# Supporting Parents in Early Literacy through Libraries (SPELL): An Assessment of a Multi-Site Library Project

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## Introduction

There is a wealth of research demonstrating that speaking to, reading to, and interacting with very young children increases their learning ability and student performance later in life. The reverse has also been established—when children are not read to or talked to, their development can be inhibited, leaving them susceptible to learning difficulties later in life. This is especially pronounced among children with low-income parents. Despite the demonstrated importance of early literacy activities—talking, reading, daily interaction, etc.—there is a gap in the literature regarding the effectiveness of library practices geared towards low-income parents of very young children. This lack of published research often leaves library staff to experiment with early literacy programming without guidance or measures for success, resulting in varying degrees of effectiveness.

In order to fill in these research gaps and develop a set of best practices for early literacy programming, the Colorado State Library (CSL) undertook the SPELL (Supporting Parents in Early Literacy through Libraries) research project in 2012. In the first stage of the project, funded by an Institute of Museum and Library Services (IMLS) National Leadership Grant, SPELL researchers identified ways to reach low-income parents of children ages birth through three to provide them with early literacy methods that support adopting daily early literacy habits in the home. The SPELL research undertook four methods of collecting data: a literature review and analysis within and outside of the library field, a national environmental scan of programs successful in changing parental behavior, and surveys and focus groups with low-income parents of young children in four diverse communities.[1] The results of this research include a SPELL blueprint of recommendations that public libraries may use to empower low-income parents to embed early literacy activities into daily life. The blueprint outlines recommendations for implementing early literacy practices within the library facility, for outreach, partnering, and messaging within the library's community, and for addressing parental change in everyday early literacy practices.

The second stage of the SPELL project, funded by a second IMLS National Leadership Grant, put this blueprint to the test. In 2014, eight public libraries were selected throughout Colorado to partner with local organizations and create prototype programs based on the SPELL blueprint. These prototypes were tested in the field for one year to determine whether the SPELL blueprint recommendations were effective across different libraries and communities. Each of the eight prototype projects were evaluated for their efficacy in order to develop a set of best practices that public libraries may use, adapt, and scale to create effective early literacy programming in their communities. This paper summarizes the results of parent/caregiver evaluation data collected during the second stage of the SPELL project.

## Literature Review

### Early Literacy

Research has demonstrated that caregiver interaction, starting from birth, is crucial to the successful growth and development of a child. Reading aloud to children has been linked to helping children develop the pre-literacy skills necessary to begin the process of learning to read and write, such as recognizing letters and understanding that print represents a spoken word.[2] This is backed up by neurological research, which shows that reading to children and encouraging them to interact with

their environment helps the brain develop strong synapse connections that increase children's ability to learn and their student performance later in life.[3] The reverse is also true; when children are not read to or encouraged to explore their world, their development can be dramatically inhibited as the brain becomes less plastic and the "windows of opportunity" for learning close.[4]

The number of words a child hears before starting school is linked with performing well in kindergarten and beyond.[5] This tends to put children from low-income households, immigrant/refugee families, and otherwise marginalized populations at a disadvantage because they hear, on average, 30 million less words by age 3 than a child from a higher socioeconomic household.[6] This is largely because parents earning higher incomes tend to talk more to their babies at length, take them to the library more often, and have more books in the home.[7] The trend continues as the child gets older; Krashen and Shin found that children from all socioeconomic backgrounds progress in their reading at roughly the same rate during the school year, but high-income children make better progress over the summer simply because they have access to more books, whether at home or in the library.[8] To bridge this gap in learning and ensure that all children have an equal start in school, it is crucial that libraries have the tools to reach out to low-income parents to embed early literacy practices into daily life.

**Benefits of Partnerships**
The benefits of forming partnerships between libraries and external partners are well documented, especially to reach out to families with young children who are not aware of the library services that are available to them. Cooperation, collaboration, and partnerships are becoming increasingly important in libraries, particularly in the many cases in which libraries are expected to continue providing the same or more library resources and services after a budget cut.[9] The relationships between libraries, schools, museums, and other community institutions often allow libraries to continue to offer varied programming to their community without a budget increase.[10] Along with the expansion of library services, partnerships can also help the library to attract new audiences by reaching out to the patron base of the partner organization.[11] As Tarte and Aborn point out, the "advantages of partnering were clear to [library] staff: the partnerships allowed them to reach new families, introduce families to events and resources

at the library, provide multiple opportunities and ways to educate families about early literacy, as well as to promote professional relationships among the other agency's staff."[12]

