

Summary of 2006 Striving Readers Projects: Profile of Ohio Department of Youth Services' Striving Readers Project and Evaluation

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Setting

The ODYS system is made up of seven juvenile correction facilities, six of which are designated male facilities and one is designated as a female facility, and all seven facilities are participating in the Striving Readers program. Youths aged 14-21 who have not yet attained high school diploma or a GED are required to be enrolled in the high school located within their youth detention facility. A snap shot of the students taken in the middle of May 2006 had 1,628 students enrolled. Seven percent of those students were female, 48 percent were African American, and 46 percent were white. The average length of stay for a student is about 10.5 months, although this varies substantially across students. Students are assigned to a facility based on gender, type of offense and availability of space. Upon entry into ODYS, all students get processed through a common reception center located at one high school, and are then assigned to another facility.

Intervention Models

Targeted Intervention

Classroom Model as Planned: READ 180 Enterprise Edition, developed by Scholastic Inc, aims to address the individual needs of struggling adolescent readers who are reading below grade level through adaptive and instructional software, teacher-directed instructional rotations, and the use of tailored textbooks and independent or modeled reading of literature intended to be of high interest to adolescents. The program focuses on elements of phonics, fluency, vocabulary, comprehension, spelling, writing and grammar, and aims to promote self-directed learning. Periodic assessments are provided by the READ 180 Topic Software and the Scholastic Reading Inventory (SRI) is used for ongoing progress monitoring.¹

Professional Development Model as Planned: In the first year of implementation, teachers are offered an initial two-day training on the model and semi-annual follow up training sessions, all provided by the model developer, for a total of 15 hours. In subsequent years, teachers continue to be offered a 2-day training but no follow-up sessions. In all three years, teachers also are offered semi-annual classroom visits by the model developer. Ongoing classroom support is to be provided as needed by the on-site literacy coach.

¹ For more information on READ 180, please see the READ 180 Enterprise Edition Intervention Profile by Abt Associates, available at <http://www2.ed.gov/programs/strivingreaders/performance.html>.

Context for Implementation: The READ 180 program is being implemented both as a replacement of the regular English language arts curriculum in the facilities and as a supplement replacing an elective course. All students incarcerated in the seven ODYS facilities who score at a below-grade reading level but above a “below basic” level, as measured by the Scholastic Reading Inventory (SRI), are eligible for the targeted intervention. All special education students who are struggling readers are eligible for the intervention. Over two years, 609 high school-aged students were served by the intervention. Eligible students can receive the intervention for the duration of their stay in the correctional facility (an average of ten months). The targeted intervention will be implemented for a total of five years.

Whole School Intervention

Classroom Model as Planned: Ohio Department of Education’s State Institute for Reading Instruction- Adolescent Literacy (SIRI-AL) professional development program and a modified version of the English Language Arts Writing Academy are being evaluated as the whole school interventions in Year 1 (2006-07). Both are professional development models for teachers intended to improve reading and writing instruction by providing teachers with research based national knowledge and skills. The SIRI-AL model is comprised of four factors that affect adolescent literacy: orthographic knowledge, vocabulary knowledge, fluency, and comprehension. The Writing Academy is focused specifically on Ohio’s Writing Academic Content Standards, and is designed so that teachers understand the relationship between writing and learning, learn strategies for before, during, and after lessons, and analyze rubrics and other methods of assessing writing. The two professional development models overlap such that both intend to provide: 1) direct instruction and scaffolded learning, 2) students time to practice reading and writing, and 3) students time to practice comprehension strategies in a meaningful context. In Year 2, High Yield Strategies (HYS), developed by R. Marzano, was used to help teachers provide instruction on nine strategies to improve reading comprehension, such as advance organizers, note-taking, summarizing, etc.

Professional Development Model as Planned: In the first year of implementation, teachers were offered 28 hours of training on SIRI-AL and 18 hours at the Writing Academy, both provided by local literacy experts. In Years 2 and 3 of implementation, training modules on HYS are offered by the literacy coaches, with the number of hours of professional development depending on how many modules teachers are trained on. In all three years, literacy coaches are also available on-site to provide technical assistance on the whole school model on an as-needed basis.

