



**The Role of the Library in Supporting the Emerging Literacy of Adolescents:
A Transliteracy Approach to Summer Reading**

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Meeting:

114 — Beyond the United Nations Decade of Literacy: what libraries can do — Literacy and Reading Section with National Libraries

Abstract:

The role of librarians and educators in supporting the emerging literacy of adolescents is changing as reading migrates to digital environments. This kind of reading, characterized by skimming, scanning, and shallow reading does not develop reading comprehension. A study of a student-authored, web-based summer reading program designed and implemented in two technical high schools in the United States focuses on the effects of the program on adolescent reading attitudes and preferences. The study takes a transliteracy approach that includes alternative media and interactive web tools to engage students in reading. A review of the literature provides reading research that informs the design of the program by identifying current summer reading practices that are not research-based. Pre- and post-surveys of students provide data on students' reading attitudes and preferences; journals, interviews, the website, and the project wiki provide documentation of the project and data provided by two teachers and a school librarian. Findings underscore the importance of building engagement, free choice, and self-efficacy into literacy initiatives and reveal enablers and inhibitors in the school environment, as well as the benefits of integrating web design into teaching course content in the classroom. Statistical analyses that compare students' reading preferences by gender and ethnicity showed no statistical significance and in so doing indicate a trend toward commonality of reading preferences among these groups. Students expressed strong preferences for books, magazines, and websites, including Web 2.0. The effects of the program indicate that students who like the website like to read, and that 75 percent of the students used the website and read during the summer months. The results of the study point to the need for librarians in school, academic, and public libraries to provide services for youth that not only motivate adolescents to read, but actively engage them in reading.

The Changing Role of Libraries in Reading Services for Youth

The role libraries play in supporting literacy is foundational to their mission and fundamental to the enduring values of a democratic and socio-economically diverse society (Gorman, 2000). Youth services bring equity to the emerging literacy of young people who are making the transition from decoding text in the primary grades to developing deep comprehension in the secondary years. Many children are not making this transition successfully. Struggling readers are often low-achievers who are disengaged from reading (Guthrie and Davis, 2003). As technological changes revolutionize how adolescents spend their time, form relationships, and relate to real and virtual worlds, reading is going digital. This has profound implications for literacy development since reading online is different from reading print. The horizontal pattern of online reading defies conventional rules as readers skim and scan across web pages, avoiding the deep and sustained reading (Rowlands & Nicolson, 2008) that builds comprehension (Guthrie, et al., 2006a). In turn, the reading role of librarians in school, public, and academic libraries is changing to accommodate multi-modal literacies.

Review of the Literature

Does summer reading matter? Summer reading is a common practice in the United States that helps students to sustain their reading when school is not in session. The "summer effect" on student achievement is well-researched. The "faucet theory" (Entwisle, Alexander, and Olson 2000) posits that opportunities to learn and access to educational resources are turned on during the school year for all students. Learning gains made during the school year are remarkably similar for students from different social and economic backgrounds (Entwisle, Alexander and Olson 1997; Heyns 1978; Murnane 1975). However, when school is not in session there are inequalities in educational opportunities and outcomes (Alexander, Entwisle, and Olson 2001; Cooper et al. 1996). The long summer vacation breaks the rhythm of instruction, leads to forgetting, and requires a significant amount of review when students return to school in the fall." (Cooper 2003, p 2) Research findings have consistently reported that: (1) student learning declines or remains the same during the summer months; and (2) the magnitude of the change differs by socio-economic status (Malach and Rutter, 2003). Alexander and Entwisle (1996) reported that the achievement gap between rich and poor children, as measured by test scores, increases through the primary years. A meta-analysis of 39 studies examined the effects of summer vacation on standardized test scores (Cooper et al. 1996). Findings indicate that summer learning loss equaled at least one month of instruction as measured by grade-level equivalents on standardized test scores. Family income emerged as the best predictor of loss in reading comprehension and word recognition (Cooper et al, 1996). On some measures, many children from middle class and affluent families showed gains in reading achievement over the summer, but all income levels showed lower reading comprehension scores. Socially and economically disadvantaged children, including special needs and English language learners, showed the greatest losses: three months of grade-level equivalency during the summer months each year, compared with an average of one month loss by middle-income children when reading and math performance are combined. The achievement gap is cumulative as reading losses build during summer months.

The problem with summer reading. An examination of summer reading practices shows a gap between practice and what the research says. A study found that most summer reading programs offered mandated, grade level reading lists (Williams, 2002) constructed by teachers that limit students' free choice, a critical factor in reading motivation. (Guthrie and Davis, 2003; Guthrie, et al., 2006a) Students value having a say about reading materials, topics, and related assignments (Ivey and Broaddus, 2001. Lu and Gordon, 2007) In practice,

free choice is limited to grade specific lists of books, with an emphasis on classics, supplemented by young adult (YA) titles. A study of summer reading found that YA titles comprised 18 percent of all list titles, even though studies on student reading interests and preferences show that adolescents consistently choose YA or contemporary adult novels over traditional titles (Williams, 2002). The study also found that 43 to 92 percent of summer reading titles are fiction, disenfranchising boys who exhibit a strong preference for nonfiction (Gurian, 2001). Research documents that perceived control and free choice in upper primary grades are associated with academic achievement in reading (Skinner, et al., 1990; Sweet, et al., 1998). In fact, the decline in motivation of upper primary students is accompanied by a decline in choices and an increase in teacher control. (Guthrie and Davis, 2003).

