

Learning communities in university classrooms

Sujata S. Kathpalia and Koo Swit Ling
Nanyang Technological University, Singapore

ABSTRACT

Many social theorists have raised questions about the teacher-dominant pattern of learning in tertiary institutions where teachers structure tasks for individual students. They argue that institutions of learning should not be “a collection of individuals acquiring education independently” but hubs of social activity where the emphasis is on learning through social interaction and personal reconstruction of knowledge (Joyce, Weil, & Calhoun, 2004). With greater awareness of the experiential and social nature of learning, many innovative teaching models have been explored where the information flow is not one-way, from the teacher to the students. The objective of this paper is to propose certain models of teaching that promote critical thinking through active student involvement with teaching materials, peers and teachers. With this aim in mind, the authors would like to present the models of teaching and student-centered activities they have been using with undergraduates in their Communication Skills classes at Nanyang Technological University (NTU), Singapore, to promote active learning.

Introduction

Many social theorists have raised questions about the teacher-dominant pattern of learning in tertiary institutions where teachers structure tasks for individual students. They argue that institutions of learning should not be “a collection of individuals acquiring education independently” but hubs of social activity where the emphasis is on learning through social interaction and personal reconstruction of knowledge (Joyce, Weil, & Calhoun, 2004, p. 203). Therefore the current thinking on education is one of doing away with teacher-dominated patterns and switching to collaborative tasks in order to raise learning rates and simultaneously promote a culture of sharing. This would involve a switch to active learning by replacing traditional style of classrooms to more active and motivated ones using models of teaching where the information flow is not one-way, from the teacher to the students (Joyce, Weil, & Calhoun, 2004; Eggen & Kauchak, 1996). Research based on college education clearly shows that learning rarely takes place passively and to ensure that learning is optimized, it is essential to involve students in their own learning process (McGill & Brockbank, 2004; Halpern & Associates, 1994; Dressel & Marcus, 1982). With greater awareness of the experiential and social nature of learning, many innovative teaching models have been explored in the field of education to develop higher-order and critical-thinking abilities in students. These include information-processing family (Joyce

& Calhoun, 1998; Schwab, 1982), social family (Thelen, 1981; Dewey, 1956), personal family (Rogers, 1982; Maslow, 1962) and behavioral systems (Bereiter, 1984; Becker, 1975; Good & Brophy, 1974) of family models.

The objective of this paper is to propose certain models of teaching that promote critical thinking through active student involvement with teaching materials, peers and teachers. With this aim in mind, the authors would like to present some models of teaching and student-centered activities they have been using successfully with NTU undergraduates in their Communication Skills classes to promote active learning where students are involved in their own learning process.

Models of teaching

There is an abundance of teaching models proposed and used by teachers in different contexts. A simple definition of a teaching model is that it “is a description of a learning environment, including our behavior as teachers when that model is used” (Joyce, Weil, & Calhoun, 2004, p. 25). It is basically a blue print for teaching taking into account the interaction of students to an environment design for optimal learning. Among the repertoire of models available to teachers, there is no model that is superior to another but perhaps one that is more suited in a particular classroom context, depending on the goals of a lesson as well as the subject matter. Some of these models are specific, goal-oriented models that get immediate results whereas others are more broad-based with outcomes that can only be measured over time, after a period of extensive training. Most models have a theoretical basis with varying philosophical and psychological orientations and due to their use over an extended period of time, these models have been refined and adapted to different learning situations. Joyce et al. (2004) have grouped these models into four families:

- the information-processing family that includes models based on *inductive learning* and *scientific inquiry*, focusing on students’ innate ability to make sense of the world around them through concept formation and hypothesis testing;
- the personal family models that begin with the individual learner at the centre of the learning process, who takes responsibility for his/her learning to go beyond his/her present stage of development and master the skill of *independent learning*;
- the behavioral systems family with the underlying belief that learning is achieved through a trial-and-error and self-correcting method in which feedback, whether positive or negative, plays an important role in knowledge construction through *observational learning* coupled with *direct instruction*; and
- the social family with emphasis on *collaborative learning* which leads to powerful learning communities through student cooperation and synergy.

