



“Limitless Libraries saves me time by making unlimited resources available to me quickly. I love being able to request a book, film, or CD and having it in my hands within days and not having to search the city for it.”

– Alison Rager, 8th Grade Teacher

Executive Summary

A 2013 study of how students use and benefit from Limitless Libraries (LL) found that:

- Middle and high school students report a wide variety of short- and long-term learning outcomes that they credited to their use of LL.
- High school students who used LL were more likely to perform well on TCAP’s End Of Course (EOC) tests in Algebra, Biology, and English.
- Middle school students who used LL were more likely to perform well on the Tennessee Comprehensive Assessment Program (TCAP) English Language Arts (ELA), Math, and Science tests.

This Executive Summary provides an overview of these findings, which are presented in complete detail in the accompanying report.

History

In 2009, Nashville Mayor Karl Dean envisioned Limitless Libraries (LL), a partnership between Nashville Public Library (NPL) and Metro Nashville Public Schools (MNPS) to strengthen school libraries and increase use of the Nashville Public Library’s collections for children and youth. By 2013, LL was established in all 128 of the city’s traditional schools, including 16 high schools, 35 middle schools, 74 elementary schools, and 3 exceptional education schools. More than 25,000 MNPS students – 15,000 of them first-time library users – are registered to use LL, and, in 2013, active users received more than 112,000 books and other items via daily courier deliveries. In addition to books and other physical formats, LL provides a core collection of eBooks and databases as well as audio-visual materials and materials for English Language Learners. LL also loans 192 netbooks, 108 Nooks, and 115 iPad Minis to enable students without access to such technology at home to use databases and eBooks.

By October 2011, discussions about commissioning a study to assess the impact of Limitless Libraries had begun, and, in June 2012, the study was funded. It was conducted during calendar year 2013.

“I use Limitless Libraries almost every day. It has helped me to read more every day.”

– William, 8th Grade Student



“Limitless Libraries makes it super easy to get the books I want to read and listen to. Being able to read helps me to keep calm in my life when things are feeling out of control.”

– Natalie, 7th Grade Student

Methodology

The study combined qualitative analysis based on feedback from students about their LL use and its perceived outcomes and quantitative analysis of associations between LL use and state test results.

The qualitative analysis asked students themselves to report how and how frequently they used LL and the outcomes they experienced as a result of that use. They were asked about the frequency of their use of books and other physical materials, electronic resources, and visits to NPL. They were also asked about a wide range of possible outcomes ranging from more immediate school-related benefits, such as getting better grades and finding information needed for school work, to benefits associated with lifelong learning, such as learning how to find information on a personal problem or issue. They were also asked about conditions that make them less likely to use NPL and to identify others whom they taught to use LL.

The quantitative analysis explored the associations between various types of student use and their state test scores. Because elementary schools were only recently added to the program, this analysis focused on middle and high school students. For middle school students, academic achievement was represented by the percentage achieving Proficient or Advanced level in English Language Arts (ELA) and Mathematics as well as Science on the Tennessee Comprehensive Assessment Program (TCAP). Separate results were also examined for English Language Learners. For high school students, End Of Course (EOC) test results in Algebra, Biology, and English were used.

Quantitative findings about the relationships between LL use and state test scores are important; but, they, taken alone, are not conclusive. They are, however, consistent with the qualitative findings about student-reported LL use and outcomes they attribute to such use.

“The Limitless funds have really improved our collection both in terms of quantity and quality. Also, LL has allowed us to create a great DVD collection that has become a real draw in terms of bringing students into our library.”

– Misti Jenkins, High School Librarian



Students on Their Use of Limitless Libraries & Its Outcomes

Students were asked to report their types and frequency of Limitless Libraries (LL) use as well as to identify outcomes they credited to their LL use. Of the 8,364 MNPS middle and high school students registered to use Limitless Libraries between October 2012 and May 2013, there were 4,249 respondents to this survey—an impressive response rate to a voluntary survey of 51%.

Student Reports Regarding Limitless Library Usage

Despite the growing popularity of eBooks and other electronic resources, books and other physical materials made available to students by LL are still frequently used.

