

Research Brief

Jessamine County Schools

NICHOLASVILLE, KENTUCKY

Struggling Students Show Significant Reading and Mathematics Gains Using Edgenuity

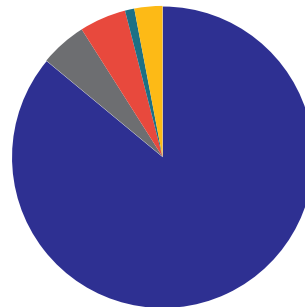
Evaluation Overview

Grades: 6–12

Model: Rotational Model

Measure: Northwest Evaluation Association™
Measures of Academic Progress® (NWEA™ MAP®)
Reading and Mathematics

District Demographics



■ Caucasian	86%
■ Hispanic	5%
■ African American	5%
■ Asian	1%
■ Other	3%
Low Income	54%

District Overview

Located in central Kentucky, Jessamine County Schools (JCS) enrolls 8,000 students in one preschool and kindergarten, six elementary schools, two middle schools, two high schools, one career and technology center, and one alternative school. The majority of these students are Caucasian (86%), followed by African American (5%), Hispanic (5%), and Asian students (1%). Approximately 54% of all students are eligible for free or reduced-price lunch.

Implementation

During the 2013–2014 school year, JCS piloted Edgenuity MyPath™ with students who performed below grade level on the NWEA MAP Reading and Mathematics tests. Edgenuity MyPath is a supplemental reading and mathematics intervention program for middle and high school students. Four days a week, instructors taught English, math, science, and social studies face to face in a classroom. High school students who lacked foundational mathematics and reading skills used Edgenuity MyPath for 60 minutes a week in a computer lab during an intervention class period. Students also accessed Edgenuity MyPath courses at home. Middle school students identified for reading and math intervention used Edgenuity MyPath courses over two 50 minute class periods. While students used Edgenuity programs, teachers analyzed student data from the learning management system, monitored student progress, and set weekly expectations for progress.

Study Sample

This report focuses on JCS students who used Edgenuity MyPath courses during the 2013–2014 school year. The sample for this analysis comprises 1,214 students who took the fall 2013 and spring 2014 NWEA MAP Mathematics test and 1,114 students who took the fall 2013 and spring 2014 NWEA MAP Reading test.

Measures

Northwest Evaluation Association Measures of Academic Progress

The NWEA MAP Reading and Mathematics tests are Common Core-aligned, computer-adaptive assessments administered to students in grades 3–12. If a student answers correctly, the next question is more difficult; if a student answers incorrectly, the follow-up item is easier. Each NWEA MAP assessment uses the Rasch (RIT) unit, an equal interval scale score, to measure student growth and determine student mastery of various defined skills within disciplines. NWEA MAP Reading and Mathematics data were collected and analyzed for students who used Edgenuity courses during the 2013–2014 school year.

Results

After one year, students improved their reading comprehension and mathematics skills. As Table 1 shows, on the NWEA MAP Reading test, students in each grade demonstrated gains in their reading scores from fall 2013 to spring 2014, with the 6th, 7th, 8th, and 10th grade students achieving significant gains (5.5 points, 5.9 points, 5.5 points, and 1.7 points respectively). Students in the 7th grade made the greatest improvements, improving from a fall 2013 RIT score of 208.5 to a spring 2014 RIT score of 214.4.

In addition, results showed that across all grade levels, Edgenuity and MyPath students had significant improvements in their mathematics abilities (see Table 2).

Table 1: Jessamine County Schools Edgenuity MyPath Students, Grades 6–10 (N = 1,144)

Performance on the NWEA MAP Reading Assessment, Fall 2013 and Spring 2014

Grade	N	Fall RIT 2013	Spring RIT 2014	RIT Gain
6th	167	208.2	213.6	5.5*
7th	268	208.5	214.4	5.9*
8th	232	216.0	221.5	5.5*
9th	253	222.7	223.5	0.8
10th	224	223.8	225.5	1.7*

*Note: Dependent t-tests revealed gains were statistically significant at ($p \leq 0.05$).

Table 2: Jessamine County Schools Edgenuity MyPath Students, Grades 6–10 (N = 1,214)

Performance on the NWEA MAP Mathematics Assessment, Fall 2013 and Spring 2014

Grade	N	Fall RIT 2013	Spring RIT 2014	RIT Gain
6th	149	211.7	216.8	5.1*
7th	284	217.1	222.1	5.0*
8th	269	225.3	229.7	4.4*
9th	287	229.0	231.2	2.2*
10th	225	232.0	234.9	2.9*

*Note: Dependent t-tests revealed gains were statistically significant at ($p \leq 0.05$).

Conclusion

In conclusion, JCS students enrolled in the Edgenuity program had significant gains in reading and mathematics on the NWEA MAP assessments from fall 2013 to spring 2014. These findings provide preliminary evidence that Edgenuity MyPath can have a positive impact on the academic achievement of students who lack reading and math foundational skills.