



May 14, 2014

PENDA SUCCESSFULLY DECREASES KNOWLEDGE AND ACHIEVEMENT

GAPS IN MATH AND SCIENCE IN DESOTO ISD, TX

THE BACK STORY

“Students love Penda and use it every day.”

The senior curriculum team in DeSoto Independent School District (ISD), Texas was looking for strategies and programs to fill gaps in science and math for 9th and 10th grades. Students were performing many grade levels below proficiency, and the district had limited resources to respond. The Texas Education Agency (TEA) was not endorsing specific curriculum materials for struggling math and science students, so the district invited Penda Learning to make a presentation because they were interested in a program based on brain research.

Administrators were looking for fast, short-term results to get students ready for testing. They appreciated that Penda allowed the targeting of specific standards. In a nine-week test in biology, there was a significant increase in student knowledge in these content areas. Penda gamifies independent practice on each specific TEKS standard and tracks student progress automatically. After the pilot program, Assistant Superintendent for Curriculum and Instruction Dr. Jo Green-Rucker said, “The students love Penda and use it every day. Students want to do the work – not a typical reaction to math and science – and their scores have improved.”



Dr Jo Green-Rucker
Assistant Superintendent
for C&I

PILOT RESULTS

Based on the results of the pilot, the district decided to roll out Penda to all elementary, middle, and high school campuses at the beginning of this school year. The leadership team feels that Penda’s greatest attribute is good scaffolding. They note that the algebra foundation, in particular, encourages students to do the work and helps them complete it. Also, Penda aligned the program to the district’s curriculum – making the automatic assignments specific to district curriculum goals and objectives. In addition to automatically assigning lessons based on student input and benchmark data, Penda also has the flexibility to allow teachers to customize assignments to differentiate instruction for their students.



When evaluating Penda's success, the leadership team noted the following attributes:

- The gaming platform increases the level of interest of students for math and science. Students love the avatar-based activities.
- Educators are able to make data-driven decisions weekly based on the automatic progress monitoring reports.
- Usage by students is automatically tracked for critical time-on-task evaluation.
- Penda redefined progress monitoring for the district by tracking progress on each Texas Knowledge and Skill (TEKS) standard.
- Infusion of literacy within the math and science content – important in Texas but also a new requirement for Common Core states. Penda lessons mirror the PARCC standards with compare and contrast activities that emphasize higher order thinking skills.



VALUE AS A PROGRESS MONITORING TOOL

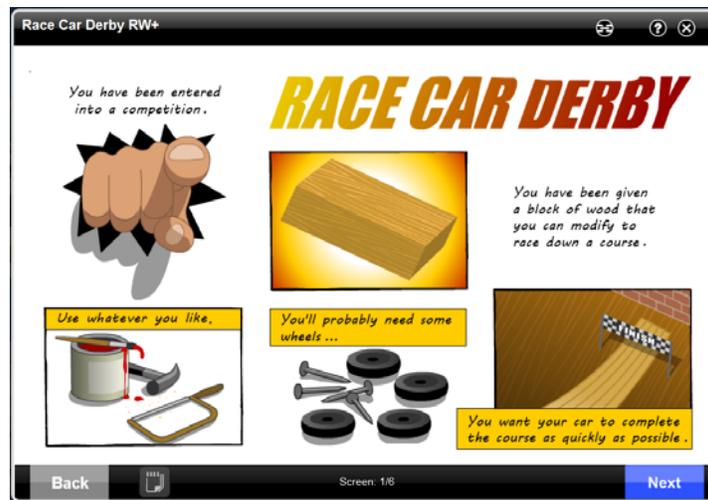
Penda's automatic reports provide usage information for home and school as well as length of each activity. The detail gives teachers insight into student performance such as whether they are answering too quickly and getting the answers wrong. Teachers can then work with students on learning strategies to improve results.

Administrators believe home usage is an indicator of product usefulness, and they want to increase the time students spend on Penda at home. Currently 72-74 percent of students have access to the Internet from home. Depending on grade level and campus, average home usage ranges from 27 percent to 52 percent. It's apparent to the leadership team that time on task produces results so they want to encourage students to engage in more independent practice.

End of grade tests this spring will tell the tale of improvement in student scores. The leadership team expects to see significant year over year increases. Two of the issues they've identified are the connection between time on task and improvements in scores as well as the usage variability across the district. Some teachers and principals are Penda advocates and they have more students using Penda with positive results. One of the leadership team's goals is to have a more systemic implementation to generate comparable results across the district.



