

RESEARCH RESULTS

Connected Solutions: Ecorse Public Schools

STUDY PROFILE

DISTRICT:

Ecorse Public Schools, Wayne County, MI

GRADES:

K-5

STUDY DESIGN:

Promising: Correlational (ESSA)

EVALUATION PERIOD:

2022–2023 school year

STUDY CONDUCTED BY:

RMC Research

OUTCOME MEASURE:

- Teacher Surveys
- Student Surveys
- *i-Ready* assessment data
- M-STEP (Michigan State Test of Educational Progress)
- Teacher focus groups
- School administrator interviews

DISTRICT CHARACTERISTICS

Ecorse Public Schools, located in Wayne County (MI) serves approximately 1,100 students in pre-Kindergarten through Grade 12 with about a third of the students living in Detroit. Most students in the district are Black (82%), 9% of students are Hispanic, and 8% are White. Most students in the district (86%) are eligible for free or reduced-price school meals (FRM) and 4% are English learners.

IMPLEMENTATION OVERVIEW

Teachers began using Connected Solutions and the HMH core reading curriculum, *HMH Into Reading*®, for Kindergarten through Grade 5 literacy instruction in 2020/21. Through Connected Solutions, teachers also had access to the *Amira*®, *Waggle*®, and *Writable*® supplemental programs, as well as other Connected Solutions features such as the embedded HMH® academic *Growth Measure*®, automated differentiation options, and on-demand online professional learning opportunities.

STUDY DESIGN

To examine the implementation and outcomes of Connected Solutions, RMC conducted a mixed methods descriptive study focused on K-5

teachers and students in Ecorse Public Schools. The study was designed to determine the extent to which teachers used the various Connected Solutions features and whether use of Connected Solutions resulted in improved teacher preparedness, perceptions, attitudes, and instructional practices. The study also examined the reading and SEL outcomes of students in the Connected Solutions classrooms.

PARTICIPANTS

For purposes of this study, achievement data were included only for students who had baseline data collected between September 12, 2022, and October 28, 2022, and outcome data collected between May 22, 2023, and June 16, 2023, allowing for at least 7 months during which students could have interacted with Connected Solutions in their class. The demographic information for students who were included in the reading achievement analyses is provided in Table 1. The sample included 431 students of which 54% were female, 84% were African American, and 9% identified as Hispanic or Latino. Students across Grades K-5 were represented.

TABLE 1. ECORSE CONNECTED SOLUTIONS STUDENTS, GRADES K-5 (N = 431) DEMOGRAPHIC CHARACTERISTICS OF STUDY PARTICIPANTS, 2022-2023

Characteristics	Students (N = 431)
Grade	
K	72 (17%)
1	84 (20%)
2	72 (17%)
3	73 (17%)
4	68 (16%)
5	62 (14%)
Gender	
Male	197 (46%)
Female	234 (54%)
Race	
African American	360 (84%)
White	70 (16%)
Asian	1 (1%)
Ethnicity	
Hispanic/Latino	37 (9%)
Non-Hispanic/Latino	394 (91%)

MEASURES

TEACHER SURVEY

An online teacher survey was administered to all K-5 teachers in Ecorse Public Schools in spring 2023. The survey was designed to assess the following components:

- Participation in Connected Solutions professional development and coaching opportunities;
- Preparedness to use Connected Solutions features;
- Perceived usefulness of Connected Solutions features;
- Frequency of use of Connected Solutions features;
- Perceptions of the overall impact of Connected Solutions; and
- Perceptions of the impact of Connected Solutions on teachers'
 - Use of aligned instructional practices;
 - Confidence in teaching literacy;
 - Teaching engagement;
 - Growth mindset; and
 - Perceptions of the impact of Connected Solutions on students' academic engagement

Ten of the 21 (48%) K-5 teachers completed the survey. Teachers across Grades K-5 were represented. To maintain teacher confidentiality, teacher demographic characteristics are not reported. Teachers were classified as being higher (n = 5) versus lower Connected Solutions implementers (n = 5) based on their average reported frequency using Connected Solution features. Two higher and three lower Connected Solutions implementers also had students who completed the student survey.

STUDENT SURVEY

An online survey was administered to students in Grades 3 through 5 in spring 2023. The survey used scales adapted from the Panorama Social-Emotional Learning Survey and was designed to assess students' SEL including:

- Growth mindset;
- School climate;
- Teacher-student relationships; and
- Engagement with ELA, including ELA participation, ELA engagement, and ELA confidence.

The survey was completed by 123 students across Grades 3-5 and represented seven classrooms. Of the students who completed surveys 25% were in Grade 3, 31% were in Grade 4, and 44% were in Grade 5. Approximately 53% of the students were female, 78% were African American, and 19% were Hispanic or Latino. Reliabilities of the survey scales ranged from 0.56 to 0.72.

