



Imagination Library Kindergarten Impact Study Final Report

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November 2021

The purpose of this report is to summarize the findings and outcomes of the Imagination Library Kindergarten Impact Study (ILKIS) for stakeholders including the following research project sponsors: ECU's Office of Academic Affairs – Office of the Provost, ECU's College of Education – Office of the Dean, and ECU-COE's LEHE Department – Office of the Chair.

In 2016, 56% of the children in the Pitt County School District entered school "Ready to Learn," as determined by Kindergarten entry literacy assessments. An Early Literacy Coalition was created to bring together community members and agencies interested in increasing the literacy rate in the county. Through implementation of a large-scale book distribution program (Dolly Parton Imagination Library [DPIL]) and a variety of other literacy-based initiatives, the coalition aimed to increase the percentage of children who enter school "Ready to Learn." The DPIL program mails age-appropriate, high-quality books selected by a panel of early childhood and literacy experts once a month to the homes of all enrolled children, ages zero to five. We collaborated with the Pitt County School System to support the engagement and capacity of the community and families to foster early literacy development, inform pedagogical interventions at home and in the schools, evaluate the impact of the early literacy initiatives, and identify coalition practices that can be scaled up across our rural region. The project spanned 5 years. Key community partners across the duration of the project included, but were not limited to: ECU's Office of Academic Affairs Provost's Office, ECU's College of Education, ECU Department of Literacy Studies, English Education, and History Education, Pitt County United Way, Pitt County Schools, Martin Pitt Partnership for Children, Sheppard Memorial Public Library, READ ENC, and Sadie Saulter Preschool. UMC-IRB approval for research with human subjects was sought and approved in July 2017 (UMCIRB 16-001324; expedited 5,6,&7). Unfortunately, the COVID-19 pandemic prevented completion of the research project as originally planned. However, much research and impact resulted and is described in the paragraphs that follow.

Data Sources

We aimed to collect and match parent survey data with kindergarten student assessment data for 100-150 families per year. The survey included demographics and questions related to reading frequency and reading practices within the home. Pitt County Schools provided access to student achievement data including state-mandated beginning- and end-of-year data on (constrained skills) measures of Letter Naming, Phonemic Awareness, Print Concepts/Reading Behaviors, and Text Reading Level. We also assessed each participating student at kindergarten entry, using measures related to unconstrained skills, including narrative retelling, story comprehension, and reading motivation. These additional measures distinguished our research from previous DPIL studies. Our intent was to obtain student achievement data at the end of third grade, to determine the long-term impact of at-home reading practices prior to school entry.

Data Collection

Baseline data were collected at kindergarten entry for the 2016-17 school year and helped determine the course of targeted enrollment in IL and the development of interventions in subsequent years, with a

particular focus on parent/child engagement in at-home shared book reading. Parent survey data were collected in the following three years as well, but the pivot to virtual schooling and the lack of follow-up data prohibited us from completing the project according to our original plans. The table below details the full impact of the pandemic on data collection. Nonetheless, we were able to make good use of the data we did collect and we continue to build from our learning in the project.

Tracking Cohorts for ILKIS

Cohort	Data Issues	Parent Survey date	K	1 st	2 nd	3rd
Baseline*		8/2016	8/2016 – 6/2017	8/2017 – 6/2018	8/2018 – 6/2019	8/2019 – 6/2020
Study Year 1 students	No Grade 3 End of Year	5/2017	8/2017 – 6/2018	8/2018 – 6/2019	8/2019 – 6/2020	8/2020 – 6/2021
Study Year 2 students	Grade 3 End of Year compromised	5/2018	8/2018 – 6/2019	8/2019 – 6/2020	8/2020 – 6/2021	8/2021 – 6/2022
Study Year 3 students	No K Beginning of Year data	6/2019 (pre) 6/2020 (post)	8/2020 – 6/2021	8/2021 – 6/2022	8/2022 – 6/2023	8/2023 – 6/2024
Study Year 4 students	No K Beginning of Year data	3/2020	8/2020 – 6/2021	8/2021 – 6/2022	8/2022 – 6/2023	8/2023 – 6/2024

