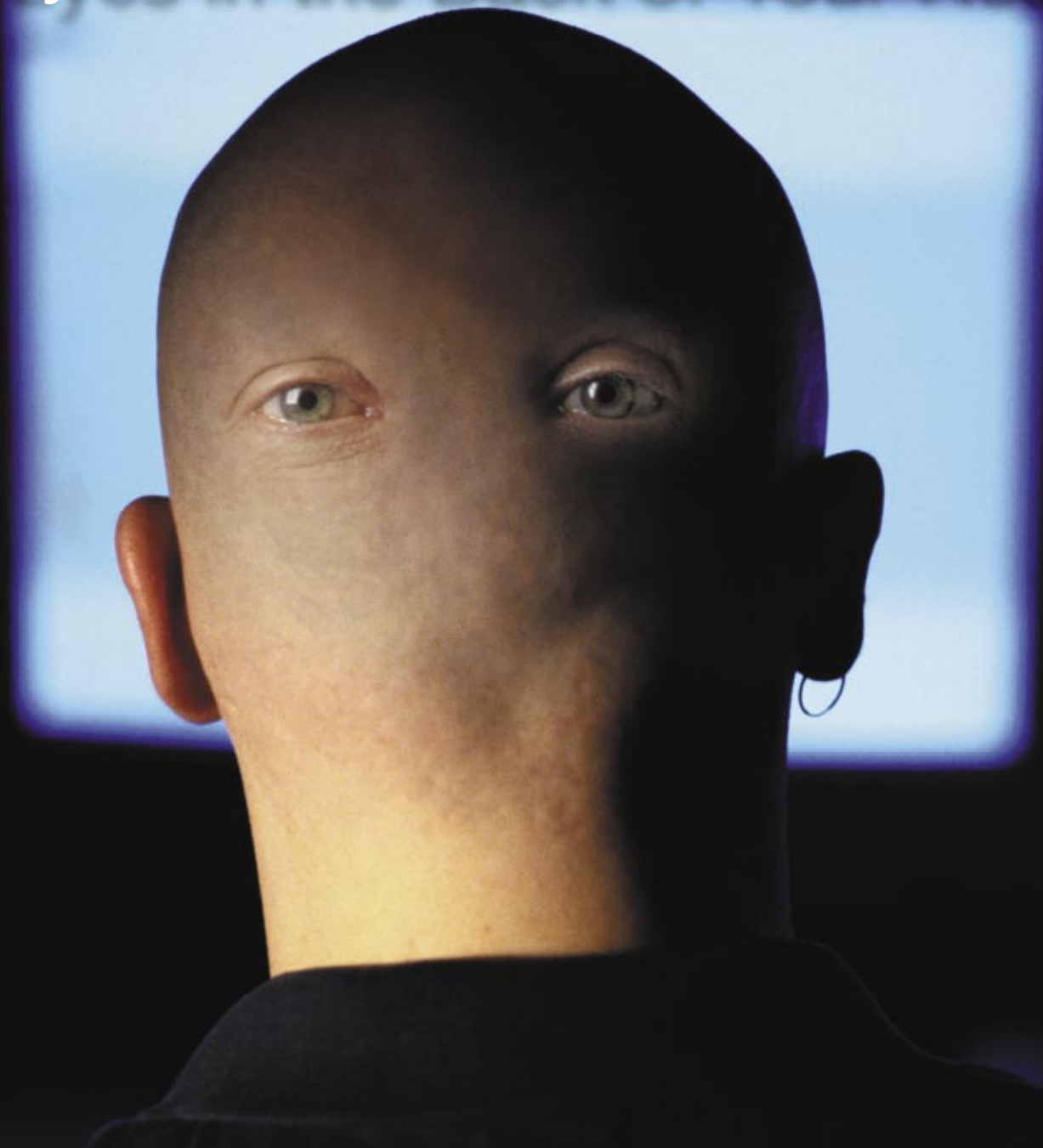


Eyes in the Back of Your Head



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Subject: Holistic assessment

Grades: K-4 (Ages 5-9)

Standards: NETS•TIV; NETS•AV
(<http://www.iste.org/standards/>)

Cameras for Classroom Observation

Many of us have wished we were able to see what exactly was going on in a learning center and how the children were communicating with one another while we were busy working with individuals in another corner of the room. What if this were actually possible?

