

What I Learned Recently In New York City Classrooms

How to keep all kids busily engaged at all times

“Class size matters only if the teacher does everything”

By Marc Prensky

[1981 words]

Recently, thanks to a Title 2D grant awarded to the Manhattan Office of Educational Technology of the New York City Department of Education (aka the NYCDOE MOET!), I got to spend four periods per day for two weeks working with kids in elementary and middle school classrooms in the northern part of Manhattan. I hadn’t worked in inner-city schools that intensively for some time, and—since some have criticized my ideas by saying “he should try spending day after day in a classroom”—I was eager to see if spending that time would make me change any of my thinking.

In truth, working with the kids—who exhibited all of the behaviors one might expect—was a lot of fun. Far from changing my mind, a dose of reality (or what the military calls “ground truth”) strongly reinforced what I have been writing and saying about students and teaching. The experience brought back many memories of my teaching days a long time ago in the same general neighborhood, with a strong feeling of “I wish I’d known then what I know now.”

Physically, there was much that hadn’t changed at all in the 40 years. Many of the buildings I went into are old (some over 100 years) and, despite attempts at spruce-ups, most show their age, with the same, caged, green-painted staircases, painted-over cracks, and old-fashioned classrooms that I had [almost] blocked out of my memory. The screwed-to-the-floor desks and

seats I dealt with in the late 60's (with inkwells!—in high school!) had been replaced by moveable furniture (progress!), but most rooms were still overcrowded and, on a 90 degree day, without air-conditioning. The window shades often didn't work. Many windows still required the heavy poles that once—when one came whizzing past my head—very nearly ended my career (and my life) prematurely. (Of course now I'd like to own one as an artifact.)

But, happily, there were new things in the schools as well—various kinds of technology—which was the reason for my being there. Some rooms had interactive white boards. Others had computers (generally locked up in heavy strongboxes when not in use) or computer labs. The grant I was part of had funded the purchase of a selection of Flip videocams, LiveScribe pens, iTouches, netbooks, cameras, “clickers” and document projectors, all of which could be obtained by participating teachers within an allotted budget. The grant required that each teacher use whatever technology they chose to teach a topic from the curriculum in a more innovative way. The teachers then documented what they did on an online website titled “Innovate My Class.” (www.innovatemyclass.org)

Prior to my individual class visits, I ran two orientation workshops for participating teachers. At my request, each attending teacher brought one or two of their students—the very first time ever in that students had attended a teacher professional development workshop at the Manhattan Office of Educational Technology. (As an aside, making this happen was not easy. Some principals refused to let their kids out, even with teacher chaperones. One student brought his parent.) At the workshop, after being introduced to the equipment, each teacher/student team documented on video what they planned to do. The kids particularly took to the Flip cams and the smart pens. Everyone enjoyed and benefited from the students' participation.

After the equipment arrived at the schools, my ongoing role in the grant was to show up in each participating class for a period to help each teacher get going. Since every class's project was different, and some classes had begun using their technology before I arrived, I focused on the documentation side, training some kids to take videos and getting all the kids recorded individually on video for a “baseline” experience. (Teachers are required to get permission slips from parents before videos of students can be uploaded.)

The results were terrific. All the classes went well, and the individual videos of each kid were a joy to watch. The kids all enjoyed the experience, and learned, from seeing themselves on video, a great deal about presenting themselves and their ideas to others. Before the end of the year the teachers will video the kids again talking about their finished projects, and compare

the before and after videos. The videos of kids with parental permission will go online, and some of the graduating students will get to take their videos home on CDs or flash drives as memories.

Here are some of the things I learned from this project:

1. Having students attend technology-oriented professional development workshops works. In fact, as a result of the success, the Manhattan Office of Educational Technology extended teachers' bringing students to workshops to a number of other professional development days.
2. Even with orientation sessions, a number of technical lessons still had to be learned on the fly in the classrooms. For example, the Flip Cams received were a later model than the ones originally ordered, and the newer cameras took only hi-definition video. This was great for watching the kids, but it meant that additional software had to be added onto the computers (additional classroom time), and that the video files were larger than anticipated (additional uploading time). Our early attempts at making the videos in class taught us all that more light and louder speaking voices were needed for the cameras we had. (We also learned that it would be a good idea, in the future, to order video cams with an external mic port and buy inexpensive tripods.)
3. To maximize the presence and sound we shot full face close-ups, which looked great in high-definition. But although the kids were eager and excited about making the videos, when doing the recording many became self-conscious, fidgeted, mumbled or showed their nervousness in other ways. I learned the importance of reminding the kids beforehand about being close to the camera, speaking loudly, smiling and not fidgeting. Soon they began reminding each other.
4. In the classes I visited, many of the teachers had adopted the policy of letting their most knowledgeable students be in charge of the equipment. Typically, those students were quite effective at solving any problems that came up. Classes where the teacher could say "[student x], please set up the projector (or smart board)" or "Please reboot computer number 12," typically went far more smoothly than those where the teacher was the one doing all of the tech work.
5. To ensure that we had time to record all the kids, we kept the video interviews very short, typically 15-30 seconds. We had student