Research indicates that young readers prefer alternative reading materials such as periodicals, comic books, and websites (Gordon and Lu, 2008) while traditional summer reading lists limit choice to print materials (Williams, 2002). A study of the reading of low-achievers concludes that they prefer alternative media during the summer almost every day, but they do not consider this to be “reading” (Gordon and Lu, 2008). Privileging books over other media not only fails to validate low-achievers as readers: It sustains their low levels of self-efficacy. Teens report that they are spending almost as much time using social networking services and web sites as they spend watching television. “Among teens who use social networking sites, that amounts to about nine hours a week online...” (National School Boards and Grunwald Associates, 2007). Given the shallow nature of reading digitally (Rowlands and Nicholas, 2008), it seems that this is a particular type of reading that needs remediation and support. A broad definition of literacy includes, “the ability to read, write, speak, listen, think, and view.” (Adams and Hamm, 2001, p viii) A transliteracy approach (Liu, 2007; Thomas, 2005) addresses pedagogies that develop “...the ability to read, write and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and film, to digital social networks.” (Thomas, 2005)

Reading motivation is a key concept in opening doors to reading for adolescents because it is related to self-efficacy (Bandura, 1977), intrinsic, rather than extrinsic motivation, and social aspects associated with reading (Wigfield and Guthrie, 1997). In the context of reading, “Self efficacy refers to beliefs a person has about his or her capabilities to learn or perform preferences at designated levels.” (Schunk and Zimmerman, 1997, p 34) Struggling readers hold the belief that they cannot become good readers. Summer reading that offers extrinsic, rather than intrinsic motivation for reading misses opportunities to help struggling readers build confidence and motivation. Intrinsic motivation is found to be a predictor of the amount and breadth of reading more often than extrinsic motivation (Wigfield and Guthrie, 1997). Many summer reading programs offer points and prizes for reading or a grade for “book reports” or projects when students return to school after summer vacation. Students are expected to compete, rather than cooperate (Guthrie and Davis, 2003) as they are held accountable for the quantity, rather than the quality of their reading. The reliance on extrinsic reward and competition sabotages the development of intrinsic motivation that is linked to developing comprehension (Wigfield & Guthrie, 1997). Student-authored book talks, book reviews, and poetry slams presented in an appealing social context for reading are examples of a more substantive approach to reading motivation. Associated with extrinsic motivation are passive activities such as book talks and fairs, and author visits. These activities raise the profile of reading and generate interest, but do not directly involve youth in reading (Todd and Heinström, 2006, <http://www2.lib.udel.edu/taskforce/study/phasetwo.pdf>). Research strongly indicates that the best way to improve reading is to read (Krashen, 2004). Nevertheless, active reading initiatives such as sustained silent reading and teacher read-alouds are not a significant part of most schools’ reading initiatives.

Traditional summer reading is done in isolation, but research shows reading is social and situational. Teens enjoy social aspects of reading and the reading-writing connection (Lee and Krashen, 1996; Lee, 2001). Summer reading is decontextualized from stimulating tasks, yet research shows such tasks increase reading comprehension (Guthrie, et al., 2006b). Stimulating tasks also increase situational interest, which in turn increases reading motivation and comprehension (Guthrie, et al., 2006b). Situational reading, or interest in a particular book at a particular time, requires intervention in the form of reading advisory. Summer reading, however, is not collaborative, with little opportunity for adolescents to interact socially with their teachers, librarians, or peers. Reading for understanding, or strategic reading is a well-research example of providing help at the point of need when teens are reading. Raising students' consciousness about their reading helps them to monitor their own comprehension and apply fix-up strategies specific to the kind of comprehension breakdown they are experiencing (Goudvis & Harvey, 2007). The strategies are well-suited to Guided Inquiry instruction to integrate reading strategies with information seeking and knowledge construction. The led by school librarians because the stages of the Information Search Process (Kuhlthau, 1986) align with these strategies. Librarians can support inquiry learning and reading comprehension simultaneously in information-rich environments for patrons of all ages. It is important that all library patrons have access to this kind of help. Traditional library collections and services for youth in school, academic, and public libraries, for example, are tailored to specific recreational and curricular user needs, creating a finite and safe reading environment. As these collections are transformed by digital materials they become increasingly difficult to mediate, posing the possibility that every library user will eventually encounter reading materials beyond his or her levels of comprehension.

Research Design

The purpose of this research study is to examine how teachers, librarians, and students respond to a web-based environment that uses social networking tools to create a research-based transliteracy experience that addresses summer reading practices that are not research-based. The project has three phases: 1) Four training workshops for participating educators; 2) The design, development and implementation of a web-based summer reading program using a student-authored website and; 3) The collection of data of pre- and post-summer data.

The following questions guide the study:

1. How did the educators perceive the effects of the web-based summer reading program on reading motivation and engagement?
2. What are the attitudes of adolescents toward reading?
3. What are the reading preferences of adolescents?
4. What are the effects, if any, of a web-based summer reading program on adolescent reading attitudes and preferences?

This collaborative project, *Literacy and School Success*, was funded by a U.S. State Department of Education (DOE) from September 2008 through the fall of 2009. The DOE Associate's areas of responsibility include literacy, school libraries, and technology. She coordinated the selection and participation of five schools who attended workshops in literacy, evidence-based practice, research-based reading strategies, and technology, conducted by the researcher. The Associate decided to create a web-based summer reading program modeled on the Barnstable study (Lu and Gordon, 2007; Gordon and Lu, 2008) in two technical high schools that met criteria for selection set by the DOE. All participating schools are under improvement, which indicates that they their students scores on

standardized tests in reading and or mathematics do not meet federal standards measured by standardized testing. These schools receive Title I federal funds that target reading improvement. Table 1 documents the project’s main activities.

