# Student Involvement in the Class

**M. Nazrul Islam**
Email: islamn@farmingdale.edu
Security Systems, State University of New York at Farmingdale, 2350 Broad Hollow Road, Farmingdale, New York

**Abstract:** The main objective of teaching is to get the students learn the topic and train them for real life. Different Professors employ different techniques and methods to teach a class. Most of their focus is to make the lecture interesting, illustrative and elaborate. But it actually does not matter how much effort a Professor puts to developing the lecture materials if the audience is not paying attention to the lecture. The audience in this case is very critical, because they are not usually motivated. Though the students are paying their tuition, but their main objective is just to get the degree or simply a certificate which is not more than a paper. In many cases, they just take a course because it is required, not because they like it. That is why many students would opt for online courses where they don't need to pay much attention to any lecture. It is a common scenario in any classroom that some students are sleeping, while others are starring with an innocent face. Therefore, it is the main challenge of a Professor to draw sincere attention of the students and get them engaged in the class. From more than a decade of teaching experience, the author has developed an efficient teaching methodology which not only presents the material in an interesting way but also gets the students involved into the topic. It includes interactive power point presentation slides with lots of animation and illustrations. The author does not depend only on the electronic media but also uses traditional white/black board for further elaboration and explanation. However, the main focus is given on the involvement of the students through a number of activities in and outside the classroom.

## Introduction

Education is the process through which we transmit our knowledge, experience, skills and values to our future generation. For this purpose, we bring them to the academic institutions which include schools, colleges and universities. To make the process standardized, we deliver the knowledge in the form of a curriculum along with a degree or certificate which proves that the person has acquired the knowledge or training. However, this learning process has been in many cases too much mechanical and commercial that ultimately the graduates are only getting a paper but not the knowledge. Academic professionals have been involving in research to find out the shortcomings of the current process and proposing solutions to several limitations and problems. Besides social, cultural and financial problems, the major concern lies with the teaching methodology which involves not only the teachers but also the academic administration. Teachers have the responsibility to guide the students efficiently through the journey of learning and for this purpose they need to have proper training, continuing education and research. But the main quality requirements for a good teacher are motivation and responsibility. We can only come up with some guidelines, but it is the teacher who will develop his/her own style of teaching. Teaching is a creative work, no matter what you teach whether art or technology. So a highly knowledgeable person is not necessarily a good teacher. It is also the responsibility of the administration to ensure the quality of teaching and to provide all kinds of support to motivate the teachers towards developing an excellent academic environment.

The objective of this research is to analyze the reasons for the students not being involved in the class. It investigates different teaching methodologies and concepts in drawing the attention of the students. The goal of the paper is to propose an efficient design of a lecture which can involve the students actively in the learning process.

## Student Motivation

The whole academic practice is focused around the students. Before we even design any learning methodology, we need to study the students, their motivation and objectives. We wish to expect that the students are attending the academic programs to learn a topic and get trained for real life. Unfortunately the reality is not the same as we, both the teachers and the parents, expect out of this group. An analysis on the student motivation yields the following observations.

(1) Majority of the students attend an academic program just to get the degree so that they can complete the courses without much effort but at the end get a decent job. If we talk to the students on a college open day, we find them asking two common questions – whether this program requires lots of mathematics and science and what the job market is. These questions are very natural and logical; but it becomes a concern when these factors work as the main driving force for the students while they remain away from the actual learning objectives. They choose a course not because it is interesting but because it is required. As a result we don't find them involved in the class.
(2) There are even worse students who don't have any motivation or they are not even concerned about study. They are primarily driven by their friends or parents.
(3) Of course there are students in any class as we expect them, who are motivated and responsive. Most of the teachers get encouraged when they see someone in the class feel interested and participate in the lecture.

## Teaching Approach

A teacher in any class needs to deal with the above three groups of students. Some teachers focus on the motivated students because they enjoy interactions. But then you are ignoring the majority of the class who are already non-attentive and will further lose any hope from the class. On the contrary, if we pay attention to these groups of students and ignore the motivated group, they will get frustrated. Therefore, a teacher needs to have a balanced approach and be open to both the extreme groups.