Although the four families of teaching models have been presented as independent models, a combination of these models may be used in different sessions of a course to enhance learning. At times the decision to use a particular

model is clear-cut as it seems to be tailor-made for a particular topic with a specific teaching goal, but the decision becomes harder when two models can be used successfully to achieve the same purpose. To complicate matters further, the impact of teaching models may vary depending on the learning styles of students. Given the different variables involved in learning, the onus is upon the teacher to decide whether to use the traditional “chalk-and-talk” or an inductive method for optimal effect. The goal should be for teachers to master the alternative models of teaching so they can pull out the most appropriate one in the different classroom situations that they are likely to encounter in their teaching careers.

Application of teaching models

Among the repertoire of models that have been used successfully in the communication skills courses in NTU would be the *Direct Instruction*, *Inductive* and *Inquiry* approaches to teaching. Each one of these will be elaborated along with the specific classroom activities designed for our undergraduate students to maximize their learning.

The Direct Instruction approach

The *Direct-Instruction* model which belongs to the family of the behavioral systems is a teacher-centered model in which the teacher takes on the responsibility of introducing and explaining concepts in a structured manner. However, this does not mean that the students are passive participants. In fact, the teachers give them an opportunity not only to practice these concepts but also give feedback on their own performance. According to Eggen and Kauchak (1996, p. 186), the Direct-Instruction model “is a teacher-centered strategy that uses teacher explanation and meaning combined with student practice and feedback to teach concepts and skills.” This definition makes it clear that while both teachers and students play important roles in this method of learning, there is a transfer of responsibility from the teacher to the students as the lesson progresses.

Using the *Direct-Instruction* method, the session can be broken up into four main phases of *Introduction*, *Presentation*, *Guided Practice* and *Independent Practice* (Eggen & Kauchak, 1996). In the first two phases, the teacher taps on the students’ background knowledge on the topic of the lesson, shares the learning goals and presents the relevant concepts/skills along with detailed explanations and examples; in the last two phases, the students are first guided to become familiar with the content and then practice it independently for better understanding and retention. These phases will be illustrated by means of a classroom activity used in a first year undergraduate course, *Effective Communication*. This is a one-semester course offered to all Engineering students at NTU. It is designed to introduce Engineering students to the communication processes, principles and skills that are required for effective communication. Being an introductory course, it covers some essential communication topics of which *Communication Climates* is one. This topic is basically about understanding the emotional tone of a

relationship between people who are interacting with one another (Wood, 2004).

In the *Introduction* phase, the very first task of the teacher is to draw the students into the lesson using interactive strategies. After this attention-getting function is satisfactorily reached, then the teacher introduces the lesson objectives, gives an overview of what is going to be covered in the session and finally, sustains student interest by highlighting the value of the particular lesson to their everyday lives.

The session opens with an exploration of interpersonal problems students may have encountered in their own lives in different situations. After the students are drawn into the discussion of their own problems and as a result, have been made aware of their background knowledge on the subject, the teacher introduces the learning objectives:

Objectives

- To build awareness of different styles of communication—aggressive, assertive and deferential
- To help students to transform defensive communication into supportive communication

The teacher then gives an outline of not only what is going to be covered in the tutorial but also how much time is going to be spent on each phase along with the method employed.

Referred to as the developmental, modeling or input phase of teaching, the goal in the second phase of *Presentation* is to ensure that the concepts are clearly explained by means of examples and demonstrations that students can relate to easily. In the tutorial on *Communication Climates*, the teacher presents information on the different forms of defensive and supportive behaviors (see Table 1).

