Proper use of the blackboard in teaching

Grégoire Scano
CS 561
Computer Science Department
Illinois Institute of Technology
Chicago, Illinois 60616
gscano@iit.edu

Abstract—If the blackboard is one of the oldest teaching tool after speaking and didacticism, it was only introduced in the classroom during the 19th century, and its proper use remains difficult. Focusing on large groups, more than 30 students, this article gives tools and techniques to teachers in order to be more efficient and thorough in the classroom.

Blackboard, Teaching, Methods

I. INTRODUCTION

Teaching to large groups is often done using PowerPoints instead of whiteboard even if it has been proved that information retention is more important with the whiteboard than with slides. However, using the whiteboard properly is not easy as it involves a wide range of active skills including positioning and speaking.

In this article, we first analyze in which context the blackboard is useful and what should be the general structure of a course using it. Then, we focus on the organization of the static content as well as its active representation made by the professor.

II. WHEN USING THE BLACKBOARD

For actual students and teachers, the blackboard is a privileged knowledge transmission space, not the only one though, but the most popular as every classroom has at least a board. However, its use is not mandatory and should be wisely considered when it comes to the following issues

- an idea should be quickly spread among a large audience
- a broad view of a certain topic is given
- bring new knowledge before moving on to exercises and activities

III. STRUCTURE OF THE COURSE

The structure of the course should be clear and pertinent for the professor and for the students. As the blackboard is a limited space the structure should always be visible to identify the advancement in the topic. Throughout, the examples have to be chosen properly being relevant with the topic in terms of techniques and definitions. If two techniques were explained, take an example which can handle both so as to make a smart comparison between them. In addition, the course may appear to students as challenging and appealing in order to increase attention and active participation.

The course should start by a brief recap of the last course topics and end by a summary of the accomplished work. It should be focused on one main subject explained into points developed during 10 to 15 minutes in average. Pauses between points are welcomed allowing students to release their attention, digest the previous subject and be ready to move to the next one.

IV. ORGANIZING THE CONTENT

Parts of the blackboard should be clearly identified in term of purposes. The goal is to provide a continuous structure which evolves as a smooth process, having student barely notice that the content of the blackboard is changing. As examples, the left most part could be used as a reminder for definitions while the right part could be a scratching zone to give detailed explanations. Thus, there is a distinction between the on going content, the past definitions and the detailed information.

On each working area, the text should be written in upper case and in large character as close as possible to a lined text. Divide each area in columns if you need and use them from the left to the right.

Schema drawing and plotting as well as underlining important words can be nicely done using a wide range of colors.

V. PERFORMING

Performing is essential because it still is the main stream, using the blackboard as a tool. The orator should not be driven by the tool and remain the central part of the lecture. Though, being a good speaker is not easy but a professor can improve his skills following some rules such as:

- being active, passionate and intensive always attract the audience and gives
- writing straight and big enough so everyone can clearly see
- as well as speaking loudly to be heard by all
- repeating important words and concepts to be sure they are noticed if not understood
- looking to the audience makes the presentation less impersonal
- moving accordingly not to hide parts of the blackboard and keep the show active
- and figuring out when something is not going well to stop and go over once again
VI. ACTIVE LEARNING

Because learning is an active process, the students should be given the opportunity to think and build their own understanding of the concepts. For that purpose, a lot of techniques can be used, including multimedia, and will be briefly discussed here.

A. Asking questions and being asked questions

Asking questions to the crowd is a good feedback and attention measurement. Often, no one seems to willingly ask question and thus the professor has to make students comfortable with speaking despite being intimidated. In addition, a good practice is to wait 10 seconds after asking a question before expecting a first answer. When asking questions, one can

• ask a multiple possible answer rather than a one right answer question because it allows student to be creative as well as the teacher to vary his answers
• ask students to take a side in a range of suggested positions, having they explain their choice
• have other students to answer other students answers

Emphasizing the fact that students can ask question whenever is a good measure. A teacher can even let time to plan questions before having a question session.

B. Last minute survey and most fuzzy point

At the end of the class, a professor could let sometime to have students fill a form about

• the most important point they just have seen
• what question is still no answered ?
• what is the most fuzzy point raised during the course ?

VII. CONCLUSION

To conclude, blackboard courses are still widely used despite the rise of PowerPoint presentations. When considering making a course, a professor shall take a support or divide his course in several parts using different media, according to the extent of a blackboard course.

REFERENCES