'Being a Competent Medical Teacher'
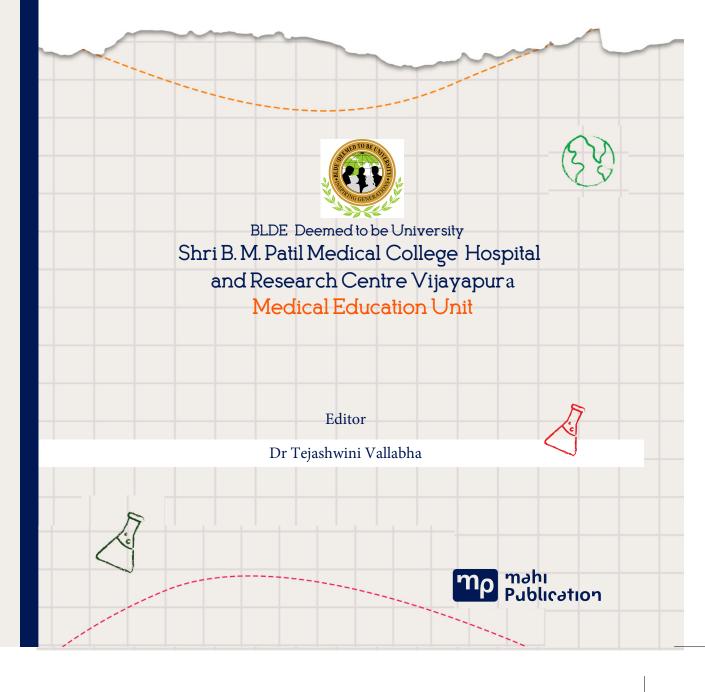
BLDE Deemed to be University
Shri B. M. Patil Medical College Hospital
and Research Centre Vijayapura
Medical Education Unit

Editor

Dr Tejashwini Vallabha

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5 GOOD TEACHING PRACTICES

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Introduction:

Noel Entwistle, a noted research scholar in field of education writes: "All too often in education ,pundits and some researchers for that matter ,seem to believe that they have found the method which all teachers should use". Anybody with common sense can tell that this is impossible. As we know teaching is used to accomplish a variety of different educational aims, in many subjects and is aimed at students from all sorts of background, with varying degree of cognitive ability and at different levels of intellectual maturity. The same holds true for teachers. Across the years ,the popularity of various instruction methods has waxed and waned.

Then, what is the way out? Entwistle's answer is intriguing.He writes :"In the end, 'best practice' is whatever helps students to engage more deeply with the subject and to become more actively responsible for their own learning".

This may appear confusing ,abstract or too open ended.What is the way out? During our interaction regarding : Principles of Adult Learning :Theories and Learning process, we came across various theories of learning e,g : Andragogy, Self Directed Learning, Constructivsm, Reflective Practice , Experiential learning and Role modelling.

The learning principles emerging from them are discussed below. Reflection on one's best experiences with learning will show that in those experiences the teacher had incorporated one or more of the following learning principles.

Principle 1: Prior knowledge is the foundation on which future knowledge is built.

The learner brings some prior learning/experience in the class. These are vital to the current learning and must be incorporated in the learning process. As a facilitator one must first assess prior knowledge; followed by discussion of the responses for clarification ; then build upon the knowledge which the learner already has, adding new learning on to it; and then check for understanding to ensure new learning has occurred. The links themselves are more important than the new information. The more links, and the stronger they are, the easier it becomes to apply new knowledge across a broad range of situations and problems.

KWL strategy i.e. Know, Want, Learn technique can help for assessing prior knowledge. In this , before the session the students writes on a handout what they already know about the topic and what they want to learn about it. After the class the students, again write on the hand-out what they did learn. If it is a practical class the learner can be asked to demonstrate the skill to be learnt.

Principle 2: 'Warming' the climate for learning:
In academic circles, climate refers to the atmosphere of warmth existing between the teacher and the students.Much research suggests that few other factors produce a more lasting impact on learning than the professor's approval or disapproval of the students work,and their inclass interaction. The key feature here is to create an environment of respect for the learner.