- Of responding middle and high school LL users, almost 9 out of 10 (85.1%) reported borrowing books with some frequency, ranging from at least weekly to at least annually.
- Almost a third of students responded that they borrow books at least weekly (31.6%), and almost another third, at least monthly (31.7%).

Use of other physical resources was reported less frequently, though still by substantial percentages (DVDs, 47.1%; Playaways (all-in-one audiobook), 34.0%; music CDs, 24.1%).

The analysis of survey responses from LL student users revealed important proportional differences among student cohorts in both their use of LL and the personal outcomes they attributed to it.

Differences in LL use among student cohorts were found for all three types of use: physical materials, electronic resources, and Nashville Public Library (NPL) visits.

As there is no single complete and authoritative list of LL users—and the list changes continually—respondents to the survey were necessarily self-selected. That said, a 50% response rate to an entirely voluntary survey is impressive. Still, self-selection is a potential source of bias associated with unknown factors. In addition, the accuracy of student self-reports might also be questionable. The findings, however, indicate that survey responses to questions about LL use and associated outcomes were generally consistent with one another.

“I think it is really good because people can’t go to the library all the time. I can get access anytime on my computer and order whatever I need.”

– Maurianna, 5th Grade Student



Books and other physical materials—DVDs, Playaways, and music CDs—were more likely to be borrowed by:

- Students eligible for free/reduced-cost meals (i.e., low socio-economic status)
- Black/African-American and Hispanic students
- Middle school students
- English Language Learners
- Students with Individualized Education Programs (i.e., IEPs related to disabilities)

Larger percentages of each of these student cohorts borrowed LL materials than students who were not members of each cohort.

Books alone were more likely to be borrowed by female than male students. Male students similarly favored DVDs alone.

All types of LL electronic resources—the LL website, eBooks, and licensed online databases—were more likely to be borrowed by students eligible for free/reduced-cost meals than other students. The LL website alone was more likely to be used by Black/African-American and Hispanic students, middle school students, and English Language Learners than non-members of each of those cohorts. eBooks were more likely to be used by Black/African-American students, middle school students, English Language Learners, and students with IEPs. Databases were more likely to be used by Black/African-American students and high school students.

Visits to Nashville Public Library (NPL)—whether general visits or visits associated with video game events or puppet show production—were more likely to be made by:

- Students eligible for free/reduced-cost meals (i.e., low socio-economic status)
- Black/African-American students
- English Language Learners
- Students with Individualized Education Programs (i.e., IEPs related to disabilities)

NPL visits associated specifically with video game events and puppet show production were more likely to be made by male students and middle school students.



“Limitless Libraries has been the biggest blessing to me as an educator. It has greatly increased the amount of resources I am able to provide my teachers, it has increased my students use of the library and love of reading, and it is truly the “great equalizer” in that ANY child can get the materials they want without having to leave our school building.”

– Alison Maliszewski,
Middle School Librarian

Student Reports Regarding the Benefit of Limitless Libraries

Students associated LL use with both shorter-term academic achievement in school as well as longer-term 21st Century “learning to learn” skills required for information literacy and lifelong learning.

Solid majorities of responding students reported:

- Improving their reading or reading more
- Finding a book not in the school library
- Finding information for school work

Substantial minorities of responding students also reported:

- Getting better grades
- Learning to use a specific website or online resource or to use it better
- Staying in school

Other student-reported outcomes were associated with longer-term information literacy and lifelong learning.

Almost half of responding students reported:

- Finding information on a subject of personal interest
- Learning how to find information at a library

Substantial minorities of responding students also reported:

- Learning to search the Internet or search it better
- Learning to use a computer or to use one better

Notably, three out of five responding students associated their LL use with three outcomes strongly associated with their success in school: improving or increasing their reading, finding information for their school work, and finding books not available in their own school libraries. Half also credited LL for teaching them how to find information on a subject of personal interest.

There were also differences among student cohorts in the outcomes they credit to Limitless Libraries.

