

Mr. Tim Wyrosdick, Superintendent
School Board Members
School Board and Superintendent's Office
Santa Rosa County District Schools
6032 Highway 90
Milton, FL 32570

April 11, 2019

Dear Mr. Wyrosdick and School Board Members,

I am the project manager for the new Reach Every Reader project at the Florida Center for Reading Research. With funding from the Chan Zuckerberg Initiative, and partnerships with Harvard and Massachusetts Institute of Technology, we are seeking to develop new kindergarten-grade 3 screening and progress monitoring assessments of reading and language. These measures will take into account childhood abilities, experiences, and culture and will help achieve the goal of every child learning to read.

In this project, we will use iPads and other technologies to assess children's pre-reading, reading, and language abilities. We will also include measurements of other childhood experiences that take into account the whole child, looking at factors such as exposure to trauma, caregiver incarceration, mindset, joy, optimism, and other social-emotional factors that are known to have a relationship to child learning and academic outcomes. With the data that we collect through direct child assessments and parent and teacher surveys, we will develop a brief, culturally sensitive, computer adaptive screening tool. This tool is intended for a variety of settings (schools, case management, pediatricians' offices, etc.) for the early identification of child risk factors and thus, early targeted interventions.

We will begin data collection for year 2 of our 5 year project during the upcoming 2019-2020 school year and are reaching out to ask you to partner with us in the development of this important project. Please see the attached proposal for partnership. I am more than happy to answer any questions that you may have and provide any additional information that may help with your decision making.

I appreciate your time and consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sarah McElhaney O'Dell".

Sarah McElhaney O'Dell, MSW
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The relation between early literacy skills and later educational success is an important connection that continues to capture the interest of researchers, educators, and other professionals.

The Chan Zuckerberg Initiative has granted funding to researchers at the Florida Center for Reading Research, partnering with researchers at Harvard and Massachusetts Institute of Technology. We are seeking to develop new kindergarten-grade 3 assessments of reading and language that:

Take into account childhood experiences and culture



Account for teacher and caregiver perspectives of child behaviors and emotional well-being



Are designed to be efficient and precise



Produce personalized child profiles



Reach Every Reader Assessment

The Reach Every Reader project is a partnership of the Florida Center for Reading Research at Florida State University, Massachusetts Institute of Technology, and Harvard University, funded by the Chan Zuckerberg Foundation (the philanthropic arm of Facebook).

Proposal for Research Partnership: The following document serves to outline the Reach Every Reader Assessment Project and propose the specifics of a research partnership between the Reach Every Reader Assessment Project at the Florida Center for Reading Research at Florida State University and Santa Rosa County District Schools.

Project Overview

Purpose: The objective for this proposed project is to develop a gamified platform of computer adaptive early literacy skills for children in kindergarten through grade 3.

Background: The majority of screening assessments for early elementary can be broadly categorized as timed, fixed-item assessments. The advantage of timed assessments is that they are quick to administer, often less than 10 minutes per battery; however, research has shown that timed assessments are far less reliable than previously thought and negatively impacting the screening efficiency. The perceived advantage of fixed-item screeners where all students receive the same set of items is that all students can be viewed as “on equal footing” in that the items are the same. However, research has shown that computer adaptive assessments, which allow for algorithmic matching of items to students, results in more reliable screening scores for more students in a shorter amount of time. Even where assessment development has inched toward more novel approaches to the development and validation of screeners, we should still ask ourselves the question, “given the numerous vendors selling screeners for estimating risk for reading disabilities why invest in building a new assessment?” A key reason is that none of the available screeners leverage and integrate current reading and language theory, measurement theory, and advanced technologies into a gamified system that produces reliable and valid scores. The goal in developing a new screener is to take advantage of such theories and environments in the following ways:

- 1) Reading and Language Theory
 - a. Create computer assessments that leverage what is known about the precursors of reading and language difficulties.
 - b. Create computer adaptive assessments of language to reduce typical assessment time of language from thirty or more minutes down to only a few minutes.
 - c. Create and account for dialect variation so that students aren’t identified as having a risk for reading disability simply because they don’t speak mainstream American English.
- 2) Measurement Theory
 - a. Create cognitive diagnostic profiles of reading and language skills to create scientifically valid subgroups of children for the purpose of intervention and instructional recommendations.
 - b. Create predicted probabilities of a kindergarten student being at-risk for reading and/or language difficulties at the end of grades 1-3. Output of the screener will include “probability of having a reading disability” for each child.

3) Technology Advances

- a. The sensitivity of a measure to dialect variation and code shifting will be key to assessment development. A key technological innovation for this study is to develop and refine, with strategic partnership, voice recognition software that can measure student's dialect use and prosody that may inform identification.

