

Instruction Matters!

Mathematics



Note-taking **Results in Increased Student Achievement**

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When asked, memory researchers reported the number one “memory aid” which they themselves use is *write it down* – educators call that note-taking. Teachers should require students to take notes in all classes. Note taking keeps students engaged in learning, helps them complete their daily homework assignments, enhances their study, acts as a foundation from which to prepare for unit tests, allows students to review for higher stakes semester or end of year exams, and expands opportunities for increased family engagement. Also, since students are not allowed to keep their textbooks, the student notebook is usually the only mechanism available for review in later years for high stakes tests such as college entrance exams.

Note taking is a process used by students to record important information that they are trying to understand *and* need to remember. Notes should usually include a title, the date they were taken, objectives, definitions, English-math translations, how to say it, identifications, pattern or concept development that leads to some conjecture, a formalized rule or algorithm, and an number of example problems used in guided practice. Notes should support and reflect instruction.

Teachers should also encourage students to write an explanation of what led to the procedure being used to manipulate or solve problems. Explanations are especially important when a problem-solving method might be construed as a “trick” and whose rationale would not be immediately obvious to the student when reviewed at some future date.

Additionally, teachers should direct students on how to record their notes. Having students center and underline new topics, skipping lines, placing boxes around important information will assist students to study more effectively and efficiently. It is important that students can find information quickly, that the notebook has white space so students do not experience visual overload and students can quickly sort through their notes to find information.

In other words, a student taking notes in the first row - first seat should have notes pretty identical to a student sitting in the fifth row-fifth seat. An old axiom in education is “expect what you inspect”. If classroom teachers do not take an interest in student notebooks, they may be missing an important factor in determining why some students are not achieving in their classroom.

Too many students really don’t know how to take notes. To address this, some schools have purchased notes and some teachers make daily handouts containing the day’s notes. *This is a mistake!* We would better serve our students for the long run by teaching them how to take notes. By providing students feedback during the year, teachers would see the notes the students are taking at the end of the school year are far superior to the notes the students took in the fall.

It should also be noted that the research suggests when notes are *handwritten*, students learn faster and are able to recall the information for longer periods of time. In the community, that's translated to learning.

While note taking is a student responsibility, teachers need to hold students accountable for taking notes. This need not be complicated or time consuming, but it must be done frequently and consistently to further encourage students to take notes.

By the same token, if building principals do not check to ensure students are taking notes, then classroom teachers may not have a high expectation their students take notes either.

Bottom line – good *handwritten* notes will help students complete their daily homework assignments, study more effectively and efficiently, prepare for tests, recall information for longer periods of time, and provide students a way of doing long term reviews and refreshing their memory while preparing for high stakes tests – resulting in increased student achievement. Student notes also allow for greater family engagement by providing parents an opportunity to see the work done in class so they can better assist their students doing homework, studying and preparing for tests.