It is Isabel’s first day of kindergarten. Like many children in California, Isabel did not attend preschool and this is the first time she has ever been in a classroom. The teacher calls the children to the rug for storytime and Isabel takes a seat. Her teacher reads a story about the zoo and at one point, she stops and talks to the children about a koala. Isabel has never heard of a koala; she is still wondering what a koala is, whispering the new sounds to herself, when she looks up to realize that the teacher is now two pages ahead. She asks Isabel a question. Isabel does not understand the question and doesn’t know what to say. She sits there, looking at the teacher, embarrassed and silent.

This is how school feels to a child who is not “kindergarten ready,” and this is the reality for one out of three children in California. For children like Isabel, the experience of not being ready for kindergarten, and not feeling successful in school, repeats itself over and over again. And as these experiences repeat, children become less interested in school and less excited about learning.
The urgent need for promoting kindergarten readiness

There is a growing sense of urgency to prepare all children for school, especially children in ethnically diverse low-income communities who may not have access to high quality opportunities for early learning.

Findings from numerous studies emphasize that children who start behind stay behind, and early gaps in understanding, especially in literacy and mathematics, tend to be sustained or widened as children grow older. When children enter kindergarten without critical early learning skills, they are less likely to read at grade level, graduate high school, enter college, or have gainful employment.¹

In more affluent communities, families tend to have the resources and knowledge to provide positive, high quality early learning experiences that prepare children for school. These experiences, many of which are ordinary moments like bedtime stories and dinner table conversations, are woven into the fabric of daily life; they provide children with context and opportunity to learn the complex, critical thinking skills necessary for academic success. For children like Isabel who grow up in low-income communities, these experiences, and the opportunities they offer, are far less common.

¹ Early Warning: Why Reading by the End of Third Grade Matters (Annie E. Casey Foundation 2010)
What is StoryCycles?

*StoryCycles* is a school-to-home book-sharing program that aims to provide children and families with access to books in order to create more opportunities for book-sharing experiences in the home, and through those experiences, promote children’s language, literacy, and early learning.

Through StoryCycles, Tandem provides:

1. **High quality, multilingual, multicultural books** children can share with their families; Tandem’s 800-plus book collection includes books in 18 languages (English, Spanish, Cantonese, Vietnamese, Hindi and Farsi to name a few).

2. **Easy-to-understand workshops that introduce** parents and caregivers to research-informed, practical strategies for facilitating children’s language development, literacy, and critical thinking through book-sharing experiences.

3. **Skills-based professional development for educators** in Read Aloud techniques and strategies for instilling regular book-sharing routines with families.

These components come together to create a rich ecosystem of support and encouragement for families who most need reinforcement to engage their children in language- and literacy-rich early learning experiences.
StoryCycles addresses the opportunity gap

StoryCycles provides children like Isabel with the opportunities they need to start kindergarten with confidence. While Isabel has less access to high quality learning opportunities that promote school readiness, she has just as much capacity to arrive at school on the first day of kindergarten ready to learn. In order to promote kindergarten readiness among children like Isabel, it is critical that the adults in their lives are equipped with the resources, skills, and confidence to provide age-appropriate, interactive experiences to boost learning and brain development. This is the challenge that Tandem sets out to address with the StoryCycles.

StoryCycles is easy to implement, cost effective, and leads to four outcomes discussed in this impact report:

- Increasing families’ access to books
- Encouraging interactive reading
- Establishing robust book-sharing routines
- Sparking joy and motivating children (print motivation)

While Isabel has less access to high quality learning opportunities that promote school readiness, she has just as much capacity to arrive at school on the first day of kindergarten ready to learn.
Increasing Families’ Access to Books

The Issue: The lack of materials limits families’ abilities to provide high quality early learning experiences for young children.

Almost half (48%) of the families participating in Tandem’s programs noted that not having easy access to books was one of the primary reasons why they were not able to read with children on a regular basis.