4) Interdisciplinary Research

- a. Social-emotional learning (SEL) constructs, including behavioral regulation, attention skills, management of emotions, perspective-taking, have demonstrated relations to academic outcomes).
- b. Non-cognitive factors, including motivation, growth mindset, attitudes, and effort, demonstrate unique relations to reading outcomes.
- c. Leveraging the scientific literature to not only create assessments and profiles of students' reading and language skills, but to be enhanced by non-cognitive factors, SEL, and trauma-informed assessment will enhance specific and global utility of the measures.

Research questions and hypothesis: Our very broad research questions are to:

- 1) Test the dimensionality of to-be-developed K-3 reading and language skills including phonological awareness, letter identification, rapid naming, phonological memory, vocabulary, grammar, sentence comprehension, , grammatical morphology, , visual attention, executive functioning, and procedural learning
- 2) Test the dimensionality of to-be-developed teacher rating assessments of student social and emotional behaviors including the possibility of hyperactivity, anxiety, attention, social skills, emotionality, leadership, internalizing, and resiliency
- 3) Understanding the unique predictive validity of the student reading and language skills, teacher ratings of social and emotional behaviors, home environment factors from a parental survey, and community risk factors to an end-of-year standardized battery of reading and language assessments in K-3.

Recruitment

School level recruitment: Specific to work in Santa Rosa County District Schools, we will elicit district level administrations' recommendations for schools that have the abilities to adjust their workflow to accommodate our presence, or those that could be best served by our partnership.

Classroom level recruitment: At the school level, we will yield to the school administration's suggestion on which teachers to recruit for participation. We will meet with teachers to address any questions that they may have and get a signed consent for participation.

Student/parent level recruitment: Once teachers have consented to participation, a consent form will be sent home with each child in the class for parents to look over, sign and return. This parent consent form has spaces for parents to choose to allow researcher permission to assess their child for the project AND for parents to choose to participate in the parent survey portion of the project. Parents do not

have to participate in the parent survey portion of the project for their children to be eligible to participate in the child assessment portion of the project.

Of the students who have returned consent forms with permission to participate, we will then verbally assent each child with the IRB approved assent script. If the children refuse to grant assent, they will be returned to class. If they refuse assent three times, they will be withdrawn from the project so as to not cause them any further anxiety.

Research design: A multi-cohort longitudinal design will be used following 5 cohorts of kindergarten students over the 5-year project period across three different sites (DeKalb County Schools in Atlanta, GA; Leon County Schools in Tallahassee, FL; and a cadre of schools in Oregon and California through a partnership with the University of Oregon). In each of these sites, we anticipate recruiting 200 kindergarten students in year 1 and following them until grade 3 (potential for grade 4) for our pilot cohort. For the each of the next two years (years 2 and 3), we hope to recruit a new cohort of 300 kindergarten students, followed by two more cohorts of 200 each for the remaining years. Our design accounts for a 15% student attrition rate each year, so although oversampling is welcome if the schools and our testing staff can accommodate, it is not necessary to achieve our research goals.

Because Santa Rosa County District Schools was not initially a part of our partnership plan and because we're in the second year of our five year project, we currently do not have the funding to launch a full-scale fourth research site in the area. However, because we are committed to establishing partnerships with districts that not only are open to, but also find that our research would assist them with meeting their institutional goals and benefit the needs of their students, we welcome the opportunity to work with the district on a smaller scale. This could also serve to build relationships with district leaders, and school administration and teachers to establish easy pathways for expansion should more funding become available and district leaders determine that participation in our research is beneficial for their teachers, parents, and students.

Rather than recruiting 4 cohorts of students over 4 years, we propose following one cohort of 100 students longitudinally from kindergarten until third grade beginning with the 2019-2020 school year. Then additionally, for the next two years, we would like to assess another 50 students each from first and second grade for one year only (see table below for illustration). According to the needs of the district and the discretion of district leadership, these students can come from up to 5 schools.

Number of Students	2019-2020 Year (Year 2)	2020-2021 Year (Year 3)	2021-2022 Year (Year 4)	2022-2023 Year (Year 5)
100 (longitudinal cohort)	K Screen	Grade 1 Screen	Grade 2 Screen	Grade 3 Spring Standardized ONLY
50	Grade 1 Screen ONLY			
50	Grade 2 Screen ONLY			
50		Grade 1 Screen ONLY		
50		Grade 2 Screen ONLY		

Assessments

Measures: The following measures will be collected electronically via direct administration through an iPad application or via an electronic data collection service (such as Qualtrics, Survey Monkey, etc.) by trained examiners from our project.

Child level measures: Each child will receive an iPad administered battery (consisting of reading and literacy tasks) three times during the school year. The first two assessment periods (Fall-September/October and Winter-January/February) will be used for piloting the test items that will be used to develop the new screening tool. For these assessments each child is assessed over two days for 20-30 minutes each day. During the third assessment window (Spring-March/April), each child will receive a standardized assessment battery (measuring reading and language skills) to both monitor the child's progress and also to be used in the validation of the developing assessment. Unlike the assessments containing original content that are being tested in the earlier assessment windows, the standardized spring assessments will take 30 minutes and will be administered on one or two days depending on child and teacher preferences.

