"Good teachers use the clock efficiently; less-effective teachers seem to be used and even abused by the clock, surprised when the bell rings, calling out the homework assignment to the backs of students as they hurry down the hallway to their next class."

All teachers know that the management of time in the classroom is a skill that must be mastered. Good teachers use the clock efficiently; less-effective teachers seem to be used and even abused by the clock, surprised when the bell rings, calling out the homework assignment to the backs of students as they hurry down the hallway to their next class. Proper management of time is equally important when the teacher brings her students to the computer room, of course. In my experience I have found that some of the traditional time-management rules that I apply in the classroom work just as well in the computer room, while others must be adjusted to suit the specific needs of the environment. In this article I will discuss some of those special situations and offer some suggestions on how to deal with them.

I teach in a public high school and middle school, but through various associations and networks I have quite a bit of contact with colleagues who teach at the college level. I have read quite a bit about what’s come to be called the "digital divide" over the last few years, and I agree that all teachers at all levels should be sensitive to the issues relating to that digital divide - inequitable and uneven student access to technology in schools. But the more I talk with my friends who teach in college, the more I am beginning to believe that there is another significant "digital divide," and that is between use of and application of the tools of technology in college vs. the way that students and teachers in public high schools and middle schools use and apply them.
When I go to conferences, meetings or workshops dealing with technology and education - sometimes I attend, sometimes I present and mentor - where the attendees comprise a mixed group of college and pre-college teachers, it often seems that there are two different languages being spoken, two entirely different subjects being addressed. Educators at the college level are often presenting about and discussing pedagogy, web site content, inquiry assignments, and other such subjects. Many of which are somewhat oxymoronic - such as Scarce Abundance, Active Passivity, and the like. Recently I was at such a meeting where the majority of attendees were college teachers, and the agenda was something like that. Two or three of us there were high school or middle school teachers though, and we found each other. We ended up in an excited discussion of: mouse balls. Yes, that's no typo: mouse balls. We were simply comparing notes on what we do when the students steal the mouse balls. We also exchanged ideas on maintenance of hardware, Acceptable Use Policies, software that blocks inappropriate sites on the Internet, and other similar subjects of the nuts-and-bolts variety. College teachers don't seem to have the need or desire to address such issues. Whether they don't need to - that is, that college students just don't steal mouse balls or try to access inappropriate web sites -- or whether they just don't want to, I'm not sure. But what we high-school teachers ended up talking about, mostly, after we got through with mouse balls, was time.

- *How to manage time with students in the computer lab?*
- *How to schedule the extent of a lesson plan?*
- *How to create a lesson or project while taking into account the attention span of teenage students?*

These are some of the items I'd like to deal with, keeping in mind that my preferences, practices, and procedures are those of one teacher in one computer room in one school. The circumstances for other teachers elsewhere may vary widely from mine; what works for me may fall flat under a different schedule, with other students, with different resources.

Time concerns all of us, everywhere, always - but I firmly believe that teachers in public schools are ruled by the clock to a greater extent than teachers elsewhere or even people working in the private sector. Recently a friend of mine, an accountant, asked me how much time I have for lunch, and I answered "Twenty-two minutes." He laughed a little bit and inquired as to how I could be so precise in this measurement. A teacher knows the answer, though: it's not "About a half-hour," or anything like that: it's simply 22 minutes, no more (no need to say, "And no less"). So it is when someone asks me when my workday ends: after I get past the temptation to say "Never," I reply, "One forty-three." Precision. The bell.
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There is no relief from this precision in the computer room, on the Internet. There should be, it seems, for the reasons that make the Internet such a wonderful resource for teaching and learning: the sheer abundance of information, and the exciting prospect of looking for and finding quality web sites that lead to other worthwhile sites. The world's biggest library, all just 18 inches in front of the students' noses. Certainly the clock should be off the wall when we're using such a resource. But it isn't. The bell still rings, and it's going to ring even if the student has just found that perfect site, the document that just begs for close reading and analysis, that gorgeous jpeg image of Seward's cancelled check written in payment for Alaska, or Einstein's letter to Roosevelt, or Jackie Robinson's note to Branch Rickey.

My own experience with the Internet, and everything that I have read and heard and valued about using it for education, has taught me that the Internet is a slow medium. The content requires focused attention; the best material there needs careful analysis, deliberate reading and looking; links to related material should be followed freely, and links from that web site should be followed yet further, with no or little heed to the passage of time. My friends who teach in college tell me that their students can and do conduct online research just that way, so the teachers themselves encourage - even require - their students to research deep and wide. If they don't finish during class time, then they can return to their wired dorms and/or their wired library to continue their work. I encourage my students likewise, but within limits - because the bell is going to ring, and the student may not have a computer at home, or may not be able to access one of the half-dozen computers in the media center, or he may not have a free period during the day to even get to one of those computers in school. So time immediately intervenes in the execution of the lesson. And I find that, after my nice speech about the virtues of close reading and deliberate analysis, I sometimes have to follow up with another one of the opposite variety: please hurry up a little bit, students, because we won't be able to return to the computer lab to continue this lesson, it's booked solid for a week. Whatever happened to the slow medium?
Time Management in the Computer Room

So the teacher must, first of all, plan. She must make a reasonable estimate of the time required for this lesson or that project, and make sure to reserve the computer room for those periods and those days. The planning extends further: The teacher’s estimate of the time required for the lesson had better be close, or one of two problems will arise:

1. **Students might not have enough time to finish.** This might happen even if all peripheral problems do not appear, such as missing mouse balls, balky software, or hardware on the blink. The teacher must provide for a Plan B when students find, legitimately, that they can't complete the assignment as written. This Plan B might include further research using more conventional media, or it might mean truncating the lesson as elegantly as possible and salvaging what you have.

