



Osceola County Schools Target Struggling Learners and Optimize RTI in Science with Penda Learning

Schools in Osceola County, Kissimmee, Florida, were searching for a program to help teachers support students struggling in science with differentiated instruction. They found their solution — and improved scores across the district and at school sites — in Penda Learning.

Knowing that the strongest results typically come from the soundest foundations, the district offered online professional development to teachers using the Penda Learning student gaming science platform at the start of their subscription and as requested by individual school sites. Much focus was placed on using Penda Learning to plan data-driven instruction, create intervention groups, and differentiate instruction for the many levels of learners in the schools. Several features within the Penda Learning system made this possible:

- Weekly automated assignments for students sent to year 1 teacher-users via Penda’s Pacing Assistance Service (PAS) for Grade 6 – Comprehensive Science 1, Grade 7 – Comprehensive Science 2, and Grade 8 – Comprehensive Science 3

(Year 2+ teacher-users could opt to keep PAS for their classes or have it turned off, in which case they were responsible for manually assigning activities to classes, intervention groups, and/or students.)

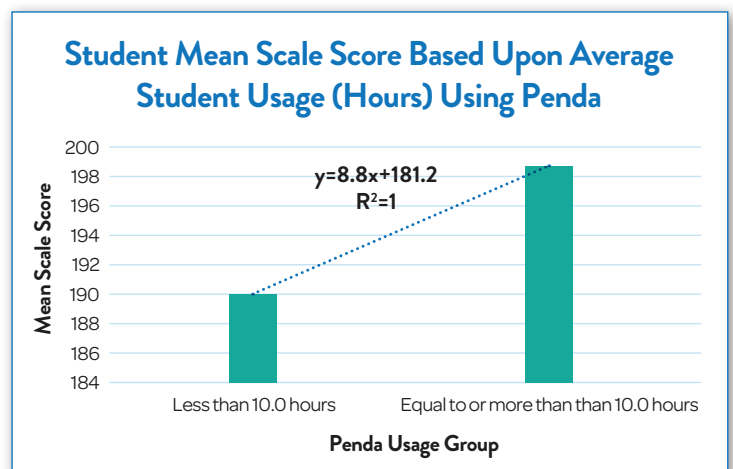
- Weekly automated Class Mastery Reports sent to teachers and monthly School Administrator Reports sent to select district/school administrators via email to facilitate progress monitoring
- Ongoing professional learning support offered via district-level professional partnership meetings and dedicated customer support for all schools

In an analysis of data taken from student performance on the Florida State Science Assessment (SSA) in 2016-2017 and 2017-2018, educators found that Penda Learning usage correlated with improved performance on high-stakes exams in individual middle schools and across the district.

Key Findings – District-Level Grade 8 Science

Six Osceola middle schools subscribed to Penda Learning in 2016-2017, four of which were Title I schools. Students in schools that were Penda Learning subscribers logged 39,388 task hours within the system and mastered 59,396 science activities. An impressive 46% of the time students spent in Penda Learning occurred outside of typical school hours, between 4:00 p.m. and 7:00 a.m.

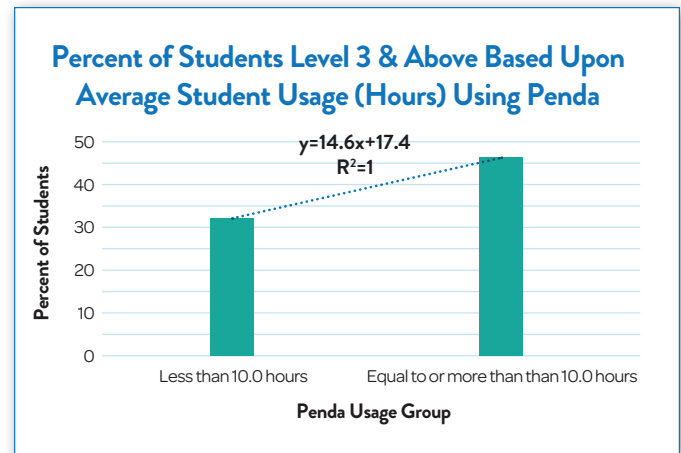
As a result of the time students spent in Penda Learning, the district increased net mean scale scores nearly nine points, and four of six schools maintained or increased their mean score from 2016 to 2017. For those schools where students used Penda, on average, fewer than 10 hours, the average mean scale score was 190. In those schools where students used Penda 10 or more hours, the average mean scale score was 198.8.



“My students really like Penda. Many of them have well over 15 hours of independent practice time. They do Penda at school and at home. I do monthly class & student challenges via leaderboards. It’s a great tool to practice, review, and reinforce the science concepts I’ve taught.” – Grade 8 Science Teacher

Time spent interacting with Penda Learning also correlated with the number of students achieving Level 3 and Above performance. Five of six schools maintained or increased their percent of Level 3 and Above students from 2016 to 2017.