Teacher level measures: Teachers' demographics information will be collected, along with their training and classroom practices. Additionally, teacher measures of child social-emotional well-being will be administered (once) per year in the spring once the teacher has had adequate time with the child to assess the behavioral and wellbeing according to the domains in the assessment. Depending on these finalized assessments, these may take up to 20 minutes per child.

Parent level measures: Parents will receive a one-time survey indicating the child's home environment and the parents' background and adverse experiences.

Data protection: The protection of the personal information and data pertaining to research participants is the highest priority. The following methods will ensure the protection of participants' data.

Confidentiality: The records of this study will be kept private and confidential to the extent permitted by law. In any sort of report that may be published, no information will be included that will make it possible to identify a subject, at the child, parent, teacher, school or district level.

Any identifying information will be stored separately from the actual data collected on subjects and will be linked only by a numeric identifier.

Data collection and storage: Data will be collected on iPads via an electronic data collection service (such as Qualtrics) on the web. The electronic data will be stored on a password-protected server that is only accessible by the PIs and the project coordinator. All researcher-developed assessment data will be initially stored in a data repository that is to be created by the platform developers at FSU. Data will then be given to the PIs to be transferred to their password-protected server. The end-of-year standardized battery will consist of assessments from Pearson Assessments that are delivered via the iPad and are initially stored on their private servers. Data will then be given to the PIs to be transferred to their password-protected server.

Any paper data will be stored in locked cabinets, in locked offices. Any identifying information will be stored separately from data collected and only linked by a numeric identifier.

Compensation

School level compensation: Funds are included in all years for schools who participate in the research. Each participating school will be provided a payment of \$500 at the end of the year for each year of school participation in the project.

Teacher level compensation: Funds are included in all years for teachers who will complete interviews concerning background, experience, and teaching practices as part of the data collection for this project. Each participating teacher will be provided a payment of \$50 for their time to complete the interview, a brief social-emotional-behavioral assessment on each of the participating children in their class, and to facilitate scheduling of assessment.

Child level compensation: Funds are included in all years for student incentives for participating in the project. Student incentives will include educational materials such books, stickers, and associated types of incentives. We estimate child incentives at \$5 per child in all years.

Parent level compensation: Funds are included in all years for parent incentives for completing a one-time survey concerning their background, family environment and life experiences. Each parent will be provided a payment of \$10 for their time and effort.

Burden to Santa Rosa County District Schools

Research coordinator: For our other research sites outside of Tallahassee, we have hired a site coordinator who lives in the area to coordinate with schools for scheduling and to supervise testers. We

have not yet determined the best route for work with Santa Rosa County District Schools. There are several FCRR projects currently collecting data in schools in the Pensacola area. We are in communication with those projects to see if their local researchers might be willing to also work in Santa Rosa County when needed. If we are able to use seasoned researchers to test students, then we may rely on our Tallahassee project manager and a local “lead tester” to coordinate with schools to ensure that testing is smooth and efficient.

The research coordinator/lead tester will provide one point of contact for school administrators and teachers and will serve to coordinate scheduling of testing, vet any improvement suggestions, and adjust school level and classroom level assessment practices to accommodate school and teacher needs while still maintaining the integrity of our data collection.

Research assistants (child assessors): This position will be hired and funded by the Reach Every Reader project. The research assistants will receive training from the Tallahassee area project staff and be supervised by the research coordinator. As is common practice, any staff that has contact with students will be background checked and fingerprinted according to district requirements.

The research assistants will be responsible for obtaining verbal assent from participating students and guiding them through the iPad tasks during the three assessment periods each year. Research assistants will work within the timeframes established by the research coordinator and the teacher to successfully obtain data from each participating student within the project time restraints. Research assistants will actively seek to be as least intrusive to the classroom workflow and daily activities as possible.

Technology: The Reach Every Reader project will provide iPads for the assessments and remote wireless hotspot to ensure internet connectivity. The remote wireless hotspot will be secure, and only accessible by the iPads in order to maintain a closed system and protect data confidentiality. This also prevents any burden on the school to provide internet access for successful testing.

Space: As the assessments are individually administered via iPad, they are mobile and require far less space than would be needed with a pencil and paper assessment. Dependent on the school’s facilities, we request a space that is somewhat removed from the active classroom activities to cut down on distractions as the child completes the assessments (this could be a space in the library, the hallway outside of the classroom, a teacher’s office, etc.). Testers are also equipped with lightweight portable tables to help them set up easily anywhere that they are able to find extra chairs.

Consenting students and parents: We ask that teachers send the provided consent forms and letters home with students and then collect them to return to the research coordinator.