44% of American children come from low income families and many live in neighborhoods that don’t have public libraries or bookstores. For many families, books are an unaffordable luxury. In high poverty neighborhoods that may mean that there is only one book for every 300 children. The same holds true for Tandem families as well. The majority of families participating in StoryCycles (73%) report having fewer than 30 books at home when they start the StoryCycles program, with almost a third (28%) reporting owning fewer than 10 books.

Parents and family members are a child’s first teacher – and children’s early learning and healthy brain development are predicated on high quality interactions between adults and children. When access to books is limited, children and the caring adults in their lives are less likely to spend time together, resulting in children missing out on the rich parent-child interactions that take place during book-sharing experiences. And without such high quality book-sharing experiences, children are deprived of the opportunity to learn about their world, acquire more sophisticated vocabulary, and understand how decontextualized language works, a fundamental skill in learning to read.

73% of families participating in StoryCycles report having fewer than 30 books (with 28% reporting owning fewer than 10)

3. Tandem collected and compiled data from a three year analysis of 5,304 responses to surveys it administered to parents and educators in San Francisco, Alameda and Contra Costa counties about their experiences with the StoryCycles program from 2016 to 2018. All further references to survey results refer to the data collected by Tandem from these surveys.
4. Ibid.
The Research: Bay Area children, especially those living in low-income communities, have limited access to books even as countless studies underscore the relationship between books in the home, book-sharing interactions, healthy brain development, learning to read, academic success, staying in school, future earning potential, and the ability to contribute to the nation’s economy.

Giving children access to print materials is associated with numerous positive behavioral, educational, and psychological outcomes. This is true regardless of whether the books are owned by or loaned to families. Programs that provide access to books and other materials play a major role in children’s ability to:

- Increase reading performance
- Learn the basics of reading
- Read more and for longer periods of time
- Improve their attitude toward reading and learning

These skills are crucial for early academic and long term success. An analysis of a national data set of nearly 100,000 United States school children found that access to printed materials – and not poverty – is the “critical variable affecting reading acquisition.”

Books in the home provide an opportunity for children to succeed despite their family circumstances of parental education, parental occupation, and family wealth.

6. Children’s Access to Print Material and Education-Related Outcomes: Findings from a Meta-Analytic Review (Lindsay, James 2010)
7. Ibid.
9. Children’s Access to Print Material and Education-Related Outcomes: Findings from a Meta-Analytic Review (Lindsay, James 2010)
10. Make Every Student Count: How Collaboration among Families, Schools, and Communities Ensures Student Success (Family and Community Engagement Research Compendium, Lois Bridges, Ph.D. 2013)
11. Scholarly Culture and Academic Performance in 42 Nations (Evans, Kelley, Sikora 2014)
The Solution: StoryCycles addresses inequity by providing families access to up to 100 high quality, multilingual, multicultural, developmentally appropriate and engaging books, each year the family is enrolled in the program.

Each week, children participating in the program bring home a bright green bag filled with 2–4 books to share with their families. Rather than asking families to spend their time, energy and limited resources on acquiring children’s books, Tandem’s library comes to them, alleviating an important obstacle to regular book-sharing experiences.

“I love and enjoy the idea that [my child’s preschool] sends books home. If we didn’t have this I truthfully don’t think I would personally pick up a book and read. This encourages the kids and parents to do so. Thank you.”
- StoryCycles Parent
The Results: Tandem’s data is consistent with the research: the number of books in the home is the greatest predictor of both time spent reading and the frequency of reading.

More books in the home is associated with reading more frequently

When the home has at least 30 books, the majority

84% of StoryCycles families report reading on a daily basis with children, and for at least 15 minutes each time.

In contrast, a national survey, How America Reads Aloud to its Children, released in 2018 found that

ONLY 42% of Americans with children aged 3–5 read to their child every day

ONLY 32% report reading to their children every day for 15 minutes or more.12

When access to books is coupled with wraparound services like workshops for families on interactive reading strategies, professional development for educators, and site-based technical assistance, families also report changes in attitudes and behaviors towards reading with children.