In order to make these concepts clear to students, the teacher presents plenty of hypothetical and real examples, encouraging students to share their own personal experiences. To further enhance learning, the teacher presents attractive

Table 1

Different forms of defensive and supportive behaviors

Defensive Behaviors	Supportive Behaviors
Evaluation —Judgmental statements focusing on the person, not the issue	Description —Identifying, focusing on the issue, not the person
Strategy —Manipulative behaviors to force the other person to respond in a predetermined way	Spontaneity —Freedom to hear and express ideas, feelings
Control —Imposing preference over others' preferences, winning the argument is more important than finding the best solution	Problem-oriented —Focusing on resolving problems and tensions, coming up with solutions that everyone finds acceptable
Neutrality —Indifference to others' goals, feelings and ideas	Empathy —Caring about others' goals, feelings and ideas
Superiority —Implying others are inferior, less important	Equality —Showing respect, equal footing with others

PowerPoint slides from the resource materials, directs student attention to relevant pages in the textbook which give a detailed description of these behaviors along with negative and positive examples (Wood, 2004, pp. 77–82) and/or even shares cartoons that demonstrate some of these defensive behaviors.

During the third phase of *Guided Practice*, the job of the teacher is to play the role of a coach, providing instructional “scaffolding” in the form of cues and prompts. Specifically, this involves asking students relevant questions and intervening with comments to generate discussion as well as ensuring that the discussion remains focused on the tutorial topic. In this transitional phase, the teacher shifts responsibility onto the students while continuing to provide a supportive role. As a result of this, there is a reversal of roles with an accompanying decrease in teacher talk in comparison to student discussions. Instead of being the information giver, the teacher monitors the progress of the students carefully and gives them feedback at appropriate points to raise their level of thinking and to encourage them to apply the new concepts. In this phase, the students watch a case study video entitled “Cloudy Climate” from the Communication Mosaics CD-ROM that accompanies the textbook (Wood, 2004). After viewing the video which features a heated argument between a married couple, students are asked to analyze the dialogue in groups and are given a list of guided instructions to keep their discussions focused on the topic of study. The instructions are as follows:

Instructions

With specific reference to the case study, in groups of 5 or 6:

1. Identify the climate: healthy/unhealthy; confirming/disconfirming.
2. Analyze the process of conflict: win-win/win-lose/lose-lose orientations.
Highlight defensive behaviors which contribute to lose-lose orientation.

Each group is asked to nominate a secretary who records the notes of the group discussion. After fifteen minutes of discussion, the secretaries present their groups’ responses on the issues of climate, process of conflict and the defensive behaviors apparent in the case study to the class. The teacher intervenes with questions and comments, prodding students if explanations are one-sided or if claims need to be supported further with concrete examples. When all the group secretaries have had their turns, the activity is further extended.

The final phase of *Independent Practice* is when the students are encouraged to apply the concepts they have learnt in a structured classroom activity in the hope that they will extend these skills to real life situations which they may encounter outside the classroom. This phase is very important as practicing is essential for the transfer of these skills and for developing “automaticity”. Therefore in this phase, the teacher instructs the students to rewrite the conflict script in the video (Wood, 2004, pp.94–95) by transforming the defensive behaviors into supportive ones that promote harmony for a win-win outcome. An example of this is reproduced below:

Original Dialogue (Wood, 2004, p.95):

Andy: And I suppose you are? You’re only thinking about what you want.
You don’t seem to give a darn what I want. You’re being incredibly selfish.

Martha: [She slams her hand against the counter and shouts.] Selfish? I'm selfish to care about our marriage?

Revised Dialogue:

Andy: Let's look at this problem afresh from both our points of view and work out a solution that we are both agreeable to.

Martha: Okay, that's a good suggestion. Perhaps we should start by listing the pros and cons of the situation.

To drive home the message, students are asked to enact their rewritten scripts to their classmates. This dramatization gives the teacher an opportunity to monitor the students' learning as well as to diagnose the potential problems that the students may face in their communication with others.