Library partnerships can be especially valuable for libraries working with immigrant populations. In a report on library services for immigrants, US Citizenship and Immigration Services (USCIS) and IMLS identified partnerships between libraries and immigrant-serving organizations as a way to provide information to and share resources with this hard-to-reach population.[13] When the immigrant population increases faster than the library budget, partnerships are also a cost-effective means of meeting the needs of library patrons and empower the libraries to provide "the best possible service to their community members" when funding is tight.[14] Forming partnerships with immigrant-serving organizations not only improves the services provided but also reinforces the library's role as a community social hub where every community member is welcome.[15]

**Evaluating Children's Programs**
As library-led early literacy programs and programs developed through partnerships become significant services within the library's community, experimentation and evaluation are necessary to ensure that these programs are effective. There is an overall lack of solid evaluation of early literacy program effectiveness within library science, and best practices are often defined too loosely to develop truly effective programs.[16] Experimental testing and evaluation are essential to provide libraries nationwide with model early literacy programs that can be easily replicated or scaled to be effective in very different settings.[17]

Evaluating early literacy programs is complex, often involving both quantitative and qualitative analysis across multiple sites over a period of time.[18] Although early literacy programs are typically left unevaluated, especially by quantitative methods, asking caregivers to fill out an evaluation survey is an increasingly common method of collecting quantitative data about early literacy programs.[19] While survey data is easier to represent in graphs and percentages, qualitative data collected through observation, interviews, and focus groups remains important to early literacy evaluation, especially when that data can be made more trustworthy using methods like analytic induction and triangulation.[20]

**Cultural Barriers**

Evaluation of early literacy programs also faces a cultural barrier when the programs are geared towards low-income families. The library's role as a community hub that supports immigrants, refugees, and low-income families is vital as a way to expand information literacy among these groups that are typically considered "information poor."[21] Addressing illiteracy in marginalized groups is critical, since illiteracy often prevents these populations from accessing information, participating in society, and teaching these behaviors to their children.[22] Urban immigrants constitute a group that is most at risk for illiteracy and information poverty, especially those that arrive in a new country with little education or knowledge of the country's language and have "fewer resources to facilitate integration, such as English language instruction or citizenship preparation courses."[23] As noted above, this would pose a risk to the children of marginalized groups, who benefit from being read and spoken to in English early on in order to be successful in school.

Many libraries in the Unites States and around the world make a conscious effort to hold events that are inclusive of immigrant and minority groups in their communities to bridge the literacy gap, but cultural barriers are certainly still present in public libraries, even as librarians work to overcome them.[24] These cultural and language barriers make it more difficult to draw immigrants, refugees, and other marginalized groups to the library for programming.[25] Even if the programs are successful in drawing an audience, these same cultural barriers still exist when librarians attempt to evaluate the effectiveness of the programs. Researchers often find that immigrants and refugees have had experiences in the past that have led them to distrust researchers, surveys, and any assurances of confidentiality because they do not trust that the researchers are acting independently of government agencies.[26] Given these challenges, survey-driven evaluation may not yield the desired results, so researchers recommend using a variety of evaluation methods when assessing programs that serve marginalized populations.[27]

**SPELL Research**

It is necessary to continually evaluate early literacy programs to ensure that libraries are providing the most effective programming possible during this crucial time in a child's learning. With this in mind, CSL created the SPELL project to contribute thorough research and evaluation concerning experimental early literacy programs in an array of communities to the existing literature. The SPELL research is unique for the eight prototype programs that targeted low-income populations. The prototypes were tested in the field for a year, were evaluated for their effectiveness, and yielded examples of early literacy programs that can be adapted to work in a variety of communities. SPELL recommendations can continue to be tested and revised to further define best practices for implementing and evaluating early literacy programs.

## Methodology

The SPELL libraries implemented their prototype programs between February 2015 and January 2016. During this one-year program prototype period, the evaluation was conducted. Its purpose was to determine the level of behavioral change in early literacy activities in parents participating in SPELL prototype programs. To accomplish this, libraries and partner organizations asked parents/caregivers to complete (a) pre-program surveys to collect baseline data about their beliefs about early literacy skill development and engagement in early literacy activities, and (b) post-program surveys that assessed changes in these beliefs and behaviors. Surveys were provided in English, Spanish, and one additional language based on the populations served by each prototype.

