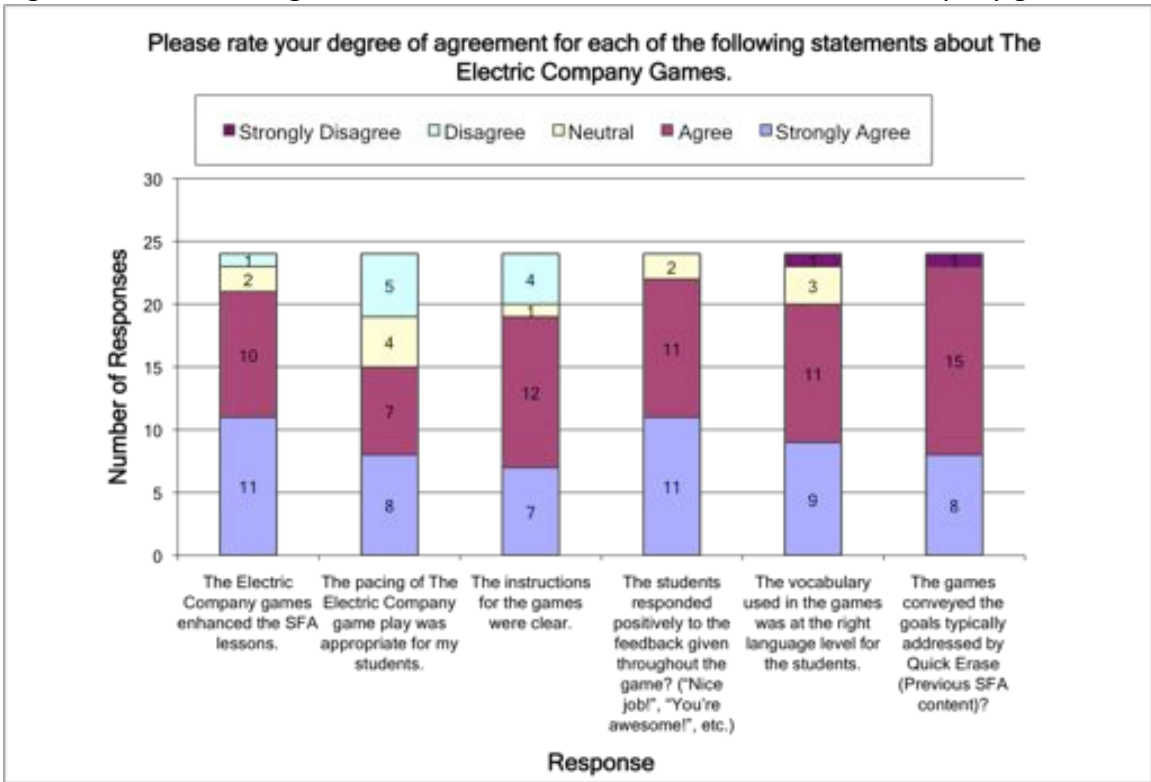
Researchers asked teachers to select the top three Electric Company Videos from a list of TEC videos shown in class that elicited the most positive response from students. Researchers included screenshots of The Electric Company videos in the survey to enhance teachers' recall of the episodes. Our findings suggest that "Silhouette," "Anthems," and "Music Man" elicited the most positive response from students. Figure 17 summarizes the findings for the rest of The Electric Company videos.

Figure 17: Teacher selection of top three Electric Company videos.
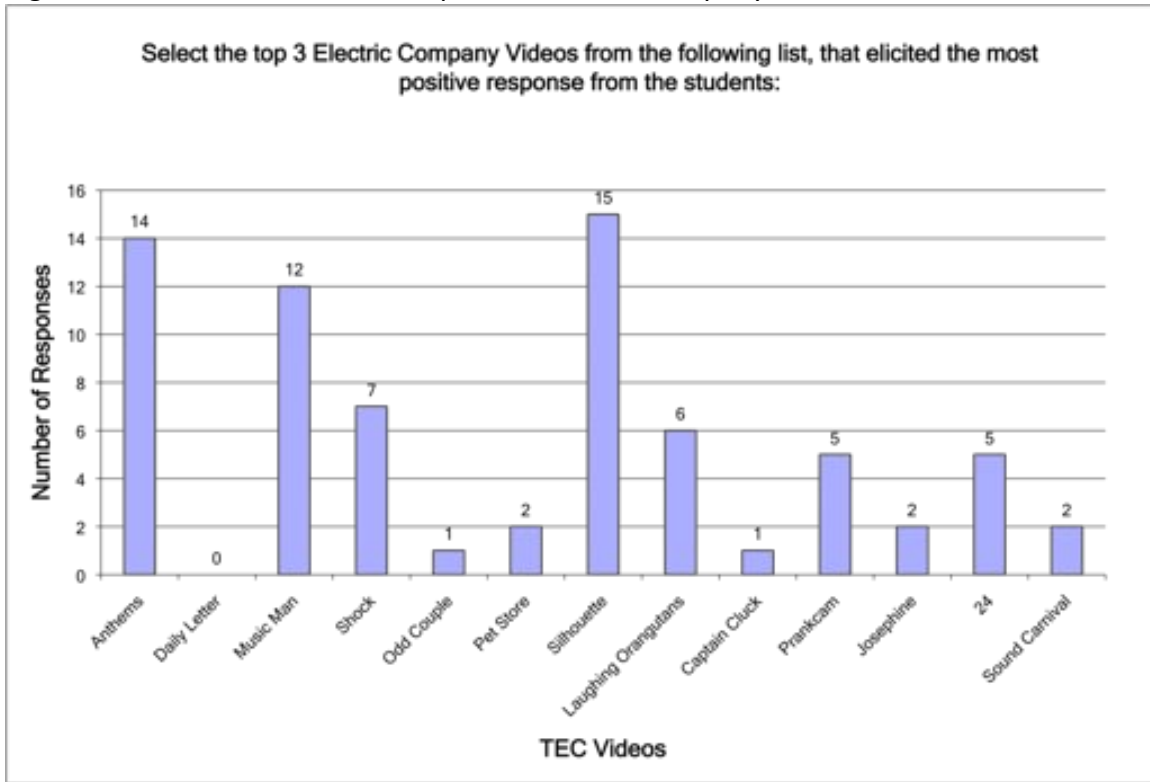
Teachers' responses to the games

Our findings regarding teacher's experience with The Electric Company games show that out of the 24 teachers who responded:

* 21 agreed the games enhanced the SFA lessons. Additionally,
* 19 teachers agreed that instructions for the games were clear
* 22 noted that students responded positively to the game's user feedback
* 20 teachers noted that vocabulary used in the games was at a right language level for the students
* 23 agreed that the games conveyed the goals addressed by "Quick Erase," previously used SFA content and replaced by The Electric Company games

Findings show that teachers were not as content with the pacing of The Electric Company games for their students. The following chart summarizes the findings on the teacher's degree of agreement with each of the statements about The Electric Company games explained above (see figure 18).