Initially, Penda was implemented as an intervention program. Moving forward, district leaders see Penda more as a supplement to their core math and science texts. At the end of this academic year the curriculum team expects to see that Penda's scaffolded learning has successfully diminished the knowledge gaps for those students who don't learn well in a traditional setting. DeSoto ISD is committed to building student confidence in math and science.



2014-2015 GOALS AND OBJECTIVES

After evaluating the results from the pilot program in addition to progress through this academic year, the curriculum team has articulated the following goals for next year:

- Use Penda for progress monitoring throughout the year.
- Train teachers to use the real-time data to master TEKS.
- Increase motivation to use Penda through incentives. Reward classes with high usage.
- Create assignments for students based on benchmark data.
- Increase home usage another 10 percentage points.
- Increase staff usage at more grade levels. Highest usage is currently at 7th grade. Encourage 6th, 8th, and 9th grade teachers specifically to use and to expand from there.
- Increase faculty awareness of program by including data in grade-level team meetings.
- Target more students for intervention and tutoring.
- Compare students who use Penda to those who do not and analyze classroom performance to share success through increased usage.
- Make sure everyone is using Penda to full capacity – including helping parents understand how to use it at home.
- Use instead of core text in some classes to expose students to different types of lessons.
- Increase participation of RTI and special needs students.
- Explore how Penda can be used in a flipped classroom model.

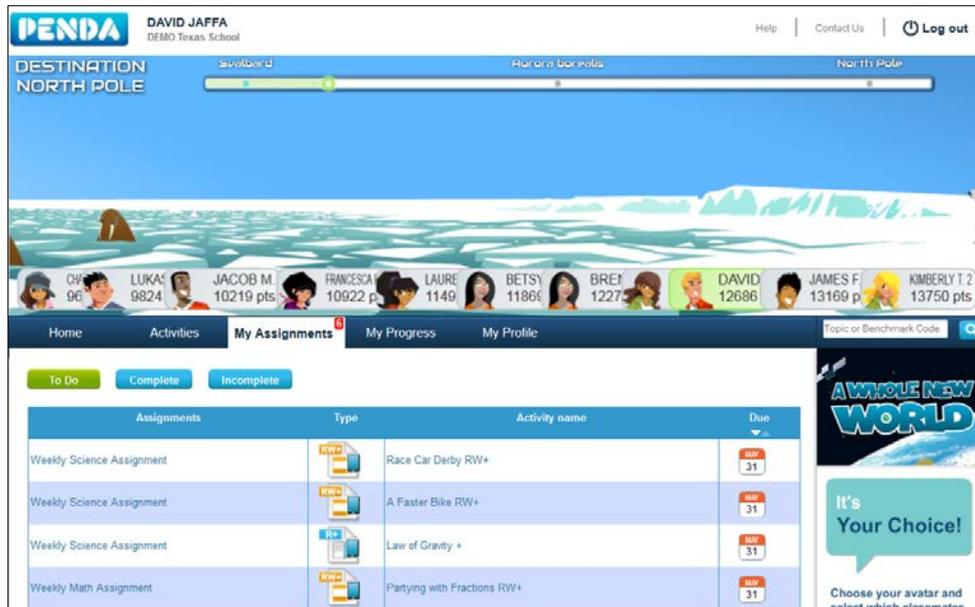


CONCLUSION

In addition to the product’s success increasing student achievement, the district leadership team was impressed by Penda’s willingness to align the program to their curriculum. It showed true support for the district’s objectives, and demonstrated to the district that Penda was focused on being a true partner by helping to increase student proficiency on TEKS standards through automatic lesson assignments and progress monitoring.

Penda’s avatar concept was developed directly from brain research. Dr. Green-Rucker has heard directly from students on this topic. “They love the avatars,” she said. “The gaming platform is one of the primary student motivators, and they’ve told me how much it increases their interest in Penda.”

For the district, the bottom line is results – increased student achievement. By expanding their use of Penda and ensuring that all teachers can use the data effectively, DeSoto curriculum leaders believe that their students will continue to improve in math and science.



ABOUT PENDA

Penda is a leading provider of highly engaging online science & math content for grades 4 – 10 built on a gaming platform. Penda aligns activities to district curriculum maps, which creates an opportunity for more time on task and additional independent practice that’s critical for student success. With Penda, teachers can see student mastery of content on a weekly basis.

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