A total of 283 respondents were included in the pre-post survey analysis (181 pre-program respondents and 102 post-program respondents). Pre- and post-survey data were unmatched; the assumption was made that the sample was representative of the participating communities. A total of 60% of respondents had three-year-old children, 43% had two-year-olds, 42% had one-year-olds, and 35% had children under the age of one (percentages do not sum to 100 because some respondents had multiple children). Data were analyzed using independent sample $t$ tests.

## Results

Respondents were asked to indicate their agreement with a series of statements regarding reading. From pre- to post-survey, they indicated significantly higher levels of agreement with all items: "I know how children learn to read," $t$ (183.16) = -6.86, p < 0.001; "I'm confident that I can help my child(ren) be ready to learn to read in kindergarten," $t$ (272) = -8.47, p < 0.001; "I know what everyday activities to

do with my child(ren) to help them be ready to learn to read in kindergarten," $t$ (271) = -6.39, p < 0.001; and

"I have a regular routine for reading books with my child(ren)," $t$ (275) = -7.13, p < 0.001:

From pre- to post-survey, caregivers reported significantly higher levels of agreement with the following (1=disagree, 3=agree):
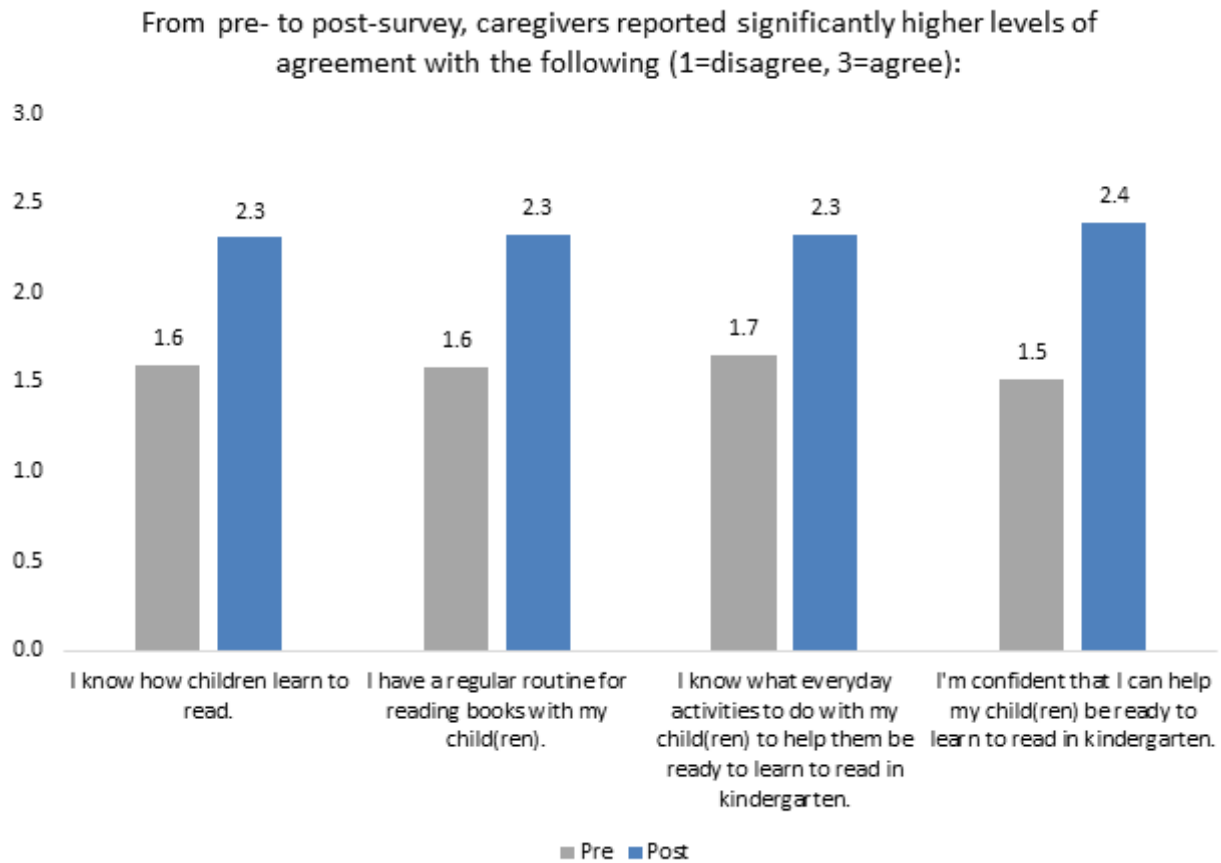