assistant directors who asked for “Quiet on the Set” and directors and camera persons who called out “Action” and “Cut.” In some of the classes, I interviewed the kids about their passion (i.e. what they “really liked”). In other classes students read their own poems, described stories they had written or performed original skits on topics in the news. I gave each student and team very quick coaching as to how to look better on camera. When we had time, almost all students quickly improved in “Take 2.”

6. Despite everyone’s best efforts, the technology often didn’t function exactly as planned. The internet connection in the school or classroom was sometimes down or slow. The netbooks that were available were not always fast enough for the video. New software was unexpectedly required, taking time to load and requiring restarting the computers. Speakers were often the biggest problem: in many places there were no speakers that “belonged” to the classroom. Teachers had to borrow a set from another teacher or coordinator somewhere else in the building, which meant losing additional time. In the age of multimedia and video, when good speakers cost so little, it seems silly for them not to be a permanently mounted part of every classroom. (This was one benefit of the interactive white boards, when they were available.)

Class Size

In my earlier class visits, when I was personally conducting all the interviews, class size mattered a lot. When a class had only 12 kids (as some Special Ed classes did) we could easily get through the videoing of all the students and the viewing and discussion of all the videos in a period. But when there were 30+ students in a class, it was hard to get through even the recording.

However, we also found strategies to overcome this. A great many kids volunteered to do the videography, and showing them the basics took only a minute. Once students saw how I interviewed, they could do it too, so we could have multiple interviewers—and interviews—simultaneously. A larger class could have 2-4 video sessions going in parallel, meaning much greater throughput and shorter waiting times for the students.

This generalizes, I think, into an important lesson about class size: *Having smaller classes matters most when the teacher is doing everything, and is therefore the bottleneck for reaching all the kids.* In classes where peer-to-peer and other types of instruction are going on, larger classes are often less of a problem.

My Best Idea

The best idea to come out of my visits, however, has to do with motivating the kids. Much as was true in my old teaching days, many (perhaps even most) of the students were not terribly self-directed towards learning. When not given a specific task or assignment, and when asked to quietly wait their turn to be videoed, they had trouble controlling their energy, and would, at any opportunity, do something else (talking, playing—all the usual stuff.)

A solution occurred to me, though, that I would use if I were teaching daily, and that I recommend to all teachers. In almost all the classes, I asked the kids about their “passion,” or main interest, and just about every kid could readily tell me immediately what it was. For many kids the passion was a sport. For some it was music, or drawing, or dancing, and for a few it was a school subject.

So, building on what I wrote in my new book *Teaching Digital Natives* about “putting people and passions before content and classes,” were I teaching I would require that all my students, whenever they had “idle” time (as often happens for a variety of reasons) spend that time focused on *increasing their expertise about whatever their passion was*. The sports fans could carry around newspapers and learn stats. The singers could learn lyrics; others could be carrying around small articles or biographies of stars in their field (say printed out from Wikipedia) to read.

Although some might argue that kids should be spending *all* their school time focused on the curriculum, it also makes sense to encourage them to, at times, focus on what *they* like, and get better at it. Certainly when doing that they will be more highly motivated. They could occasionally demonstrate to others (and to themselves!) what they have learned via questions from the teachers or presentations to the class.

In the end, I was very pleased with the project, and happy to help technology infiltrate even the 100-year-old-classrooms of upper Manhattan. (Of course there are, and I visited, many newer schools as well.) All the kids I met visibly enjoyed using the various technologies. When I asked, all students were clear that technology is an important part of their 21st century learning.

But my final conclusion is this: As we continue to struggle with introducing more and more technology, it is also extremely important that we train our students to self-direct their own learning, so that they can continually make

learning progress, whether or not everything—the technology, the teacher, the weather, or anything else in their life—works perfectly that day. That is why knowing how to continually learn about their own passion is so important.

When all our kids are taught to do this, and actually start putting it into practice, I believe our schools will have made enormous progress.

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