Context for Implementation: All students taught by teachers trained in the whole school model are receiving instruction informed by the whole school intervention. All students in the facilities will be included in the evaluation of the whole school intervention, totaling approximately 3,650 students in a single school year. The whole school intervention will be implemented for a total of five years.

Evaluation Design

Targeted Intervention

Research Questions:

1. How does the experimental/targeted student group compare with the group being instructed with the traditional educational reading program on reading achievement and reading growth?
2. How much growth in reading can be demonstrated by the experimental/ targeted students in one school year (four 10-week educational blocks)?
3. How does the experimental/targeted student group compare with the group being instructed with the traditional educational reading program on self efficacy in reading, engagement, and recidivism?

Research Design and Methods:

Incoming students scoring below grade level but above “below basic”, as measured by the Scholastic Reading Inventory (SRI), are randomly assigned to either the Read 180 class or to a control group. Students maintain their assignment until released from the facility. The impact of Read 180 on student outcomes will be modeled using multilevel models. Models will also be run to disaggregate effects by gender, as well as other demographic subgroups. Growth models will also be estimated for outcomes that are measured at multiple time points to look at reading growth in the treatment group.

Control Condition: Students randomized to the control group receive their regular English language arts curriculum and then transfer to another course (i.e. technology education, mathematics, etc.) while treatment students receive the READ 180 instruction.

Sample Size: Across the first three years of implementation, the impact analysis was conducted on 534 students who were randomized to the treatment group and 445 students randomized to the control group across 7 juvenile correction facilities.

The Year 3 evaluation report, which includes findings from the first three years of implementation, includes a sample of students large enough to detect an impact (in standard deviation units) of one year of the intervention on reading achievement equivalent to .14 on the SRI and .18 on the CAT for grades 9-12.² Because Ohio plans to offer the intervention to new groups of students for five school years, the Year 4 report will have larger sample sizes and be able to detect smaller impacts.

Key Measures of Student Reading Outcomes (Source):

Scholastic Reading Inventory (SRI) Assessment (Scholastic, developer of READ 180)

² Abt Associates staff calculated the MDE by multiplying the standard error of the impact estimate by 2.8. This calculation produces the MDE for a two-tailed test with 80% power, and with an alpha level of .05, and accounts for clustering and for the inclusion of the covariates in the model.

Whole School Intervention

Research Question:

1. Does the whole school intervention improve student achievement over time in these facilities?

Research Design and Methods: An interrupted time series analysis will be used to compare pre-program student achievement scores with post-program student achievement scores on the SRI. In addition, individual growth modeling will be used to track individual student outcomes over time.

Future evaluation reports will include findings on the impact of the whole school intervention on student achievement. The interrupted time series evaluation design is made more rigorous with the inclusion of more than two years of post-implementation data.

Comparison Group:

All schools in the study participate in the whole school intervention. Therefore, there is no comparison group.

Sample Size: The whole school intervention is being delivered to all students in the 7 detention facilities in the first two years of the program. This sample includes approximately 3,650 high school-aged students.

Key Measures of Student Reading Outcomes (Source):

California Assessment Test (CAT) (State Test)

Scholastic Reading Inventory (SRI) Assessment (Scholastic, developer of READ 180)

Year 3 Evaluation Findings

Targeted Intervention

Fidelity of Implementation of the Targeted Intervention Model: In terms of fidelity of implementation of the *professional development model*, in Year 1 (2006-07), all teachers participated in the READ 180 professional development activities at a high level. The level of participation in professional development remained high in year two of implementation with 71% of teachers participating at a high level and the remaining teachers participating at a moderate level. In Year 3, only 14% of teachers participated at a high level and 71% of teachers participated at a moderate level.