Figure 18: Teacher rating of agreement with statements about The Electric Company.

Please rate your degree of agreement for each of the following statements about The Electric Company Games.
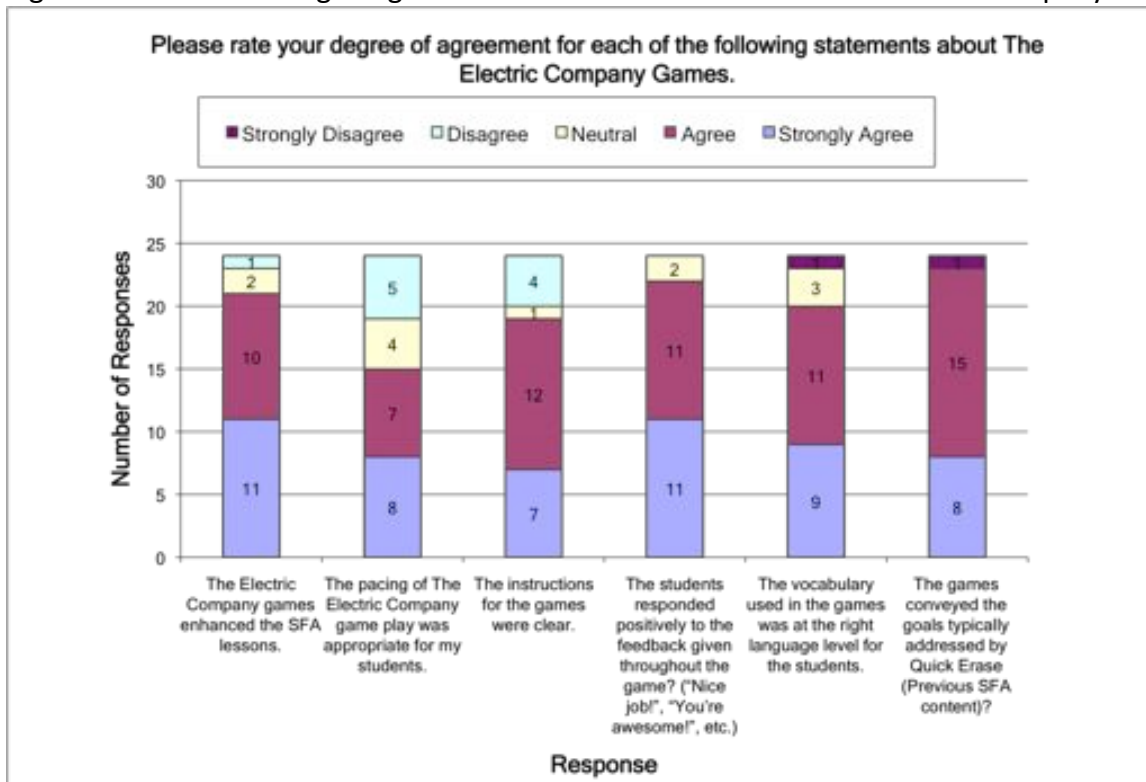
Researchers asked teachers to select the top three Electric Company Games from a list of games used in the class that elicited the most positive response from students. Researchers provided participants with screenshots of The Electric Company games to enhance teachers' recall of the games. "Word Transformer," "Say What," "Sort It Out," and the "Chain Game" were selected as the top four games that elicited the most positive response from students, in rank order from most to least positive response. Findings from the online survey suggest that "Combotronic" and "Great Escapes" were the least favorite with students as perceived by teachers. Focus group interviews with The Electric Company/Success for All teachers indicate that "Combotronic" caused the greatest amount of technical difficulties. These findings suggest that technical difficulty most likely contributed to the student's negative responses to these games. The following figure displays the findings on The Electric Company games that elicited the most positive response from the students (see Figure 19).

Figure 19: Teacher's top three choices of Electric Company games that elicited the most positive responses.
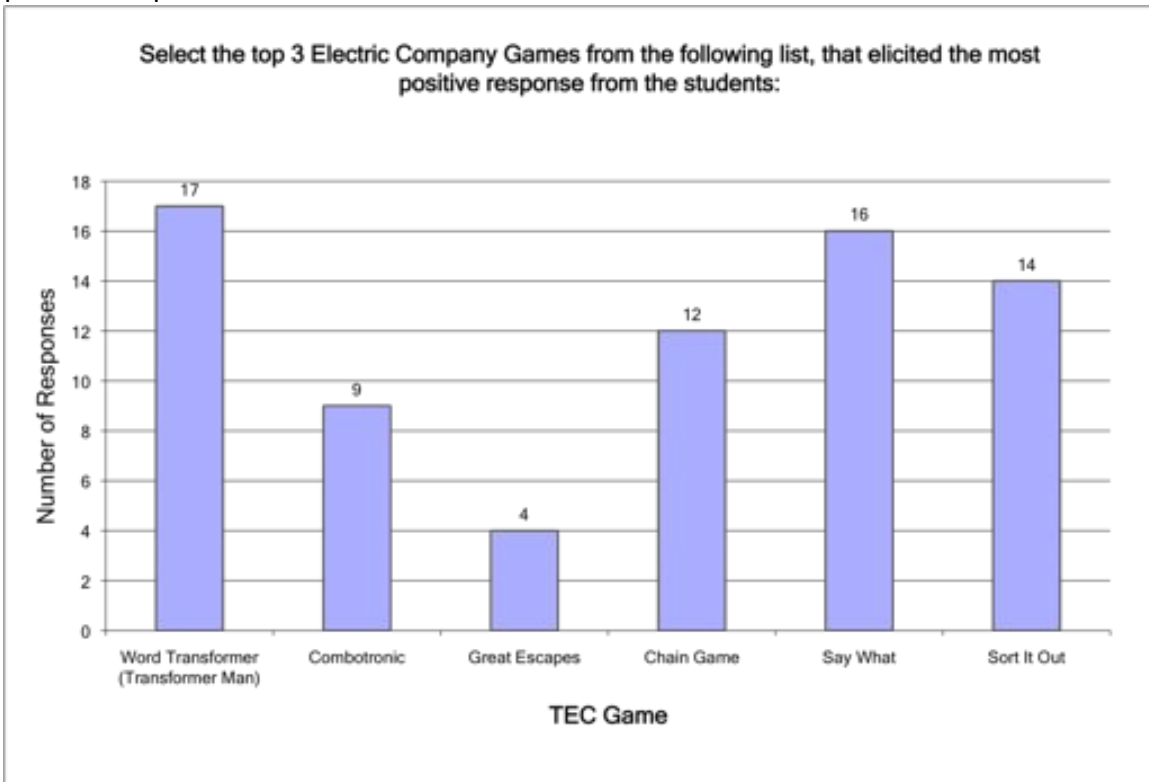
To understand how students interacted with The Electric Company games, teachers were asked to indicate how students interacted with the games portion of The Electric Company School's Initiative Curriculum. Findings show that teachers generally allowed students to work in pairs, or groups, and alternated between students communicating their response to the teacher and using the interactive white board themselves for submitting their answer. The following summarizes the findings on teachers and students interaction with The Electric Company games (see Figure 20).