Gray numbers signify data lost due to COVID-19

Gray cell signifies data compromised due to COVID-19

*We did not have permission to collect grade 3 data for baseline cohort

Participants

At the time of the ILKIS study's closure in 2021, 692 participants (parent/guardians of pre-school children in Pitt County) provided informed consent and 377 completed all research related interventions. The gap between enrolled and completed reflects our inability to assess children due to COVID 19 shutdowns and restrictions.

Results/Findings

Findings from the first year of the implementation of the Dolly Parton Imagination Library (DPIL) book distribution program as part of one community's long-term initiative to improve early literacy skills include: When compared to parent reports from the baseline year, Year 1 parents of rising kindergartners reported greater frequency of shared book reading (SBR), greater engagement with their children during SBR, and greater children's interest in being read to. Findings also revealed the need for additional strategies to support DPIL enrollment and maximize family SBR experiences. (See Anderson, Atkinson, Swaggerty, & O'Brien, 2018).

1. Examination of baseline relationships between at-home shared book reading (SBR) and children's language/literacy abilities and skills at kindergarten entry (152 parent/child dyads) included the following: household income and parent education level were positively associated with SBR frequency; relationships between SBR frequency and children's performance on measures of print concepts/ reading behaviours, narrative retelling, narrative comprehension, and interest in reading were statistically significant; performance on a letter naming fluency and phonemic segmentation measure was significantly related to the SBR practice of stopping to ask the child about letters or words but not to SBR frequency. (See Anderson, Atkinson, Swaggerty, & O'Brien, 2019).
2. While campus-community partnerships are common and such engaged scholarship efforts often lead university researchers to community-centered presentations and publications, this type of scholarship and especially the venues in which it is often disseminated are of questionable value within the academy's tenure and promotion process. Challenges include collaboration, communication, and dissemination of findings. Selected outcomes and implications for other community-engaged scholars include (a) investing in true multi-directional consistent collaboration and communication and (b) leveraging user-friendly technology tools and platforms to archive and share project work. Continued efforts to communicate beyond the academy with the audiences targeted for ultimate impact and continued advocacy for valuing non-traditional publications within the academy are necessary. (See Atkinson, Anderson, & Swaggerty, 2019).
3. To build on the findings of the previous studies, we designed and facilitated a parent workshop that modeled interactive reading with the DPIL books they were receiving. Caregivers shifted their overall concept of at-home shared book reading from a brief reading encounter to a more enjoyable, interactive experience that focused on meaning-making. The picture walk, in particular, was enacted in ways that supported interactive questioning, personalization, and connections to family experiences. This shift from reading *to* the child to reading *with* the child has potential to enhance at-home reading experiences for children before they begin formal K-12 education. The workshop model has potential to help families make the most of book distribution programs and at home shared reading experiences. (See Swaggerty, Atkinson, Anderson, & Tillery, Under Review).
4. A sub-study emerged because we gave a free picture book about kindergarten to each family who enrolled in our ILKIS study and noticed a disparity in books that featured characters of color who were excited to start school. Picture books about starting kindergarten were examined for two key characteristics: representation of BIPOC characters and portrayal of kindergarten as a positive happy experience. Of the 160 picture books about kindergarten, 41% included representation of characters of color, 10% included main characters of color, and 53% focused on nervous, apprehensive, or anxious feelings about starting school. Only eight picture books featured a main character of color who approached kindergarten without nervousness. To ensure that all children can envision a positive start to their school experience, there is a need for more picture books that feature children of color as primary protagonists who approach kindergarten with confidence and joy. (See Swaggerty, Atkinson, & Anderson, Under Review).