## Teaching Methodology

Teaching methodology should include the following components.

(1) Delivery of lecture
(2) Information and materials for learning
(3) Assessment of learning

**Delivery of Lecture**

Delivery of lecture includes the technique used to teach, interaction with the students and getting their feedback. The traditional technique to teach is the use of a black or white board. Many of the senior teachers always opt for traditional board because of the following features.

(i) When you write on the board, the students are required to copy the materials on their notebooks. In this way, they are brought into the topic which helps them learn.

(ii) It involves lots of physical movement on both the teacher and student's parts which helps the students get involved in the class rather than sleeping.

However, we cannot ignore the advantages of technical facilities in delivering the lecture using multimedia. It offers a number of features which are difficult or even impossible with a board.

(i) It is much more efficient because you can present lots of information along with data and pictures in a rather short time. For example, if you are going to draw a block diagram of computer architecture, it may take the whole class for the teacher to draw first and then for the students to copy it.

(ii) You can present additional photos and pictures which are very helpful.

(iii) You can add audio-visual presentation which will draw more attention of the students.

(iv) Colorful presentation slides along with proper animation can make the lecture very interesting.

(v) Students can get copies of presentation slides and so don't need to spend time in mere copying them.

A survey was carried out on different aspects of teaching methodology on a number of students selected from freshmen as well as senior levels. Figure 1 shows a statistics on the two techniques of lecture delivery where the data on each vertical bar shows the percentage of students voting for an option showed along the horizontal line with 1 for strongly agree, 2 for agree, 3 for no comment, 4 for disagree and 5 for strongly disagree. It can be observed that the students voted more for multimedia presentation than for traditional board. However, it should also be noted that they don't like a lecture presented only on multimedia. The limitations of multimedia presentation are as follows.

(i) Some teacher presents lots of information in very short time so that students cannot follow.

(ii) As they don't require making copies, they may sometimes lose concentration.

(iii) Improperly designed presentation slides cannot draw the attention of the students.

(iv) Now-a-days presentation slides are available to the teachers along with the book, which makes many teachers not to put much effort in developing a lecture.

Therefore, a well-designed lecture needs be delivered employing both the techniques. Here follows some recommendations in preparing for a lecture.

(i) Every teacher should make his/her own presentation so that he/she is greatly involved in the topic what is being presented. If the teacher is not involved, how can we expect the students to get involved?

(ii)      A slide should not contain too much information, especially, no large sentences. Only terminologies and bullets are to be on slides, while the detail discussion should be made by the teacher in the class using black/white board.

(iii)      Proper animation helps make the presentation easy to follow. Instead of presenting all the information and picture at a time, make them appear sequentially.

(iv)      Don't throw the board out of the class room; rather use them for elaboration of a terminology or mathematics.

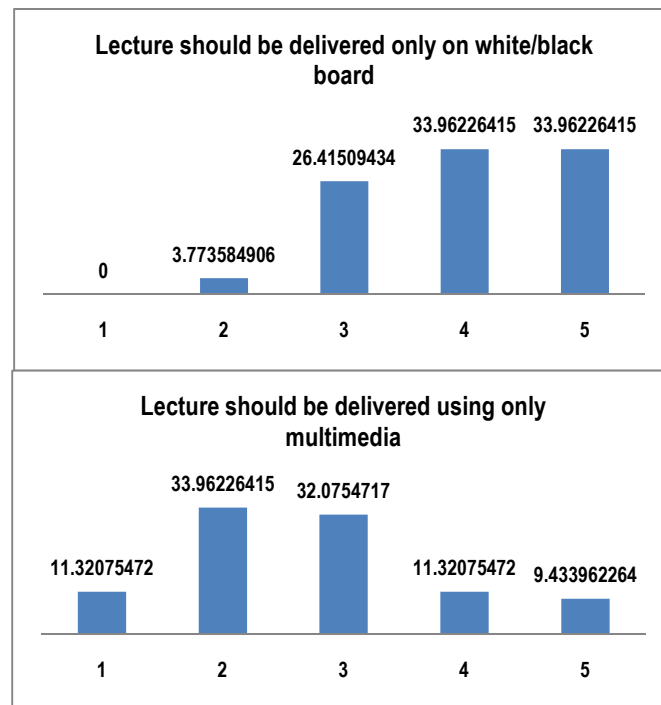(v)      Provide the students with copies of the presentation slides and ask them to take further notes.