Figure 20: Teacher responses to how students participate in game play.
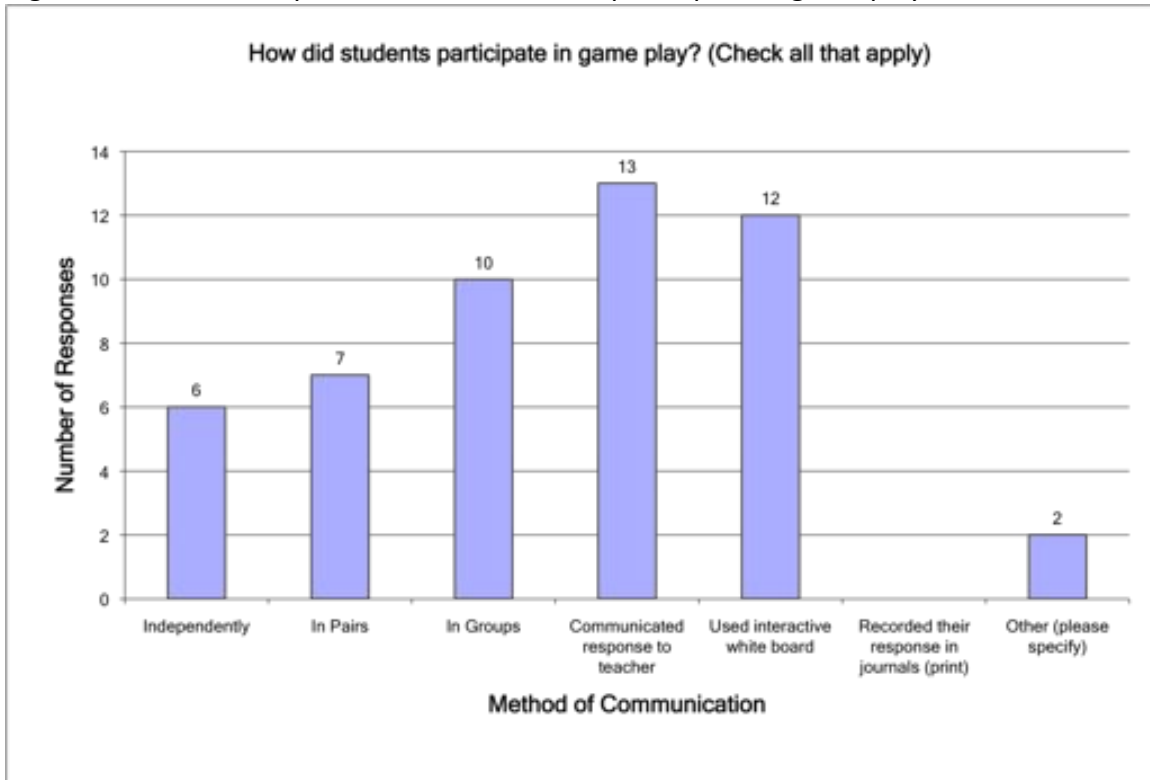
Using the Activity sheets

Findings show that 16 out of 24 teachers used The Electric Company activity sheets. The following figure summarizes the teachers' use of the activity sheets (see Figure 21).

Figure 21: Teacher's agreement with statements about The Electric Company activity sheets.
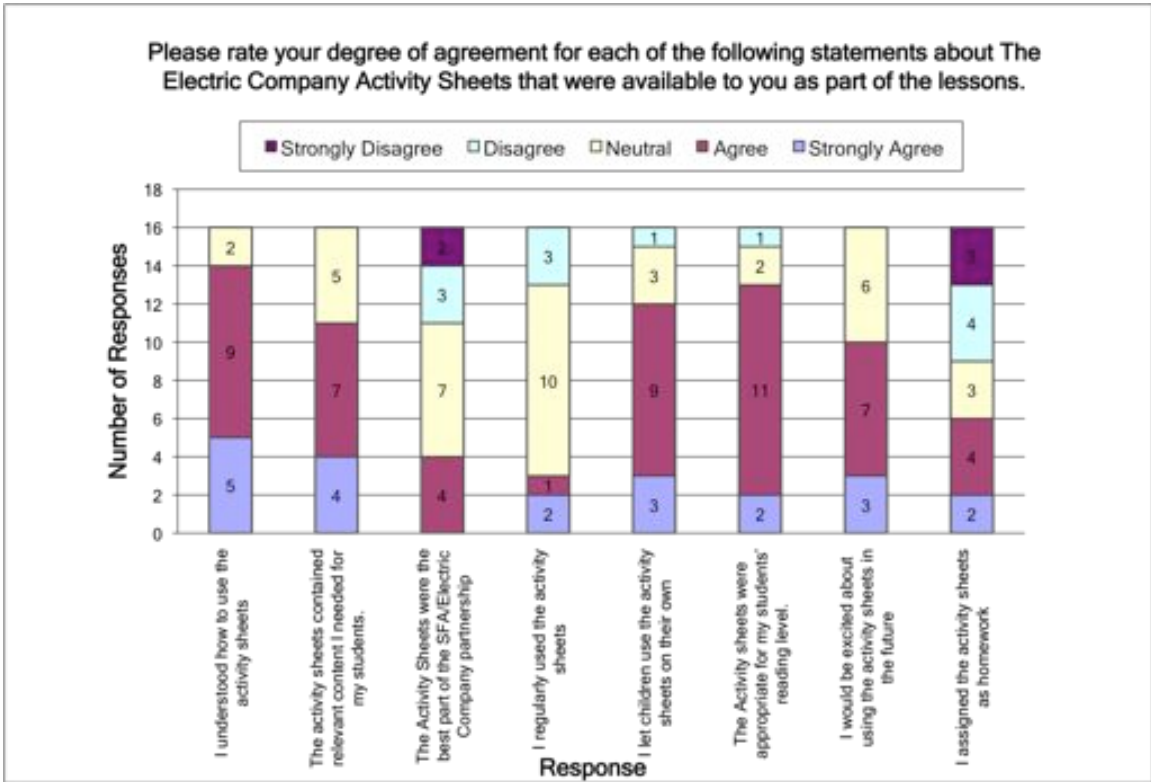
Using the Digital Literacy Resource