2. **Students might have too much time.** Did I say "might"? I should have said, "will." This simply always happens. There are students who, despite the standard speech about slow learning, get themselves into a hurry-up speed right away and move through even the most complex questions as if they will be rewarded for being the first to finish. The teacher will often find that the work presented is slipshod and incomplete, and return the student(s) to the lesson to dig deeper and farther. Then there are students who will simply apprehend the information more easily, work through the documents quickly but thoroughly, and otherwise work faster and more efficiently than others, and still produce work of high quality. In this case the teacher had better have a Plan B, also: send the student on further, perhaps with that dreaded incentive of "extra credit," for more research on a related topic. If the lesson is on the Emancipation Proclamation, then get back in there and show how the EP became the Thirteenth Amendment, or how it changed, and who was involved, and how long it took, and so on. The teacher shouldn't be grasping at straws here or ad-libbing but should be prepared with what are often called "Extended Activities" that often come at the end of pre-packaged lesson plans. That's why they're there.

"Thirty to forty minutes maximum at the computer seems to be a rough guide for productive work. After that the teacher, so newly proud of now being the "guide by the side" rather than the "sage on the stage," becomes now, simply the Babysitter: imploring students not to stray to their favorite sites for entertainment, gaming, music, or other assorted off-task amusement."
Then I wrote a second, more complex unit, and then a third one, even more challenging. I used different web sites for each, while still listing the others as peripheral, secondary resources for the students. I tried to mix up the media, too, basing one unit on a web site that was mainly text and another on a graphic source. This little "bunch" of sources and lesson plans served me well this past semester. I found that the units could be used individually or as a group, that the time planned for the computer lab could be adjusted flexibly, and that I could keep all students challenged and continuing to pursue good research and produce quality work while moving up the ladder from one unit to the next.

My approach to the management of time in the computer room has changed over the years. My school is on a block schedule in which many of the periods are 63 minutes long. Years ago I thought that roughly an hour in the computer room, on-task, researching and reporting, was an interval of time well-suited for this kind of work. I soon changed my mind, as I have found that the attention-span of teenage students will not allow that kind of time in front of the computer. I am not well-versed in educational psychology, but my experience and observations tell me that students, no matter how well motivated, educated, stimulated, and challenged, will not sit still for an hour and focus on difficult material. In contrast, I find, somewhat to my dismay, that the rule of thumb might be the opposite: the shorter, the better. This has been confirmed by other teachers who are experienced in using the Internet with their classes frequently, who have had good success. Thirty to forty minutes maximum at the computer seems to be a rough guide for productive work. After that the teacher, so newly proud of now being the "guide by the side" rather than the "sage on the stage," becomes now, simply the Babysitter: imploring students not to stray to their favorite sites for entertainment, gaming, music, or other assorted off-task amusement. This posture of nagging, threatening, and punishment is to be avoided at all costs. I would much rather plan and execute a short, successful, online unit, perhaps leaving the class a little bit curious and asking to continue on, than have to be the teacher-grouch, trying to squeeze every last bit of meaning out of every last document. The teacher is still in control, and she can always return another time to a subject that wasn't quite completely covered. So, if I have a short lesson plan such as a webquest, intended for coverage in one class period, I will spend the first 10-15 minutes with the computers off setting the context and discussing our research objectives, the next 30-40 minutes online, and the last 10-15 minutes of class discussing what we learned. If this sounds a lot like the old teacher prescription of "Tell 'em what you're gonna tell 'em, tell 'em, and tell 'em what you told 'em," well, perhaps it is, but it works well for me.
Time weighs heavily on teachers and students in the public school, and that seems to be true in the computer lab as well as in our more conventional classes. Many of the pitfalls that teachers at the college level seem to be able to avoid nonetheless affect us regularly. All the more need, then, for careful forethought and scheduling. With good planning, anticipation of potential pitfalls, and lesson plans that are pedagogically sound and at the same time written with the clock in mind, teachers can make time their ally.
About the Author:

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Links and Resources

You don't have to read Piaget's seminal work The Child's Conception of Time in order to begin to grasp the issues of attention span, the school bell-schedule, and on-task time in the computer room. What teacher, after all, has time for such in-depth pedagogy? Chip Wood's book, Time to Teach, Time to Learn: Changing the Pace of School, is a good introduction to the subject of how teachers do and should manage time in the classroom. Some of his ideas are presented in an online interview at http://www.education-world.com/a_issues/issues058.shtml. An article of Wood's titled "Time and Reform," is at http://www.responsiveclassroom.org/feature_5.htm. The educational journal "The Responsive Classroom" (http://www.responsiveclassroom.org/) is helpful for concrete, hands-on discussions of in-classroom issues and problems, including time, pace, and scheduling. Education World has many articles on classroom management, scheduling, the efficient use of time in school, and many themes related to getting started on the Internet for teachers: http://www.education-world.com/technology/tec_teacher.shtml. Harry Wong gives good advice on classroom management; see his interview in Education World, http://www.education-world.com/a_curr/curr161.shtml. On block scheduling, see http://www.education-world.com/a_issues/issues013.shtml.