**Figure 1:** Survey statistics on techniques of lecture delivery

A major component of lecture delivery is the interaction with the students. If you don't interact with them or make them ask questions, they are definitely going to sleep in the class or get involved to text messaging on their cell phones. They must receive what you are delivering; otherwise it would be the same as talking to trees. The best way to know whether they are receiving anything is to check if they have questions. Now the main challenge for a teacher is to have questions from the students; most of them hesitate to raise their voice in front of the class because they are either shy or not sure if it is a stupid question. Figure 2 shows a mixed feedback from the students in relation to whether they want to be called in the class. Students can be encouraged to ask questions or respond to a comment through class discussion where the teacher may throw an open question. It can be observed from Fig. 2 that majority of the students like class discussion. However, it is difficult to find an open-ended question for a technology class because a question might have only a single answer. So a single or a set of multiple questions need to be designed in a way that everyone can participate and also find interest through finding new answers and ideas.
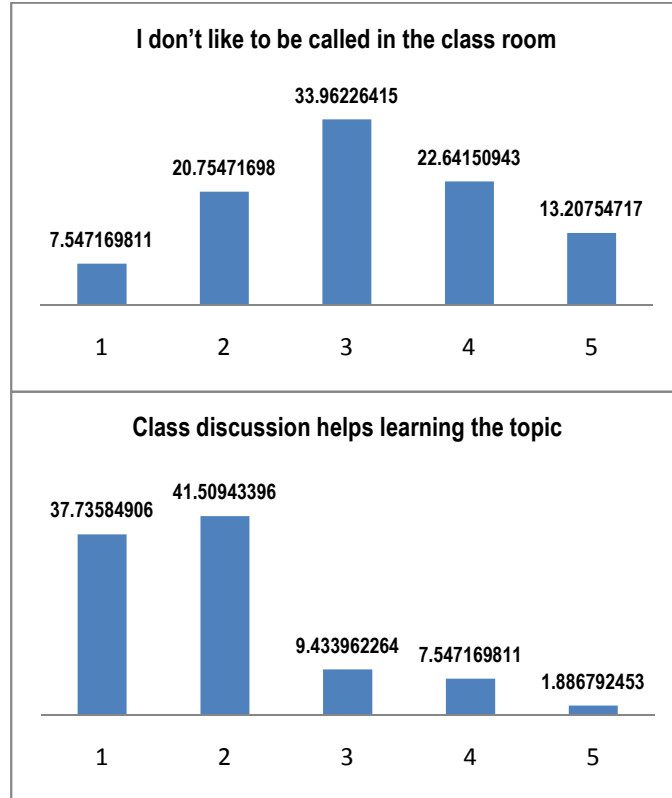
**Figure 2:** Survey statistics on class participation

There will still be students who don't want to speak out in the class, or even if they speak, you may not get the whole picture about their learning. So a teacher should incorporate some mechanism to get a feedback on how they are learning and what topic they have problem with. It can be done in the form of a questionnaire with following questions.

    (i)       What is the clearest topic?

    (ii)     What is the muddiest (not clear) topic?

This process should be done in anonymous form by not requiring the students to put their names because some of them may still hesitate to write something, but they may be welcome if they fell free to disclose their name.


## Information and Materials for Learning

Each class selects a text book and the students are required to buy the book. So the selection of a book in many cases is governed by the price and availability of the book. As a result the selected book might not be the best book for this course. Also a single book cannot provide all the materials necessary for a class. Even if it can, the standard and style of presentation of the topics may not fit the specific student group. Therefore, it is recommended to utilize additional books and materials from other sources, like the Internet, for any course. Figure 3 shows the survey statistics where majority of the students voted against using a single book in the class. Also