Findings from the online survey confirm that 6 out of the 24 teachers used the Digital Literary Resource (DLR). Out of the six teachers who used the DLR, two teachers indicated that they used it less than 15 minutes per week, and four teachers indicated that they spent about 15-30 minutes per week on the DLR site. When asked to report on how they used the DLR, teachers indicated that they used it more as a "Lesson enrichment" than as "an assessment tool." The following figure indicates teachers' degree of agreement for each of the following statements about the DLR (see Figure 22).

Figure 22: Teacher's agreement with statements about the Digital Literacy Resource.
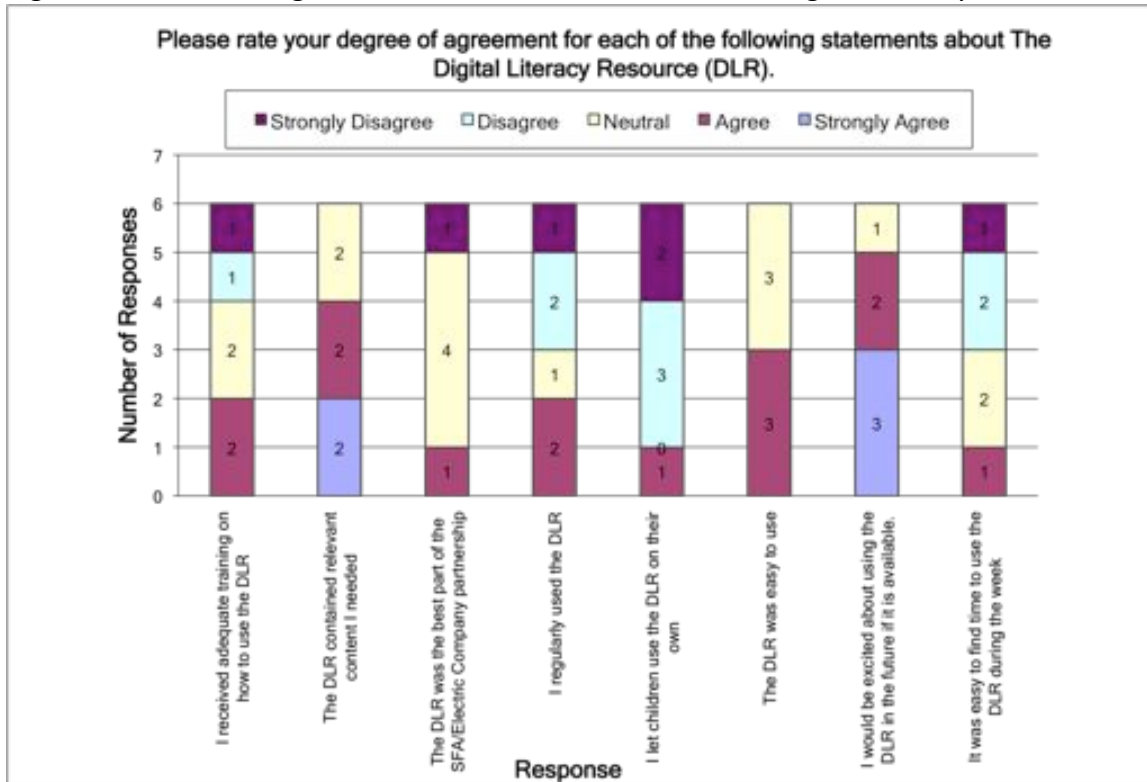
Future use

Our findings in speaking with teachers and through surveys, both from multiple-choice questions and open-ended responses, show that teachers would be excited about using more SFA lessons with The Electric Company content in the future. Almost all surveyed teachers would look forward to delivering more The Electric Company/Success for All lessons and materials. In accordance with the online survey responses, only two teachers would have rather continued "business as usual, instead of using The Electric Company content in the SFA lessons."

Teachers were asked whether they would ever screen whole episodes of The Electric Company for their class. Findings suggest that 15 of 20 teachers who responded are willing to present whole episodes in class. After speaking with teachers during a site visit, teachers confirmed they would be interested in screening whole episodes, but indicated that they had difficulty in accessing shows online. Furthermore, teachers expressed a strong concern about time constraints. One teacher indicated the following:

> *I would as an end of reading activity when we have time leftover after covering the curriculum. However, I would NOT replace the existing SFA Curriculum aspects with Electric Company, as the kids benefit so much from the SFA material.*

Three teachers also mentioned that screening episodes would help students become familiar with The Electric Company characters. One teacher stated the following:

> *In SFA we have phonics assessments about every two weeks. During this time students are working independently or with their partners. During one of my assessments I actually went online and downloaded one of the Electric co. episodes so that the students could get familiar with the characters. They loved it so much they keep asking for more.*

Researchers coded the responses to the open-ended questions to find the most common responses across all teachers' submissions for each specific question. The following are the five open-ended questions and a summary of the findings.

What did you like best about The Electric Company parts of the lessons?

Findings from the open-ended responses show that 15 teachers identified student engagement and interaction with TEC parts of the lessons as the most valuable enhancement. One teacher mentioned that her "kids are more interested in learning, the repetition of the sounds helps them learn better and helps make them be more successful at reading." The same teacher acknowledged, "the kids really love them and they are so into it that it makes teaching phonics a lot of fun." In addition, teachers mentioned videos as a more significant contribution to the lessons as compared to the TEC games, and noted that The Electric Company parts of the lessons were a positive contribution to the structure Fast Track Phonics lessons curriculum.

What did you like least about The Electric Company parts of the lessons?