89% of StoryCycles families noted that because of Tandem’s program, they learned how sharing books can help their children succeed in school

85% spend more time engaging with their child after sharing a book

The Takeaway: Tandem’s StoryCycles program is closing the opportunity gap by giving low-income families access to books and the skills and knowledge they need to ensure their children start kindergarten poised for success.

“This is a wonderful program to promote literacy and family engagement in underserved communities and families. Families who have limited resources in acquiring books or do not have time to visit the library found the green bags to be very beneficial! One family asked where they could purchase the books and shared how much her children enjoy reading and looking at books since receiving the green bags.”

- StoryCycles educator

Since June 2015, Tandem has given away OVER 35,000 books to families and educators to build their home and classroom libraries.

Program Reach
Every year, Tandem shares OVER 43,000 high quality books with families by partnering with OVER 800 classrooms in local preschools and childcare centers.
Encouraging Interactive Reading

The Issue: Many families expect reading to a child to be an adult-directed experience in which the adult turns the pages and reads the book from start to finish as the child quietly listens.

In reality, reading to young children is quite different. Very young children may want to chew on the book; toddlers may want to start in the middle of the book or read the pages out of order; even older children may not want to sit still and listen. Through StoryCycles, adults (family members and educators) learn the importance of following the child’s cues to engage in back and forth conversations and using other techniques such as incorporating movement, songs, or silly voices to make book-sharing an enjoyable, interactive experience for the child.

Interactive reading techniques are new to many StoryCycles families. The adults themselves may not have had many positive experiences with book-sharing when they were children or may be unaware of its importance in the development of their own children. Or they may conclude, like many adults do, that their children aren’t ready for books because their children don’t seem interested in reading books in the traditional way. In these families, children have fewer opportunities to engage in interactive book-sharing experiences.

“One of the most essential experiences in shaping the architecture of the developing brain is the ‘serve and return’ interaction between children and significant adults in their lives.”
- Harvard University, Center on the Developing Child
The Research: This type of interactive reading creates what is known as serve and return interactions. “Serve and return” is a term coined by Harvard researchers to describe the back and forth interactions that occur between a caregiver and a child.

When a young child babbles, gestures, or cries and an adult responds to them by making eye contact, offering encouragement or physical affection, neural connections are formed promoting the development of a healthy brain architecture. These interactions affect all aspects of a child’s development including intellectual, social, emotional, physical and behavioral development paving the way for kindergarten readiness and future academic success.

Opportunities for these enriching interactions occur naturally in the home, but book-sharing is a particularly effective tool for creating serve and return interactions. Researchers have found that even brief instruction encouraging parental use of dialogic (interactive) reading strategies had a lasting impact on positive outcomes for children and that without explicit instruction, most parents did not employ such strategies.

The Solution: The books in the StoryCycles collection are selected for their potential to promote back and forth interactions that foster children’s brain development, language acquisition, communication and social skills, thereby building the foundation for not only kindergarten readiness, but also lifelong learning.

StoryCycles workshops introduce and reinforce simple, practical strategies caregivers and educators can use during the book-sharing experience to catalyze rich, meaningful serve and return interactions with children.
The Results:

The majority of StoryCycles families report an increase in interactive reading behaviors in their children:

- **71%** of children ask their caregivers to share books with them.
- **72%** of children choose their own books.
- **77%** hold the books while engaging in shared reading.
- **76%** look at the books while engaging in shared reading.
- **72%** look at books on their own.

The overwhelming majority of StoryCycles parents and caregivers reported engaging in interactive reading behaviors:

- **90%** spend more time pointing out pictures, letters and new words to their children while reading.
- **93%** read the same story multiple times to their child.
- **89%** spent more time talking about what happened in the story after completing a book.

