

# MimioVote: Formative Assessment Made Easy

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## Introduction

In today's classrooms, it is common that many students don't want to participate in the class activities. Those students often don't enjoy doing math, or they don't understand it and are too afraid to raise their hand in front of all of their peers and ask the teacher for help. For the students that are struggling with the mathematical concepts, they might have a harder time doing their homework assignments.

What if there was a way to get students to actively participate in class activities and measure student understanding instantaneously without having to grade stacks of homework assignments? The *Mimiovote* Assessment System is the answer teachers have been looking for.

## What is *Mimiovote* and what can it do?



*MimioVote* was designed to make formative assessment in the classroom simpler. Not only can you give students

multiple-choice problems to test their understanding of a mathematical concept, but you can also get direct feedback from the students to check how they feel about the concepts. The system comes with 32 handsets and a docking system that charges each handset wirelessly. The *Mimiovote* Assessment System with the set of handsets is available for \$1,599.00, which is a great price considering all of the features the system has.

The *Mimiovote* System allows teachers to track progress of the students with both instant feedback as well as scores tallied over time, and all of these student results can be downloaded into spreadsheets, lesson plans and other records for use in the future. Teachers can choose whether they want whatever testing they are doing on the *Mimiovote* to be teacher-led or self-paced, where the students get a set amount of time to answer each question. The system makes it possible to make tests using the *Mimiostudio* templates, PowerPoint, and even import state-standardized test questions. The handset helps to ensure accuracy in students' answers by only illuminating the available answer buttons for each question (shown in the picture to the left, buttons A, B, C, and D are the only buttons lit up, therefore they are the only answers buttons that can be chosen). To access all of these great features, just plug the *Mimiohub*, shown below, into the computer.



## Benefits in a Math Classroom

Assessing students in a Math classroom is cumbersome. Traditionally, a teacher must either elicit student evidence verbally or by written means. Eliciting evidence verbally tends to be difficult because most students are unwilling to step out of their comfort zone and let their peers know if they do not understand a concept. On the contrary, eliciting evidence in writing allows the students to show their understanding without peer knowledge. The problem with written evidence is that it takes teachers time to extrapolate data from it. By using *MimioVote*, a teacher will be able to elicit formative assessments from students with immediate data attached to it. Teachers will no longer have to thumb through papers to ensure students can understand the concepts. This will allow the classroom to operate much more efficiently.

Although most teachers do not give summative assessments in a multiple choice format, it would be very easy to create exams using *MimioVote*. An easy way to remedy the problem of

students guessing the right answer is to require scratch work to be turned in with the assessment. If students fail to work through a problem, they will fail to earn full points for the specified problem.

## An Example Classroom Application

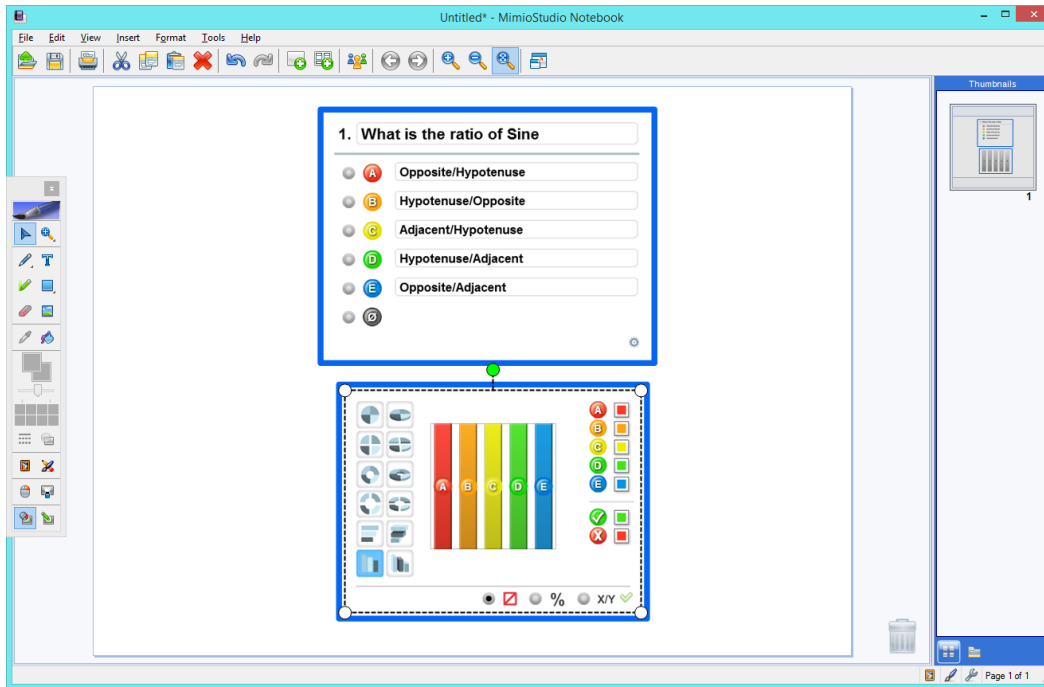
Using CCSS.Math.G-SRT.6, which states, "Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles," here is an example of how we can effectively use *MimioVote* to create a question pertaining to this lesson. In this example students will be going over a lesson on the ratios of Sine, Cosine, and Tangent. The ease of use to create a question and result is quite apparent when using the supplied software as shown in the following page. Using a question like this we can easily figure out if students understand the concept of Sine. Results gained from the formative assessment can be uploaded to an excel spreadsheet to use in participation grading as well.

## Potential Barriers to Use

The biggest barrier to the use of this equipment is the initial cost. Most teachers will find that getting the technology funds to use this in a classroom will be quite difficult. If the system is shared throughout the Math department then the cost will be effectively reduced per student.

To fully utilize *MimioVote*, teachers need a very structured lesson plan. While it is easy to use the polling feature of these handsets, the multiple

choice questions must be presented at very exact times to elicit the evidence when needed.



## Conclusion

Classrooms of the future can benefit from an easy to use interface for eliciting evidence. *MimioVote* allows for instantaneous formative evidence from students. The time that is saved from having data instantly compiled can be used to help students who are struggling in math. Students who are struggling in math can also benefit from the differentiated instruction that can be created while using the *MimioStudio* software. While the initial cost is quite steep, the time saved over the course of a school year will be more than worth it.