Completion Dates	Tasks
December 15	Researcher conducts four training workshops DOE secures Title I funding, grants; creates budget
January 31	Researcher and DOE write criteria for participating schools DOE creates application form Researcher and DOE create a pre- and post-surveys
February 28	DOE issues call for applicants DOE purchases technology for schools (laptops, Kindles)
March 31	DOE selects and notifies successful applicants Participants attend <i>Illuminate</i> planning session Researcher designs surveys DOE sets up project wiki
April 30	Researcher and DOE pilot pre-survey, make revisions, and put survey online. Educators guide students in designing website Participants attend <i>Illuminate</i> session
May 31	Researcher and DOE conduct pre-survey using Google docs Researcher analyzes survey results Educators, students use survey results to create reading lists School librarians purchase reading materials Participants attend <i>Illuminate</i> session
June 30	Teachers, librarians promote summer reading website Researcher and researcher pilot, revise, and upload post-survey on Google docs
July 1-Aug 31	School librarian maintains summer library hours
October 31	Researcher, DOE, and educators conduct post-survey Researcher analyzes post-survey Participants attend <i>Illuminate</i> planning session
December 31	Participants attend <i>Illuminate</i> session for debriefing

Table 1: Timetable for the Study

Participating educators include a Social Studies teacher certified in special needs and an English Language Arts teacher who is a reading specialist from High School 1 (HS1) and a school librarian from High School 2 (HS2). The DOE Associate worked with the schools’ teams and the researcher to develop their roles (Table 2).

High School (HS1)	Roles	High School 2 (HS2)	Roles
HS1a Social Studies and special needs teacher; good tech skills	<p>Worked with students to create the website</p> <p>Worked with her class to use the website</p> <p>Promoted the site school-wide</p>	HS2a School librarian worked in each of 2 school libraries for 2 days a week in summer	<p>Worked with the teachers to promote the website</p> <p>Purchased summer reading materials</p> <p>Maintained summer hours for school libraries at both schools</p> <p>Promoted the site school-wide</p>
HS1b English Language Arts and reading specialist	<p>Worked with her class to use the website</p> <p>Promoted site school-wide</p>		

Table 2: Educators Roles in the Summer Reading Website Project

The two high schools shared the website created by students under the guidance of teacher HS1a and HS2a. The Social Studies teacher taught a grade 12 special needs class. Students did Internet research when they needed information for the design or content of the website. They acquired skills in digital citizenship as they used bogus websites to build evaluative skills and learned about intellectual property, copyright, and plagiarism. After the students learned how to blog the teacher used blogging to teach and discuss course content as well as content for the summer reading website. Similarly, Twitter became a forum for student responses to current magazine articles chosen by the Civics teacher for discussion. The teacher concludes that her students were more engaged in the course because of these collaborative aspects and the interactivity of Skype and web 2.0 tools. She noted that they were not just on the computer; they became content providers as they mastered digital software and hardware. The English Language Arts teacher used the website in her Grade 9 Freshman Transition Academy class. The school librarian (HS2) managed the summer hours for the school libraries in both schools. Each library was open for four to five hours, two days a week for six weeks.

The school teams used the following research-based guidelines, developed for the Barnstable study (Lu and Gordon, 2007; Gordon and Lu, 2008; Lu and Gordon, 2008) to design the website.

1. Ungraded annotated reading lists that include books and alternative media recommended by students. The lists are genre driven and thematic, and include book cover icons.
2. Links to access points for reading materials such as the school library catalog, public library or regional catalogs, and digital bookstores such as amazon.com.
3. Student-generated book reviews/podcasts.
4. Access to blogs, Twitter, and other social networking tools.
5. Reading response activities that contain digital and traditional choices of stimulating tasks that help students reflect and express their reading experiences and reactions.

Data are collected from pre- and post-surveys, educators' journals and interviews, Elluminate virtual conferencing sessions, the summer reading website, and a project wiki where all documentation is stored. Twitter and blog entries of the students are qualitatively analyzed. Data from these sources are triangulated to increase transferability of this study from its specific population to other Title I high schools.

Findings and Discussion

How do the educators perceive the effects of the web-based summer reading program? What are the enablers and barriers? There was consensus among the three participating educators that the website motivated students' reading and they would continue to be involved. The reading specialist saw student motivation and interest in reading as the strongest element of the project. She noted that the National Reading Panel (2004) added motivation to the five strands of phonemic awareness, phonics, fluency, vocabulary, and comprehension.

The educators consider the following as the enabling elements of the projects:

- ▶ Student-built website and learned digital skills promoted engagement in reading;
- ▶ Authentic tasks gave purpose to student participation (e.g., scavenger hunts, collegeboard.com);
- ▶ Opportunities to integrate contemporary and digital citizenship as students developed the summer reading website in their Civics class;
- ▶ Access to laptops for students to check-out;
- ▶ Access to the school library and a librarian and teacher during the summer for students and parents;
- ▶ Teacher promotion of the summer reading website in their classes;
- ▶ Commitment of the educators involved in the project. Participant commented, "Exciting project. I would do it without funding or getting paid."

The following are seen as barriers:

- ▶ Time constraints; HS1b teacher thought the team felt pressed for time since the work on the website didn't get started until the spring;
- ▶ Students needed instruction in use of the website. Both teachers used a scavenger hunt to direct students to each part of the website and guided them through reading and selecting books, activities, and response formats;
- ▶ Students needed encouragement to use social networking tools. Initially, the ninth and twelfth grade students were not comfortable with blogs and Twitter.
- ▶ "The program would be as meaningful as teachers make it." Teachers' perceptions of best practices do not always reflect the research. They are still book-centric and want to make students accountable for their summer reading.
- ▶ Educators felt, "We have to prove to administrators that the website works." Some of the features of the website contradict the traditional culture of reading in the schools that treats reading as a school subject rather than as a personal experience. There is heavy emphasis on controlling what students read and on direct reading instruction for struggling readers and a de-emphasis on free choice, intrinsic motivation, and self-efficacy.

Teachers HS1 and HS2 identified two strategies for next year: More personal contact with students and a weekly activity that involves using the website. They are considering ways to intensify the communication among students using Skype to encourage them to share their

reading responses with each and to spread the word about the website. They would like the school library summer hours to increase and to involve the public library. The reading specialist wants to re-instate sustained silent reading during the school year to support use of the summer reading website.

