



Palmetto Elementary Case Study:

How one school discovered an improvement in both academic scores and disciplinary issues through enhanced vision-screening measures and proper follow-up care.

Vision-Screening Results at a Glance:

- 537 students screened in under five hours
- Captured definitive results on 100% of students, including 19 special needs children
- 93 students recommended for follow-up vision care
- No disruption in school schedule as each screening averaged about 10 seconds

Overview

Palmetto Elementary (Palmetto) is a title one school in Poinciana, Florida, serving grades pre-K to five in the Polk County Public School District with a current student population of 795.

Challenges

Vision disorders are considered the fourth most common disability in the United States and also one of the most prevalent handicapping childhood conditions.¹ In most states, government mandates only require students in a “few” grades to be screened despite the mounting body of evidence that reveals vision changes occur the most between the ages of 11-14.² Florida statute, for example, does not require students in second, fourth and fifth grades, as well as seventh through twelfth grades to get screened, overlooking critical age groups in eight out of the thirteen school years.

Vision is extremely important to school administrators, many of whom have become accustomed to conducting their own vision screenings. Sarah Miranda, a Palmetto teacher at the time, believes it’s imperative to screen children in elementary school from pre-K through fifth. “[A majority of our students] seemed like they had some kind of vision problem,” Miranda said. “Some should have been screened three times by that point in school, but because people move around so much, they are missed and go all those years without getting re-screened.” Faced with declining academic scores and an increase in classroom misconduct, Palmetto suspected that potential vision problems could very well have a bearing on their school’s struggles.

Further aggravating the problem, commonly used vision-screening methods are time-intensive and put a strain on staff resources. In the past, to screen a school of Palmetto’s size would have taken at least three days and require a team of four to five screeners.

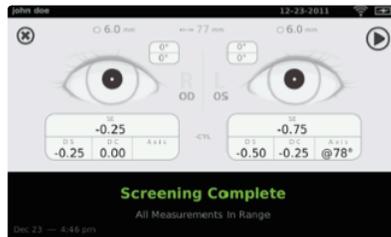


Solution

In February 2012, Transitions Optical held a charitable vision-screening program for which Palmetto and more than 500 of its students were selected for eye examinations. Prevent Blindness Florida invited PediaVision – a company dedicated to solving the critical health issue of undiagnosed vision problems – to help conduct the screening using its award-winning device called *Spot*.

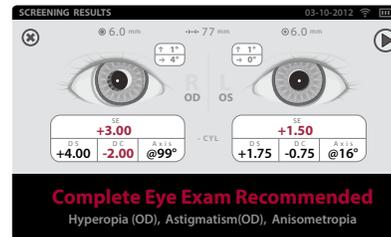
A WiFi enabled, handheld device that weighs about 2.5 pounds, *Spot* makes vision screening as easy as taking a picture. *Spot* screens children six months and up in just a few seconds for the potential presence of anisometropia (unequal refractive power), hyperopia (farsightedness), strabismus (eye misalignment), myopia (nearsightedness), astigmatism (blurred vision) and anisocoria (pupil size deviations).

Sample Results Only - Not Reflective of Student Data



Results **BELOW** the “configurable” threshold settings.

These subjects would **NOT** be recommended for follow-up care.



Results were **ABOVE** the “configurable” threshold settings.

Indications of the **VISION DISORDERS** were identified and this screening-subject would be recommended for follow-up care.

Spot's non-invasive design can screen a subject from about three-feet away with a capture time of one second and delivers immediate, comprehensive and objective results in an easy to read touchscreen interface. Results can also be printed to help parents determine proper follow-up care. If a student was identified with one of the named issues, he or she was then referred to Transitions Optical to coordinate a complete eye examination and follow-up eye care.



Prints on 8½" x 11" paper



Results

With *Spot*, the Palmetto school screening was completed in under five hours; the entire screening only required two PediaVision team members – a stark contrast to prior screening engagements, which could take weeks and sometimes even months due to equipment limitations and student volume.

Miranda shares,

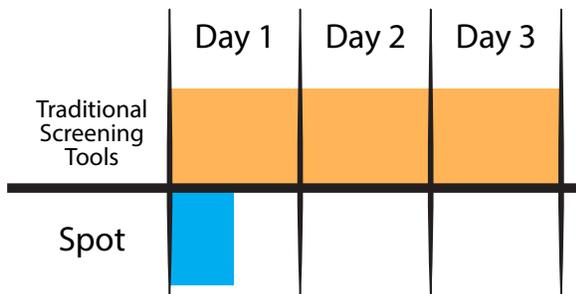
“Each screening [took] only 10 seconds per student – or 65 students an hour. [The PediaVision team] was able to screen the entire school during half of a school day and not lose any instructional time. That was really important for us. The students would only miss electives, not their actual classroom instruction.”

Of the 537 students screened, 148 were referred for follow-up care, just over the one in four national average.²

Out of the number of students referred, 55 already owned glasses, leaving 93 students recommended for follow-up care. Myopia, (nearsightedness) attributed to over 48% of the referrals, with astigmatism (blurred vision) identified in 37% of the referred students.

By screening every grade instead of the exclusive state-mandated grades, *Spot* was able to identify those students who had been missed in prior years or had not obtained follow-up care from previous screenings.

Screening Time Saved





Transitions Optical, in partnership with VSP® Vision Care, brought their state-of-the-art mobile vision clinic, Eyenstein, to provide comprehensive eye exams and prescription glasses for Palmetto students. “We compared the results of the [Spot] screening to the final prescription by Dr. Larry Lampert and it was very close, if not exact, a majority of the time,” said Niki Thomas, the lead mobile clinic operations manager at VSP.

Jennifer Whittington from Prevent Blindness Florida said,

“I was floored the entire day and couldn’t believe how quickly Spot worked. The amount of data that came from it was awesome. [Spot] is so much easier [to use] and [faster] than our equipment. It would have taken us at least three days to screen all of those students with our [own] equipment!”

In addition, through a grant, Transitions provided free glasses to those students who needed them. Palmetto’s administration realized the impact this new vision-screening process has made for their students. “If the people at PediaVision had not come along and offered to do this screening, those students probably would have never found out they needed glasses,” said Miranda.



A few months post – screening, Palmetto received the results from the standardized test taken after many of the students had received eyeglasses. The teachers proudly reported a significant improvement in scores over the prior year. “One teacher of an autistic student came into the office in tears, so grateful,” said Miranda. “She told us how the student now wore glasses, stayed in her seat and kept working. All of a sudden, she could see and was very interested and doing well.”

Another satisfying outcome: The behavioral transformation in many students who were struggling with a vision issue. In Miranda’s opinion, “Students with disciplinary issues and bad grades have a tendency to go hand in hand. From March, when the screenings were done with Spot until now, we haven’t received many disciplinary referrals. In fact, the number of students being referred to the front office for disciplinary reasons from last year to this year has decreased by 60 percent!” She further believes, “there is definitely a correlation between corrected vision and an improvement in grades and discipline.”

1. Ciner, E. B.; Schmidt, Orel-Bixler, Dd, et al., Vision Screening of Preschool Children: Evaluating the Past, Looking toward the Future, *Optom Vis Sci*, 1998; 75: 571 – 84.
2. Zabba, Joel N. “Children’s Vision Care in The 21st Century & Its Impact On Education, Literacy, Social Issues, & The Workplace: A Call To Action.” *Journal of Behavioral Optometry* (2011).