Respondents were also asked to indicate how frequently they engaged in several early literacy behaviors. From pre- to post-survey, they indicated that they engaged in all behaviors significantly more often: "Read with my child(ren)," $t$ (173.36) = -7.21, p < 0.001; "Talk to my baby/have conversations with my child(ren) who are learning to talk," t (160.61) = -10.07, p < 0.001; "Sing with my child(ren)," $t$ (170.01) = -9.00, p < 0.001; "Encourage my child(ren) to play with their hands (give them toys and other small items to squeeze or pick up, show them how to point, trace letters, scribble, etc.)," $t$ (165.46) = -9.63, p < 0.001; "Play with my children in a way that helps them explore their surroundings (shaking a rattle, playing peek-a-boo, cuddling with stuffed animals, playing house, making up games, etc.)," $t$ (166.58) = -9.12, p < 0.001.

From pre- to post-survey, caregivers reported engaging in the following behaviors significantly more often (1=never, 6=several times a day):
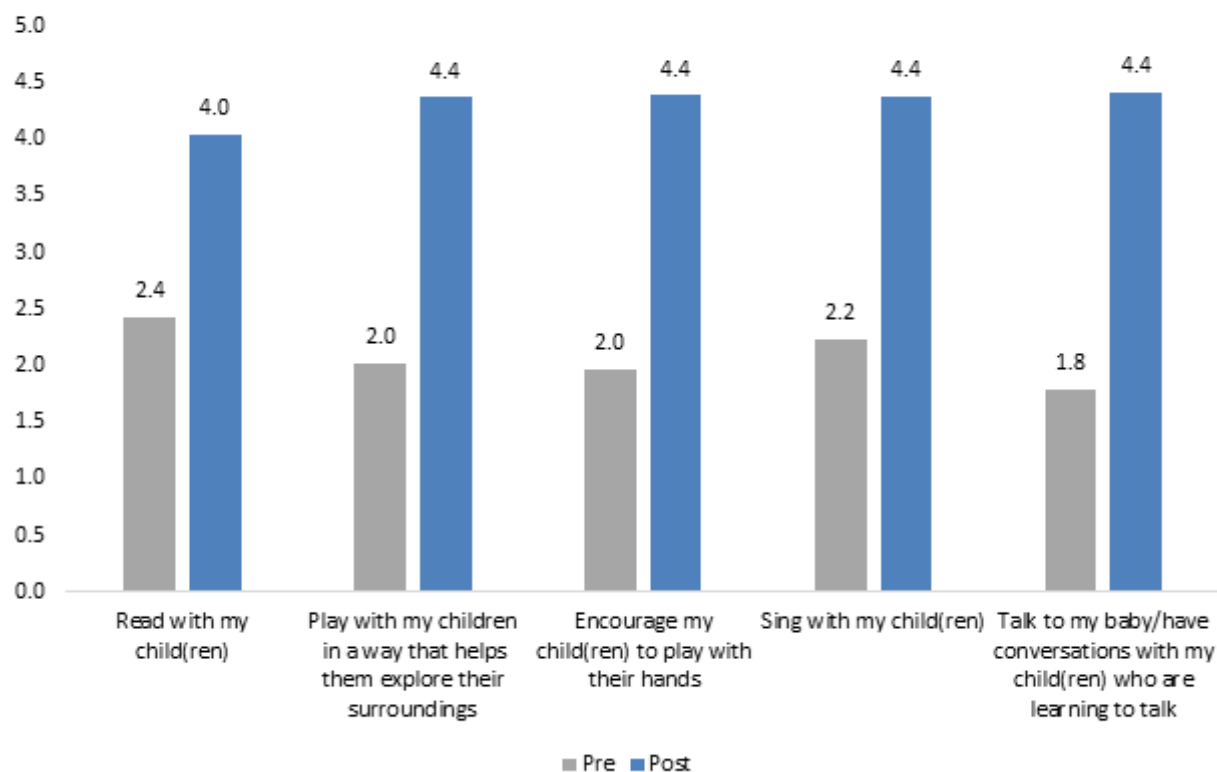


Finally, parents responded to an open-ended question: "Please let us know in your own words the difference this program has made for your child(ren) and family." Listed below are highlights from their responses:

"It [literacy nights] has provided confirmation that we are doing the right things for our son's learning and structure for encouraging those behaviors/activities."