What are the attitudes of adolescents toward reading? The pre-survey, administered in June of the school year, collected demographic information about the students, their reading attitudes and preferences. Student website developers used the survey results to construct the reading lists. The pre-survey was administered to 598 students, grades nine through eleven, in two technical high schools. From these respondents, data from 490 are used in the analysis. Respondents are students in grades nine (61 percent), ten (25 percent), and eleven (14 percent). Females comprise 54 percent of the sample, and males 46 percent. By ethnicity the sample includes African Americans (44 percent), Caucasians (36 percent), Hispanics (14 percent), and Other, which included individuals who were African American and Caucasian, or Hispanic and African, for example, (5.7 percent). Less than one percent is Asian.

An analysis of pre-survey responses reveals how adolescents feel about reading. 45 percent of respondents say they like to read; 23 percent sometimes likes to read, and 32 percent do not like to read (Fig. 1)

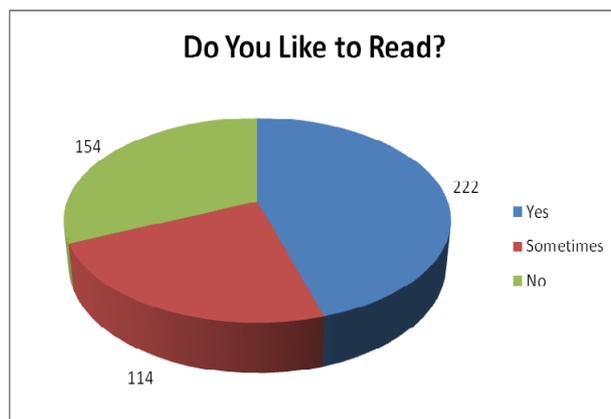


Figure 1: Do you like to read?
n=490

An online survey on Google docs offered students an opportunity to elaborate, providing rich data that about their attitudes toward reading (Table 3).

I like to read because...	I sometimes like to read when...	I do not like to read because...
I can choose I LOVE to read	reading is free choice	I don't have free choice; DON'T FORCE US TO READ
I like the genre	the book is interesting	I can't find books I like
it takes me to another place	I can escape from my problems	No data
it is interesting and fun	No data	it's boring, a waste of time
it meets intellectual needs	it meets my intellectual needs	it's difficult mentally
it meets emotional needs	it meets my physical needs	it's difficult physically
it is something to do when I have time	I have time	I haven't got the time

Table 3: Do You Like to Read?

Similar categories from each of the three categories distinguish the attributes of students who like to read and students who do not like to read. The element of free choice was the one mentioned the most by all three groups. Students who like to read perceive that they have free choice. “Yes, I like to read because I read the books I want to.” These students read outside of school where they have opportunities to explore and find reading materials they like. They mentioned specific genres and formats such as drama, realistic fiction, teen problems, romances, relationships, horror, mystery, urban fiction, action, sports, comic books, magazines, newspapers. For them it was a matter of getting the “right book” rather than having more opportunities to read. The effect of their reading is cumulative: “I LOVE (sic) to read ... whenever I get a chance to read a really interesting book, it keeps me wanting to read more and more!” What distinguished those who like to read from the other categories is their ability to be transported by reading. “...it puts me in another world” or “...a place where you can be you're [sic] self.” They mention visualization, preferring their own mental images, and using their imagination. “...I like to visualize what's happening in the book as if it was a television show;” “...I can actually imagine the characters in my head;” “...I would rather get a visual in my head then (sic) watch a movie and it also relaxes me;” “...you can do it at your own pace and can imagine your own thing. It's like television but you decide what you want everyone to look like.” While they saw reading as interesting and fun, many viewed it as a way to meet their intellectual needs: developing language and reading skills, gaining new knowledge of the world, connecting with the author, and being intellectually stimulated. They mentioned often that reading met their emotional needs: it made them happy and relaxed. They read whenever they have time.

On the other hand, students who do not like to read do not perceive that they have free choice. “...we have to (read) in school.” Since they do not read at home, these students feel that “...the majority of the time when I am reading it is not by choice...” They say, “I don't like to read in school because the books don't really interest me and we have to answer questions after we read.” They express strong feelings about being forced to read. They are vague about what they liked to read, stressing that it should be interesting or not be boring. Typical comments include: “I can't find any books I enjoy;” “...the books are boring;” “...I can never find a book that gets my

attention;” “...I can never get into a book when I read it.” They never mention being transported by reading. Instead, they say they “...I would rather watch something than read it;” “...if there is a movie...you can watch that and finish the story in a couple of hours...” They do not talk about their intellectual needs. Instead, they describe the physical discomforts they experience when reading. “I don’t like to sit still and stay quiet for too long;” “...it makes me tired;” “...my eyes hurt and it makes me sleepy;” “...I get headaches.” These students like to be active. They talk about how they could be doing other things. “I’m the kind of person who likes to be outside all the time;” “...I don’t like sitting in silence.” They are very aware that they lack the skills to read without difficulty. “...I don’t really have the focus;” “...I have a hard time reading;” “...I just forget the things I read;” “...I am not that good at reading and tend to stutter and I have problems pronouncing words;” “...I get distracted by other things;” “...I lose interest in things fast so if the book is slow I put it down;” “...I can’t understand too much English and it makes it complicated to concentrate and read;” “...I suck at it so it’s really hard to read and learn...” They do not perceive that they have time to read and in several cases students cite working as a reason for this. These students do not see the relevancy or importance of reading: “...reading does nothing for my future.” They feel that reading is “...boring. I have a life.”

