

## Reading by Third Year Two Evaluation

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## Executive Summary

This evaluation is a continuation of the year-evaluation of the Trident United Way Reading by Third Demonstration Project. As such, the program background is significantly reduced for the year-two evaluation and is accessible in the year-one evaluation. As a brief background on the project, in the Spring of 2017 Trident United Way submitted a request for proposal (RFP) to the four school districts in the Tri-County area: Berkeley County, Charleston, Dorchester Two and Dorchester Four. The intent of this RFP was to fund a three-year demonstration project aimed at improving third grade reading proficiency. In April 2017 TUW received two proposals from the four school districts all intending to contract with the Lastinger Center at the University of Florida, Zucker School of Education. The University of Florida Lastinger Initiative (RB3) is an ongoing effort by UF faculty and students to improve literacy outcomes for struggling readers. UFLI began in 1998 as a tutoring model for struggling beginning readers. After a decade of results based primarily on teacher interviews and difference of means comparisons, the Lastinger Initiative now encompasses a range of literacy projects from K-12, centered primarily on teacher professional development.

Three school districts, Berkeley, Dorchester Two and Dorchester Four submitted a joint proposal to TUW that utilized the standard UFLI intervention model. This model begins by identifying struggling readers in grades K-2. Utilizing the intervention in K-2, the goal is to have students reading on the third-grade level by the end of grade two. This

intervention instructs teachers in a specific pedagogical approach to be used first one-on-one with struggling readers, then in a small-group setting (3-4 students). Charleston County School District submitted a proposal aimed at working with students in three and four year old pre-Kindergarten courses. This proposal did not seek the traditional RB3 intervention; rather it sought to engage in an early literacy content clinic and a community of practice workshop. This form of intervention is a scaled version of the community of practice intervention typically provided by Lastinger to principals, combined with a more in-depth focus on the early literacy training provided in the traditional UFLI model.

In year-two the program was expanded in all four districts: two schools in Berkeley County School District [College Park Elementary (Y1) and Whitesville Elementary (Y2)]; three schools in Dorchester District Two [Oakbrook Elementary (Y1), Newington Elementary (Y2), Flower Town Elementary (Y2)], three schools in Dorchester District Four [Clay Hill Elementary (Y1), Harleyville Elementary (Y1), and Williams Memorial Elementary (Y2)]; and four schools in Charleston County School District [A.C. Corcoran (Y1), E.B. Ellington (Y1), Ladson Elementary (Y2), and Midland Park Elementary (Y2)]. The expansion to Newington and Flower Town were not part of the original grant application for the Berkeley/Dorchester districts and raise some concern given the tenure of the principals in these schools.

## Changes to Implementation in Year Two

The application requirements indicated that schools should have established principals given the necessity of established school cultures in implementing RB3 which can require significant scheduling accommodations for teachers. Both principals at Newington and Flower Town were in their first year as principals and in their first years at these schools. The combination of new principals who were in the process of establishing school cultures in addition to managing implementation of RB3 and the accommodations that accompany it appear to have significantly affected teacher buy-in for the program at these schools.

In addition to the changes to the selected schools noted above, all districts had turnover in the individuals overseeing the implementation of the program. This created significant challenges in acquiring the data necessary for the evaluation in a timely manner in accordance with the Data-Sharing Agreement between the districts and Trident United Way. Specifically, turnover occurred at the end of the academic year, when test scores, student poverty, and maternal education data are to be made available. Additionally, Charleston County School District adjusted their implementation protocols to focus solely on Pre-K teachers as opposed to Pre-K teachers and paraprofessionals. Reasons for this were a lack of comfort with technology among the paraprofessionals which meant that delivery of supplemental instruction and follow-up throughout the year was a challenge for the paraprofessionals. In consultation with Lastinger and Trident United Way, grant funds

were shifted from paraprofessional training to pre-K teachers. This does not affect the capacity to evaluate outcomes as personnel data on paraprofessionals is not readily available in the same manner as certified teachers.

## Teacher Satisfaction

There was significant variation in teacher satisfaction which indicate challenges to the fidelity of implementation and teacher buy-in. This variation was centered in Dorchester District Two, particularly in the newly selected schools. All other schools showed median to high levels of teacher satisfaction with the majority either being satisfied or very satisfied with the training and implementation of the program. All of the teachers surveyed stated that they were either satisfied or very satisfied with the training they received and with the implementation of the program. Among those teachers who were either satisfied or very satisfied was that they enjoyed the ability to 'meet their students where they are' as opposed to teaching to a median standard. Positive anecdotes like year-one were seen in year-two among the schools that showed higher levels of satisfaction. As an example, a teacher recounted an English Language Learner student what began at a level A-1 (non-reader) and in three months was at a DRA level 16 (Fall second-grade capability).