Nine teachers reported that The Electric Company parts of the lessons were sometimes not compatible with the grade level they were teaching and that they were inconsistent with the SFA phonics lessons. Furthermore, seven teachers felt the pace of the lessons needed some adjustment and the activities' (games) duration could be adjusted to better fit their needs. Five different teachers reported technical challenges and difficulties with graphics/sound. A teacher explained the following:

> *Sometimes the smart boards or program wouldn't function well. We wasted some time trying to deal with technology problems and regaining students' attention once things went back to normal. Also, some games were kind of long and would lose some students' interest in the mean time. At the beginning, students seemed uninterested in participating with the first review lessons because they were already familiar with the content but then once the other games, songs, and videos started coming up, students seemed to gain more interest and enjoyed themselves participating.*

How could The Electric Company part of the lessons be improved?

Six teachers would like to see improvement in game play and interaction with games with regards to pacing, difficulty, functionality (frozen screen) and clicking/dragging. One teacher suggested the following,

> *I like to speed up other portions of the games. For example when the students get a word correct, the celebration or acknowledgement takes too long. I see the purpose but a stronger shorter celebration would be just as impacting.*

In addition, four teachers felt the graphics could be improved by allowing the user to zoom in/out within windows and allow for sound (volume) control. As previously mentioned in what teachers liked least about The Electric Company parts of the lessons, teachers would like to see a better integration with SFA lesson. Through either a more comprehensive integration into the curriculum or simply more content to allow teachers to choose what lessons best fit their student's literacy needs.

Why or why not, do you believe students benefitted from participating in the project?

Twenty-two out of 23 teachers felt their students benefitted from participating in the project. Perceived student engagement and general improvement to the lesson's structure was the most common response as to why! teachers feel their students benefited from their participation. While two teachers saw improvement in their students' reading scores, four teachers noted that the curriculum was mostly used as a review of phonics lessons. One teacher described her positive experience with the curriculum as the following:

> *The lessons we taught were a needed review for struggling readers. They literally begged to play the games again and again. And the video clips were sung on the way out of the door (silent e is a ninja....) That convinced me that TEC is a more modern format possibly more pleasing to this generation. Many told me that they were watching the show at home after school.*

Is there anything else you'd like to tell us about your experience using the program?

Teachers are very eager to receive more of The Electric Company material, and would like to deliver a more comprehensive The Electric Company School's Initiative Curriculum at the start of the school year. One teacher stated:

> *I completely love it because it has saved us tons of time, engaged the students in a positive manner, and improved our reading scores overall. The students love to do phonics and pay attention because they know they are going to play a game. They also watch the videos carefully and associate with the sound that they have learned. It has made learning to read a lot more fun for the students.*

I am very happy with the program. The SFA lessons are much more visual for the students and they keep us on task. Everything is provided and that is a very positive for the students and the teachers. Teachers have more time to teach. The games are also excellent because they are not boring for those students that need the extra stimulation and motivation. Thank you for all your work and commitment to the SFA program and to our school. Our children need this type of stimulation and motivation.

Appendix E

Interview Summaries

Interviews were conducted with teachers, camp facilitators, parents and producers and staff from production companies funded through the Technological Enhancements project. Nine interviews took place and included 20 individuals in one-on-one or group interview settings. The number of interviewees was not consistent across properties, and the number of interviewees in each category: teachers, parents, and producers/staff, were quite small. Therefore the use of interview materials in this report is limited to providing context, raising issues for further examination through other data, and confirming issues identified through other data. Despite the limitation of size of the interviewee sample, the interviews shed light on several topics that are considered important or relevant to the development of digital tools that seek to support literacy skills among young children and the adults who care for them.

The interviews were designed to draw out information from different stakeholders about the development and implementation of the three properties, with an emphasis on the addition of the technological enhancement. Producers at each of the properties were asked to discuss the change between previous products and current ones, WHY! specific choices were made regarding the use of technology, what needs the new product addressed, and how the technologically enhanced property was viewed by its target audience.

A total of 849 interview statements were coded into 14 categories. The largest group of interviewees was producers, with a total of 11 included in either one-on-one or group interviews. Five teachers were interviewed representing TEC School's Initiative Curriculum and WordWorld eBooks, and four parents were interviewed representing WordWorld eBooks. Below we summarize interview comments by interviewee and by central themes that emerged.

Producer and property staff interviews:

Producer and staff interviews generated 474 coded responses. The majority of these statements addressed aspects of technology use, product development, the needs and skills of the end users. Producers and staff made only one comment about parents and only two statements were made about the provision of technology support or help to sites or individuals.

When discussing technology use, producers and their staff talked about how they came to decisions about developing the technological enhancements:

…we did focus groups in all three locations and then we also did observations… what we found out really was that teachers loved the idea. - The Electric Company Producer

Basically it's another format through which the pedagogical goal of the TV show [is addressed] but done in a more interactive online way that can be disseminated. – WordWorld eBook Producer

They also talked about the steps they took to inform the development process:

We went to a preschool… and the teacher ran the [program] there and we just sat back and observed and watched the kids play different games and evaluated how they were playing and how they were playing them in groups and how they were playing them in relation to the curriculum that was being taught and how it was fitting in with the day. If it was running smoothly, if it wasn't running smoothly. – Super WHY! Producer

On this particular project… the content that we created was based on… all of the national reading assessment literature, so we knew we had good content. It was just trying to figure out how that matched in with what the teachers were doing… - The Electric Company Producer

When discussing the needs of the end user they tended to talk about how the their tools supported specific skills:

…you're looking for some kind of juicy video content or clips or games to help reinforce those skills. You type in CH, it gives you a list of the things you can use. You can put them in a folder to save for later. You can download them onto your computer. They're supposed to be ultra flexible since we know that what teachers are really short on is time and, of course, energy all of the time. –The Electric Company/Success for All Producer

Because one of the things that you're aiming for is "stickiness." Not only do we [provide repetition] for pedagogical purposes within the [product], the word sounds, the (phonemes) etcetera, we know that children will come back… time and time again and it drives the lessons home. – WordWorld eBook Producer

Teacher Interviews:

Teachers' frequency of comments about parents and caregivers, and about the provision of technology support, mirror that of the producers. This group made only two comments regarding technology support or help, and four about parents or caregivers.

