Interactive Education

Dr. Mrs. Jeba Regis P Jebas CELTA, Ph.D.

I wrote this paper several years ago, when I was still a regular college student. Now I have gone through university levels of examination, and when I look back at this paper, I still find some validity in this paper. In other words, our need for interactive education has not diminished, it has only increased. It is also unfortunate that with so many developments in the job market, educational fields, political situation, etc. interactive education is still not embraced fully in all our educational activities including classroom and in our examinations.

Seamless education refers not only to technology and the educational processes but also education that is not confined to rigid structures. Face-to-face education, video conferencing, e-learning, multimedia are the delivery mechanisms of this age. I would like to present some gadgets and some modifications to make communication effective. My objective is to go for the 21st century model involving ‘life-long learning’ through the blending of levelling differences in technology and changes in today’s classroom sessions.

One-on-one and in small groups, most teachers naturally ask thought provoking questions. They foster dialogue between students and encourage them to speak fluently and reflect on their thinking and adjust teaching behaviour as needed. This becomes impractical in larger classes. Even then, most talented teachers resort to lecturing and demonstrating and asking a few impressive questions. The result is mismatch between classroom practice and instructional objectives. Information, answers, memory become the focus of classroom activity and student concern, instead of conceptual understanding, process and reasoning.

Classroom Communication Systems (CCS)

Classroom Communication Systems are technology products which are combination of hardware and software designed to support communication and interactivity in classes. Through use of these products, large ‘lecture’ classes can function more like small discussions. Today, brick-and-mortar universities face increasing competition from distance education and self-paced learning programs. So they must capitalize the fact that they bring students and faculty face-to-face. CCs can help them do that. The University of Massachussetts has made use of CCs since 1993. I think this is an attractive package when it comes to teaching literature students. Lectures will be more interesting and sessions will be more interactive. Teaching poetry, which is abstract will become easier and more effective.

Highlights

A classroom response system is a technology that
- Allows an instructor to present a question or problem to the class
- Allows students to enter their answers into a device
- Instantly aggregates and summarizes students answers for the instructor.

A response system can conceivably be as basic as a button on every seat in the classroom and a readout dial for the instruction showing how many buttons are depressed. CCS is a response system that provides additional support for specific student-active, question-driven, discussion centred pedagogy, such as

- Instantly constructing a histogram of class wide answers for the instructor
- Displaying the histogram to students via overhead projector
- Managing plans and student logins
- Allowing an instructor to associate individual students with their answers.
- Providing the instructor with a map of the classroom that displays student names and question answers by seat.
- Allowing students to answer in small groups
- Supporting integrated creation, management, display, archiving of questions and
- Permitting question types rather than multiple choices.

CCSs are the most impact in lecturer courses (50 or > students) but they can also benefit smaller classes. However, doubts arise in regard to its success in India. It is expensive and its network requires special installation in every classroom. Class Talk was the first popular CCS, begun in 1985 and commercially available from 1992 through 1999. A Macintosh computer as the instructor’s command console, a propriety hard wired network, student input devices each shared by up to four students are its components connecting them. CCCSs are more reliable since students get a clear understanding of their subjects through this way of teaching. Students’ communication and social skills also benefit. Participation in small group discussions primes students to be more attentive and involved in subsequent whole-class discussion. By providing feedback frequently about student’s on going learning and confusions, it can help an instructor dynamically adjust her teaching to students’ real, immediate changing needs.

By having students communicate their knowledge and reasoning in small groups and through class-wide discussion, CCs-based teaching or lecturing can help them sharpen their vocabulary, clarify their thinking, discover gaps, contradictions in their understanding and find flaws in their logic. Verbalized, externalized misunderstandings are easier to dislodge, and analysis of incorrect reasoning makes correct ones easier to recognize. In traditional cases, students tend to ignore questions and comments by other students and only pay attention to the instructor; this tendency is eliminated in CCS-based instruction. All will participate and no one will be left out. Furthermore students are more inclined to speak up in whole class discussions after having first spoken in a small group discussion. Students are more afraid of being incoherent than of being incorrect. By fostering an active, interactive classroom environment, CCs-based teaching helps keep students interested and attentive. CCS classes are popular with students. They appreciate the system’s value for engaging them in the material. They acknowledge that listening to other students’ reasoning helps to clarify
their own. They particularly like class-wide histograms. They like the assurance that they are not alone, even when they are wrong, as well as the perception that they are part of a ‘community of learners’ all struggling with the same ideas. They also find CCs classes more entertaining. Students never doze off during a CCs based class.