Ratings of fidelity of implementation of the *classroom model* were based on the number of minutes of READ 180 instruction provided to students. In Year 1 of implementation, 14% of teachers implemented the model at a high level and 71% at a moderate level. In Year 2 of implementation, this proportion changed to 43% of teachers implementing at a high level and 43% at a moderate level. In Year 3, 43% of teachers were implementing at a high level and 29% at a moderate level.

Impact of the Targeted Intervention on Student Reading Outcomes: There was a significant impact of one year of READ 180 on grade 9-12 student reading scores on the SRI

assessment. The effect size was .17. There was no significant impact of one year of READ 180 on grade 9-12 student reading scores on the California Achievement Test. The effect size was .08.

Summary of the Strengths and Weaknesses of the Impact Evaluation of the Targeted Intervention:

Strengths

- Eligibility for random assignment was determined systematically, using a predetermined cutoff score on a test of reading achievement, the Scholastic Reading Inventory (SRI).
- Random assignment was faithfully executed, with no evidence of students receiving the intervention after being randomized to the control condition.
- There is no evidence that there are other factors (e.g., other reading programs or district policies) that were implemented in ways that would undermine the evaluators' ability to attribute impacts to Read 180.
- When estimating impacts, appropriate analytic steps were taken to account for the clustering of students within schools. A pre-study measure of reading achievement is included in the models to increase the precision of the impact estimates.
- The California Achievement Test (CAT) measures general reading achievement, and is developed by an external test publisher. There is no reason to believe that student assigned to the treatment group have more experience taking the test than do the control group students, or that the test measures skills specific to the intervention, both of which could undermine confidence in the impact estimates.
- While some students were unable to participate in follow-up data collection, the level of attrition did not differ substantially across the treatment and control groups. This suggests that the integrity of the original randomized design was preserved, and that treatment and control groups continue to be statistically equivalent on all measured and unmeasured characteristics at follow-up.
 - Some students were unable to participate in follow-up data collection for the SRI and CAT (35.9% for the SRI and 54% for the CAT); the levels of attrition did not differ substantially across the treatment and control groups (differential attrition rate was 3.1% for the SRI and .4% for the CAT). This amount of attrition is within the acceptable range established by WWC standards.³
 - Small, statistically significant differences in pre-study reading achievement between the treatment and control group were noted on the students included in the analysis at follow-up. The effects of this difference are mitigated by the inclusion of the pre-test measure in the statistical models estimating the impact of the program.

³ For more information, please see Appendix A-Assessing Attrition Bias, of the WWC Procedures and Standards Handbook, available at: <http://ies.ed.gov/ncee/wwc/help/idocviewer/Doc.aspx?docId=19&tocId=7>.

Weaknesses

- The Scholastic Reading Inventory (SRI), was developed by Scholastic, the developer of Read 180, and periodic assessment with the SRI is an integral part of the curriculum. Although the SRI is intended to be a general measure of reading comprehension, it is possible that students in the treatment (Read 180) group receive instruction that is more closely aligned to the test than the control group's instruction. This reduces the confidence with which the estimated impacts on SRI scores can be considered a true impact of Read 180 on reading comprehension.

Whole School Intervention

Fidelity of Implementation of the Whole School Intervention Model: In terms of fidelity of implementation of the *professional development model*, in Year 1 (2006-07) none of the facilities implemented SRI-AL at a high level but 71% implemented the intervention at a moderate level. The Writing Academy was implemented at a high level in 100% of the facilities. In Year 2 of implementation, 57% of facilities implemented HYS at a high level and 43% implemented at a moderate level. In Year 3, 50% of facilities implemented HYS at a high level and 50% implemented at a moderate level.

Impact of the Whole School Intervention on Student Reading Outcomes: This evaluation will not estimate the impact of the whole school intervention on student reading outcomes because of major shifts in the characteristics of the student population over the course of the study that occurred largely because of budget constraints in the state. These changes in the composition of the population of students undermine the comparability of the schools over time, making it difficult to attribute any observed changes to the whole school intervention.