Instructional Technology

Are Netbooks A Solution or <u>The</u> Solution??

Netbooks are a rapidly evolving category of small, light and inexpensive laptop computers suited for general computing and accessing web-based applications. Netbooks have been touted as the solution for 1 to 1 initiatives for students and teachers. According to *Wired* magazine, netbook computers were initially created as a super-cheap laptop. The super-cheap laptop was designed with the hope of getting computers into the hands of children in developing countries. Netbooks are being adopted in school districts all over the country. In the RCSD, we have many teachers, through the Model Classroom initiative, who have received the netbooks and have integrated them into their classrooms.

It needs to be emphasized that a netbook does not have the same capabilities as a full laptop. Before purchasing netbooks, several Instructional Technology colleagues raised an relevant question–How would the students or teachers use the netbook? When RCSD teachers were asked how the netbooks are being used in their classroom we received many responses.

The common uses cited were:

- Accessing web-based applications such as *Discovery Education, Compass, School Town* and many others
- Skills review
- Research projects
- Test prep
- Taking assessments online
- Writing papers, writing assignments
- Web quests

Kristine Schultz, an AP Environmental Science teacher at Charlotte High School, is able to employ the netbooks as soon as news is reported and as soon as students need to delve into a current event. Ms. Schultz praised the netbooks. “They are fantastic for allowing students to follow current events such as the Japan Tsunami/nuclear event. I never could have allowed them the opportunity to explore that in any depth without them.”

Time management is always an issue for teachers and students. Netbooks have helped fifth grade teacher Dianna Speranza offer her students more time in class to do research and complete the work assigned. Previously, with only three computers in her class and a 40 minute computer lab time scheduled, it was difficult to get any quality time on the computers. Rebecca Springer, a sixth grade teacher at NRCS, says that the netbooks have made it easier for her to reteach a lesson while at the same time challenging the other students. “My students are much more independent and are learning how to figure things out on their own with regards to research and knowledge building,” says Ms. Springer.

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Teachers report that the netbooks have also had a positive impact on the students' behavior and motivation in beneficial ways. Jennifer Wagner, a sixth grade teacher says her students are "extremely motivated" when the netbooks are pulled out. She said it had been difficult to get the students to complete 'paper' work but not so with the netbooks. Kerry Robertson, a sixth grade teacher at World of Inquiry School, says the netbooks allow her students to access school-appropriate websites once their work is completed. "This motivates students to remain on task to complete accurate work in order to get on their computer," says Ms. Robertson, "The netbooks have helped improve the behavior of students who would normally be off-task and distracting after they finish an assignment while others are still working." At #28 School, Dianna Speranza's fifth graders "love having their own netbook to use right at their desks." She says her students are very comfortable using them and are "very eager to help one another".

Netbooks are praised as aids for students who find it difficult to learn through traditional methods. Alicia Cheng who teaches Science at East High School says that netbooks are great for visual and auditory learners. Jennifer Wagner lets her students listen to music as they work on individual research projects, "It cuts down on noise and talking in class." In Ms. Springer's sixth grade her students "are so engaged in what they are working on and having their own netbook allows them to go at their own speed. There are always behaviors but this cuts down a lot of the nonsense."

Netbooks have shown to be effective tools for teachers and students. This tool needs to be integrated into the classroom in a thoughtful manner. But it always comes down to the teacher. It is quality, planned instruction that takes the netbook out of the box and makes it powerful.

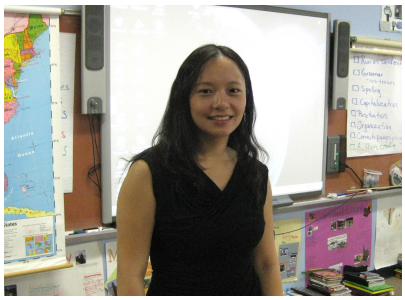
In Her Own Words...

Kerry Robertson is a sixth grade Model Classroom teacher at World of Inquiry School. Ms. Robertson shares a description of how a typical day starts with netbooks.

Ms. Robertson (2nd from left in back row)

"Imagine a Friday morning on a warm early spring day. The school buses have pulled away from the building. Sixth grade students meander into the classroom. What would you expect to hear and see happening? Probably lots of noise, socializing, off-task behavior, and hormones bouncing off the walls. Surprisingly, that is not the scene as you walk into this sixth grade classroom. Students check in on the smart board by "popping" their name balloon and reading the message the teacher has attached for morning work. Students then begin to follow classroom expectations of setting out homework and eating breakfast. Soon you begin to see individuals walk over to the classroom netbook cart to get their computer. Most often, the students' morning work includes either signing into their School Town account to complete an assignment, or logging onto *First In Math, Compass*, or another educational site I have assigned for the day. The morning work is usually review of a concept recently taught, or a preview of what is to come for the day. Most of the sites allow the teacher to monitor individual and class progress on assignments. Therefore, the teacher is able to adjust her instruction to better meet the needs of her students in whole group and small group instruction."

PeiLin Wong, RCSD's Elementary Model Classroom Star



Model Classroom teacher PeiLin Wong believes that the technology she's received has helped her students gain technological expertise, but as an added benefit their interest level has increased. Her students "are more focused because they're just waiting and anticipating what I will do next, what the next SMART board tab I pull out will reveal, what video clip they will be watching, and what new interactive game they will be playing."

Ms. Wong is a effective consumer of the latest technology in her classroom. As a fourth grade teacher at #28 School, Ms. Wong uses the SMART board to present her math, science, and social studies lessons. She also uses it as an effective tool to model writing skills. The students use the netbooks for research, online instruction, and writing. Ms. Wong says that online resources play an important role in her class, "I use BrainPop, Compass, First in Math, Discovery Education. I use these resources to enhance learning, practice skills, and to interest my students in the topic at hand."

Her dream classroom would supply each student with a laptop which would easily project what's on the students's screen to the SMART board and a printer to print out their high quality work. Let's hope PeiLin eventually gets what she dreams of so that her class can really take off.

Nathan Meade, RCSD's Secondary Model Classroom Star

In Nathan Meade's opinion, technology opens the door to his students' thought processes. In his classroom Mr. Meade uses netbooks, interactive response clickers, SMART board, SMART document camera, and a SMART Slate. Mr. Meade says all that technology has two great benefits. "Through instant formative assessments, and the ease of using student work as models, it allows for lessons to be more responsive to what individual students need," says Mr. Meade.

In his fifth year teaching ELA at Monroe High School, Mr. Meade says that the technology he has acquired as a Model Classroom teacher allows him to "shift the structure of the class so that students can be producers of knowledge, not just consumers. It allows me to be more responsive to students' individual rates of learning," says Mr. Meade. This shift has produced a more thoughtful and higher quality of writing than he has seen before.

In addition Mr. Meade's class's data shows an improvement between formative assessments and summative assessments. "While this is a correlative relationship rather than a causative, by giving me easy access to formative data," Mr. Meade says, "technology allows me to responsively plan my lessons with interventions that allow for students to improve. When formative data demonstrates mastery of a concept, it allows me to move on to new topics, reducing redundancy in my teaching."

In a perfect world, Mr. Meade would have even more technology, but he says there are still issues that keep his world from being perfect. "The biggest gap between my current classroom and my dream classroom is to have closer connections and collaborative tools to use with my colleagues." Mr. Meade adds, "The beauty of technology is its ability to facilitate innovation; the only finite resource is cooperative time – the potential is unlimited."