Simple way of doing it is to be courteous and patient with students. Listening to their viewpoints and questions. Being enthusiastic for and use of students' own ideas. Encourage students to ask questions as well as to answer questions. Do not pull them up in front of their peers. If correction is required call them in private and give constructive feedback to them. Design and introduce group activities in the class e.g. Think-Pair-share.In this, put a question to the class. Ask each student to first think about it. Encourage them to write down their thoughts. Then ask them to discuss it with the person sitting next to them. If it is a lecture class with a large group of students ask for few pairs to respond. If it is a tutorial with a

small group of students ask each pair to respond. The whole activity takes hardly few minutes. It gives confidence to the learner as they are sharing their thoughts, with peer and the responses to the whole class is not their individual response but that of the shared one with their peer.

As far as possible the teacher should call students by their names. Teacher is a leader in the class and should display the seven qualities of leadership: 1) Enthusiasm 2)Integrity 3)Toughness 4) Fairness 5) Warmth 6) Humility and 7)Confidence.

Principle 3: Active learning:

"Active Learning" is an approach to teaching that incorporates one or more of the five elements of talking and listening, reading, writing, reflecting and creating into the engagements by the learners in relevant and authentic tasks in a supportive environment. It produces better learning including concept formation; increased motivation; discoveries of misconceptions; and acquisition of knowledge, critical thinking, attitudes and values and interpersonal skills. Case discussions are one example of active learning approach. Other strategies which can be used to encourage active participation are: crossword puzzles, flash cards, jigsaw, question pairs, one minute papers, structured controversy, intentional reading, summary of the class etc.

Principle 4: Relevant content and problem based approach:

Relevant content applicable to their practice makes learners value the learning and problem centered approach enhances the learning process as it has got practical applications. To achieve this the teachers can develop specific learning objectives which address relevant content. Case based learning is the best way of making the learning relevant & real time.: for example a patient with jaundice can be used to discuss the pathophysiological basis of signs and symptoms of liver failure, followed by the practical utility of liver function tests in different types of jaundice and managing of the patient etc.

Early clinical exposure: Here the first year medical students are exposed to the patients. However the discussion is on the basic science concepts and not on the diagnosis and management. The purpose of clinical case is to provide relevance and context to; and importance of learning basic

science concepts. For example during physiology class on thyroid gland, the students can be taken to the hospital to see a patient with goiter followed by discussion of physiology of thyroid glands. Alternatively the patient can be brought to the classroom instead of a hospital visit after taking informed consent from the patient. Similarly during pathology class on thyroid gland, to introduce the procedure of the 'Fine Needle Aspiration Cytology', the procedure can be demonstrated with all the relevant details on a patient with enlargement of thyroid gland.

Community based learning: Globally the push is towards community based learning. This can be done by getting students to do small projects in the community. For example they can screen for hypothyroidism in a small area, present their findings followed by a debriefing by the teacher on physiology of the thyroid gland.

Thus learning cannot be context free, knowledge and its organization into an individual's personal construct system, is highly dependent on the context in which it was learned.

Principle 5: Self Directed Learning:
Self- directed learning (SDL) has been identified as an important skill for medical graduates . In such a world which has half life of many facts and skills may be ten years or less, today's health care environment has become challenging. To meet these challenges, SDL is most essential. In SDL ,learners take initiative in making use of resources rather than simply react to transmissions from resources, thus helping learner to learn more and learn better. Thus, the main purpose of education must now be able to develop skills of inquiry ,and more importantly to go acquiring new knowledge easily and skillfully for the rest of her or his life.

The concept of self directedness in learning was first discussed in educational literature as early as 1926. From these writings , a preliminary description of self directed learning emerged. SDL ,in its broadest meaning describes a process in which individuals take initiative with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying learning resources, choosing and implementing learning strategies and evaluating learning outcomes. SDL has been identified as an important ability for medical graduates.

SDL can be initiated by giving assignments which require higher order thinking. However, in order to inculcate skills in the students it is mandatory to provide them with appropriate learning resources such as references, journal articles, books, handouts, self-learning modules etc. This can help in developing new neuronal circuits and connections in the brain.

Principle 6: Feed back and Reflections:
Feedback is a vital part of education. It helps learners to maximize their potential at different stages of training, raise their awareness of strengths and areas for improvement, and identify actions to be taken to improve performance. It is important to give constructive, timely feedback to the students on their learning and encourage them to reflect to enhance learning. This leads to successful learning and mastery of content, skills and judgment. Without feedback, mistakes can go uncorrected and bad habits can develop. The learners may also develop uncorrectable behavior or make inaccurate assumptions.