Teaching becomes more effective when Classroom Communication Systems are in use. For instance, the student population of Tirunelveli are intelligent and hard-working but they sometimes tend to memorize and mug up their lessons. CCS can help students attain a complete understanding of their subjects. The students of our college are mostly first generation learners and teachers sometimes stoop to the grass level to teach grammar, formulas and the basics of science. CS when used can present a clear idea of lessons in short sentences. Questions are easy to understand and soon students get familiar with the pattern. Instead of installing CCS in every classroom, every department can have one CCS to teach tougher lessons. Access to CCs also promotes access to computer based learning. Students want and desire to have an unlimited reach of information at his/her finger tip. Last year, in Jharkand however 50 ‘shining’ computers had been lying unutilized in one of the schools of the state. The computers purchased through the MP and MLA funds have been gathering dust. The entirely disturbing financial squeeze gets reflected in many of the colleges in our country. But when funds are available people do not make use of it.

However not all can adopt CCS therefore I’d like to suggest an alternative technique proposed by Prof. Joseph D McNair.

The main objective of this technique is to maximize student’s interaction with educational technology. The student will be assigned articles to read for each class. This creates more time for student teacher interaction as the work has been organized. The student is expected to react to the articles assigned and submit a paper consisting of twenty-five words. This paper is called a ‘reflection paper’. The student will also take tests and quizzes online. At the end of the semester the student is expected to submit a digital portfolio of all the work on a re-writable compact disc.

What I have said earlier is already I practice in most autonomous colleges, which offer both possibilities for novel methods as well as possess the necessary infrastructure.

Blending modern technology cannot be well established without adequate human skills. Therefore, human sills must be upgraded. Change is required in today’s classroom. The following pages incorporate modifications in skills like language, listening and group work, which are the important facets of today’s classrooms.

**LINGUISTIC SKILLS**

**The Process of Teaching**

An instructor is someone who guides his/her students into active participation of educated discourses. The process of teaching and learning is continuous and it depends on shared experience...
and joint understanding between instructor and student. Each day’s talk in the classroom forms a part of ‘long conversation’.

A major portion of class time is spent in teaching. Teachers/instructors talk in front of the class and no matter what teaching strategies or methods a teacher uses, it is absolutely necessary to give directions, explain activities, clarify the procedures students use on an activity, and check students’ understanding. The teacher has to get the student’s attention, monitor their understanding by constant checking, clarifying, explaining, defining and summarizing.

For effective communication, the teacher could bear in mind a few classroom practices:

a. Speaking More Slowly
b. Using Pauses
c. Changing Pronunciation
d. Modifying Vocabulary
Eg. “What does the picture show?” is more simplified when compared to ‘What do you think this picture depicts?’
e. Convergent questions
   Eg. How many of you have a laptop in your home?
   Do you use it every day?
f. Divergent Questions
   Eg. How would business function without laptops?
   What are the best ways of promoting use of laptops in education?
g. Questioning Skills
h. Wait time
i. Feedback

These modifications in language increase the instructor’s skills in regard to speech. These techniques are best suited to colleges situated in rural as well as urban areas where first generation learners are prevalent.

LISTENING SKILLS

This applied to the student who needs to develop listening skills for effective comprehension.

The average college student spends about 14 hours per week in class listening (or perhaps I should say ‘hearing’- there is a difference!) to lectures. Students can improve their skills by following some of the strategies below.

Maintain Eye Contact with the Instructor

Of course, students will need to look at their notebooks to take down notes, but eye contact keeps them focussed on the job at hand and keeps them involved in the lecture.
Focus on Content, Not Delivery
If students have ever counted the number of times a teacher clears his/her throat in a fifteen-minute period it means that they weren’t focussing on content. The more a student listens the more he/she learns unconsciously.