The Inductive approach

As a model of the information-processing family, the *Inductive* approach to learning is grounded in the belief that students develop their own worldview based on information they are exposed to rather than through a ready-made package of knowledge that is delivered to them by teachers (Eggen & Kauchak, 1996). Underlying this thinking is the notion of "constructivism" which places the learner in the center of the learning process. According to constructivism, the learner plays an active role in the acquisition of knowledge but at the same time the teacher's role is critical too, that of a facilitator who guides the learner towards valid understanding of concepts.

Eggen and Kauchak (1996) have identified five distinct but interrelated phases in the implementation of the *Inductive* model. These include: *Lesson introduction*, *the Open-ended phase*, *the Convergent phase*, *Closure* and *Application*. While in the first phase the teacher introduces the activity, in the second phase the students go through the steps or process involved while constructing a variety of meanings. Phase three is when the tutor helps the students narrow down their responses and verbalize the characteristics of the concept and their relationship to each other. Through a process of elimination and convergence, students reach a point when they can clearly define the concept and its key characteristics as well as state the underlying principles, generalizations or rules that they have discovered in the process. Phase four serves the important function of closure when the teacher pulls together all the aspects of the lesson to reinforce the learning goal(s). The final phase is one of application in order to bridge the gap between classroom learning and real-life application of concepts.

An example of the *Inductive* approach would be the tutorial on *Communication Models* in the introductory tutorial of the Effective Communication course. The aim of this tutorial is to introduce the process of communication to the students. In this tutorial, the activity (designed by Assistant Professor Lim Cheng Geok) that has successfully been used, requires students to describe a picture to each other and note what happens to the message in the retelling. Students conduct this activity in groups, and with every retelling, certain variables are added, withheld or altered.

In the opening phase of *Lesson Introduction*, students are told that the tutorial

is on communication, specifically the elements involved in communication. They are then instructed to form groups of 5 and in each group the students are numbered from 1 to 5. All the students numbered 1-3 are asked to leave the room and the remaining students are briefed as follows:

In small groups, you're going to observe Student 1 describe a picture to Student 2, who will describe the picture to Student 3, who will describe the picture to the class. Your role is to observe the interactions and answer the following questions:

- How successfully was the message transmitted? (Note any differences in vocabulary used, presentation of ideas, etc)
- What factors made the communication successful/unsuccessful?

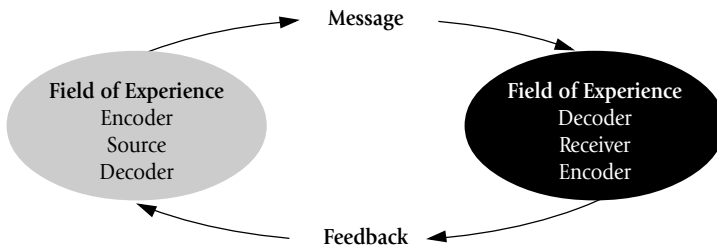
The students are also instructed to take down notes of their observations and to compare the descriptions of Students 1, 2 and 3.

The *Open-ended* phase is the one in which the process of retelling begins in earnest. All the students numbered 1 are called back into the classroom and they are given a minute to observe a picture while students numbered 2 and 3 remain outside the classroom. After that, students who are numbered 1 are asked to join their respective groups to describe the picture in detail to students numbered 2 who are called back into the classroom. They are instructed to listen carefully to the description of the picture by Student 1 in their group so they can describe it in turn to Student 3 of their group who is still waiting outside the classroom and has not had the benefit of listening to Student 1. Both Student 1 and Student 2 are allowed to ask each other questions for clarifications and to check understanding. Apart from that, they are also free to use body language in their exchange. After the retelling is accomplished, all the students numbered 3 are allowed to come into the classroom. They are told that they will listen to a description of a picture from Student 2 in their respective groups and that they have to try to form a clear mental image of the picture based on the description. However, this time round, they are not allowed to ask any questions or use body language. When they are ready, they are asked to describe the picture as they have imagined it to the class. At the end of their descriptions, the picture is shown to all the students so they can compare it to the mental representations they have constructed on the basis of the various descriptions. For this activity to work, it is important to ensure that students outside the classroom (Students numbered 2 and 3) do not overhear the retelling inside the classroom and that Student 2 listens to the retelling from Student 1, and Student 3 listens to the retelling by Student 2 respectively.

