

LIVESCRIBE PEN PILOT PROGRAM YEAR 1 FINDINGS

Over the past year I have been tracking 17 students who are using the Livescribe Pulse Smartpen in their Math classes. The purpose of this pilot was to formally assess how the pen would affect the students learning and retention. The student's data was weighed against previous NYS Math Assessment, Terra Nova Scores (National Test), grade point average and overall understanding of NCTM standards.

After one school year of using the pens the following information has become apparent.

1.) Students Notetaking

- a. Overall notetaking did not improve
- b. Students stopped taking word for word notes
- c. Students copied key ideas or phrases
 - i. Key ideas + teachers audio instruction= better notes
- d. Students paid more attention in class during instruction time
Students still prefer the teachers' notes for review

2.) Class Assessments

- a. Class averages increased from last year to this year
- b. Students said they were more careful with work knowing it was being recorded
- c. Availability of audio and live action of students work made it easier to identify which objectives they were not understanding
- d. Struggling students were put on a individual corrective action plan based on standards they could not meet (virtual credit recovery course geared to each students needs set by teacher)
- e. Greater gain with students scoring in the middle to lower half of class

- f. Students that were at the far end of the spectrum made less strides than students in the middle to lower half of class, but still recorded gains
- g. Class assessments with teachers' audio over students work were viewed more helpful than a simple X, for wrong.

3.) State & National Assessments

- a. Results have just come in from last year NYS Math Assessment and need to be analyzed before any findings can happen
- b. National Assessments have shown an overall class grade level increase of 15.73%, from 8.2 to 9.5

4.) Teachers Remarks

The pen has been a great resource for delivering content to students 24/7. Students admit to watching videos when they are at home for the following reasons:

1. To review material nightly
2. Study for upcoming tests
3. To complete parts of projects
4. To solve homework problems

For reviewing everyday notes, the average student is electing to watch the teacher's notes again, instead of listening to their own notes from the class lecture. When stuck on a problem in class, I visually see students look their notes quickly, but most will choose to search our website when in doubt. After speaking with students, a few explained that my notes are clearer and easier to follow than theirs.

For formative assessments the pens have worked better than I could have imagined. Teaching students that it is okay to work out a problem out loud in class was a difficult pattern to incorporate. Many students feel weird because they have been taught that work is done in your head quietly. I do not think other teachers will appreciate this when my students go on to high school next year. I have been able to identify problems in student's fundamental understanding of math versus their problematic errors.

Overall I think that the pen has led to student's success based on its current

usage. Looking back I would use the pen more for assessment of students than students own notetaking. If the students are relying on my notes for notetaking and not watching their own notes, it defeats the purpose of using the pen to take notes.