Avoid Emotional Involvement
When students are too emotionally involved in listening, they tend to hear what they want to hear – not what is actually being said. Students must try to remain objective and open minded.

Avoid Distractions
Students must not let their minds wander or be distracted by the person shuffling papers nearby. If the classroom is too hot or too cold students must try to find a remedy for that situation. The solution may require that they dress more appropriately to the room temperature.

Treat Listening as a Challenging Mental Task
Listening to an academic lecture is not a passive act – at least it shouldn’t be. Students need to concentrate on what is said so that they can process the information into their notes.

Stay active by listening to mental questions
Active listening keeps students on their toes. Here are some questions students themselves can ask as they listen.

- What key point is the professor making?
- How does this fit with what I know from previous lectures?
- How is this lecture organized?
- Use the gap between the rate of speech and your rate of thought

Students can think faster than the lecturer can talk. That’s one reason their minds may tend to wander. All the suggestions will help students keep their minds occupies and focussed on what is being said. They can actually begin to anticipate what the professor is going to say as a way to keep their minds from straying. They do not have the capacity to listen, think, write and ponder at the same time. But practice does make things perfect In regard to practice, Ed. Macauley has quoted, “When you are not practicing remember, someone somewhere is practicing and when you meet him he will win”.

Common Needs
My paper now shifts to common needs and problems of freshers which might present an insight to issues that need to be addressed by teachers.

ISSUES IDENTIFIED BY STUDENTS
1. Personal Responsibility
In college, students have the freedom to do as they lease … go where they wish … and dress as they like. Unfortunately this freedom is easily abused. The student carries 98% of responsibility and control. They must be curious about a subject and have a thirst to find out more.

2. Class Attendance
In the words of Woody Allen, “Eighty percent of success is just showing up”. College students will decide whether they would want to go to class or not. Being absent will hurt them in the long run. When students are around the other students in their classroom they become confident and make efforts to score better.

3. Teacher Attitudes
Teachers will not hound students to do their work. It’s entirely up to them to take responsibility. Students must get to know their teachers. If they get familiar with them it will be easier for the instructors to look out for them and help them if they have trouble with their lessons. Students must try to stay back after classes and talk with their instructors about their areas of difficulty.

4. Types of Assignments
In high school, students were given homework every-day. Now they have a large task assigned to be done at a certain time. No one tells when to start or what to do each day. ‘It takes a daily effort to keep up’. Once they’ve got an assignment they must start working in it right away.

5. Importance of Performance
Students must not take their courses or studies too lightly. The decisions they make in college will decide their future in some respects. They must remember that they are in an institution to obtain an education. Self-analysis will initiate hard work. Calvin Coolidge has quoted, ‘’Press on – Nothing in the world can take the place of persistence’’.

6. Time Management
The amount of free time students have in college is much more than in high school. They must always have a weekly study schedule to go by. Otherwise time slips and they will not be able to amount for it.

7. Amount of Study
To succeed, students must study. When they communicate with their fellow students they obtain information. A student spends 6 hours in college. The hours spent must be well utilized. He cannot study everything in a day. He must plan and fit every subject into his schedule.

8. Size of Institution
Lecture classes are much larger than school classes. It must not get in the way of their communicating with other students. A student must not shy away from the rest of the student population.

9. Difficulty of College Work and Social Life

College is tougher then school. Competencies are higher but students tend to hide them ad work in secrecy. Sometimes it seems harder to make friends because of the size of the institution. But there are a number of clubs and associations meant for students. I’m a member of the Journal club, the Pathfinder’s club and the Youth Red Cross. I’ve learnt a lot of things for Eg. Hindi Dalit Poetry, about the share market from other student members of the clubs, health, etc.

10. Self-Talk

A student must be confident of his ‘Self’. Unless students are self-confident they won’t step out to communicate with the rest of the student population around them. Students must be aware of what they say. Complaints result in negative attitudes. They must dispute their negative thoughts with a positive statement. Repeating positive statements will help reprogram their minds for success instead of failure.