Five teachers were interviewed either in pairs of two or individually and a total of 329 comments were coded for this analysis. Teachers most often discussed their own or their student's use of technology in their classrooms:

> *In the beginning you want to show them, you want to model for them how to log on, which levels might be appropriate for them at that given time. As they progress you really want to give them that power for themselves to choose which activities, what level they need to be working on. Because at some point, they know. And they want to have their freedom to choose the activity that they do for the day on the computer and the level. – Super WHY! Summer Reading Camp Teacher*

> *I just feel like if they like it at home and then we can do it at school, then maybe they'll look forward to reading class and get to see what video they see that day. – The Electric Company/Success for All Teacher*

The teachers were next most likely to discuss their response to the program within the context of their teaching environment. These responses included information about the technology (video, white board) and also about the content and its appeal for their students [example].

> *And all four of my ESEs [Exceptional Student Education] are either speech or language delayed and developmentally delayed. They enjoy the computer game because they can kind of pick what they want to do. They can put the headphones on and they're in their own world, they can work at their own level. I like the beginner, medium, hard, because they can pick their own. – Super WHY! Summer Reading Camp Teacher*

> *I think it's great for the reviewing of sounds or introducing the various sounds, because that's the whole thing. – The Electric Company/Success for All Teacher*

Teachers generally responded positively to the technological enhancements and found the programs they were implementing to be engaging, educational and to be a positive addition to their instruction activities.

> *I loved how the games extended the skill of the day for each character. I loved the stimuli. They were colorful, there was zipping, and popping. The kids loved the way they were able to interact with each character and sing their special songs especially with Wonder Red (all-ball- call...... so catchy!) – Super WHY! Summer Reading Camp Teacher*

> *The students responded very positively to the videos. The students also enjoyed the games. It's funny to hear some of the students memorize the lines of some of the characters in the videos. I just recently finished all* The Electric Company

videos and I have been teaching the phonics without The Electric Company *segments. The kids are so disappointed that there aren't any more electric company videos/games in our lesson 7 phonics. I have been playing the DVD that was given to us just to review certain sounds. The kids really love them and they are so into it that it makes teaching phonics a lot of fun. – The Electric Company/Success for All Teacher*

However they also identified challenges they faced when implementing the programs in terms of the technology:

The Word Transformer. There's just a lot of glitches still in the program. Like, we were talking, the Word Transformer and Silent E, I kept a little log or whatever just to remind myself, and the only time that the Word Transformer changed from Silent E, was Lesson 16 and it was Bossy R. Or the Chain Game, it would stick and you'd have to start over. - The Electric Company/Success for All Teacher

They also identified challenges with the content:

I found it difficult with the spelling. Because they're four and five. I mean they're turning five today. The Alpha Pig, that's the game that they're most successful at. It's the letter recognition and the sound recognition. That's pre-K appropriate. I felt like the spelling of the words, that's a little far above. That's probably first, second grade. First grade level, not pre-K. But they like the graphics. The graphics are awesome. The graphics are very nice. I think that's what keeps them interested too. - Super WHY! Summer Camp Teacher

During the one group interview conducted with four parents, parents tended to discuss the product predominantly in terms of their child, and also mentioned their own use or knowledge of technology, For example, one parent was familiar with whiteboards ,"I knew about the whiteboard cause I work at the schools that had it." Parents did not address many of the themes discussed by producers and teachers including production issues, the role of the products in the future, responses of teachers, or the need for technology support.

My grandbaby used to be lazy about reading. Since she's in the program now she brings all kind of books home to read. - The Electric Company/Success for All Parent

And she runs at home, jumps on the computer at home and the first thing she'll go to is… I don't know how to do it, they get on there and she's pronouncing all the words and stuff she has on the computer. - The Electric Company/Success for All Parent

Appendix F

Super WHY! Summer Reading Camp Facilitator Online Survey

Facilitator Survey: Super WHY Summer Reading Camp and Web-based

1. Information and Assent

* 1. This survey is designed to collect information from teachers who have taught in the 2010 Super WHY Summer Reading Camps and would like to share their thoughts and experiences regarding the addition of the web-based computer games to the curriculum. The integration of web-based games to the Super Why Summer Summer Reading Camp curriculum is an innovative approach to supporting aspects of early literacy, and as implementers of this curriculum you are able to provide the program with insight into how it has worked for you and your campers.

Researchers at the Education Development Center are conducting this evaluation to determine how to best optimize the web-based content in the Super WHY Summer Reading Camps and we would like to hear from you about your use of the computer games in the camp. The information we collect with this survey will be used to support development of this curriculum to improve reading instruction for young children.

Any information you provide on this survey will be kept confidential, and all information collected in this survey will be stored without any personal identification information.

By checking the box below you indicate that you have read the information provided above and agree to complete the survey for the purpose of this study. Should you choose to discontinue your participation in the study, you can withdraw at any time. However, any information that you have provided to that point will remain part of the study and may be used in later analysis and reports. You may also decide not to answer any questions asked during the survey without prejudice. If you have any questions or concerns regarding this study, please feel free to call or email Naomi Hupert at 707-829-8532 (nhupert@edc.org).

○ Yes, I understand the information above and I agree to participate.

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Facilitator Survey: Super WHY Summer Reading Camp and Web-based

2. General Information

* 1. Have you used computers or computer games with students in your classroom in the past?

○ No

○ Yes - (Please explain how)

[   ]

2. Please select the age of the children you taught this year in the Super WHY Summer Reading Camp. Check all that apply.

☐ 3

☐ 4

☐ 5

☐ 6

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Facilitator Survey: Super WHY Summer Reading Camp and Web-based

3. Using the Computer Games

* 1. Please rate your degree of agreement for each of the following statements about the Super WHY web-based computer games and the Super WHY Summer Reading Camp Curriculum.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Campers could play the computer games independently, without any adult supervision.	○	○	○	○	○
I would be excited about using computer games in the Super WHY Summer Reading Camp again in the future.	○	○	○	○	○
I would have rather taught the Super WHY Summer Reading Camp curriculum without the addition of the computer games.	○	○	○	○	○
I found it easy to make connections between the computer games and the Super WHY Reading Camp curriculum.	○	○	○	○	○
Campers interacted with the computer games verbally (calling out answers, discussing with a partner, etc.)	○	○	○	○	○
Campers ONLY played the computer games as a whole group.	○	○	○	○	○
Campers talked about playing the computer games outside of the Super WHY Summer Reading Camp (at home, library, etc.).	○	○	○	○	○
Parents played the computer games with their children at home.	○	○	○	○	○

Facilitator Survey: Super WHY Summer Reading Camp and Web-based

4. Timing and Supervision

＊ 1. Please answer Yes or No to the following.