Educators who participate in StoryCycles also reported an increase in their use of interactive reading techniques with

- **84%** reporting that they either gained a new interactive reading skill or increased their use of an existing skill with “using movement, voices and/or songs to engage children in interactive Read Alouds” being a common response.
The Takeaway: Regular, interactive book-sharing experiences create opportunities for serve and return interactions which promote healthy brain development in children and support kindergarten readiness and long term success. Giving families great books and educating them on the power and process of engaging with children through these books provides learning opportunities that their children may not otherwise experience.

“The StoryCycles program really helped my child to practice reading and to pay attention for a story she is listening to. It also helped my daughter to interact with the family and share her reactions. Thank you for the program and please keep it up.”
- Parent
Establishing Robust Book-sharing Routines

The Issue: In addition to interactive reading, regular and consistent book-sharing routines in the home to help children acquire the knowledge, skills, and information they need to start kindergarten with confidence.

- Lack of access to books in general, specifically books in their home languages
- Lack of time available to engage with their children due to inflexible work schedules
- Systemic structures that fail to uplift assets like bilingualism and multiculturalism

The challenges experienced by low-income families establishing daily reading routines are familiar.
The Research: Regular book-sharing routines are a strong predictor of social, emotional, and academic success. Here’s what the research has to say about reading routines:

Reading aloud is the single most important activity parents can do to prepare children for learning. This practice enhances language exposure and creates an opportunity for caregiver/child interactions (serve and return). By age three, there is a gap in brain development between kids whose parents have read to them and those who haven’t.15

Studies have shown that participating families report reading with their children significantly more often and that their children had significantly higher receptive-language scores than families who did not participate in book-sharing programs.16

Children who grow up reading consistently with their caregivers are less likely to drop out of school.17

15. Read Aloud 15 Minutes A Day (www.readaloud.org)
16. Reach Out and Read (reachoutandread.org)
17. Turning Curves for Vulnerable Children from Birth to Age 8 Action Guide: Shared Results and Measures (National Results and Equity Collaborative)
The Solution: Tandem families participating in StoryCycles sign a pledge that they will read to their children for 15 minutes every day.

Children bring home the green book bag with engaging new books every week to keep the families motivated. The StoryCycles educators reinforce the importance of reading routines and model effective Read Aloud techniques to their families.

Read aloud every day for at least 15 minutes to “feed your child’s brain,” building vocabulary and other pre-literacy skills, and powerful social-emotional bonds.
The Results:

StoryCycles families who were in the program for more than 6 months are almost **50%** more likely to read every day than families who receive StoryCycles for less than 6 months.

StoryCycles families were **43%** more likely to read between 3 to 6 times a week than families that did not get the StoryCycles program.

“I love this program because kids love the responsibility of taking care of the book bag, and the parent and the child get to have a moment together when reading books. Books are a great way to get families together!!”

- StoryCycles Educator

Educators reported that participating in StoryCycles helped them develop or deepen their strategies for family engagement, such as supporting families to read **15 MINUTES A DAY** on a consistent basis.
The Takeaway: Establishing reading routines is one of the key components of StoryCycles.

Many StoryCycles families don’t have daily reading routines prior to entering the program. Providing both the books and the instruction around interactive reading gives families the knowledge, resources, and skills to establish daily reading routines and prepare their children for kindergarten.
Sparking joy and motivating children (print motivation)

The Issue: For many parents of young children, sharing books with young children is not intuitive.

Parents without much experience with being read aloud to themselves do not have models to draw from or confidence in their own skills; getting the child to sit still and engaging the child in the reading experience are other challenges that parents report. To address these challenges and to help parents unlock the joy in the book-sharing experience, it is important to provide them with access to engaging books, a repertoire of interactive reading strategies, and high quality models of the book-sharing experience, all of which are key components of the StoryCycles model.

“I love the green bag because he loves when we read to him. He loves books and he wants to read at least 3 books in the night and he learns new words.”
- Parent
**The Research:** In a policy statement, The American Academy of Pediatrics urged its members to encourage parents to read aloud to their children:

Reading regularly with young children stimulates optimal patterns of brain development and strengthens adult-child relationships at a critical time in child development, which, in turn, builds language, literacy, and social-emotional skills that last a lifetime.