Group Work

Most students are good at note taking, but they are not used to communicate activities. Pair work or group work enhances communicative skills. But once students get into groups it takes a lot of time to reorganize and get started on the work. As a result, the bell would often ring before students could finish the activities. A lot of time is wasted. Here are some modifications.

- Permanent groups must be set up so that students would always know who they would be working with.
- The instructor must monitor her own instructions to make sure the directions given to students are clear and students can understand what they are supposed to do
- After every lesson, the instructor must take two minutes to write down her thoughts and the reason for its effectiveness or zero results.
- A colleague of the staff can be asked to come into the class and observe the instructor’s class once a month to see how she handled transitions.
- These modifications when brought to effect to effect can produce better results.
- Students get familiar with the instructions. This speeds up work. Every student in the group must do his/her part to produce a total and complete result. The instructor can give instructions for the next activity and the group which has completed the assigned task can discuss the next task, so that they will not be sitting and waiting for the others to finish. An empty desk can be placed in the front centre of the room and students can use this desk to place all the materials that will be needed by the students and the instructor.
Students in our class last were involved in group discussions. We were asked to analyse a character in ‘Cry, The peacock’ and analyse the style used by Anita Desai. The students were late in organizing a group and only one student in each group got deeply engrossed in the activity. The others waited for the girls to finish up the task and in the meanwhile, they chatted. The result produced or submitted in the end, was the effort of only one student in each group. These group works produced zero results. Some instructors are in the habit of selecting group leaders, in other words ‘capable’ students. In such cases, these leaders are doomed to complete every task assigned. And the rest of them spend the entire hour chatting and enjoying themselves. In my opinion, selecting leaders is unwise. Instructors must realize that all students are capable. Every student must take the responsibility for his/her assignment. If doubt arises, they can seek guidance from instructors or their fellow students. Students may adopt the use of their signatures at the end of her assignment to signify the credibility of the work. Before a group session every instructor must insist on.

1. Individual contribution
2. Original copy
3. Signed Papers

Alternative Atmospheres

Students spend six hours every day except Sunday listening to lectures, from the beginning of term. The latter months are spent in tests and revisions. Some lectures may be interesting and some may not. The instructor can identify the nature of the subject beforehand and with prior permission from superiors relocate for the time being into an interactive environment. Botanical gardens are apt locations for students of Botany. Such visits are mandatory for projects. They should also be mandatory to teach relevant lessons effectively. For teaching poetry which is far-fetched students can opt between scenic places or the college garden or even under a tree. This helps to cultivate creativity and originality. Students absorb a lot by observation and so to teach poetry. For example, The Daffodils by Wordsworth in a serene atmosphere would be worthwhile.

Effective communication does not end within the four walls of the classroom. In fact, students acquire life skills under varied environments, often outside the classroom.

Roles Reflecting a Personal View of Teaching

I begin by quoting the view given by my own lecturer, Dr Mrs Jenitha Alpheus: ‘I assume my role in the class is to explain the text clearly – not just from the exam point of view, but also that the students should be trained in thinking for themselves. Also, I think the atmosphere in the classroom is good when students can talk freely with the teacher and learning remains enjoyable’.

Here are some statements from teachers describing their roles:
‘I like to encourage high quality earning in my class. I insist on students checking any work before handing it in’.

I believe students learn best when the classroom atmosphere is focussed and wherever her bright students are not held back by those who don’t want to work’.

I like to keep my lessons flexible so that students can have a choice of what they want to learn and how best to learn it’.

I try to encourage each student to discover what she or he is good at and to help them become successful at it.’

Teachers see their roles in different ways and it may not necessarily be those which are assigned to them by institution or connected to a particular method of teaching.

**Teacher Select Roles**


These roles often overlap each other. A teacher cannot be all things to all people and the teachers role may be subject to change during lessons.

**My Ultimate Observation**

From the students’ point of view I would like to humbly add that ultimately, we learn best by observing ir teachers themselves how they talk, how they move, how they react to situations and so on. There will be no dearth for well turned out students ready to face life’s challenges so long a there are such inspiring teachers around.

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