## Fidelity of Implementation

Based on feedback from year-one, teachers were recoded – typically using a smartphone camera and the lesson was uploaded to a shared and encrypted website. The Lastinger trainers then provided feedback to the teachers and offered suggestions for improvement,

modifications of techniques, and general feedback on the lessons. Most schools showed high fidelity of implementation although challenges were noted in Newington and Flower Town. Specifically, the trainers reported that Newington and Flowertown did not implement the program with fidelity per the Lastinger trainers. This included merging individual RB3 sessions into other learning sessions and not following the full five steps of implementation. Comments reported to Trident United Way included a general criticism for RB3 given the timing required and lack of flexibility in scheduling. This appears to have been aligned more with the decreased teacher buy-in within these schools meaning that teachers were engaging in the RB3 implementation because they were instructed to do so as opposed to a belief that the program was effective. This belief appear to have shifted towards the end of the academic year as teachers began to see the results of the RB3 process.

## General Results

### *Berkeley County School District*

Berkeley County served 69 students across three schools utilizing 25 teachers. Berkeley chose to focus on the lowest performing traditional students as opposed to remedial students. Effects of RB3 are then estimated based on whether the student was in the RB3 intervention as compared to their traditional and remedial peers. Control variables include prior performance, poverty status, parental education level, race/ethnicity, and

teacher and school effects. Coarsened Exact Matching procedures were utilized to approximate effects from a randomized experimental design.

On average, RB3 students scored 1.592 points higher than non-RB3 students. This accounts for an additional 64% of growth in Kindergarten, 38.4% of growth in Grade 1 and 16% of growth in Grade 2. As grade level increases, there is a corresponding increase in the baseline score of approximately half a point. Students in remediation tend to score lower than their peers who are not in remediation. Specifically, for every one minutes increase in remediation, there is a corresponding decrease in scores of 0.022 points. With an average of 160 minutes this accounts for approximately 3 points of loss on average. RB3 students' baseline score is, on average, 1.592 points higher than non-RB3 students, however there is not effect from RB3 based on Fall Scores.

Figure E1. Effects of RB3 in BCSD

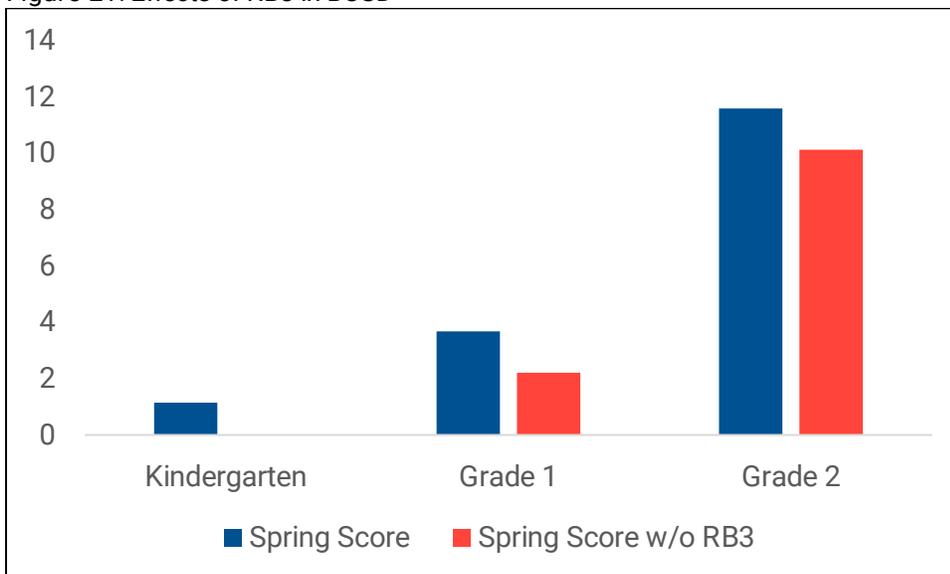
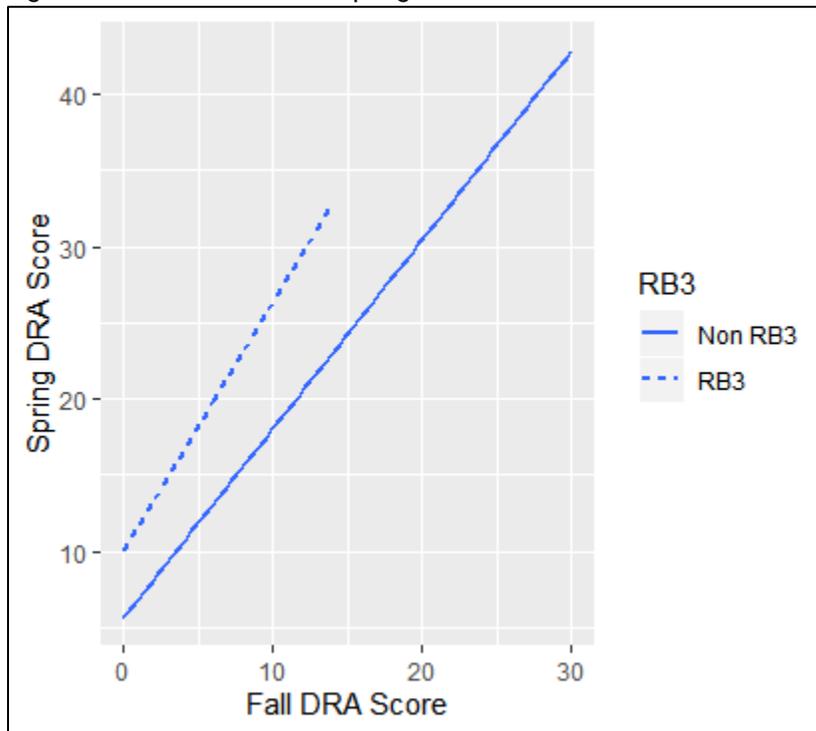