STANDARDIZED READING TESTS

Student demographic and formative reading assessment (i-Ready®) data were collected from the district at the end of the 2022/23 school year for all K-5 students. The district administered the i-Ready assessment to all K-5 students multiple times during the year. The i-Ready assessment provides an overall Reading score and five domain level scores: Vocabulary, Reading Comprehension - Literature, Reading Comprehension - Informational Text, Reading Comprehension - Overall, Phonological Awareness, High Frequency Words, and Phonics.

The M-STEP is Michigan's annual assessment of students in Grades 3-8 and 11 and measures students' achievement of state learning standards and readiness for college. For the purpose of this study, the 2021/22 and 2022/23 ELA average scaled scores for Grades 3-5 in Wayne County's districts were utilized. Grade 3-5 ELA data were available for 33 school districts in Wayne County for both the 2021/22 and 2022/23 school years.

TEACHER FOCUS GROUPS

In-person focus groups were conducted in spring 2023 with Kindergarten through Grade 5 teachers. A total of 16 teachers participated in the focus groups and represented each grade. During the focus groups, teachers were asked to describe the professional development or coaching they received to prepare them to implement Connected Solutions, how Connected Solutions and its associated programs were implemented in their classrooms, and their perceptions of the impact of Connected Solutions on teachers and students.

SCHOOL ADMINISTRATOR INTERVIEWS

In-person interviews were conducted with four school administrators in spring 2023, representing each school (two administrators from one of the schools participated in a joint interview). During the interviews, school administrators were asked to describe how Connected Solutions was adopted and rolled out in their school, the professional development or coaching they participated in related to Connected Solutions, how Connected Solutions had been implemented in their schools, the extent to which they used the system's various features, and their perceptions of the impact of Connected Solutions on themselves, teachers, and students.

RESULTS

SUPPORT FOR CONNECTED SOLUTIONS IMPLEMENTATION

The supports provided to educators to facilitate the implementation of Connected Solutions were examined using teacher and administrator focus group/interview data and responses on the teacher survey. Teachers who participated in focus groups reported having received varying levels of training and coaching associated with Connected Solutions provided by their school, district, and HMH. Kindergarten teachers reported having access to training three to four times a year that showed them how to navigate the HMH *Ed*® Platform. Most elementary teachers and all middle school teachers reported having less access to training, receiving one or two introductory sessions since beginning implementation of Connected Solutions in their schools. Half of the participating teachers reported being aware of or using the online self-instructed training materials on the *Ed* platform.

Teachers frequently reported the need for additional training on Connected Solutions. Teachers indicated a need for additional guidance on navigating the *Ed* platform and finding resources and materials for themselves and their students. A few teachers reported watching online videos on the *Ed* platform of teachers using Connected Solutions and Into Reading that they found helpful.

On the survey, teachers were asked about the training and coaching they had received. Half of the teachers reported that they had not completed any of the six Teacher Success Pathways available through the *Ed* platform, one reported completing the "Inside the *Into Reading* Classroom" pathway, two completed "Prepare for your First Two Weeks," and another two completed "Use Data to Differentiate Instruction." Among the five teachers who completed at least one Teacher Success Pathway, all of them rated the overall quality of the Teacher Success Pathway topics as "good."

CONNECTED SOLUTIONS IMPLEMENTATION

Reports from educators and administrators were used to describe program implementation during the 2022–2023 school year. The teacher survey included questions about which HMH programs teachers and if they used other non-HMH programs or resources to support ELA instruction. Among the teachers who completed the survey, 80% reported using *Into Reading*, 50% used *Amira*, and one used *Writable*.

Many teachers reported using the offline *Into Reading* materials in their classes, though several also reported using some of the computer-based features of the *Into Reading* program and accessing online materials to help with their lesson planning. A few educators described using the *Ed* platform to select materials that aligned with their students' needs and allowed them to develop customized lesson plans. For example, one educator used *Into Reading* social studies and science stories to address content gaps in their overall classroom curriculum.

Some educators reported using data from the *HMH Growth Measure* or other resources to differentiate instruction and guide their instructional approach. Teachers reported that the most useful Connected Solutions components were monitoring student progress during *Into Reading* lessons, activities, and assignments, as well as instructional planning. This was followed by implementing *Into Reading*, reviewing student-specific data, reviewing classroom-level data, and accessing on-demand professional development through the Teacher's Corner®.