Improving reading or reading more was more likely to be reported by:

- Students eligible for free/reduced-cost meals (i.e., low socio-economic status)
- Female students
- Black/African-American and Hispanic students
- Middle school students

“Limitless Libraries has had a significant impact in my library. If I don’t have enough books for a project, I borrow books from Limitless Libraries, and they get delivered. If a student doesn’t have a computer, I check one out to him that Limitless Libraries provided to my school. I was able to update the average age for my nonfiction collection from 1977 to 2007. As a result, my circulation has increased over 400% since Limitless Libraries began.”

**– Amanda Smithfield,
High School Librarian**



Finding information on a subject of personal interest was more likely to be reported by students eligible for free/reduced-cost meals and female students.

Two outcomes were more likely to be reported by female students alone: finding information needed for school work and learning how to use a website.

Finding a book not at the school library was more likely to be reported by female students, middle school students, and English Language Learners.

Learning how to find needed information from a library was more likely to be reported by both female students and middle school students.

Getting better grades was more likely to be reported by Black/African-American and Hispanic students, English Language Learners, and students with IEPs (i.e., disabilities).

Learning how to search the Internet or to search it better was more likely to be reported by female students and Black/African-American students.

Staying in school was more likely to be reported by:

- Students eligible for free/reduced-cost meals
- Male students
- Black and Hispanic students
- Middle school students
- English Language Learners
- Students with IEPs (i.e., disabilities)

Learning how to use a computer or to use one better was more likely to be reported by students eligible for free/reduced-cost meals, middle school students, and English Language Learners than by non-members of each of those student cohorts.

Finding information about a personal problem or issue was more likely to be reported by students eligible for free/reduced-cost meals and English Language Learners.

Learning how to use an eReader or to use one better was more likely to be reported by students eligible for free/reduced-cost meals and middle school students.



“The Limitless Libraries program has made a tremendous difference in many of my students’ lives. Students are excited when they can check out materials that I don’t have or that have a long wait. I see the difference that having the books they want to read makes in their academic endeavors.”

– **Sabrina McClure,**
Middle School Librarian

As a partial “reality check” on students’ self-reported outcomes, further analysis was pursued to determine if reported positive outcomes were consistent with more objective evidence available directly from NPL and MNPS. For active and inactive Limitless Libraries users, patterns in TCAP Achievement and End Of Course test results shared were compared.

Middle School Students & Their TCAP Results

The analysis of relationships between Limitless Libraries (LL) use and middle school TCAP results yielded 3 major sets of findings—ones for English Language Arts and Mathematics, ones for Science, and ones for English Language Learners.

English Language Arts and Mathematics

Middle school students who achieved Proficient or Advanced results in English Language Arts (ELA) and Mathematics were more likely to be Limitless Libraries (LL) users than non-users.

- Those who borrowed physical materials, used eBooks, and accessed databases away from school were more likely than others to meet or exceed standards in ELA and Math.
- These findings persisted regardless of free/reduced-cost meals status (i.e., low socio-economic status, or SES), gender, or race and ethnicity.
- Generally, students of low socio-economic status (SES) who achieved at higher levels were more likely to be LL users than non-users. The strongest and most consistent differences across tests and types of LL use were for students eligible for free/reduced-cost meals (i.e., low SES).

Science

Equally reliably, middle-schoolers who excelled in Science were more likely to be LL users than non-users. Grade-by-grade, these findings persisted regardless of free/reduced-cost meals status (i.e., low socio-economic status, or SES), gender, or race and ethnicity.

“Every afternoon a group of boys run (literally!) through the library doors to check on the delivery from Limitless Libraries. I’ve never seen male students so excited about reading! They like to read, because they are reading what they like. LL provides access to more materials and more choices.”

– **Melissa Raines,**
Middle School Teacher Librarian



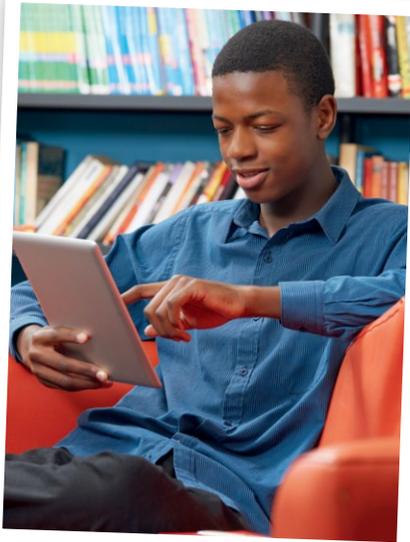
English Language Learners

While having their language arts skills tested in English clearly puts English Language Learners at a disadvantage—particularly when compared to their performance in Math—nonetheless, those who used LL were significantly more likely than non-users to score at higher levels in both ELA and Math.