Remaining Work/Extensions of the Project

1. Ongoing data analysis reveals that engagement in at-home shared book reading prior to kindergarten entry, as reported on our parent surveys, predicts both end-of-kindergarten reading proficiency and end-of-kindergarten book level. Importantly, students' end-of-kindergarten scores increased with each reported increase in shared book reading, suggesting cumulative effects. Additionally, engagement in at-home shared book reading was positively correlated with both narrative retelling and narrative comprehension at kindergarten entry, with narrative comprehension skill in particular being a significant predictor of end-of-kindergarten reading skill. These findings suggest associations between early language and literacy that go beyond the narrowly-defined reading skills typically assessed at kindergarten entry and focus on reading as a meaning-making process. These analyses extend the findings of the 2018 paper and serve to

broaden our understanding of the multi-faceted nature of reading development, its precursors during the preschool years, and the types of assessments that might prove most useful for obtaining an overall understanding of a child's literacy status. (Data analysis continuing)

2. Building on the success of the parent workshop for interactive reading with DPIL books, preliminary discussions are underway to incorporate similar learning opportunities for parents through Pitt County Head Start, as part of the ECU Community School/Head Start MOU. Such workshops would also be offered to parents of current ECU Community School scholars with younger siblings at home.

Publications

1. Swaggerty, E. A., Atkinson, T. S., Anderson, K. A., & *Tillery, L. (Under Review). "I actually enjoy reading to them now": Preschool parent perspectives about at-home shared book reading with Dolly Parton Imagination Library books.
2. Swaggerty, E. A., Atkinson, T. S., & Anderson, V. (Under Review). Kindergarten is not just for anxious white children and animals: An analysis of picture books about starting school.
3. Atkinson, T. S., Anderson, K. L., & Swaggerty, E. A. (2019). Bridging the gap between researchers and wider audiences: Navigating a community literacy collaboration in real-time. *EJournal of Public Affairs*, doi: 10.21768/ejopa8.2.2.
4. Anderson, K. L., Atkinson, T. S., Swaggerty, E. A. & O'Brien, K. (2019). Exploring the short-term impacts of a community-based book distribution program. *Journal of Literacy Research and Instruction*. doi: 10.1080/19388071.2019.1579010. [4 citations]
5. Anderson, K. L., Atkinson, T. S., Swaggerty, E. A., & O'Brien, K. (2018). Examining relationships between home-based shared book reading practices and children's language/literacy skills at kindergarten entry. *Early Child Development and Care*, 1-16. doi: 10.1080/03004430.2018.1443921. [14 citations]

Presentations

1. Swaggerty, E. A., Anderson, K. L., & Atkinson, T. S. (2021, December). "I actually enjoy reading to them now": Preschool parent perspectives about at-home shared book reading. American Reading Forum, Sanibel, FL.
2. Swaggerty, E. A., & Atkinson, T. S., (2020, December). *Kindergarten is for Anxious White Kids and Animals: An Analysis of Picture Books About Starting School*. Literacy Research Association Virtual Conference, LaGrange, GA.
3. Atkinson, T. S. & Anderson, K. L. (2020, August). *From Idea To Reality: Developing an Early Literacy Action Plan With Community Partners*. Community Indicators Consortium Virtual Impact Summit. Issaquah, WA.
4. Atkinson, T. S., Anderson, K. L., & Swaggerty, E. A. (2019, December). *Preschool Parent Perspectives About At-home Shared Book Reading with Dolly Parton's Imagination Library Books*. Literacy Research Association, Tampa, FL.
5. Atkinson, T. S., Anderson, K. L., & Swaggerty, E. A. (2018, December). *What do you Need? Supporting at-home Shared Book Reading in a Community-based Book Distribution Program*. American Reading Forum, Sanibel, FL.
6. Anderson, K., Atkinson, T. S., Swaggerty, E. A., O'Brien, K., & Wangerin, S. (July, 2018). *Examining the Impact of At-home Shared Book Reading on Kindergarten Children's Narrative Retelling and Comprehension*. International Literacy Association Conference, Austin, TX.
7. Anderson, K., Atkinson, T. S., & Swaggerty, E. A. (December, 2017). *Examining Book Distribution Impact on Kindergarten Literacy Development: Year Two*. Literacy Research Association Conference, Tampa, FL.
8. Anderson, K., Atkinson, T. S., & Swaggerty, E. A. (December, 2016). *Examining book distribution impact on kindergarten literacy development: Initial steps*. Literacy Research Association Conference, Nashville, TN.