	Yes	No
Did the schedule of activities including introduction of the computer games work for your campers?	○	○
Did campers have more than one opportunity during the day to play the computer games?	○	○
Did you have enough adults to supervise the campers while they used the computer games?	○	○

＊ 2. On average, how many adult supervisors (including you) were present during the day to help the campers?

○ 1

○ 2

○ 3

○ more than 3

Facilitator Survey: Super WHY Summer Reading Camp and Web-based

5. Computer Games

✱ 1. Please rate your degree of agreement for each of the following statements about the Super WHY web-based computer games.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The pacing of the computer games was appropriate for my campers.	○	○	○	○	○
The computer games moved too quickly for my campers.	○	○	○	○	○
The words used in the computer games were at an appropriate level for the campers.	○	○	○	○	○
The campers enjoyed playing the computer games.	○	○	○	○	○
Playing the computer games helped campers feel more comfortable and familiar with technology.	○	○	○	○	○
The content of the computer games was at an appropriate level for the campers in my class.	○	○	○	○	○
The computer games helped to reinforce the skill of the day.	○	○	○	○	○
The instructions for the games were clear and easy for the campers to understand.	○	○	○	○	○
The computer games were easy to load.	○	○	○	○	○
I wish I had more training on how to use the computer games.	○	○	○	○	○

Facilitator Survey: Super WHY Summer Reading Camp and Web-based

6. Computer Games

Use these images to help you answer the next two questions.

* 1. Please select the games your campers played. (Check all that apply)

☐ Alpha Pig's Alpha Bricks

☐ Wonder Red's Freeze Dance Rhyming

☐ Princess Presto's Golden Crown Spelling Bee

☐ Why Flyer Adventure

☐ Storybook Creator

* 2. From the list below, choose the two (2) Super WHY computer games that elicited the most positive response from the students:

☐ Alpha Pig's Alpha Bricks

☐ Wonder Red's Freeze Dance Rhyming

☐ Princess Presto's Golden Crown Spelling Bee

☐ Why Flyer Adventure

☐ Storybook Creator

Facilitator Survey: Super WHY Summer Reading Camp and Web-based

7. Camper Participation

✱ 1. How did campers participate in computer game play? Check all that apply.

- ☐ Independently
- ☐ In Pairs
- ☐ In Groups
- ☐ Communicated response to teacher
- ☐ As a whole class
- ☐ Other (please specify)

[ ]

Facilitator Survey: Super WHY Summer Reading Camp and Web-based

8.

* 1. Is this the first time you have facilitated a Super WHY Summer Reading Camp?

○ Yes

○ No

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9. Reflections

＊1. How did the Super WHY Summer Reading Camp curriculum with the addition of the computer games compare to the regular Super WHY Summer Reading Camp curriculum without the computer games on the following factors:

	Less than usual	About the same as usual	More than usual
Campers' participation	○	○	○
Campers' attention	○	○	○
Campers' laughter	○	○	○
Your own interest in the lessons	○	○	○

Facilitator Survey: Super WHY Summer Reading Camp and Web-based

10. Reflections

* 1. What did you like best about the computer games? Please Explain.

[text box]

* 2. What did you like least about the computer games? How could this be improved?

[text box]

* 3. Do you believe students benefited from using the Super WHY computer games?

○ Yes

○ No

Why or why not? How can you tell?

[text box]

4. Is there anything else you'd like to tell us about your experience using the computer games?

[text box]

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1. Thank you for taking the time to participate in this survey. The information you provided will help us with our evaluation to determine how to best optimize the web-based content in the Super WHY Summer Reading Camps. We would like to send you a $20 gift certificate as a thank you. In order to do this we need to have your full name and email address. Please provide for us below.

First Name

Last Name

Email Address

2. No thanks,

○ I do not want a gift certificate

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Teacher Survey: TEC/SFA Curriculum

1. Information and Assent

＊ 1. This survey is designed to collect information from teachers who have worked with the Success For All (SFA) /Electric Company curriculum and would like to share their thoughts and experiences regarding the use of this curriculum. The SFA/ Electric Company curriculum is an innovative approach to supporting aspects of elementary literacy and as implementers of this curriculum you are able to provide the program with insight into how it has worked for you and your students.

Researchers at the Education Development Center are conducting an evaluation of this curriculum and would like to hear from you about use of the Interactive Whiteboard, Video segments and Digital Library Resource (DLR) components of this curriculum. The information we collect with this survey will be used to support further development of this curriculum, and others like it that seek to improve reading instruction for young children.

Any information you provide on this survey will be kept confidential, and all information collected in this survey will be stored without any personal identification information.

By checking the box below you indicate that you have read the information provided above and agree to complete the survey for the purpose of this study. Should you choose to discontinue your participation in the study, you can withdraw at any time. However, any information that you have provided to that point will remain part of the study and may be used in later analysis and reports. You may also decide not to answer any questions asked during the survey without prejudice. If you have any questions or concerns regarding this study, please feel free to call or email Naomi Hupert at 707-829-8532 (nhupert@edc.org).

○ Yes, I understand the information above and I agree to participate.

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Teacher Survey: TEC/SFA Curriculum

2. Implementation Background

1. Have you used any of the following digital media materials prior to using the SFA/ Electric Company curriculum (Not necessarily The Electric Company curriculum)?

	Not at all	Sometimes	Frequently	Very Frequently
Interactive White Board	○	○	○	○
Videos/Movies	○	○	○	○
Computer Games	○	○	○	○
Online Databases/ Resources	○	○	○	○

Other (please specify)

[   ]

2. Please select the general reading level of students who participated in the SFA/ Electric Company curriculum.

○ Below grade level

○ At grade level

○ Above grade level

3. Please select the number of the SFA/ Electric Company curriculum lessons you delivered

○ 1-5 Lessons

○ 6-10 Lessons

○ 11-15 Lessons

Teacher Survey: TEC/SFA Curriculum

3. Using the SFA/Electric Company Curriculum

1. Please rate your degree of agreement for each of the following statements about the SFA/ Electric Company curriculum.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The SFA lessons with The Electric Company content were easy to implement.	○	○	○	○	○
The SFA lessons with The Electric Company content were well organized.	○	○	○	○	○
I wish I had more training on how to deliver the SFA/ Electric Company curriculum.	○	○	○	○	○
The Electric Company content confused children.	○	○	○	○	○
The content of The Electric Company is appropriate for the children in my class.	○	○	○	○	○
I would be excited about using more SFA lessons with The Electric Company content in them in the future.	○	○	○	○	○
I would have rather continued business as usual, instead of using The Electric Company content in the SFA lessons.	○	○	○	○	○
I found it easy to build bridges, between The Electric Company content and the rest of the SFA curriculum.	○	○	○	○	○
The interactive white board (SmartBoard, Promethean, etc.) was essential to the SFA/ Electric Company curriculum.	○	○	○	○	○