In the previous phase the students concentrate on observing how the activity unfolds while noting down their observations. However it is in the third phase, the *Convergent* phase, when they have the opportunity to make sense of their notes and to share their observations with the class. The observers are specifically asked to comment on the effectiveness/ineffectiveness of the communication based on the changes that emerged in the retelling from Student 1 to Student 2 and Student 3. The teacher notes down the differences mentioned by the group observers (Students numbered 4 and 5) on the board to facilitate class discussion. In the interaction that follows students usually end up verbalizing their views on

Figure 1

The Interactive Model of Communication



Source: Wood, 2004, p. 32 (Adapted from Schramm, 1955)

the communicators' field of experience, the symbolic nature of language, opportunities for feedback through verbal and nonverbal language, the channel and the context of communication, all of which are essential elements of communication. The teacher plays an important role as facilitator in this phase by directing the discussion towards specific comparisons between the students in their retelling and ultimately, a delineation of the elements of communication.

The convergent phase leads naturally into the penultimate phase of Closure. The concepts identified by the students are reinforced by the teacher with the help of a slide on the Interactive Model of Communication and the many elements of the model (see Figure 1).

The session culminates with an interactive discussion on the various elements of the model in relation to the experiential activity of describing a picture under different circumstances. It becomes at once apparent to students how communication occurs within systems, whether they are shared systems of the communicators (i.e. their campus, country and culture) or the personal systems of each communicator (i.e. their family, religious associations and friends). In addition, they are able to pinpoint how feedback affected the retelling of the picture descriptions when listeners/decoders were allowed to ask questions for clarifications and when speakers/encoders were allowed to respond to questions and use body language in their communication. This kind of debriefing at the end of the session proves to be effective as students have experienced first hand the dynamic nature of communication. They realize that communication is often bi-directional, not unidirectional; dialogic, not monologic; and above all interactive in terms of verbal and nonverbal feedback as well as shared fields of experience.

The final phase of the *Inductive* method, the *Application* phase, is when students begin to apply lessons learnt in the narrow setting of the classroom to real life situations. Students are given plenty of opportunities during the course of the semester to apply the principles learnt in this introductory session of the course. The important elements of communication such as nonverbal communication, verbal communication, listening and responding are covered in further depth in various contexts of intrapersonal, interpersonal and intercultural communication during the semester.

The Inquiry approach

The *Inquiry* approach belongs to the Information-Processing family and is very similar to the *Inductive* approach in that the primary goal of the teacher is to develop higher-order and critical thinking skills in their students. This is reflected in Eggen and Kauchak's (1996, p. 239) definition of *Inquiry* as "a process for answering questions and solving problems based on facts and observations". In order to investigate problems and questions, the following five steps are proposed: *Identifying a question or problem*, *Making hypotheses*, *Gathering data*, *Assessing hypotheses* and *Generalizing*. The role of the teacher using the *Inquiry* model is to guide the students through these steps as they work towards finding an answer to the research question.

The *Inquiry* model is used in the Technical Communication course offered as a one-semester course to second year Engineering students at NTU. The objective of the course is to teach report writing skills to students using a project-based approach. The students learn how to write the different sections of a report, principally through a group project. In the spirit of this approach, students are instructed to come up with a topic with a technical leaning that is worthy of investigation by experiment or by research. They decide on a research question as a group after doing their own Internet and library search. In order to facilitate this process, library workshops are arranged for the students and they are also given a list of online references for each topic. This helps them along the first phase of *Identifying a relevant research question*. To take an example, one of the student groups that decided to work on airplane wings came up with the following research question and hypothesis:

Research Question

What kind of effect do different wing designs have on the flight pattern of an airplane?