Book Review

Atkinson, T. S., & Anderson, K. L. (2019). Book review: The potential of collective impact: Moving the work of literacy coalitions forward. *Journal of Community Engagement and Scholarship*, 11(2). Retrieved from: <https://digitalcommons.northgeorgia.edu/jces/vol11/iss2/11>

Grants

1. 2021: Atkinson, T. S. Mayfest for Missions Grant, First Presbyterian Church. Imagination Library Enrollee Support. Funded: \$1,000.00
2. 2021: Atkinson, T. S., & Swaggerty, E. S. Phi Kappa Phi Literacy Research Grant, Imagination Library in a High Poverty NC County. Funded: \$2,500.00
3. 2019: Atkinson, T. S. Mayfest for Missions Grant, First Presbyterian Church. Community Book Nook Initiative. Funded: \$1,000.00
4. 2018: Atkinson, T. S., Swaggerty, E. A. Phi Kappa Phi Literacy Research Grant, Community Literacy Engagement: Imagination Library Kindergarten Impact Study (ILKIS). Funded: \$2,500.00.
5. 2016-2017: Anderson, K. & Swaggerty, E. A., ILKIS Teacher Focus Group, Co-Principal Investigator, East Carolina University, Engagement Outreach Scholarship Academy (EOSA). Funded: \$5,000.
6. 2016: Anderson, K., Swaggerty, E., & Atkinson, T. Co-PI and Grant Writer for ECU Internal Research Grant (Office of Academic Affairs) for "Books from Birth Early Literacy Coalition of Eastern NC Research", Summer 2016-Summer 2021, Funded, \$89,750.

Additional ILKIS Research Project Products and Outcomes

Research Website: We created a website to share our study results with the public:

<https://sites.ecu.edu/ilkis/>

The website includes an overview, research, books of the month, parent resources, and community engagement. Particularly popular on the website are the Parent Newsletters we created and disseminated to all DPIL enrolled families (typically 5000 each time). Newsletters include a message of encouragement from a community member who supports literacy, tips for reading with young children, parent testimonials for DPIL, and literacy resources/links.

Early Literacy Family Newsletters:

1. Atkinson, T., Swaggerty, E., Anderson, K., *Wildman, M., & *McCarthy, C. (2021). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 14. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/10/2021-Issue-14.pdf>
2. Atkinson, T., Swaggerty, E., Anderson, K., *Wildman, M., & *McCarthy, C. (2021). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 13. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2018/03/2021-Issue-13.pdf>
3. Atkinson, T., Swaggerty, E., Anderson, K., *Wildman, M., & *McCarthy, C. (2021). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 12. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2018/03/2021-Issue-12-1.pdf>
4. , T., Swaggerty, E., Anderson, K., *Wildman, M., & *McCarthy, C. (2021). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 11. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2021-Issue-11-.pdf>
5. Atkinson, T., Swaggerty, E., Anderson, K., *Wildman, M., & *McCarthy, C. (2021). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 10. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2020-Issue-10.pdf>
6. Atkinson, T., Swaggerty, E., Anderson, K., & *McCarthy, C. (2020). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 9. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2020-Issue-9.pdf>

