As a lead-in to small group discussions of teaching, this paper describes some of the teaching techniques that can be used to engage students in the absence of technology. Teaching, whether it includes educational technology or not, is still only as effective as its ability to engage students' intellects. Among the aspects of teaching that help engage students are the energy level of the instructor, voice volume, movement, relating the material to students' experiences, and other techniques designed to attract and hold attention. Examples of such techniques are given for experimental, educational, and introductory psychology classes. (SLD)
The Best Things in Life are Free:
Active and Participatory Learning for Less than $1

Kyle Snow
Christopher Hakala

Wilkes College

Proceedings of the Eleventh Annual Conference on Undergraduate Teaching of Psychology
(Ellenville, New York, March 19-21, 1997)
An ironic series of events is unfolding in academia. The public has become increasingly concerned with the accountability of colleges and universities, demanding higher quality educational experiences. At the same time, most colleges and universities throughout the country are struggling with increasingly limited resources. It seems that at the same time that the public is crying out for more effective teaching they are making it more difficult to achieve by restricting the availability of funds. While limited financial resources do have obvious effects on some aspects of teaching, for example, the availability of classroom technologies such as computers or multi-media equipment, this does not, and should not, translate into a prohibition against effective teaching.

"The best things in life are free." This is a proverb not immediately associated with college teaching. However, throughout history educators have shown it to be applicable. Socrates had nothing more than a circle of benches, an attentive audience, and great understanding of teaching. While times have changed, and we do not presume that we are like Socrates, the basic truth is clear: teaching, whether including computers or projection video systems or satellite uplinks, is still only as effective as our ability to engage our students' intellect, their minds, their imaginations, their emotions, with the material. The challenge is to do so without the "bells and whistles" of modern (and in some cases prohibitively expensive) technologies.
We designed this workshop to strip away all the hoopla about technology and recapture the essence of what we try to do in the classroom. Engaging students requires skills which take quite some time to acquire, even though from the start we understand the basic requirement: involvement with the material, preferably in ways that they can see, feel, touch, hear, or smell it. While acquiring these skills does indeed take time, practice, and patience, it seems entirely likely that in the context of the Nevele conference the group can indeed impact the whole, by pooling its collective creativity and energy, experience and success. What we have in mind today is a taking a dip into this pool of ideas and experiences. Some of us are used to being in the shallow end would like to tread more water, while those who have gone in over their heads may well be able to regain the surface.

What we would like to do is spend just a little time laying out some of the "process" which we have found useful when it comes to trying to achieve active and participatory learning. This will serve, as they say in the trade, as the theoretical overview, although it is more trial and error than theory. After this brief indulgence we would like to split the room into groups and facilitate an idea exchange, urging groups of faculty with the same course work to get together and exchange some of the things which have worked and not worked. After that we will
reconvene and tackle the behemoth known as "Introduction to Psychology."

Following this brief introduction we will ask participants to break into small groups based upon several specialty areas of psychology: (1) developmental and educational, (2) clinical, abnormal, psychopathology, (3) social and personality, and (4) cognitive and physiological.

For my part, I would like to begin by saying that for most of this workshop, we are going to focus on participatory learning. That is, learning that is oftentimes obtained by students actually interacting with the material. However, there are those unavoidable times that we all face in which we must lecture. My section of this workshop will be to deal with those such times.

I would like to stress that I believe that a low tech class can be as engaging as one that includes all of the bells and whistles that Kyle talked about. Further, I think that for each of us who indulges in such extravagances (myself included), it is a useful exercise to try to teach a class period without these aids. I would venture to guess that if one were to take this challenge, he or she would quickly realize that we often use technology as a crutch to assist us in the educational process. This crutch is not a negative crutch as one often thinks. Rather, it serves to support our teaching and to strengthen our ability to explain concepts to students.
However, as Kyle pointed out, for many years, these crutches did not exist, yet strong teaching did. What is the key to that teaching? How do you engage students in an intellectual discourse without relying on fancy technological strategies? As a relatively new teacher, I often find it challenging to get students interested in cognitive psychology (as an aside, I often find it difficult even when I have technology on my side). However, I believe that the key to strong education is the engagement of students with material. Research clearly shows that attention and elaborative processing are vital for the formation of long term memory traces. If students are not willing to attend or to work with material that is presented to them in class, they will not form the necessary memories for learning to take place (an issue for another time). So we are back to the question of how one goes about ensuring that students are engaged in the material.

For example, I tend to use standard techniques in my class. I vary my intonation and volume (although students would say that my volume goes from extremely loud to just very loud), I carry a yardstick to point at things and occasionally, while making some important point, hit the desk, I ask students questions at random to make sure they are paying attention, I monitor the classroom (an important skill. that is, keeping an eye on things. Making sure that students are looking at the board and taking notes rather than sleeping or talking to their neighbor), I try to make the discussion interesting by introducing tidbits about the
psychologists we talk about, I relate personal experiences that are relevant to the discussion, I get to know my students by name, etc. However, there are still times (many, in fact) in which my students look bored, disinterested and distant. What strategies do you folks use to engage students? How do you ensure that they are paying attention during class time? Do you acknowledge the tedium that is the modern educational system? If you had no access to technology, could you still engage your students? While in this discussion period, I think it would also be good, besides talking about demonstrations, etc., to discuss the idea of how we keep students engaged. What strategies do we all use. I told all of you some of the strategies that have been effective in my classes. What about the rest of you? Are these worth sharing or are they tied to individual preferences?

Examples of behaviors that help keep students on task during lecture.

**Learning Experimental Psychology (junior/senior level course)**

1. Examples
2. Energy level of instructor
3. Loud voice
4. Movement around the classroom
5. Activities
6. Information is interesting to professor
7. Waiting for answers rather than simply answering
8. Tying information to what students already know
9. Anecdotes
10. Class experiments
11. Approachability of professor outside of class
12. Descriptions of researchers
13. Getting to know students' names
14. Less structured classroom environment
15. Breaks during long classes
16. Professor's enthusiasms
17. Professor's knowledge

Educational Psychology (mix of students who want to be teachers)

1. Interaction between students and professor
2. Likability of professor
3. Varying of classroom routine
4. Humor
5. Feeling that professor wants students to learn
6. Voice intonation
7. Movement around the classroom
8. Ways the instructor handles interactions with students
9. Anecdotes
10. Enthusiasm for content
11. Tying information to content
12. Pacing through material
13. Eye contact with students
14. Learn students names

15. Mini discussions during lecture

Introductory Psychology (mix, but mostly freshman)

1. Interest in material
2. Movement around the room
3. Relate subject to the students' life
4. Caring if students learn
5. Information beyond the dry subject
6. Interpersonal skills
7. Real life experiences
8. Approachability of faculty
9. Knowing students names
10. Eye contact
11. Ability to find good in any student answer
12. Variety of subject matter in course
13. Interaction with subject material
14. Love of what they do
15. Punctuality
16. Personal experience
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