Hypothesis

Different wing designs will have a different effect on the flight pattern of an airplane.

Formulating the research question and hypothesis is a good starting point. The brainstorming that precedes this enables students to examine the topic they have selected from several angles and to come up with several possible research questions on the basis of their many readings on the topic. After they have decided on a particular research question from the list of possible questions, the next step of *hypothesizing* or making educated guesses about possible answers/solutions to that question enables them to identify the important variables and to decide on a method for data collection to test these variables. This exercise takes the student well beyond the inquiry problem; it gives them first hand experience in research skills.

The phase of *Gathering data* involves three sub-steps: conducting the experiment, representing data and analyzing it. In order to conduct the experiment, the students designed the different types of airfoil wings (conventional and laminar) and the body of the airplane using Styrofoam board, malleable metal sheets, paper, aluminum foil and board pins. This turned out to be a trial-

and-error activity as students learnt that the designing of the airfoils required a high degree of precision, especially in the case of the laminar airfoil which has a complex structure. In addition, they discovered that several factors such as the streamlining of the shape, weight and dimensions of the wings in proportion to the body had to be considered carefully. The entire process of designing the model was an excellent learning experience as it taught them the importance of keeping the variables constant and avoiding inconsistencies in the design of the apparatus. The first time they carried out the experiment the plane nosedived into the ground due to inappropriate weight distribution in the overall design. This meant refining the design of the model until it could fly in a stable pattern.

The next two sub-steps involve data representation and analysis of data. With the guidance of the teacher, students are not only able to select the appropriate method of data representation but they are also made aware of the fact that in scientific investigations it is crucial to give explanations for their findings in relation to current theory on the topic of investigation. In the investigation on airplane wings, the students were able to make these connections with some prodding in the tutorial session that dealt with the conventions of different forms of graphics and the conventions of the results section of a report. These conventions were further reinforced in the conferencing sessions to discuss the draft of their results chapter. Their investigation led them to the following findings and comments (see Table 2).

Generalizing, which brings to a closure the scientific inquiry, is the phase when students assess their hypothesis based on their experimental data. On the basis of their findings, the students were able to confirm their hypothesis that wing shapes indeed have a different effect on flight patterns. Specifically, the results showed that the flight pattern is fast and straight with Conventional Airfoil 1, slow and dipping with Conventional Airfoil 2, and fast and circular with the Laminar Airfoil. They were even able to account for discrepancies in the results as the experiment was repeated three times with each design. They were forced to assess the experimental conditions that could have led to the discrepancy and

Table 2

Student observations on wing designs

Wing Design	Observation	Comment
Conventional Airfoil 1	The plane flew at a high speed in a straight path.	The small surface of the wings resulted in less air contact and hence low drag (air friction) and high speed.
Conventional Airfoil 2	The plane flew downwards slowly but the body was still horizontal.	Due to the symmetry and reduced curvature of the wing, the amount of lift produced was not enough to counteract the weight of the plane. The slow speed could be attributed to the high amount of drag.
Laminar Airfoil	The plane tilted at an angle and flew in a circular path at high speed.	High speed was caused by low drag. Tilted angle and circular path could be due to the unbalanced weight of the wings.

they came up with plausible explanations that could have affected the results: the wind speed, the angle at which the model was thrown or the speed of the release. The realization that errors can happen is perhaps the best way of coming to terms with the fact that one has to be tentative when making generalizations on the basis of experimental findings. In addition, it encourages them to explore all the possibilities before arriving at firm conclusions.

Although this is the last phase of the *Inquiry* model, it in fact opens the door for further research possibilities as it gives rise to several unanswered questions. The students investigating the airfoil experiment realized that their research was incomplete as there were so many other aspects that needed to be explored, for instance, how flight pattern is affected by other variables like the choice of materials, angle of the wings, dimensions of the wings (i.e. weight and length) and the forces acting upon the wings. This sets the stage for more research and the realization that research is a continual process with no definite answers, that what is true today may be disproved in the future. Through this activity, students not only learn research skills but also report writing skills as they are required to complete a report based on their project for the successful completion of the course.