Neuroscience tells us that when a child is engaged in book-sharing with a caregiver, dopamine is released, promoting feelings of pleasure and deep satisfaction. The consequences of the dopamine release are clear; children remember what they learn and are more likely to be motivated to do it again.  

18. This explains why children from low-income families who read almost every day for pleasure have better reading achievement and text comprehension than their peers from more advantageous life situations who rarely or never read.  

19. Through joyful book-sharing experiences, children develop a lifelong love of reading and learning that sets them up for future success.

“My daughter always gets excited when she brings new books home and can’t wait for us to read them together.”  
- Parent

18. To Help Kids Remember What They Need to Learn, Tell a Story (Psychology Today Dec. 2017)  
19. Ibid.
The Solution: StoryCycles provides parents and caregivers with the knowledge, skills, and resources they need to create the joyful reading experiences which will encourage their children to remember what they learn and, more importantly, to want more; more books, more stories, more learning, more fun.

StoryCycles families learn why reading is so important to a child’s development and how to engage a young child in an interactive reading experience. Adults learn how silly voices, singing, dancing, movement, conversation, and laughter can engage young readers.

“We love the program. My daughter is excited to read the books as soon as she gets them. She can’t wait to see what books are in the bag.”
- Parent
The Results: Our survey data indicates that families participating in StoryCycles are learning and integrating the skills necessary for raising motivated readers into their home routines.

Children are excited to see their green book bags and about sharing these books with their caregivers. Families love the books, the conversations and the joy that book-sharing brings. These are the behaviors that help release the dopamine that propels kids to seek out more opportunities for reading and learning.

“We work hard to engage kids in shared stories: we growl like tigers, we sing, we do the Groovy Joe dance, we laugh, we cry – whatever it takes!”
- Tandem Early Learning Specialist

“Every time we read to a child, we’re sending a ‘pleasure’ message to the child’s brain. You could even call it a commercial, conditioning the child to associate books and print with pleasure.”
- Jim Trelease, The Read Aloud Handbook
The Takeaway: While all children start out life with equal potential, their early exposure to engaged and joyful book-sharing can significantly affect their cognitive development and improve the odds that they will be prepared to succeed in kindergarten and beyond.
Conclusion

Two questions are at the center of this evaluation of StoryCycles: Does the program reach families living in low-income communities in ways that are beneficial to both children and their parents/caregivers? And if so, can StoryCycles foster the learning skills that are likely to improve children’s educational experiences and outcomes?

The results from the three-year analysis of survey data demonstrate StoryCycles has the potential to change children like Isabel’s learning experiences and the kind of outcomes we can expect for children in kindergarten and beyond. StoryCycles increases the number of books that Isabel has access to – both books that serve as mirrors, reflecting her culture and community and providing resources for crafting a positive identity as well as books that offer windows into new worlds and new experiences. Participating in StoryCycles helps Isabel and her parents set up reading practices that feel familiar and comfortable to the whole family. Isabel’s parents are able to expand their repertoire of read aloud techniques, helping them feel more confident about their ability to support Isabel’s learning at home and more knowledgeable about how they can build on Isabel’s natural curiosity and explore her questions together. Importantly, participating in StoryCycles sparks joy and increases Isabel’s motivation to read and share books with friends and family members. Taken together, these findings encourage the Tandem team to innovate and improve upon the StoryCycles on an ongoing basis so as to push the boundaries of how and when such learning can take place for all children, and particularly for children in low-income communities, who might also be underserved by public preschools.

Tandem believes that with the support of funders and community partners it can change the trajectory of the lives of the children and families it serves.
Through joyful book-sharing experiences, children develop a lifelong love of reading and learning that sets them up for future school success.
This report was a joint project between Tandem and Full Circle Fund who provided a grant and a team of professionals to create this report. Full Circle is a community that leverages resources and accelerates nonprofits to build a better Bay Area.