Many students who say they like to read sometimes express ambivalence about reading that is situational and contextual. The most frequent comment refers to free choice. When they enjoy reading they experience an escape from problems and enjoy the solitude, and some refer to being transported by reading. “...when I read I get pictures of people I know, places and memories that are brought back and I can connect to other people’s stories.” They noted that reading helps them escape from problems and they enjoy the solitude. Some said they liked to read because it gives them something to do, and they read when they have time or “...I read ...if it’s required and I do it... usually I like the book but I don’t do it voluntarily.” Many do not like to be told to read. “I like to read if it is something I have chosen and it is not forced on me.” For these students it is more an issue of being told what to read. “The books they FORCE (sic) on us in school are boring...sometimes it just makes me want to quit reading all together.” Nearly half of these respondents were genre specific about what they liked to read: magazines, action, teen books that are real life, realistic drama, addicts, book series, drugs, gangs, bible, food, manga, comic books, true stories, crime, web pages, and newspapers. These readers live in a very different world from those who say they like to read, but like enthusiastic readers, they like to read when they can identify with the situations. Intellectual needs that are met by reading were, for the most part, pragmatic, addressing language skills and reading ability. They like to read because “Sometimes you get to learn to read better” and “Reading new books is a way to learn...” For many of these students reading is a question of access; they would read more if they had more to read. Many of these respondents expressed their emotional needs as being in the mood, relieving stress, or having nothing better to do. Like students who do not like to read, some “...don’t like sitting around for a long time.”

From the qualitative analysis of these data on how adolescents feel about reading, dimensions of reading motivation common to the three profiles emerge: perceived control; personal interests; intrinsic motivation; self-efficacy; and collaboration.

What are the reading preferences of adolescents? The pre-survey questions in this study examine reading preferences, as distinguished from reading interests. Preferences are established by looking at expressed attitudes toward reading that indicate what adolescents might read if given the opportunity. In this case, respondents are given a list of reading materials from which they can choose any number of items. Reading interest studies, on the other hand, examine reading preferences to establish what adolescents have read. (Spangler, 1983) Most respondents listed more than one choice. Figure 2 shows the total number of responses for each of the reading preferences. The results indicate a strong preference for print materials, i.e., books, magazines, newspapers, catalogs, comic books: 65 percent of survey respondents indicated fiction books, and 58 percent indicated their preference for magazines. Other print materials indicated were comic books (18 percent), newspapers (14

percent) and catalogs (13 percent). In comparison, 35 percent preferred Web 2.0, i.e., interactive websites such as Facebook, blogs and Twitter and 27 percent chose traditional web pages. These reading preferences analyzed by gender are displayed in Figure 2.

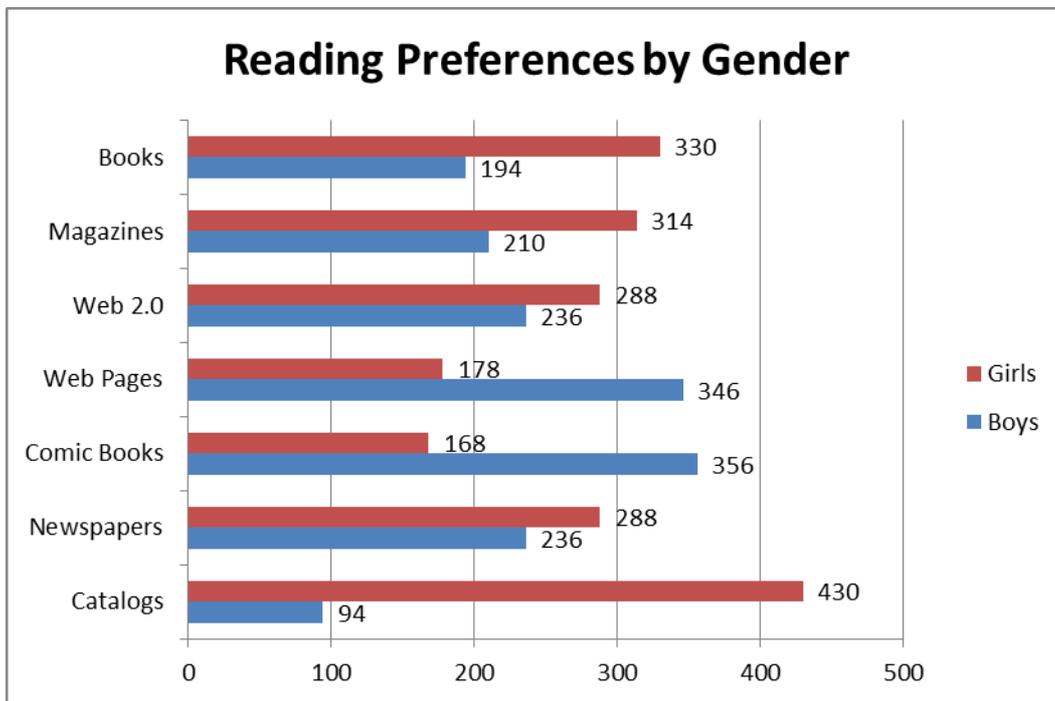


Figure 2: Reading Preferences by Gender

Since respondents could choose multiple reading preferences, n has a shifting value. Girls have a stronger preference for books, magazines, and catalogs, while boys prefer web pages and comic books. Boys have a stronger preference for web pages than girls, but girls have a slightly stronger preference for Web 2.0. An ANOVA analysis of preferences for print and digital reading, however, revealed no statistically significant difference between the preferences of girls and boys for print or digital reading. Given the traditional reticence of girls for computers, it is interesting that girls show a greater interest in Web 2.0 than boys.

Figure 3 shows reading preferences for six types of reading materials by five ethnic groups: African Americans, Caucasians, Hispanics, and Asian/Other (racially mixed).