EFFECTS OF CONNECTED SOLUTIONS ON EDUCATORS

When asked to reflect on the effects of Connected Solutions on their instruction and teaching practice, some teachers reported that their effectiveness as a teacher had improved. A few teachers reported that Connected Solutions has provided them guidance in refining their instructional strategies and had made them better educators. Additionally, a few educators noted that the program has helped them

improve their organization and planning. One educator reported gaining the ability to gauge student engagement and discern the effectiveness of their instructional strategies. Additionally, a school administrator stated that Connected Solutions is particularly useful for new teachers as it provides them with all of the resources they need.

On the survey, teachers agreed on average that Connected Solutions made them better teachers. They also tended to agree that Connected Solutions increased student engagement in their literacy classes and improved the quality of their literacy instruction. Average ratings fell between "agree" and "disagree" regarding whether Connected Solutions had a positive impact on students' reading achievement, made instructional planning easier, or was effective in supporting students at all literacy ability levels.

On average, teachers agreed that since using Connected Solutions, they were better able to teach reading. They also tended to agree that they were better at using technology to support instruction. Teachers were most likely to agree that, since using Connected Solutions, they knew how to increase student interest in reading. Teachers tended to agree that since using Connected Solutions, they could better use multiple strategies/approaches to explain content to students. They were also more satisfied with teaching, more excited about teaching, and more engaged in teaching.

EFFECTS OF CONNECTED SOLUTIONS ON STUDENTS

When asked to reflect on the effects of HMH Connected Solutions on student outcomes, educators listed a variety of benefits they observed for their students. More than half of educators reported that the *Into Reading* stories were engaging to students and helped increase student interest in reading. On average, teachers tended to agree that since using Connected Solutions, their students were more likely to engage in discussions around what they are/were learning/the content, complete the assignments given, and be actively engaged in class.

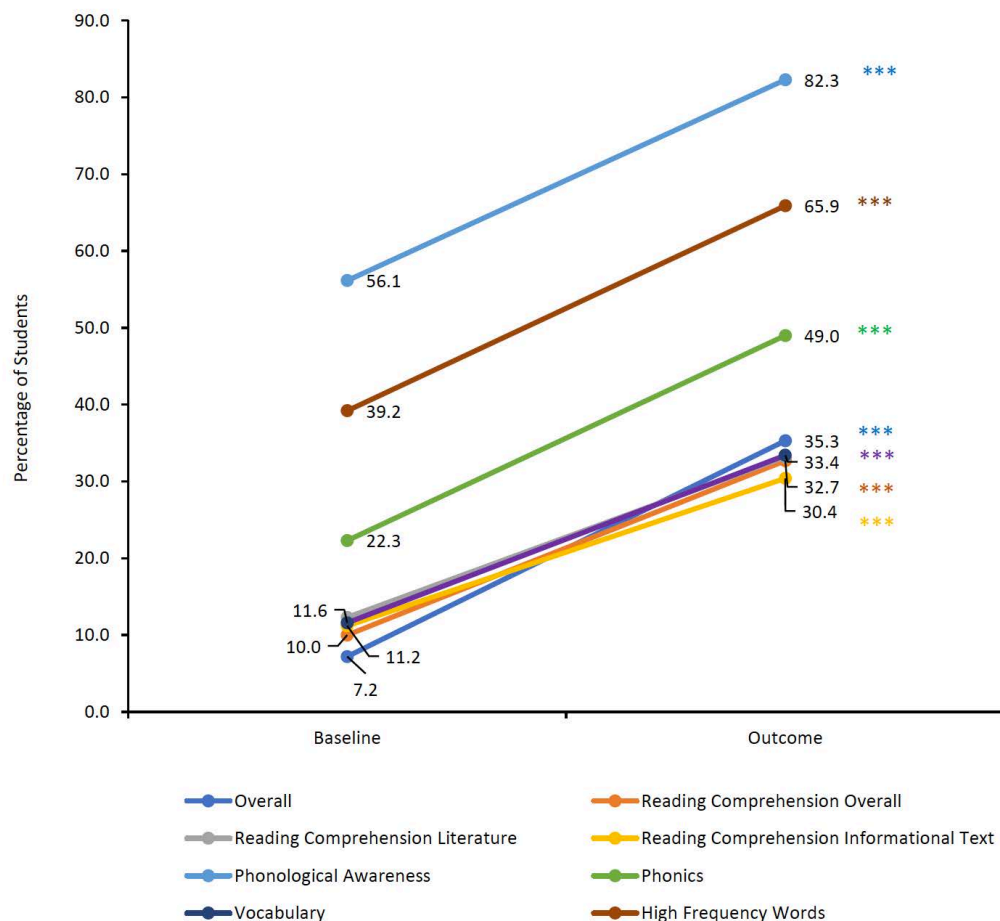
Analyses were conducted to examine the difference in the percentage of students scoring At or Above Grade Level on the i-Ready assessment at baseline and outcome assessment in 2022–2023. The results showed that the percentage of K–5 students scoring At or Above Grade level increased significantly from 7.2% at baseline to 35.3% at outcome assessment ($\chi^2 (1, N = 431) = 34.57, p < .001$). The percentage of students scoring Below Grade level decreased from 92.8% to 64.7% between baseline and outcome assessment. Table 2 shows the number and percentage of students at each of the i-Ready relative grade placement categories at baseline and at outcome assessment. Among the initial 400 students Below Grade Level, 166 students (41.4%) improved by one relative grade placement category on the outcome assessment while 66 (16.5%) improved by two relative grade placement categories and 3 (0.7%) improved by three relative grade placement categories. Analyses also showed that the percentage of students who scored At or Above Grade Level increased significantly from baseline to outcome assessment for each of the i-Ready reading domains ($p < .001$). Graph 1 shows these changes for the overall reading measure and each reading domain.