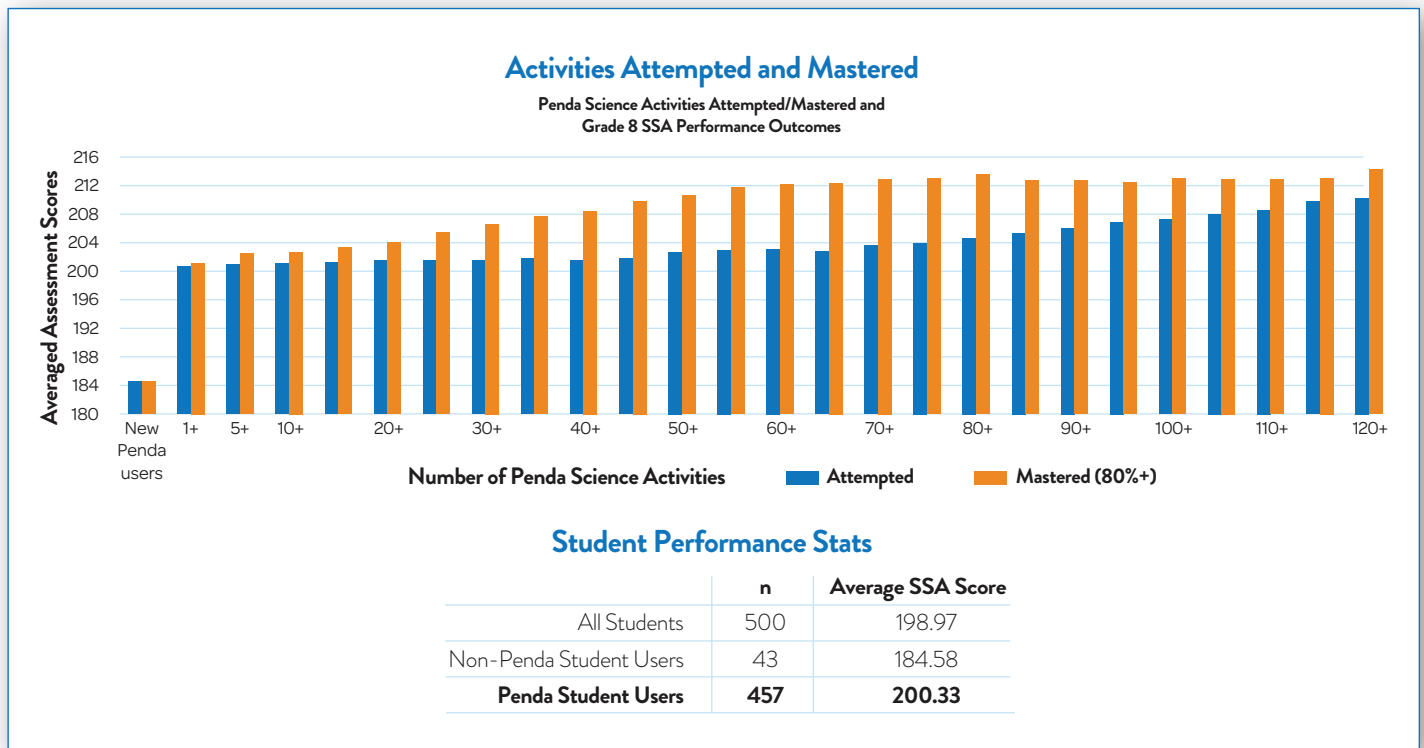
In schools where students used Penda Learning fewer than 10 hours, on average, 32% of students were Level 3 and Above. The percent of students who were Level 3 and Above was 46.6% in schools where students used Penda Learning at least 10 hours on average. Overall, the district increased its net percent of Level 3 and Above students 14.6%.

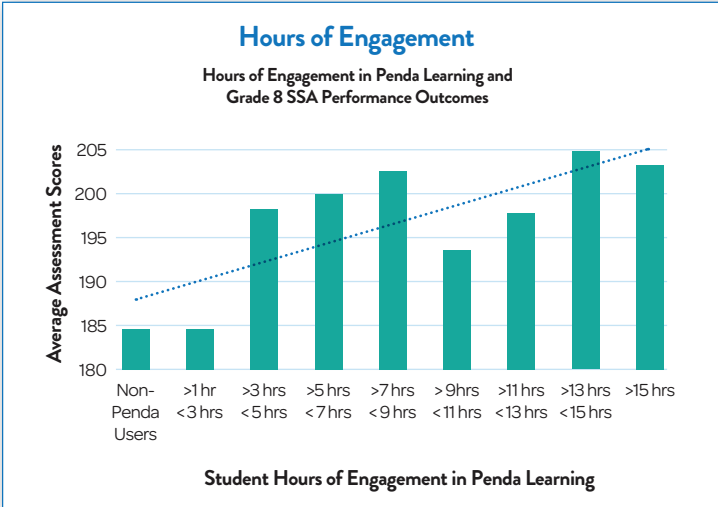


Key Findings – Neptune Middle School Grade 8 Science

A similar positive relationship between Penda Learning usage metrics and student performance outcomes on the Grade 8 SSA was seen in individual schools in 2017-2018.

In an analysis of 457 Neptune Middle School grade 8 science students over a nine-month study period, it was found that students who used Penda Learning scored, on average, 15 points higher than students who did not. Students who attempted and mastered (scored 80% or better) a minimum of 50 activities scored, on average, 26 points higher than students who did not use Penda Learning.





In addition, students who used Penda Learning for more than 13 hours scored, on average, 20 points higher than non-Penda Learning users.

HIGH SCHOOL TEACHERS SEE RESULTS WITH PENDA LEARNING, TOO

Middle school teachers weren't the only ones in Osceola County to introduce students to Penda Learning. The platform was used in Poinciana High School Biology 1 classrooms as well.

An analysis of those 360 Biology 1 students over a six-month study period indicated a positive relationship between Penda Learning usage and student performance outcomes on the 2018 Florida High School Biology 1 End of Course (EOC) Exam.

Students who used Penda Learning scored, on average, six points higher than their peers who did not. Students who attempted and mastered a minimum of 20 activities scored, on average, 12 points higher than students who did not.

Also, students who used Penda Learning for more than nine hours scored an average of 17 points higher than non-users.