"This class has given me lots of great ideas for play & learning w/ my child. I have a better understanding of how she is learning."

"My child looks forward to every bookmobile day! He loves all the variety of books he can get and trying to figure out what words we are trying to read."

"I'm pretty sure this is why my child loves books."

"This program introduces us to new books and songs. Also, gives us more chances to interact with other children."

"I have a new appreciation for the library knowing they have much more to offer than just books rentals."

## Lessons Learned and Next Steps

Evaluating the large and diverse SPELL project was not without its challenges. Three of the most significant challenges were survey length, cultural barriers, and evaluating across multiple sites.

### Survey Length

Creating surveys that gathered the required information, but were not so long that busy parents would be unwilling to take the time to complete them, was a challenging aspect of the SPELL evaluation. As a general rule, shorter surveys get more responses than longer surveys, especially when the respondent is a busy parent.

The pre-survey contained nine questions and the post-survey ranged from nine to fifteen questions (depending on the location). Several questions on each of these surveys included multiple parts. While each question was carefully assessed before it was included, the length and wordiness of the survey may have dissuaded some parents from completing it, especially if the survey was distributed while the caregiver was busy wrangling their children after a SPELL program. Since the survey was only provided on paper and required completion at a specific time, an alternative option would be to provide both the paper survey and an online link. This would give the respondent an opportunity to fill out the survey at their convenience.

**Cultural Barriers with Surveys**
Some of the parents participating in the SPELL program were immigrants and migrants living in Colorado. This posed a problem for the method of evaluation for the SPELL program. Immigrant and migrant parents often do not speak English as a first language and could not fill out the survey without assistance, which would sacrifice anonymity. Translating the surveys was helpful in some cases, but many of the parents were illiterate and could not communicate in writing. Although surveys are a familiar form of assessment for most groups, this was not the case for this population and many immigrant parents conveyed general mistrust for filling out surveys.

Due to these challenges, traditional survey evaluation may not be the most effective method for families that are part of migrant and refugee populations. It is important to be willing to accommodate their needs, and to be patient with them as trust is established and relationships develop. Preferred methods may include focus groups or personal interviews, despite the limitation of a small sample size. Another alternative is to have librarians/partners administer the survey after trust is established within the relationship, as parents will be more likely to provide information if they know that it will be used to help their families. It also important to use simple and direct language in the survey to minimize confusion for respondents who are not native English speakers.

**Challenges of Multi-Site Evaluation**
Evaluating programs consistently across eight sites also proved to be a challenge. While each site was working towards a similar overarching mission,

each site chose to work with unique partners and programming. To develop an evaluation form that could accurately assess each program, questions needed to be broad enough to apply to each prototype but still provide useful information to SPELL librarians and researchers. This was achieved by focusing evaluation questions on the pre-determined goals of the entire SPELL project, such as learning how children learn to read and families' reading habits, rather than specific activities at each SPELL site. Advantages of this approach included the ability to aggregate across sites to boost the sample size and to evaluate the program as a whole; however, it is unclear whether unique features of the various sites impacted the findings. In addition, although survey administration training was provided, it is possible that there were inconsistencies in administration practices across sites.

**What's Next?**
CSL will employ SPELL's findings in a new grant project that began in October 2016, funded by a Colorado-based foundation, that will follow a similar project design with a target audience of unlicensed childcare providers instead of parents; CSL is following the SPELL model of the importance of outreach, collaborating with community organizations, and removing barriers to library use, as this unique audience also faces challenges to accessing services at the library. Finally, CSL is actively incorporating the SPELL evaluation findings into training efforts for Colorado library staff on outreach, partnering, serving low-income families, and other library services.

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## Endnotes

1. "Putting SPELL Into Action: The Results," accessed December 14, 2016, http://spellproject .weebly.com/research.html.

2. E. Duursma, M. Augustyn, and B. Zuckerman, "Reading Aloud to Children: The Evidence," *Archives of Disease in Childhood* 93 (2008), 554–557.

3. Theresa Hawley and Megan Gunner, *Starting Smart: How Early Experiences Affect Brain Development* (Washington, DC: Zero to Three, 2000).

4.  Hawley and Gunner, *Starting Smart*, 2.

5.  Betty Hart and Todd R. Risely, *Meaningful Differences in the Everyday Experience of Young American Children* (Baltimore: P.H. Brookes, 1995).

