



Penda Learning Supports Hillsborough Middle School Science Classrooms with Varying Needs

When Hillsborough County Public Schools in Tampa, Florida, introduced Penda Learning in some of its middle school science classrooms, teachers were facing a number of challenges: teacher shortages in the district’s Title I schools, disciplinary issues, struggling learners, difficulties meeting Response to Intervention (RTI) needs, and preparing students for high-stakes assessments.

To ensure successful implementation of Penda Learning’s standards-based science lessons and student gaming platform, the district offered onsite professional development to teachers using Penda Learning during teacher pre-planning and at the start of subscription. Once implemented, much emphasis was placed on planning data-driven instruction, creating intervention groups, and differentiating instruction for the various levels of learners within a classroom — all within Penda Learning. Several key Penda Learning features made this possible:

- Teacher-users received weekly automated assignments for students using Penda Learning’s Pacing Assistance Service (PAS) for Grade 6 – Comprehensive Science 1, Grade 7 – Comprehensive Science 2, and Grade 8 – Comprehensive Science 3.
- All low-performing standards (as indicated by district formative assessment results) were spiraled into the PAS so all students could receive exposure and remediation leading up to the 2016-17 Florida Statewide Science Assessment (FL SSA).

“I do feel [Penda Learning] impacted my students’ learning. I saw their confidence level increase for assessments on the content that was given. I was able to see their improvement on targeted standards as they worked and reworked through Penda lessons.”

– Grade 8 Science Teacher

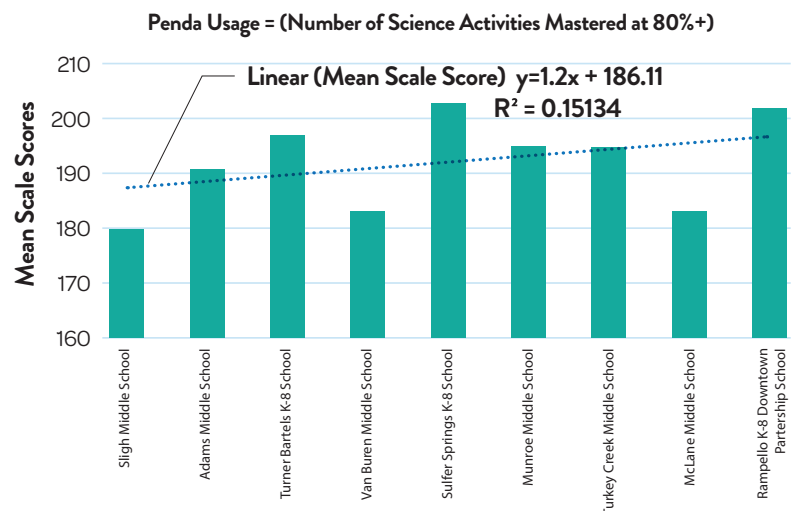
- Weekly automated Class Mastery Reports were emailed to teachers and monthly School Administrator Reports were sent to select school administrators to facilitate progress monitoring.
- Ongoing professional learning support was offered via district-level professional partnership meetings and dedicated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

Data gleaned from student performance on the FL SSA in 2016-2017 and 2017-2018 show that implementation of Penda Learning had a positive impact on student success on high-stakes exams at both the district and the school site level.