With the help of a unique distance learning facility, it is. Not only are you able to see what your students are doing, you are also able to hear them interacting with each other and observe their problem-solving skills. If you have students who are having difficulty focusing on a given task or completing assignments during designated time limits, you can see them during the actual lesson and observe their actions. With this technology, you are also able to observe students who exhibit challenging behaviors and even tape-record such observations for analysis without interrupting your regular classroom instruction.

A New Window on Learning

The King Center Charter School is located in the most economically depressed area of Buffalo, New York, in a former church building. Ninety-eight percent of the students qualify for free or reduced lunch. During its four years of operation, the school has evolved into a unique laboratory school committed to studying its holistic educational program to close the achievement gap and provide a high-quality, technology-rich educational environment for 105 K-4 urban children.

Each classroom, for example, is equipped with three to four desktop computers to be used for in-class research and enrichment activities. In addition, the full-time technology coordinator provides both computer lab sessions for groups of students and whole class sessions where each student has his or her own laptop for learning. The coordinator also assists



One King Center student wears a vest that allows the classroom camera to monitor that student's activities.

teachers and the librarian in mastering the art of integrating technology into their everyday work.

The school has also created a distance learning room on-site. In addition to teleconferencing with partners within and outside of the United States, this room is used to study the teaching and learning process that is taking place schoolwide. The distance learning room and the classrooms are equipped with CAMERAMAN-systems cameras with laser tracking devices, which make it possible to observe students in their classrooms without interrupting instruction.

Observation Procedures

At the beginning of the school year, classroom teachers identify those students who appear to have difficulties. The reasons for selection vary, for example: off-task behavior, emotional outbursts, attention-seeking behaviors, and threats of violence to self and others.

Observations are then held on an ongoing basis throughout the school year to gain a representative picture of a child's behavior over time. The length of such observations varies from 15 minutes to an hour, based on the teacher's decision and the type of lesson being observed. The classroom camera is able to move wherever the selected student goes within the room due to a vest that the student wears. This vest is also equipped with a laser-tracking device and a high-quality microphone that clearly transmits the

child reading to him or herself, talking quietly about steps to solve problems, or interacting with peers. Accessing all this valuable information would be impossible through regular videotaping experiences.

Because this type of observation is very new and exciting, each student is eager to put on the special vest. Students are aware that their actions are being watched, and during the first few minutes everyone in the classroom is curious to see whether the camera actually moves with the student. After the initial excitement, however, everything returns to normal.

Observation Tools

The school has employed a research coordinator and formed a research discussion group of eight early childhood professors from nearby colleges and universities who view and analyze the observations. Because each observation is tape recorded in the distance learning room, there is an opportunity for replay at any time. The research coordinator transcribes each VHS tape and identifies some video segments for discussion—usually highlighting some challenging behaviors. The coordinator then digitizes and organizes these clips into iMovies for the Research Group members, teachers, and parents.

Improving Instruction and Student Learning

Such a collection of real-life, non-edited classroom observations provides a unique opportunity for educators to connect theory to practice during real-time teaching episodes and to “observe and analyze regularly what the children are doing in light of content goals and the learning process,” as Sue Bredekamp and Teresa Rosegrant recommend in their 1992 book *Reaching Potentials*. Viewers are able to see environmental events around the student, identify some triggers for problem behaviors, and brainstorm practical ideas for the

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teachers to use immediately in their classrooms.