Figure E2. Effects of RB3 on Spring DRA Scores in BCSD



### *Charleston County School District*

Charleston County served 172 students in 2018-19 across six schools utilizing 11 teachers. CCSD focused on the pre-K component, i.e. pre-literacy, utilizing a theory that affecting early literacy skills will positively impact student performance in third grade. Given this approach, all students received instruction from a UFLI trained teacher and were not broken into specific training cohorts in the same manner as the traditional UFLI/RB3 implementation in Berkeley, Dorchester 2 and Dorchester 4.

For the Naming portion this means that for every one-standard deviation increase in teacher knowledge following the UFLI training, there is a corresponding increase in Spring scores of 0.442 points. Similarly, for every one-standard deviation increase in knowledge

gain there is a corresponding increase in Sound Scores of 0.567 points. This produces a max effect for Naming of 1.226 points and a max effect for Sound of 1.573 points. With an average difference of scores from Fall to Spring in Naming of 4 points and an average difference in Sound scores of 7 points this means that the maximum variation explained by changes in teacher ability given UFLI is 33.75% for Naming and 22.8% for Sound recognition. Although the coefficients for Sound scores were larger than those of Fall Scores, the prior score still predicts the largest share of variation with a total effect change of 1.998 points for Naming (55%) and 1.812 (30%) for Sound. In terms of other effects, as a student's behavioral risk indicator increased there was a corresponding decrease in scores of approximately 0.07 points.