technology courses must be accompanied with lab or hands-on exercises and practices. Most of the engineering courses are associated with lab components; however, if a course does not include lab, the teacher should take the initiative to include some lab exercises. As shown in Fig. 3, students get interested in a topic when it is demonstrated along with some practical examples and exercises.
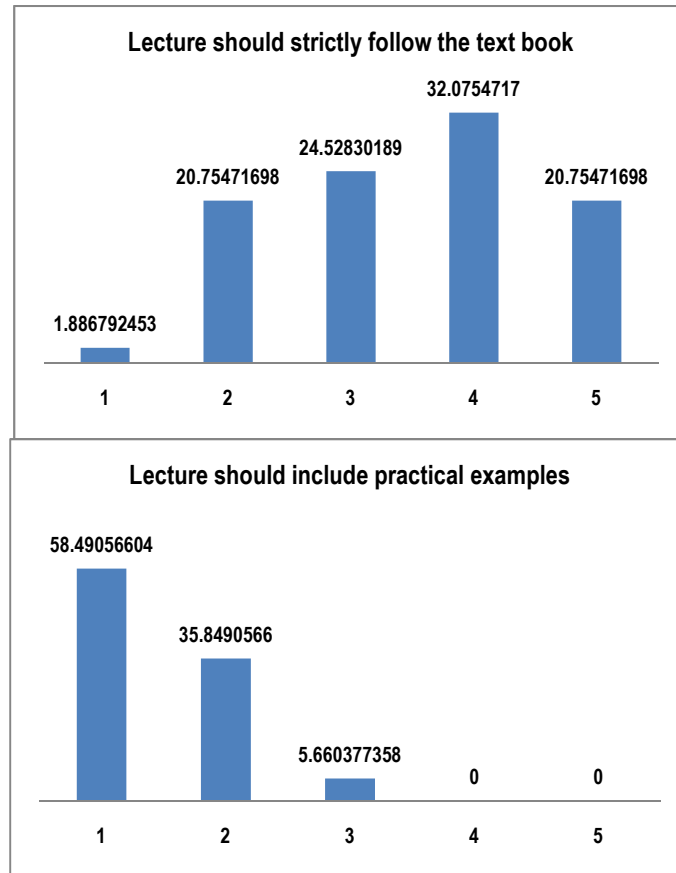


**Figure 3:** Survey statistics on lecture materials and information

**Assessment of Learning**

Assessment of learning can be done through a number of activities, like tests and assignments. A standard practice is to give a couple of quizzes and one or two tests throughout the semester. However, in a technology course, every topic is based on previous topics, which means that the students must learn the current topic in order to follow the next topic. In that case, we need regular assessment of their learning to ensure that they maintain the speed and move along with the class. Students might not like the practice, but a teacher should give quiz and homework assignment every week.

A technology class should also give a project assignment to the students in addition to the senior project. A small project based on the topics of the course greatly encourages the students to go beyond the boundary of the topic. It also trains them on how to become innovative, face a

challenge, organize an idea, solve a practical problem, utilize the knowledge and also to present the work before an audience. You may find a student who was sleeping in the class suddenly became very enthusiastic and responsive while working for the project.

Every class should also be associated with an outcome assessment process. A teacher describes the objectives and goals of the course at the beginning of the semester. Now at the end, he/she should assess how much the students could achieve and also analyze what could have been done to enhance their learning process.

## Conclusion

Getting the students involved in a class is a very challenging task for any teacher. This paper presents some recommendations and guidelines on how to develop a course and prepare for a class. However, the exact teaching methodology should be based upon the specific student group, their background and interests. We have to keep in mind that teaching is a creative work. Mastering a topic is not sufficient for becoming a very good teacher. It is a continuing process of learning, creation and innovation.

## References

[1]  A. W. Astin, "Student involvement: a developmental theory for higher education," *Journal of College Student Development*, vol. 40, no. 5, pp. 518 – 529, 1999.
[2]  C. Ames and J. Archer, "Achievement goals in the classroom: students' learning strategies and motivation processes," *Journal of Educational Psychology*, vol. 80, no. 3, pp. 260 – 267, 1988.
[3]  S. R. Cotten and B. Wilson, "Student-faculty interactions: dynamics and determinants," *Higher Education*, vol. 51, pp. 487 – 519, 2006.