Michigan Student Test of Educational Progress (M-STEP) average scaled English Language Arts (ELA) scores for Grade 3 and 4 students decreased slightly from the 2021/22 to the 2022/23 school year but increased for Grade 5 students. For Grades 3 and 4, Ecorse Public Schools' average scores decreased by 1.1 and 4.0 points on average across the two school years, while other districts' scores in Wayne County increased by 0.2 points for Grade 3 and 1.9 points for Grade 4. For Grade 5 students, Ecorse Public Schools' average scaled scores increased at a greater rate than the average of other districts in Wayne County (4.5 vs. 0.7 points). The changes in average scaled scores from 2021–2022 to 2022–2023 ranked Ecorse Public Schools as below the median of Wayne County districts in terms of year-to-year growth for Grades 3 and 4, and near the top in growth for Grade 5.

TABLE 2. CHANGES IN I-READY RELATIVE GRADE PLACEMENT OVER TIME IN 2022/23				
	Baseline		Outcome	
	Frequency	%	Frequency	%
At or Above Grade Level	31	7.2	152	35.3***
Mid or Above Grade Level	13	3.0	69	16.0***
Early On Grade Level	18	4.2	83	19.3***
Below Grade Level	400	92.8	279	64.7***
1 Grade level below	194	45.0	159	36.9***
2 Grade levels below	126	29.2	74	17.2***
3 or more Grade levels below	80	18.6	46	10.7***
Total	431	100	431	100

*** Significantly higher than baseline ($p < .001$)

GRAPH 1. PERCENTAGE OF STUDENTS AT OR ABOVE GRADE LEVEL BY I-READY OVERALL READING AND READING DOMAIN IN 2022–2023



*** Significantly higher than baseline ($p < .001$)

CONCLUSION

In conclusion, this study presented findings that suggest the promise of Connected Solutions in supporting positive student and teacher outcomes and provide indications of where implementation of Connected Solutions may be improved. Student proficiency on the i-Ready reading assessment increased significantly on the overall assessment, and on the majority of the reading domain measures. Additionally, among students who scored one or more grade levels below on the assessment at the beginning of the school year, 59% increased at least one grade level by the end of the school year.

Educators were generally positive about the influence of Connected Solutions on teachers' instructional practice. Several teachers who participated in the focus groups stated that using Connected Solutions improved the effectiveness of their teaching and helped them improve their instructional organization and planning. On the teacher survey, teachers agreed on average that Connected Solutions made them better teachers and that their use of the system increased their students' engagement in class. Teachers also agreed on average that using Connected Solutions increased their engagement in teaching and confidence in teaching literacy. A school administrator also noted that Connected Solutions was particularly useful for new teachers because it helped them see 'how' to teach reading and had all the necessary resources.

Teacher survey data suggest that most teachers used Connected Solutions to monitor student activities, plan instruction, implement *Into Reading*, and review student- and classroom level data. It should be noted that, while the *Into Reading* curriculum has been used in Ecorse Public Schools since 2020-2021 and Connected Solutions is a newer integrated instructional platform, it is possible that teachers were primarily thinking about *Into Reading* curriculum materials rather than the broader Connected Solutions features when responding to the study survey and interview/focus group questions.

While teachers recognized the utility of Connected Solutions, and *Into Reading* in particular, the features of the *Ed* platform were rarely used. Use of the platform's features may increase as they become more integrated. Teachers noted a need for additional assistance for how to navigate and select from among the numerous instructional resources available in the *Ed* platform. Additionally, teachers stated that the training they had received was mainly an overview of the platform and a description of the resources that are available. Teachers who participated in focus groups indicated a need for help using the *Ed* resources for lesson and classroom assessment planning, rather than just describing what resources are available. Teachers suggested that more frequent and additional in-person training would be beneficial.

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