Figure E3. Effect of Teacher Knowledge on Naming Scores

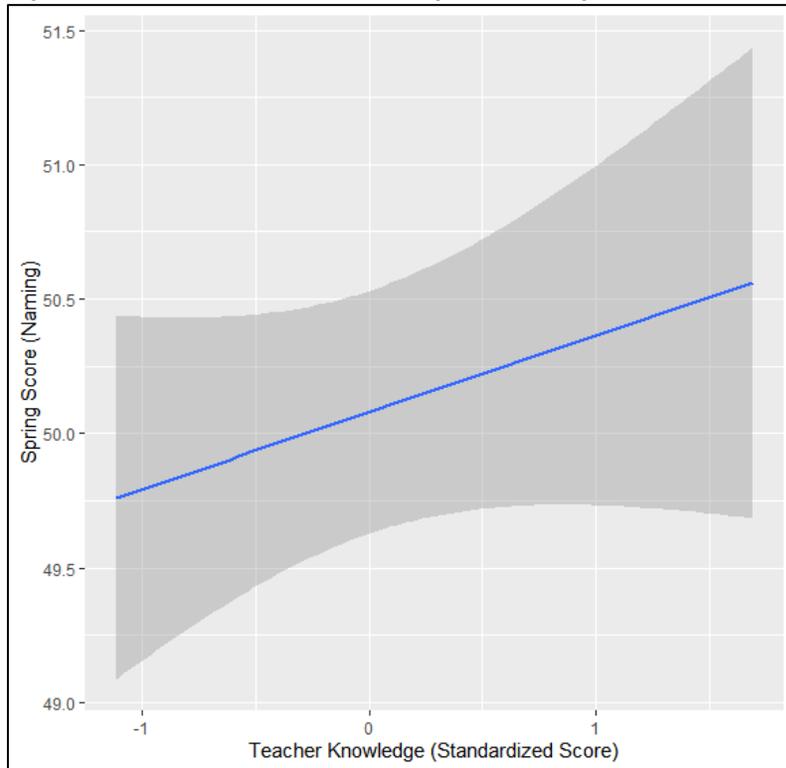
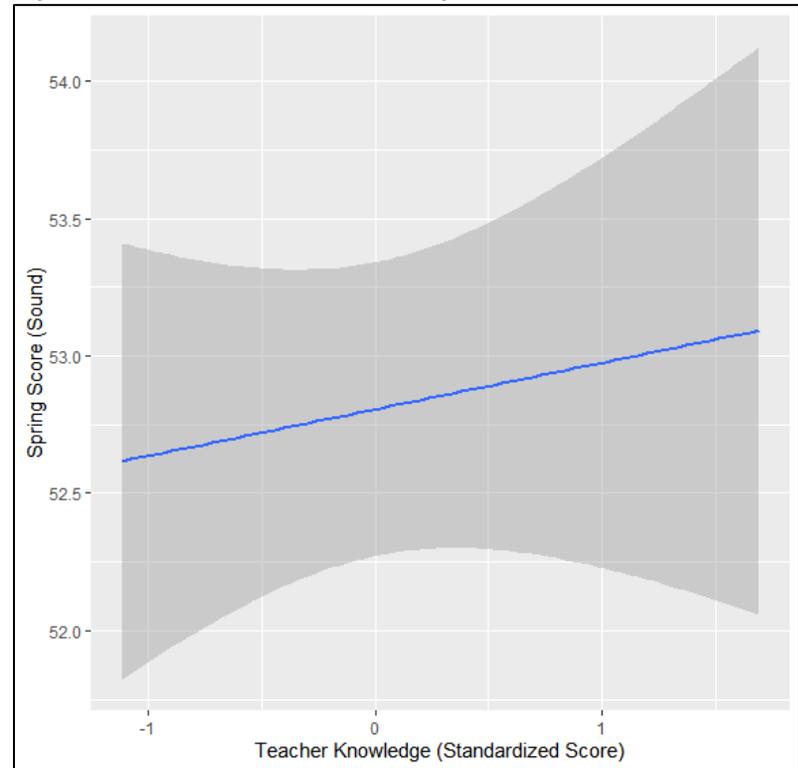


Figure E4. Effect of Teacher Knowledge on Sound Scores



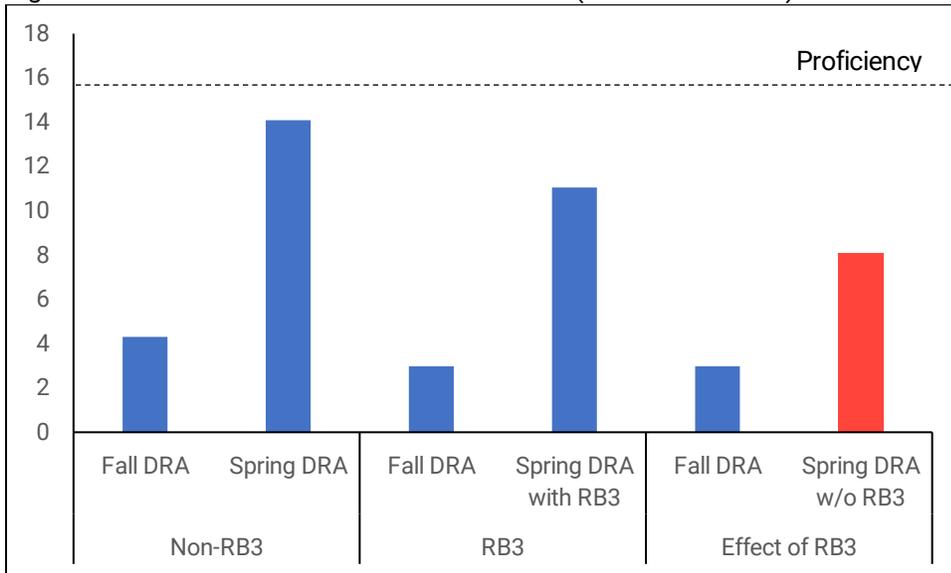


## *Dorchester District Two*

Dorchester District Two served 167 students in RB3 interventions across three schools utilizing 61 teachers in three grades (K-2). Dorchester Two focused on students who were in remediation but scoring on the upper end for remedial students and traditional students scoring on the lower end relative to their traditional peers. The effect of RB3 is assessed by examining students who were in RB3 versus those who were not in RB3 based on remediation status and other relevant factors including prior performance, IEP status, race/ethnicity, poverty status, grade level and teacher and school effects.