Key Findings – District-Level Grade 8 Science

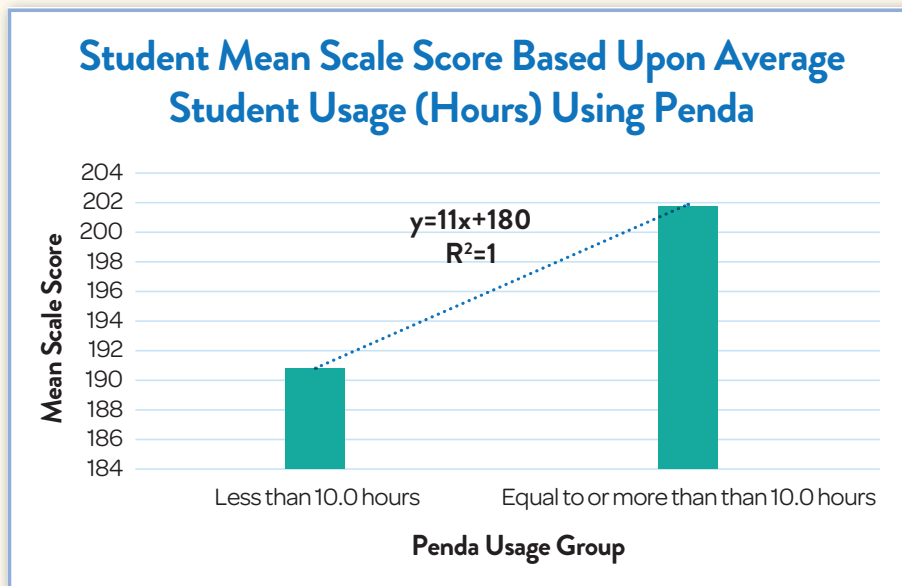
Nine Hillsborough middle schools subscribed to Penda Learning in 2016-2017, seven of which were Title I schools. Students in these schools logged 14,477 task hours within Penda and mastered 14,149 science activities, much of which was accomplished outside of regular school hours.

Schools Organized from Lowest Penda Usage to Highest with Mean Scale Score Plotted

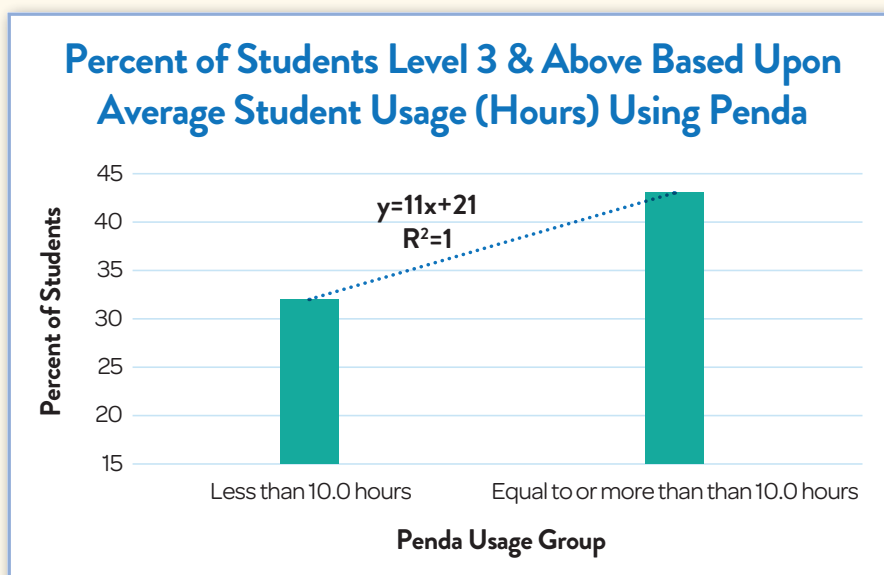




As a result of this work, schools saw net mean scale scores increase by 11 points. Specifically, six out of nine schools maintained or increased their Mean Score from 2016-2017. In those schools where students used Penda on average fewer than 10 hours, the average mean scale score was 191; in schools where students used Penda Learning on average equal to or more than 10 hours, the average mean scale score was 202.



Time spent using Penda Learning also correlated with the number of students achieving Level 3 and Above performance. After using Penda Learning, four of nine schools maintained or increased the percent of students considered Level 3 or Above from 2016 to 2017. For those schools were students used Penda Learning, on average, fewer than 10 hours, the average 2017 percent of Level 3 and Above was 32%; in schools where students used Penda Learning, on average, equal to or more than 10 hours, the average 2017 percent of Level 3 and Above increased to 43%.