In this section an attempt has been made to discuss some teaching models and classroom activities that promote "active" learning. The choice of a model is clear cut in certain cases such as using the *Direct-instruction* model when the concepts are complex and need to be explained before launching on experiential activities; using the *Inductive* model when the concepts are simple enough to be grasped through experiential activities and the *Inquiry* model when students have to investigate a topic. What is particularly interesting is that collaborative learning can be combined with any type of teaching model whether it is *Direct Instruction*, *Inductive* or *Inquiry*. When using any of these teaching methods in combination with the *Collaborative* approach, the phases would be the same except that students would have to deal with the additional task of forming groups, defining the roles and responsibilities of the various group members, coordinating the efforts of the individual group members and working out an overall plan of action (Eggen & Kauchak, 1996). The teacher's role would be that of a counselor, facilitating the group process, intervening to channel their efforts in the right direction and monitoring them to ensure that each individual student is learning from the experience. The ways in which the teacher can facilitate the entire learning process will be discussed in further detail in the next section.

Pedagogical framework

Although teaching models and classroom activities are important tools that teachers need in order to make their classes effective, they are definitely not a replacement for basic teacher qualities such as knowledge of content, sensitivity towards students and above all, creativity. For an effective classroom community, all three aspects need to be taken into consideration whether it is the teaching model, interactive classroom activities or basic teacher qualities. Below are some guidelines that teachers need to take into consideration to provide students with

a holistic educational experience:

- *Lesson Alignment*: Identifying a clear goal and then matching the goal to the activities planned for a lesson are the most fundamental tasks for a teacher. This keeps the lesson on track from the start to the close, with the teacher verbalizing the lesson goal at the beginning and then reiterating it at the end of the class along with a review of the important points covered during the lesson.
- *Lesson Focus*: Focusing the students means drawing them into the lesson and keeping their attention as the lesson progresses. While a conceptual introduction is one that spells out the objective in terms of the content to be covered during a lesson, it is equally important for the teacher to introduce the lesson in an interesting manner to raise the motivational level of the students. There are many resources like videos, advertisements, and newspaper articles by means of which teachers can provide their students sensory stimuli.
- *Student Motivation*: Establishing and maintaining high student motivation is essential for maximum learning. What students bring with them to class in terms of expectations, aspirations, and presumptions determines to a large extent how much learning takes place. A teacher who is cognizant of this can enhance the learning process by adding value to it, and at the same time dispelling any negativity.
- *Class Size and Group Dynamics*: Keeping the class size small allows opportunities for quality teaching and learning. In addition, when students work well together, the entire mood in the classroom improves and the learning outcomes are invariably better. The teacher-facilitator plays an important role in promoting synergy among students to ensure that more active learning takes place. If the teacher has no control over class size, then the other alternative would be to break up the class into small groups and to inculcate in group members good group values for positive interdependence as well as independent accountability in the learning process.
- *Monitoring Progress*: Keeping track of students' verbal and nonverbal behaviour is something alert teachers should constantly be aware of during learning activities. Attending to the reactions of the students with appropriate prompts and comments can lead to a supportive climate of learning and promote the students "metacognition". In other words, it makes them aware of the kind of learning strategies they can employ in order to be better as well as more independent learners.
- *Performance Feedback*: Giving feedback is crucial in order to make learning a meaningful experience for students. Teachers who give immediate and specific feedback in a friendly tone ensure that students are aware of their performance and feel encouraged to give alternative responses to queries. This kind of feedback or "scaffolding" gives student the support they need in their process of learning and it ultimately gives them the confidence to manage and control their own learning.