High School Students & Their EOC Results

The analysis of relationships between different types of Limitless Libraries (LL) use and high school End of Course (EOC) results yielded 3 major sets of findings:

- Consistently, high school students who met or exceeded standards in English I and II as well as in Algebra and Biology were more likely to use LL in a variety of ways (borrowing physical materials, using eBooks, and accessing databases away from school) than students who did not meet standards.
- These findings persisted regardless of free/reduced-cost meals status (i.e., low socio-economic status, or SES), gender, or race and ethnicity.
- While high-schoolers generally were more likely to succeed academically if they used LL (versus if they did not), this association was more likely if they were low SES, male, and Black/African-American.



“Limitless Libraries has been such a huge blessing to our school library. Everyone waits impatiently for each day’s Limitless delivery. I would never have guessed when this program began, that it would have this kind of impact and make libraries, both NPL and our Oliver library, so incredibly popular with every student. Together, we have created readers!”

**– Laura Youmans,
Middle School Librarian**

While the quantitative findings of this study indicate that Limitless Libraries (LL) users were more likely than non-users to be successful in meeting the state’s tested academic standards, the qualitative findings paint a far more detailed picture of specific short- and long-term outcomes that not only help to explain better test results but set up students for a lifetime of success as information consumers and producers. Limitations of the data available for this study and suggestions for further research are discussed in the final chapter of the full report.

The findings of this study confirm that Limitless Libraries (LL) is a vital partnership of Nashville Public Library (NPL) and Metro Nashville Public Schools (MNPS). It is a win-win partnership, because it achieves both of its primary goals: expanding access to learning resources for MNPS students and increasing use of NPL collections by children and youth. Checkout of NPL Juvenile materials increased from 1,108,519 items in the 2012-13 school year to 1,152,021 in the 2013-14 school year. Additionally, Limitless Libraries checkouts increased from 108,680 items in the 2012-13 school year to 129,212 items in the 2013-14 school year. Beyond these goals, its use by students is demonstrably associated with school success and other positive benefits. Students who used LL not only tended to achieve at higher levels on state tests, but also tended to report more frequent uses of LL of all types and more positive learning outcomes credited to LL. These payoffs indicate that Limitless Libraries is a resounding success worthy of continued and increased support.

The Limitless Libraries Study Was Conducted by RSL

Marcia J. Rodney, MLIS, President, has more than fifteen years of extensive research experience, in both education and business. She has worked on all of RSL’s studies examining the structure and impacts of school library programs, and traveled and spoken extensively about these studies. Her competitive intelligence experience includes in-depth research in aerospace, telecom, and emerging technology businesses, and in clear and incisive reporting on competitor movements, finances, strategies, and organizational and product changes.

Bill Schwarz, BSEE, MBA, VP and General Manager, has long experience in project management, systems design and engineering, quality control, technical report writing, data analysis, engineering consulting, and small business management. He has worked on all of RSL’s school library studies, and has over fourteen years of survey design, database management, data collection and analysis, and report writing and editing experience with RSL. He performs all contracting, project control, invoicing and accounting functions for RSL.

Keith Curry Lance, PhD, RSL’s principal collaborator, is known widely for his work in library research and statistics. The founding and longtime Director of the Library Research Service at the Colorado State Library, he also taught in the Library and Information Science Program at University of Denver. Since the mid-1980s he has been a consultant and advisor to state and federal government agencies and professional associations, and is a regularly-published author and a popular speaker at various library events. He received the Leadership Achievement Award of the Association of Specialized and Cooperative Library Agencies (ASCLA) in 2006, the Career Achievement Award of the Colorado Association of Libraries (CAL) in 2007, and the Distinguished Service Award of the American Association of School Librarians (AASL) in 2013.