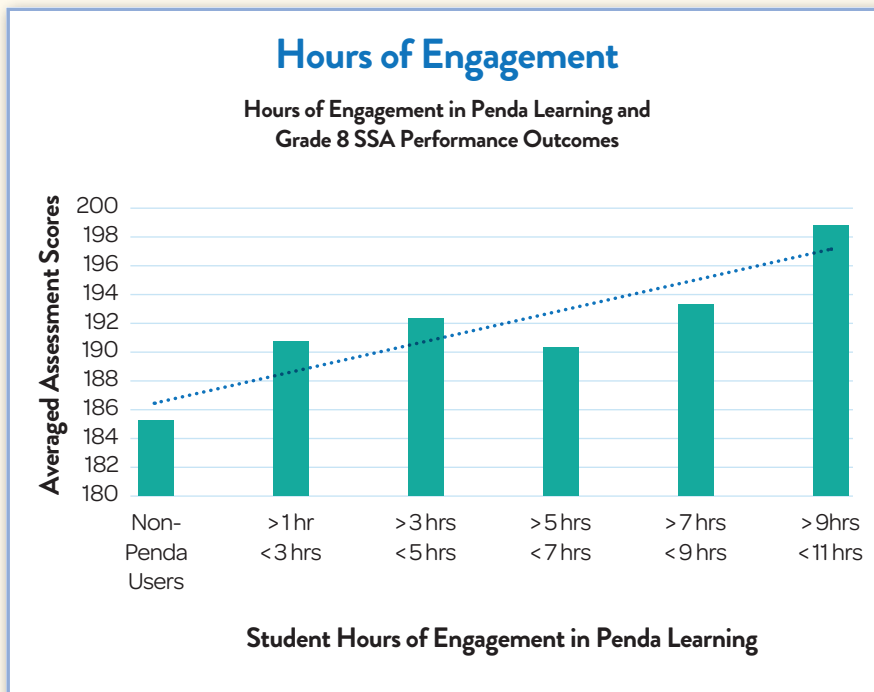
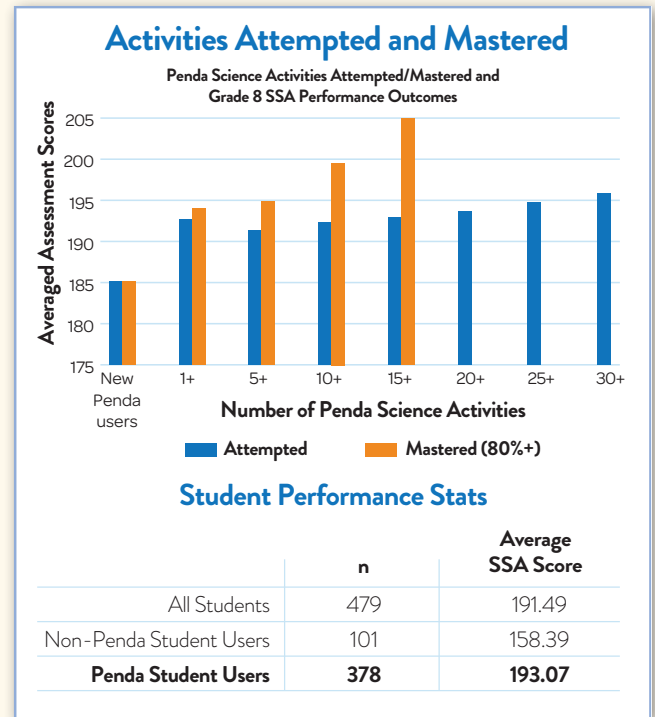


Key Findings – School-Level Grade 8 Science

The same positive relationship seen at the district level between Penda Learning usage metrics and student performance outcomes for students who took the Grade 8 SSA was also evident among students at Shields Middle School the following year, in 2017-2018.

An analysis of 378 grade 8 science students at Shields Middle School found that students who used Penda Learning during the four-month study period scored, on average, seven points higher than students who did not. Those students who attempted and mastered (scored 80% or higher) a minimum of 15 activities scored, on average, 19 points higher than students who did not use Penda Learning.

Also, those students who used Penda Learning for more than nine hours scored, on average, 13 points higher than non-users.



“My students enjoyed using Penda – they liked the game set-up of the program. I liked the automatic assignments and the reports sent to me weekly via email. The program positively impacted student learning.”

– Grade 8 Science Teacher

“Students were highly engaged doing Penda. Students talked about their scores, points earned, and I observed several friendly competitions.”

– Grade 8 Science Teacher