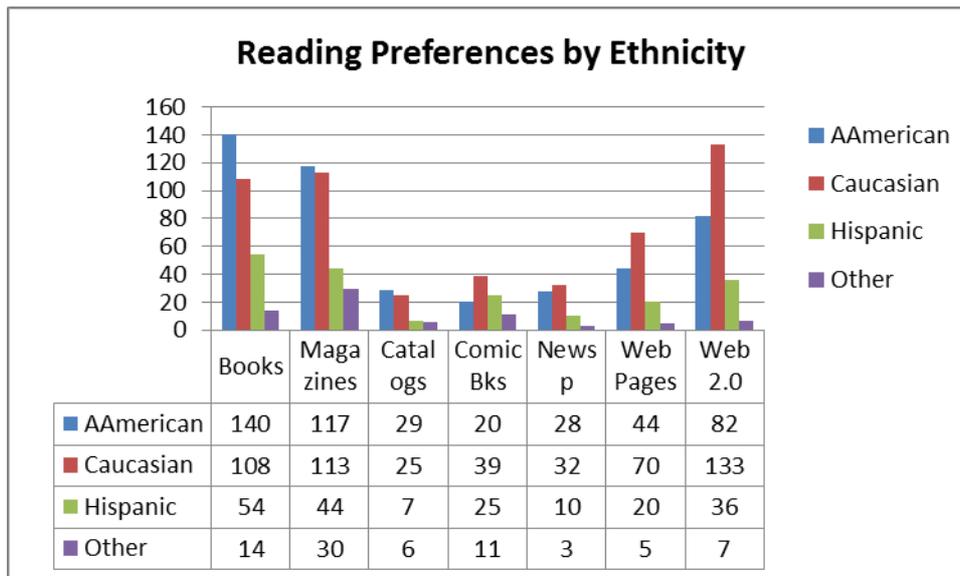


Figure 3: Reading Preferences by Ethnicity

It is evident that all groups have strong preferences for books and alternative media (magazines and the web). An ANOVA test showed no statistical significance between ethnic group and type of reading material preferred. The data table points out the differences in preferences which show the same patterns across ethnic groups. Their choices of book titles points out the importance of situated reading, or finding the right book. There is a pronounced preference for YA titles that adolescents can relate to their lives. The differences among the fiction titles are specific to socio-economic status. There are several titles that recurred throughout the survey that cut across gender and ethnicity. These titles include: *Stuck in Neutral*; *Speak*; *A Child Called It*; *Monster*; *The Scorpion*, *Garden of Angels*, *Slam*, *Misery*. It is also clear that regardless of gender or ethnicity teens like series such as *Twilight*; *Goosebumps*; and *Gossip Girls*. A few preferences stated were for classics: *Silas Marner*, *Of Mice and Men*. When classics are mentioned, they are usually titles taught in the English/Language Arts curriculum and student preferences are influenced by class readings. These kinds of titles were more common among reluctant readers. If students like their teacher, they transfer their positive disposition from the teacher to what they read in class (Gordon and Lu, 2008). Favorite authors also cut across gender and ethnicity. They include: Stephen King, Stephanie Meyers, Jodi Picoult, Maya Angelou, Walter Dean Myers, Stine, Omar Tyree, Sharon Draper, Nicholas Sparks. African American respondents noted that they like to read books by black authors such as Maya Angelou and Langston Hughes.

What effects, if any, did the web-based summer reading program have on adolescent reading attitudes and preferences? The post-survey was administered to 99 students from HS2 during the fall term following summer reading. Since participation in the post-survey was dependent on participation in the web-based summer reading program, this means that 64 percent of the original sample from HS2 read during the summer. This is a high percentage for a Title I school. 90 percent of respondents were from HS2, with a low rate of participation from HS1. This can be attributed to a few factors: 1) The transient nature of student populations, especially in Title I schools; 2) The voluntary status of the electronic survey and; 3) Transition from the spring to fall term when students are not taught by the same teachers, so encouragement to participate in the survey varies. Gender was almost evenly represented in the sample of 99 students: 49 percent are boys and 50 percent are girls.

48 percent of respondents are Caucasian; 30 percent are African-American, 16 percent are Hispanic, 5 percent were mixed race and 1 percent are Asian. Grade 10 constitutes 80 percent of respondents; Grade 11, 7 percent, and Grade 12, 13 percent. Most students are in the General, or remedial course of study (97 percent); 3 percent are in the Advanced Placement or Honors program.

Table 4 documents where the respondents accessed the summer reading website. Almost half accessed the site from home; one quarter accessed the site from the classroom; one quarter accessed the site from the public or school library.

	Frequency	Percentages
Cell phone	4	3.5%
Friend's home	3	2.6%
Home	51	44.4%
Public library	12	10.4%
School classroom	30	26.1%
School library	15	13.0%
	115	100.00%

Table 4: How Students Accessed the Summer Reading Website

n=99

Note: Students could choose more than one response

When asked whether they had problems accessing digital materials outside of school, 89 percent of respondents said they did not. 76 percent of respondents said they used the website to select digital materials; 73 percent said they used the website to select print materials.

How much time did respondents spend reading? Figure 4 and Table 5 show a remarkable similarity between the time spent reading print and digital materials.