6.  Hart and Risely, *Meaningful Differences*; K. Pfeifer and L. Perez, "Effectiveness of a Coordinated Community Effort to Promote Early Literacy Behaviors," *Maternal and Child Health Journal* 15 (2011): 765–71.

7.  Pfeifer and Perez, "Effectiveness of a Coordinated Community," 765–71.

8.  Stephen Krashen and Fay Shin, "Summer Reading and the Potential Contribution of the Public Library in Improving Reading for Children of Poverty," *Public Library Quarterly* 23 (2004): 99–109.

9.  Jennifer E. Nutefall, "Information Literacy: Developing Partnerships across Library Types," *Research Strategies* 18, (2001): 311–318; Carolyn Bourke, "Public Libraries: Partnerships, Funding and Relevance," *Aplis* 20 (2007): 135–139.

10. Jo Oliver, "A Practical Partnership: Library, Museum, and Family History Society Cooperation in Camden NSW," *Aplis* 24 (2011): 167–171.

11. Michael J. Landers and Daryl C. Youngman, "Academic Libraries on the Front Lines: Advancing the Library through a Partnership with the U.S. Army," *College & Undergraduate Libraries* 16, (2009): 211–220.

12. Jerod M. Tarte and Jennifer A. Aborn, *Reading for Healthy Families: Final Evaluation Report* (Portland, Ore.: NPC Research, 2012): 28.

13. U.S. Citizenship and Immigration Services, and Institute of Museum and Library Services (U.S.), *Library Services for Immigrants: A Report on Current Practices* (Washington, D.C.: Office of Citizenship, U.S. Citizenship and Immigration Services, 2006).

14. Suzanne van der Hoogen and Denise Parrott, "Communication, Collaboration and Cooperation: An Evaluation of Nova Scotia's Borrow Anywhere, Return Anywhere (BARA) Multi-type Library Initiative," *Journal of Academic Librarianship* 38, (2012): 321.

15. Leith Robinson, "Convergence: Rural Libraries Lead the Way," *Incite* 30, (2009): 11–12.

16. Jackie Druery, Nancy McCormack, and Sharon Murphy, "Are Best Practices Really Best? A Review of the Best Practices Literature in Library and Information Studies," *Evidence Based Library & Information Practice* 8, (2013): 110–128; Scott Graham and André Gagnon, "A Quasi-experimental Evaluation of an Early Literacy Program at the Regina Public Library," *Canadian Journal of Information & Library Sciences* 37, (2013): 103–121.

17. Lynn Silipigni Connaway and Ronald R. Powell, *Basic Research Methods for Librarians* (Santa Barbara, Calif: Libraries Unlimited, 2010).

18. Caroline Barratt-Pugh and Mary Rohl, "Evaluation of Family Literacy Programs: A Case Study of Better Beginnings, a Library-Initiated Family Literacy Bookgifting Program in Western Australia," *Library Trends* 65 (2016): 19–40.

19. Kathleen Campana, "Early Literacy in Library Storytimes: A Study of Measures of Effectiveness," *Library Quarterly* 86 (2016): 369–388.

20. Katharine Becker, "24 Hours in the Children's Section: An Observational Study at the Public Library," *Early Childhood Education Journal* 40 (2012): 107–114.

21. Lan Shen, "Out of Information Poverty: Library Services for Urban Marginalized Immigrants," *Urban Library Journal* 19 (2013): 2.

22. Kim M. Thompson, "Furthering Understanding of Information Literacy through the Social Study of Information Poverty," *Canadian Journal of Information & Library Sciences* 31 (2007): 87–115.

23. USCIS and IMLS, *Library Services for Immigrants*, 1.

24. "Public Libraries Serving Multicultural Communities Across Australia: Best Practice Examples," *Aplis* 24 (2011): 116–124.

25. Shen, "Out of Information Poverty," 1–12.

26. Joseph E. Trimble and Cecilia E. Fisher, *The Handbook of Ethical Research with Ethnocultural Populations and Communities* (Thousand Oaks, Calif: Sage Publications, 2006).

27. Pamela High, Marita Hopmann, and Linda LaGasse, "Evaluation of a Clinic-Based Program to Promote Book Sharing and Bedtime Routines Among Low-Income Urban Families with Young Children," *Archives of Pediatrics and Adolescent Medicine* 152 (1998): 459–465.