2. Please rate your degree of agreement for each of the following statements about The Electric Company Videos.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The pacing of The Electric Company was appropriate for my students.	○	○	○	○	○
There was a sufficient amount of text on screen in The Electric Company video segments.	○	○	○	○	○
The words used in The Electric Company videos were at an appropriate level for the students.	○	○	○	○	○
The students constantly interacted (e.g., call and response, answered questions the video posed, laughed) with The Electric Company videos.	○	○	○	○	○
The number of videos clustered around each phonics goal was sufficient.	○	○	○	○	○

The next question refers to the following video segments.

Teacher Survey: TEC/SFA Curriculum

* 3. Select the top 3 Electric Company Videos from the following list, that elicited the most positive response from the students:

- [ ] Anthems
- [ ] Daily Letter
- [ ] Music Man
- [ ] Shock
- [ ] Odd Couple
- [ ] Pet Store
- [ ] Silhouette
- [ ] Laughing Orangutans
- [ ] Captain Cluck
- [ ] Prankcam
- [ ] Josephine
- [ ] 24
- [ ] Sound Carnival

4. Did you use any of the language/songs from the SFA /Electric Company curriculum while you were teaching phonics concepts?

- ( ) Yes
- ( ) No

5. Please rate your degree of agreement for each of the following statements about The Electric Company Games.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The Electric Company games enhanced the SFA lessons.	( )	( )	( )	( )	( )
The pacing of The Electric Company game play was appropriate for my students.	( )	( )	( )	( )	( )
The instructions for the games were clear.	( )	( )	( )	( )	( )
The students responded positively to the feedback given throughout the game? ("Nice job!", "You're awesome!", etc.)	( )	( )	( )	( )	( )
The vocabulary used in the games was at the right language level for the students.	( )	( )	( )	( )	( )
The games conveyed the goals typically addressed by Quick Erase (Previous SFA content)?	( )	( )	( )	( )	( )

Teacher Survey: TEC/SFA Curriculum

* 6. Select the top 3 Electric Company Games from the following list, that elicited the most positive response from the students:

- [ ] Word Transformer (Transformer Man)
- [ ] Combotronic
- [ ] Great Escapes
- [ ] Chain Game
- [ ] Say What
- [ ] Sort It Out

7. How did students participate in game play? (Check all that apply)

- [ ] Independently
- [ ] In Pairs
- [ ] In Groups
- [ ] Communicated response to teacher
- [ ] Used interactive white board
- [ ] Recorded their response in journals (print)

Other (please specify)
[   ]

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4. The Electric Company Activity Sheets

1. Did you use The Electric Company Activity Sheets?

○ Yes

○ No

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Teacher Survey: TEC/SFA Curriculum

5. The Electric Company Activity Sheets (cont.)

1. Please rate your degree of agreement for each of the following statements about The Electric Company Activity Sheets that were available to you as part of the lessons.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I understood how to use the activity sheets	○	○	○	○	○
The activity sheets contained relevant content I needed for my students	○	○	○	○	○
The Activity Sheets were the best part of the SFA/Electric Company partnership	○	○	○	○	○
I regularly used the activity sheets	○	○	○	○	○
I let children use the activity sheets on their own	○	○	○	○	○
The Activity sheets were appropriate for my students' reading level	○	○	○	○	○
I would be excited about using the activity sheets in the future	○	○	○	○	○
I assigned the activity sheets as homework	○	○	○	○	○

Teacher Survey: TEC/SFA Curriculum

6. Digital Literacy Resource

1. Did you use the Digital Literacy Resource (DLR), searchable database of all The Electric Company-related content by curricular goal?

○ Yes

○ No

Teacher Survey: TEC/SFA Curriculum

7. Digital Literacy Resource (cont.)

1. Please rate your degree of agreement for each of the following statements about The Digital Literacy Resource (DLR).

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I received adequate training on how to use the DLR	○	○	○	○	○
The DLR contained relevant content I needed	○	○	○	○	○
The DLR was the best part of the SFA/Electric Company partnership	○	○	○	○	○
I regularly used the DLR	○	○	○	○	○
I let children use the DLR on their own	○	○	○	○	○
The DLR was easy to use	○	○	○	○	○
I would be excited about using the DLR in the future if it is available	○	○	○	○	○
It was easy to find time to use the DLR during the week	○	○	○	○	○

2. How many minutes per week did you devote to the Digital Literacy Resource?

○ None

○ Less than 15 Minutes per Week

○ 15 - 30 Minutes per Week

○ 30 - 60 minutes per week

○ More than 60 minutes per week

3. How did you use the interactive games in the Digital Literacy Resource?

☐ As an assessment tool

☐ Lesson enrichment

☐ Other

Other (please specify)

[   ]

Teacher Survey: TEC/SFA Curriculum

8. Reflecting on the SFA/Electric Company Curriculum

1. How did the SFA Lessons with The Electric Company content compare to the traditional SFA lessons on the following factors:

	Less than Usual	About the same as usual	More than usual
Children's participation	◯	◯	◯
Children's attention	◯	◯	◯
Children's laughter	◯	◯	◯
The length of time it took to teach the lesson	◯	◯	◯
Your own interest in the lesson	◯	◯	◯

2. What did you like best about The Electric Company parts of the lessons?

3. What did you like least about The Electric Company parts of the lessons?

4. How could The Electric Company part of the lessons be improved?

5. Have you watched full episode(s) of The Electric Company?

◯ Yes

◯ No

6. Would you ever screen whole episodes of The Electric Company for your class (28 minutes running time)?

◯ Yes

◯ No

Why or why not?

Teacher Survey: TEC/SFA Curriculum

7. Would you be interested in using The Electric Company content to teach vocabulary and reading fluency as well?

○ Yes

○ No

8. Do you believe students benefitted from participating in the project?

○ Yes

○ No

Why or why not? How can you tell?

[text box]

9. Is there anything else you'd like to tell us about your experience using the program?

[text box]

Teacher Survey: TEC/SFA Curriculum

9. Survey Completed!

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