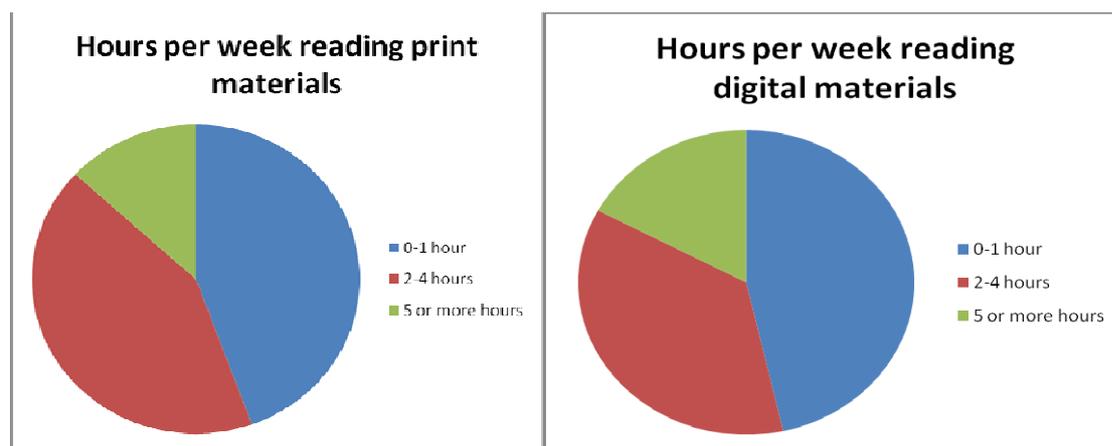


Figure 4 : Time Spent Reading Print and Digital

	Reading Print	Reading Digital
0-1 hour	44 hours	46 hours
2-4 hours	42 hours	36 hours
5 or more hours	13 hours	17 hours
Total	99 hours	99 hours

Table 5: Hours per week reading print and digital materials
n=99

What did they say they liked about the website and how does that compare with how they used the website? This comparison reveals a strong consistency between the two.

What did they like best about the website? The annotated, illustrated book lists and Twitter were the most frequently chosen activities for one third of respondents (Table 6),

	Frequency	Percentages
Blog	18	18%
Book Lists	32	33%
Reading Responses Peer	7	7%
Reading Reviews	12	12%
Twitter	30	30%
	99	100%

Table 6: What did students like best about the summer reading website?
n=99

It is surprising that the book lists were so popular. Blogging and reading reviews in the form of podcasts were rated as favorites by 18 and 12 percent of respondents.

How does what they say about the website compare with what they do on the website? Figure 5 compares responses to these two questions. For the first chart, *n=99* since each respondent answered once to indicate what they liked best about the website. In the second chart, however, respondents selected multiple options. A comparison of the two charts uses percentages of stated preferences. Preferences for and use of blogs, book lists and reading responses are consistent in the two charts. The use of reading responses is higher than what they say they like, and the use of Twitter is lower.

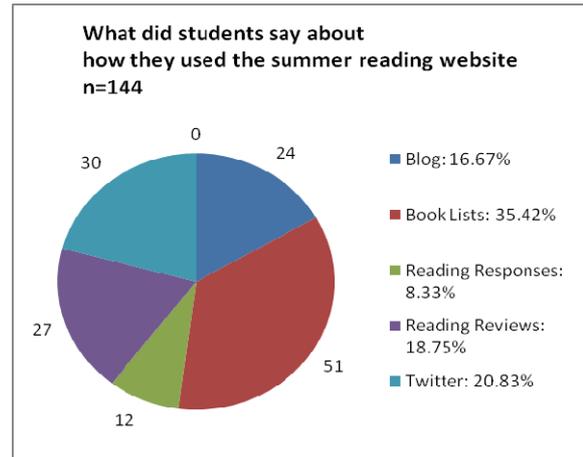
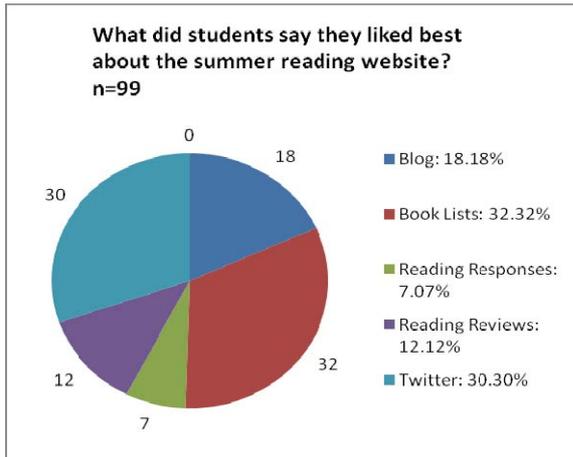


Figure 5: What They Say and What They Do

Do they have opportunities to choose their own reading? 87 respondents said yes (Fig. 6).

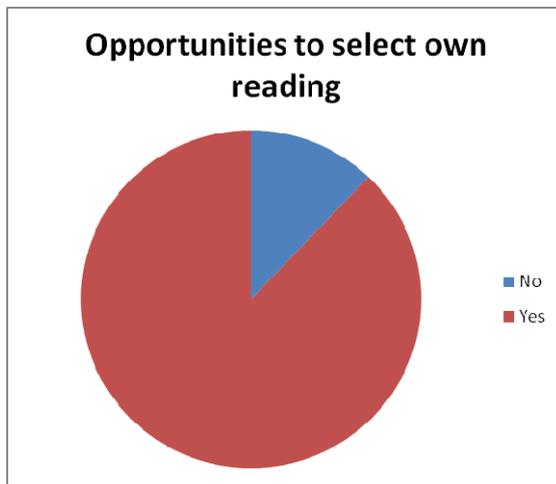


Figure 6: Do They Have Control of Their Reading?
n=99

The theme students chose for the website is surfing. A student wrote the following caption for the picture shown above (Fig. 6). “As the surfer would say, find that perfect wave and take control of your summer reading.”

Do respondents like to read? 76 said Yes (Fig 7).

