CASE STUDY

Accelerating Learning Growth Through Targeted Instruction

Robert Daniels

7th-Grade Math Teacher

Topeka public schools

Engage! Prepare! Inspire!

Location:
Topeka, Kansas

Grades:
6-8

Number of students:
500+

School characteristics:
Large urban

Subjects:
IXL Math

Helping Middle School Students Meet Grade-Level Math Standards

When Jardine Middle School saw that students were not meeting grade-level standards, 7th grade math teacher Robert Daniels needed a better way to assess student understanding and identify students in need of additional support. IXL Math gives him real-time diagnostic data and instructional tools to help students who are behind grade-level get back on track.

The Challenges

Jardine is the largest middle school in Topeka, serving a diverse student body with varying ability levels. Using the MAP benchmark assessment, it became clear that many students were not performing at grade-level. In Robert's 7th grade math class, many students started the year two or more grade-levels behind with significant skill gaps for the grade in which students' learning was disrupted due to the COVID-19 pandemic.

To help students catch up, Robert needed a tool that had detailed intervention and differentiation data. The MAP benchmark assessment that students took take did not give him the real-time information he needed to form small groups and make instructional decisions on a daily or weekly basis. He turned to IXL to get a more granular view of student performance that breaks down individual concepts within the standard and provides scaffolded support to students.

Robert needed an easier way to assess student mastery for grading, identify individual areas of need, and target small-group instruction for his students.

The Solution

Robert began using IXL Math several years ago as a weekly assessment tool. The program allowed him to easily see which students had achieved mastery for the week's lesson and which needed additional small-group instruction. Since then, his use of IXL has grown, and it has become an integral resource for his classroom.

The IXL Real-Time Diagnostic pinpoints student knowledge levels and generates personalized action plans so Robert can target his instruction to make the most impact for each student. Reports like the Diagnostic Strand Analysis break down student understanding on priority standards into discrete skills and subskills. This way, he can see exactly where students are struggling and what he needs to do to correct misunderstandings. The Trouble Spots report makes it easy to group students for small-group instruction and one-on-one intervention.

IXL's custom-built skill plans align with Robert's textbook, Eureka Math, making it easy for him to assign relevant skills. Students can practice for as long or as little as needed to demonstrate proficiency in a concept by reaching a SmartScore of 80. Unlike a percentage score, IXL's SmartScore represents students' level of understanding and encourages them to work towards authentic skill mastery, represented by a score of 100. With their personalized Diagnostic Action Plans, students can also work on skills targeted to their areas of need based on their diagnostic levels. This personalized instruction allows students to work at their own level. They can solidify skills that they missed from prior grades or work on above grade-level topics if they want an extra challenge.

Here's how Robert is using IXL in his 7th grade math class:

- Robert teaches a 90-minute class, with 45 minutes devoted to direct whole-class instruction and 45 minutes reserved for targeted small-group instruction and individual practice in IXL.
- Students are assigned four to six skills in IXL each week aligned to the lessons Robert is teaching in class. Their SmartScore, IXL's proprietary scoring system that measures student understanding, informs his grading. Students that reach proficiency or mastery get full credit for these assignments, and the rest of the students are graded based on the time spent in the program and effort put forth to master new skills.
- Every six weeks, students work on the IXL Real-time Diagnostic to update their levels. Robert uses the results to organize his small groups for the next six weeks.
- When students have completed their weekly assignments, they can work on skills recommended in their Diagnostic Action Plan or from their Recommendations wall. Using IXL's Learn with an example feature, students are able to self-remediate when they make a mistake and make progress on their own while Robert works with other students.
- Using IXL Leaderboards, Robert runs a monthly competition for the most questions correctly answered in IXL Math. These friendly competitions help motivate his students to try their best.

The Results

IXL Math has accelerated learning for students in Robert's math class. For students who started the year below grade-level, many have demonstrated two or more years of growth during the school year.

Robert's students have improved by multiple grade levels. Between September 2022 and February 2023 the average growth for his 7th grade classes ranged from 186 to 207, with 100 points equaling one grade-level of growth. His first period class grew from an average of 526, a low 5th grade score, to 752 which is on grade-level, while his fifth period class grew from 464 to 687.

IXL lets students work at their own pace. Students use their personalized action plans and Recommendations wall while working independently to close their individual learning gaps or move ahead. One student who started at a 350, a 3rd grade math level, at the beginning of the school year gained 350 points in his diagnostic, bringing him up to a 7th grade level. Another student, starting at a low 6th grade level, is now working at a 10th grade level on IXL Math.

Diagnostic data saves time. Thanks to the real-time insights into his students' needs, Robert is able to spend more of his time planning effective instruction for his students. Reports like Diagnostic Strand Analysis and Trouble Spots allow him to quickly group students with similar learning gaps together.

Robert credits IXL's targeted, individualized practice and immediate feedback for the results he is seeing in the classroom. IXL Analytics also gives him the granular data he needs to target his small group instruction, which allows him to address problem areas more efficiently. As a result, his students are thriving.