- *Teacher Communication and Attitude:* Being able to communicate clearly, coherently and enthusiastically with students is a prerequisite for those in the teaching profession. A thorough knowledge of the topic, effective delivery and an engaging style are characteristics that a teacher should strive towards in his/her teaching. Just as student motivation is important in the learning process for the student, teacher motivation is equally important. How committed the teacher is to the task of teaching determines how much learning takes place for the student. If effort and enthusiasm are lacking, the quality of the teaching will be affected.
- *Classroom Management:* Maintaining classroom order goes a long way in saving precious class time for instruction or actual learning. This can be achieved by preparing materials in advance and inculcating in students good classroom routines. An effective teacher is often one who is also an effective manager, making optimal use of the time available for a lesson.
- *Teacher Expectations:* Pitching lessons at the right level is an essential aspect of teaching. Teachers have to gauge the standard of their students and pitch their teaching at a level just beyond their developmental level for optimal learning. If students need more structure then teachers should be on standby to provide it and if there is excessive support, they should be able to withdraw it. The idea behind this is to provide the right amount of support for learning so that learning is challenging to students but not beyond their grasp. This approach pulls students towards better performance and inevitably towards more independent learning.

These guidelines provide an overall framework for a successful learning and teaching experience. Along with selecting the right teaching model and classroom activities that match a particular lesson goal, the teacher needs to take into consideration the many factors discussed in this section to make the education experience a fulfilling and holistic one for the students.

Conclusion

In this paper an attempt has been made to discuss some teaching models and classroom activities that promote “active” learning. There are in fact many more models and strategies that teachers can use or even a combination of models and strategies in order to make their classrooms interactive where the flow of information is not just one-way, from the teacher to the student. Whichever model the teacher decides to use, the underlying principle behind the different types of teaching models discussed in this paper is that knowledge is not just transmitted from the teacher to the students but that current knowledge is reconstructed in the light of new knowledge through collaborative classroom activities. In such classrooms, the teacher’s role changes from that of an information-giver to a facilitator and the student’s role from a passive observer to an active and social participant, creating a circle of learning among teachers and students.

References

- Becker, W. (1975). *Classroom management*. Chicago: Science Research Associates.
- Bereiter, C. (1984). How to keep thinking skills from going the way of all frills. *Educational Leadership*, 42, 1.
- Dewey, J. (1956). *The school and society*. Chicago: University of Chicago Press.
- Dressel, P.L., & Marcus, D. (1982). *On teaching and learning in college*. San Francisco: Jossey-Bass.
- Eggen, P.D., & Kauchak, D.P. (1996). *Strategies for teachers: Teaching content and thinking skills*. (3rd ed.). Boston: Allyn & Bacon.
- Good, T., & Brophy, G. (1974). An empirical investigation: Changing teacher and student behavior. *Journal of Educational Psychology*, 66, 399-405.
- Halpern, D.E., & Associates. (1994). *Changing college classrooms: New teaching and learning strategies for an increasingly complex world*. San Francisco: Jossey-Bass.
- Joyce, B., & Calhoun, E. (1998). *Learning to teach inductively*. Boston: Allyn & Bacon.
- Joyce, B., Weil, M., & Calhoun, E. (2004). *Models of teaching*. (7th ed.). Boston: Pearson Allyn and Bacon.
- Maslow, A. (1962). *Towards a psychology of being*. New York: Van Nostrand.
- McGill, I., & Brockbank, A. (2004). *The action learning handbook: Powerful techniques of education, professional development and training*. New York: RoutledgeFalmer.
- Rogers, C. (1982). *Freedom to learn in the eighties*. Columbus, Ohio: Merrill.
- Schwab, J. (1982). *Science, curriculum, and liberal education: Selected essays*. Chicago: University of Chicago Press.
- Thelen, H. (1981). *The classroom society: The construction of education*. N.Y.: Halsted Press.
- Wood, J.T. (2004). *Communication mosaics: An introduction to the field of communication*. (3rd ed.). Belmont, CA: Thomson, Wadsworth