For example, a teacher challenged by a student's behavior requested that an iMovie be created to share with the parent and the Research Group. After viewing the video clips, the group listed strategies that could be tried to help the student be more focused and less distracted. Some suggestions included installing a three-sided desk screen to shut out visual distractions, placing the student's desk closer to the teacher, using strategic questioning techniques to engage the student more frequently, and placing a note on the student's desk to break activities into smaller steps. These strategies proved to be beneficial to the teacher and the student.

By observing students both working alone and interacting with peers, teachers have been able to further individualize their instruction and develop curriculum based on their students' needs, learning styles, and interests.

Teacher Reflection. The observations also serve as wonderful learning/reflecting tools for the classroom teachers. They are able to view their instruction, the effects of their instruction/teaching styles on students, and are also able to consider strategies for improvement. The following comment is from Ms. Marjorie Borowski, second grade teacher:

"This experience has afforded me the rich opportunity to look at the very underpinnings of my classroom. That is, how I see children: how they see me. I have the privilege of viewing my classroom as observer. And to look at not what I see or what I know, but what is there."

Parent Involvement. As we know, many parents would love to visit their children's schools, participate in various activities, and observe teachers' classroom management strategies. Unfortunately, it is impos-

sible for parents to observe in the classroom without changing the dynamics of children's behavior. CAMERAMAN allows parents to observe their students.

Such observations have been used to assure parents that their child is engaged in the learning process in a positive way, as well as to help parents understand their child's behavioral challenges. The beauty is that parents can be fully informed and in turn participate more fully in their child's educational program.

Documenting Student Learning and Behavior Over Time. At the end of the school year, the research coordinator condenses all the clips into 5–10 minute long digital mini-movies highlighting selected students' behavior over the year. These mini-movies adeptly portray students' academic progress as well as their social/emotional growth.

Final Thoughts

Focused observations of students and their interaction with their environment have always been critical to the study of the educational process and to identifying and accommodating developmental (and individual) needs. This unique window into a classroom holds tremendous promise in studying individual children. Students and teachers at the King Center Charter School have been the benefactors of this project as it has brought parents, teachers, college professors, counselors, and home visitors together to develop strategies to help children be more successful. Our hope for the future is that observations and behaviors can be categorized to assist in identifying developmental and behavioral trends for the 21st century urban child.

We have a few thoughts we would like to leave you with.

Confidentiality. You cannot videotape students until you have received written permission from their parent or guardian. At our school we have two types of release forms: general and study-specific. On the general release form, parents give consent for photographs and videotapes of their children to be used for illustrations, advertising, and publications in connection with the school. This general release form permits us to tape classrooms and groups of students. For our in-depth observation project, selected parents complete a release form that explains the purpose and procedures of the project.

Parents have full rights to view and discuss the records and request an end to the observations. In the past four years, no one has made such a request. Parents view this project as a unique opportunity to help their children be more successful at school. However, keeping an open and friendly relationship with the individual parents is essential. Parents and students must not feel threatened or intimidated by being observed.

Scheduling/Adjusting Observations.

At the beginning of the observation projects, the observations were scheduled for 15–20 minutes. In some cases, this time was not enough because some behaviors and activities were just beginning to unfold when the recording ended. To eliminate this problem, teachers then scheduled observations for specific activities (e.g., math/science 50 minutes, guided reading 50 minutes). This way one could see the whole activity with transitions to and from it.

Because the observations can only be made when the students are in the classroom, activities that are held outside of the classroom cannot be taped. For example, if the student leaves the classroom for library, gym, or lunchtime, recording is not possible.

Vest Popularity. The vest becomes very popular right away, and almost all students want to wear it to see whether the camera will follow them. The research coordinator allows the other students to try on the vest, but does not record their behavior for the in-depth observation project.

Technical Difficulties. During taping, occasional static and camera tracking problems may appear. These difficulties lower the quality of the video segments. Fortunately, the technology coordinator and the technical support staff from the University of Buffalo's Center for Applied Technologies in Education are able to fix any problems within a short period of time.

For more information about the project, visit <http://www.kingurbanlifecenter.org/>.



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