7. Atkinson, T., Swaggerty, E., & Anderson, K. (2020). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 8. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2019-Issue-8.pdf>
8. Atkinson, T., Swaggerty, E., Anderson, K., *Tillery, L, & *Hayes, S. (2019). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 7. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2019-Issue-7.pdf>
9. Atkinson, T., Swaggerty, E., Anderson, K., & *Wangerin, S. (2019). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 6. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2019-Issue-6.pdf>
10. Atkinson, T., Swaggerty, E., Anderson, K., & *Wangerin, S. (2019). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families Issue 5. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2019-Issue-5.pdf>
11. Atkinson, T., Swaggerty, E., Anderson, K., & *Wangerin, S. (2018). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 4: <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2018-Issue-4.pdf>
12. Atkinson, T., Swaggerty, E., Anderson, K., & *Wangerin, S. (2018). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 3. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2018-Issue-3.pdf>
13. Atkinson, T., Swaggerty, E., Anderson, K., & *Wangerin, S. (2018). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families. Issue 2 <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2018-Issue-2.pdf>
14. Atkinson, T., Swaggerty, E., Anderson, K., & *Wangerin, S. (2018). FYI: Free Your Imagination: A quarterly newsletter for Imagination Library Families Issue 1. <https://sites.ecu.edu/ilkis/wp-content/pv-uploads/sites/387/2021/02/2018-Issue-1.pdf>

Community Presentations:

1. Swaggerty, E., Anderson, K., Atkinson, T., & *McCarthy, C. (2020). Parent Mini-Session: Gearing up for kindergarten literacy shared reading. Sadie Saulter Pre-K. Greenville, NC.
2. Swaggerty, E., & Atkinson, T. (2020). Imagination Library Kindergarten Impact in Eastern North Carolina. Presentation for Chinese scholars visiting ECU. Sheppard Memorial Library. Invited by A. Guidry.
3. Atkinson, T., & Swaggerty, E. (2019). Imagination Library Kindergarten Impact in Eastern North Carolina. Presentation for Chinese scholars visiting ECU. Sheppard Memorial Library. Invited by A. Guidry.
4. Atkinson, T., Swaggerty, E., Anderson, K., & *Tillery, L. (2019). Parent mini-session: Get ready for reading in kindergarten. Sadie Saulter Prek-K. Greenville, NC.
5. Swaggerty, E., Anderson, K., & Atkinson, T. (2018). Imagination Library Kindergarten Impact Study Research Update. Pitt County School Board, Greenville, NC.
6. Swaggerty, E. (2018). Imagination Library Kindergarten Impact Study Research Update. Rotary Club. Greenville, NC.
7. Atkinson, T., & Swaggerty, E. (2018). Imagination Library Kindergarten Impact Study Research Update. Sheppard Memorial Library Elected Officials Breakfast Meeting, Greenville, NC.

READ ENC Directorship: Dr. Terry Atkinson

ECU Scholarship of Engagement Award (2020): Dr. Terry Atkinson

Press:

1. Daily Reflector Article (2017): ECU researchers measuring impact of childhood literacy effort

https://www.reflector.com/news/local/ecu-researchers-measuring-impact-of-childhood-literacy-effort/article_1b71affd-cd38-53ea-a713-dfd2ceecd5ab.html

2. Daily Reflector Article (2017): River of reading quenching a thirsty desert

https://www.reflector.com/news/local/river-of-reading-quenching-a-thirsty-desert/article_48be52ab-7f9c-5284-80a0-faa2cc3b133c.html

3. Daily Reflector Article (2017): No Child Should be a Stranger to Books

https://www.reflector.com/news/local/no-child-should-be-a-stranger-to-books/article_3a3e4021-f2d2-5b4c-b7ed-d6ad22249c5e.html

ECU Students Engaged in the Project:

1. Lenise Tillery, Audiology
2. Vicky Anderson, Social Work
3. Madison Wildman, A/CAS, School Psychology
4. Courtney McCarthy, A/CAS, School Psychology
5. Sarah Hayes, MA/CAS, School Psychology
6. Stephanie Wangerin, MS, Public Health
7. Nicola Ferraro, Reading/Literacy Education
8. Brittany Campbell, Reading/Literacy Education
9. Travis Zira, History Education
10. Emalee Zingher, School Counselor
11. Heather Aycock, Special Education, General Curriculum