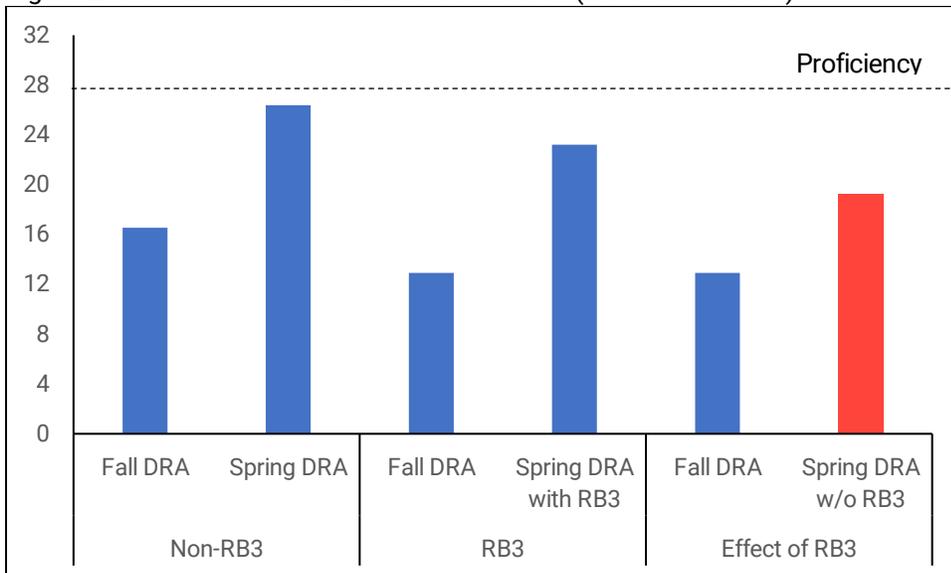
the baseline performance for students in RB3 (remediation students) was not significantly different than traditional student. Based on the fall score coefficients, traditional students show a 0.923 point increase in their spring score for every one point increase in their fall scores while students in RB3 show a 0.213 point increase. If we consider a model without effects from RB3 and use the likelihood ratio test to compare it to the model with RB3, we see that the model with RB3 explains a significantly larger share of variation, e.g. a likelihood ratio of 12.462 increases the probability of a score increase by more than 50%. Turning to the effect sizes within each grade based on movement from the average score to the max score and the corresponding DRA cutoffs (table N) , we see 14% of one year's growth in Kindergarten, 46% of one year's growth in Grade 1, and 30% of one year's growth in Grade 2.

Figure E5. Results for Grade 1 in Dorchester Two (Remedial Student)



RB3 accounted for 46% of one year's growth in DRA for First Grade Students

Figure E6. Results for Grade 2 in Dorchester Two (Remedial Student)



RB3 accounted for 30% one year's growth in DRA for Second Grade Students

### *Dorchester District Four*

Dorchester Four served 238 students across three schools utilizing four teachers in three grades. Dorchester Four did not show a discernable pattern of student selection into RB3 based upon the data (RIT scores). Specifically, both low and high performing students were selected into RB3 while some low performing students (even marginally lower or higher than selected low performers) were not selected into RB3; this raises concerns over the generalizability of the data but also provides potential administrative avenues to examine how students into Dorchester Four are selected into other remediation program.

Fall scores continue to be the strongest predictors of Spring performance, with every one-point of Fall performance contributing 0.671 points to Spring performance. Students in RB3 had baseline scores that were approximately 15 points higher than their non-RB3 peers. However, while non-RB3 students made 0.671 points of growth, RB3 students made approximately 0.58 points which serves to level off results over Fall RIT scores. This translates to approximately 7% additional growth that would not have occurred were RB3 not present. One should interpret these results cautiously given the lack of a data-driven selection criteria in Dorchester Four.

Figure E7. Effects of RB3 on RIT Scores in Dorchester Four