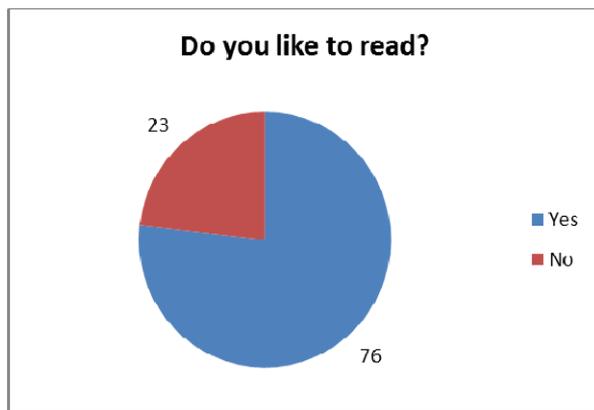


Figure 7: Do You Like to Read?
n-99

Since the size of the sample is smaller than the original sample that responded to the pre-survey, so a direct comparison is not possible between pre- and post-survey data. Instead, the relationship between whether respondents like to read and how they feel about the website is calculated. The total of students who like to read is 76. Of these, 41 like the website and 35 do not. The total of students who do not like to read is 23. Of these, 5 like the website and 18 do not (Fig. 8)

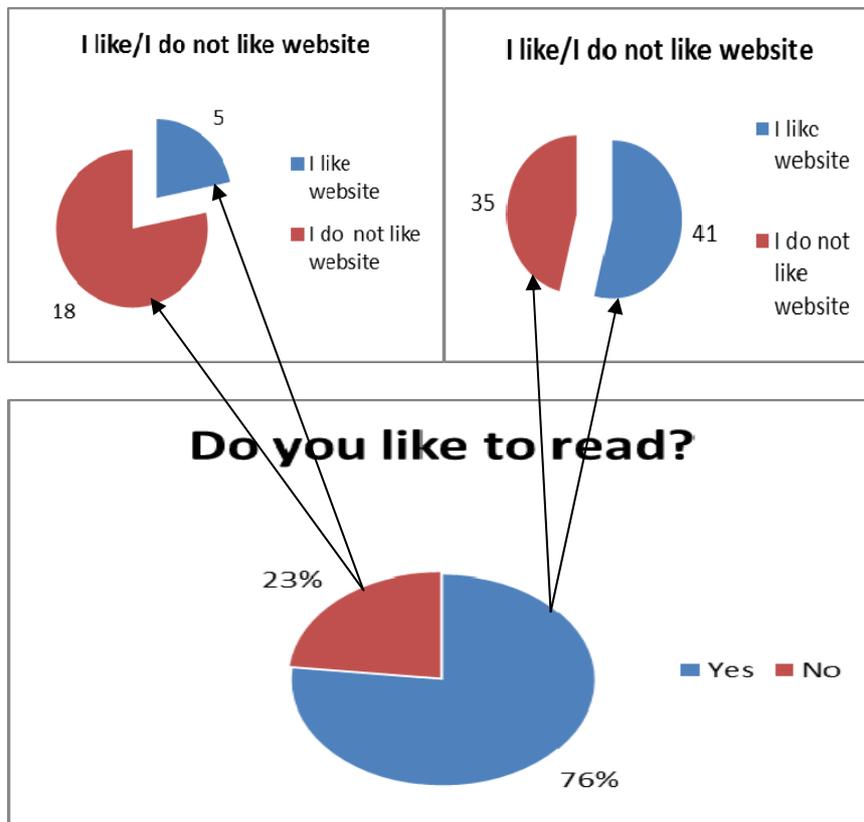


Figure 8: A Chi Square Analysis of Reading Attitudes

Of the students who liked to read, 41 liked the website; 35 did not. Of the students who did not like to read, 5 liked the website and 18 did not. These numbers were used to run a Chi Square analysis on how respondents felt about the website and how they felt about reading. This yielded a statistically significant relationship. The following statement expressed the odds ratio between the two responses:

$$\frac{\text{Like to read[Like the website]}}{\text{Like to read[do not like website]}}$$

$$\frac{\text{Don't like to read[like website]}}{\text{don't like to read[do not like website]}}$$

The odds ratio is then calculated:

$$\text{Odds ratio} = [41/35]/[5/18] = 4.22.$$

So we can say that students that like the website are 4.22 times more likely to read than those who don't. We can also reverse the statement to say that those who like the website are more likely to read.

Implications for Research and Practice

The difference between learning how to read and being an independent reader lies in motivation. Phonemes, phonics, and word recognition equip young readers to decode the symbols they see on a page, but the real goal is reading comprehension. This does not happen without engagement, and engagement does not happen without continuous and sustained access to reading materials and supporting services. Libraries have an increasingly important role to play in disseminating empirical reading research and applying the research to initiatives that address the affective elements of reading engagement. A personalized, rather than institutionalized approach to literacy support that defines reading engagement as motivated, strategic, knowledge driven, and socially interactive (Guthrie, et al., 2000) is critical to the future of youth services. Reading is more than a school subject; it is a personal experience that nurtures developing intellectual and emotional maturity. It has to be enjoyable, and even fun, inside as well as outside of school. The summer reading website is a prototype for developing learning environments that promote multi-modal literacies, including information literacy and digital citizenship. Engaging youth in providing content through the use of interactive tools in collaborative settings can be a model for how we education the youth of the future. It is obvious that there is no one-size-fits-all solution to literacy development and that teaching and learning can take place successfully in alternative environments that provide print, digital, and human resources that inspire and support adolescent literacy. More research is needed to study alternative models and the effects of specific interventions and activities that lead to diagnoses of online reading problems and prescriptions for ameliorating or curing these problems. New visions refine the role of libraries in literacies and to create a community of learners for whom libraries are indispensable for their success. This research can build on the rich literacy literature and apply what we already know about struggling readers to digital reading.

The voices of the adolescent respondents are telling us what scientific research has shown. Self-efficacy and intrinsic motivation are critical to developing the emerging comprehension of adolescents. Affective elements of reading are as important as the cognitive. Dimension of reading motivation emerge from the voices in this study: perceived control; personal interests; intrinsic motivation; self-efficacy; and collaboration. These constructs can be applied to developing a mature

role in literacy development for librarians in school, academic, and public libraries that takes a holistic view of library collections and services. The constructs have implications for the way librarians develop their collections to support readers' advisement, reference help, and the design of reading programs and activities. Literacy support that is confined within the walls of the library can be re-imagined in real and virtual spaces where reading is integrated with stimulating tasks that originate in the interests, concerns, and needs of the reader.

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