The ideal behavior for delivering feedback are: eye contact, enthusiasm, asking & encouraging questions, supervision, competence, professionalism, interest in the learner, being honest, giving well defined goals, giving clear explainations, emphasis on problem solving, student centred, timely fashion, focused on behaviour, limited in volume, in safe environment, allows learner self assessment,offers recommendation for improvement and sumarises for closure.It is to be kept in mind that,feed back is formative not evaluative, it presents information, not judgement. Also, if feedback is to be effective it needs to be frequent, constructive and interactive.

Reflective practice is associated with learning from experience and is viewed as an important strategy for health professionals who are expected to embrace life long learning.The act of reflection is seen as a way of promoting the development of autonomous,qualified and self-directed professional.Engaging in reflective practice is associated with the improvement of quality of care, stimulating personal and professional growth and closing the gap between theory and practice. When the learners reflect on a situation ,the learners do not simply see more , they

see differently. How can reflection be taught has already been mentioned in the article :Principle of Adult Learning :Theories and Learning process.

Principle 7 : Address different learning styles:
All learners do not learn the same way. Students have different learning styles. The potential exists to use information about students' learning style so that they perform better. The teachers have to keep in mind these possibilities as this will help students to :a) Identify their academic learning strengths and weaknesses, b) Help them study more effectively, c) Approach problem solving more flexibly, especially when working with others. The Myers-Briggs Type Inventory (MBTI) has become a benchmark for identifying personality and learning style attributes. In this method there are four preference scales with two choices in each, the student has to select what best describes him/her. The preference scale 1 includes: Extroversion and Introversion. Preference scale 2 includes Sensing and Intuition. Preference scale 3 includes Thinking and Feeling and Preference scale 4 includes Judging and Perceiving. Depending on the combinations of the choices in the preference scales, there are 16 personality types. Based on these personality types students can be briefed about what are their strengths and weakness and what to do about them. Other approaches to categorizing learning styles are

1) Kolb cycle learning style (Honey and Mumford,1982) : Types of learner based on a cyclic model of learning process are grouped as : Activator, Reflector, Theorist and Pragmatist.
2) Multiple intelligences (by Gardner,1983,1993) :based on subdivision of intelligence into various categories that are said to be more or less profound in different people and which influence the way in which we process information the learners are classified as :Verbal-Linguistic, Logical- Mathematical, Visual-Spatial, Musical, Bodily Kinesthetic, Interpersonal, Intrapersonal, Naturalist, Existentialist.
3) VARK learning preferences(Fleming ,2001): A subset of learning preferences devised from Gardner's Multiple intelligences and MBTI the learners are divided as giving preference for Visual, Aural, Reading –writing and Kinesthetic patterns.

Thus, as a teacher one must use a variety of methods to address the different learning styles of the students to maximize learning. These

methods may include role play ,case studies, questioning, using various technologies, such as media, video,online games etc.

Principle 8 :Role modelling:
Educating future generation of doctors is one of the privileges and obligations of the medical profession. As an important part of the process, doctors have historically patterned their studies on those practitioners whom they respect and trust. They have been called role modells, "individuals admired for their way of being and acting as professionals." Both consciously and unconsciously, learners model their activities on such individuals. Keeping this in mind the medical educators should strive to be the 'role models' to their students and junior doctors.

Principle 9 :Emotional intelligence:
Emotional Intelligence : It is a form of intelligence that involves ability to have an appropriate relationship with our own emotions and those of other people, to discriminate between them and then to use the information to guide over thoughts and deeds. The following table can illustrate different ways by which emotional intelligence can be used in a productive manner.

Emotional intelligence – converting lack of knowledge into learning need:

Principle of emotional intelligence	Learner's emotion and its result	Suggested teacher response
Perception of emotion	Fear of ignorance at asking a question leading to lack of participation	Recognise lack of participation as fear
Using emotion to change mood and achieve the desired action	Changing fear to acceptance of knowledge gaps and a need to learn	Acknowledging the importance of and allowing questioning e.g. 'That question is important because ....

Understanding the language of emotion	Discouragement at not doing well at a task, leading to lack of motivation	Recognise lack of motivation as discouragemen Manage one's own and others emotion to achieve goals A discouraged trainee wants to give up training after not performing a task well Highlight positive aspects of a task then those which need improvement and set realistic goals for developme

To conclude many of the teachers may already be following some or all of the principles.The way forward is to be open for change ,being positive and be the best possible facilitator.