Applying Critical and Creative Thinking in Teaching Buddhism

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APPLYING CRITICAL AND CREATIVE THINKING IN TEACHING BUDDHISM

A Synthesis Project Presented

By

DOAN VAN THUA

Submitted to the Office of Graduate Studies, University of Massachusetts Boston, in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

August 2010

Critical and Creative Thinking Program
APPLYING CRITICAL AND CREATIVE THINKING IN TEACHING BUDDHISM

A Synthesis Project Presented

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ABSTRACT

APPLYING CRITICAL AND CREATIVE THINKING IN TEACHING BUDDHISM

August 2010

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This synthesis describes my journey preparing myself for teaching Buddhism in a way that moves beyond traditional approaches of transmitting information to students. I describe learning, teaching activities, tools, and methodologies using critical and creative thinking that can be applicable to Buddhist education. I describe some changes towards more interactive modes of teaching and progress in teaching I have made so far in my teaching Sunday school for children, in public teaching, and in giving instruction to Buddhist groups. Some further expectations and some defects in my teaching that need improvement are noted.

A Buddhist is not a blind follower, subservient to a superior power, but should be a critical and creative person in believing, learning, practicing, and exchanging ideas with others. More than anyone else, the teachers in Buddhist schools should be inspiring agents in inheriting and transmitting the quintessence of Buddhism to help produce qualified successors and spread widely the seeds of Wisdom, Compassion, and Emancipation.
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INTRODUCTION

Buddhism has existed for more than 2550 years and spread all over the world. After his enlightenment, the Buddha constantly taught and converted the people to become good Buddhists. His great disciples and Buddhist patriarchs, generation after generation, continue illuminating the Buddha's teachings. Education plays an important role in the propagation of Buddhism, Buddhism is preserved and flourishes over time and space. Through education, the Buddhists understand the Dharma (Buddha's teachings), then practice the Dharma. Education is very essential for the Buddhists to exchanges ideas, inherit the Buddha's treasures, cultivate themselves and ultimately to become saints.

There are two kinds of Buddhist education: formal education in forms such as learning and teaching Buddhism in schools, classes, and academic degree programs, and informal education in forms such as preachers giving lectures to the public and teaching the people in groups or as individuals. In many Asian countries where Buddhism is a major religion there are two types of education: secular education and Buddhist education. In Buddhist system of education there are elementary Buddhist schools, secondary Buddhist schools, intermediate Buddhist schools, Buddhist colleges, Buddhist Institutes for preachers, and Buddhist Universities.

I have observed that there are still weaknesses in learning and teaching Buddhism, especially in Buddhist schools in Asia and Asian American Communities. Having experience with many Buddhist classes I have attended, and from contact with some Buddhist schools and educators, I find that learning and teaching are not very well conducted in these schools.
In classes, many of the teachers just simply introduce the bibles and scriptures, and the students passively listen the instruction and are told to memorize and worship the lessons. The teachers have good knowledge and rich experience in Buddhism—they are the experts in Buddhism, no question about that—but the problem is that many of them were not well trained in the field of education; they don’t possess many good skills, techniques, methods of teaching. They just conduct one way—information transfer without much interaction in classes. The students are so passive and they are not led to engage in activities good for learning processes. The teachers just care for imparting information and don’t care training the students how to think, how to learn. This causes many students to feel bored, tired, or even sleepy. Consequently, the students can’t explore all the aspects of Buddhism; they can’t get the quintessence of the Buddha’s teachings, build up their thinking, and enhance their personal development fully.

I have devoted myself to the cause of propagation of Buddhism. A big concern of mine and of all Buddhists is how to learn and teach Buddhism effectively. Now I write graduation synthesis for Critical and Creative Thinking graduate program, University of Massachusetts, Boston with topic: “Applying Critical and Creative Thinking in Teaching Buddhism” to make a contribution to Buddhist education. This synthesis is an effort to shed light on ways to overcome the weaknesses of Buddhist schools by means of:

• Collecting good skills, tools, and methods for learning and teaching
• Preparing myself for teaching Buddhism effectively
• Helping create good examples of educational environments that can be observed and multiplied into many units to develop good Buddhist educational systems
Helping the teachers who would like to make a shift from traditional teaching to more interactive teaching

The synthesis presents my journey preparing myself to teach Buddhism and the necessary steps for other teachers who want to move beyond traditional approaches of transmitting information to students in Buddhist schools.

Chapter I shows that Buddhism allows Critical Thinking and Creativity to be exercised freely. Indeed, the Buddha was a great critical thinker and creative person. Buddhist followers, practitioners, and preachers should be critical thinkers and creative people to cultivate Buddhism, attain enlightenment, and spread Buddhism widely.

Chapter II introduces theories for good learning and teaching. Through reading sources, CCT courses and classes, I collected these theories, which describe learning, teaching activities, provide teaching tools and methodologies that use of critical and creative thinking and can be applicable to Buddhist education. Students and teachers should be equipped these theories for carrying out their tasks better.

Chapter III describes the teaching experiences that I gain through interviews with good teachers who graduated from Critical and Creative Thinking Program, professors teaching religion in Universities, professors of Buddhist Universities, outstanding Buddhist preachers in USA. Through contacting them I also learn the change and improvement in their teachings by the vivid and good examples of themselves. The teaching experiences are valuable and applicable in teaching Buddhist schools.

Chapter IV elaborates on the differences between traditional teaching and interactive teaching and suggests ways for making a shift from traditional teaching to interactive teaching. The pictures of a good classroom, a good student, and a good teacher are described. This chapter
focuses on the role of the teacher in the class and all the activities in classroom designed, led, and facilitated by him.

Chapter V describes how I apply theories, principles, practices, skills learned from the above sources in my teaching for Sunday school for children, in public teaching, and in giving instruction to groups for Buddhist people and notice what work best for these teachings. This chapter also describes some significant changes towards a more interactive mode of teaching and progress in teaching I have made so far. Some further expectations and some defects in my teaching need improving are brought in here. This chapter also makes some plans that unify the joint effort and cooperation of teachers, students, and administrators of Buddhist schools as well as the authorities of Education Department and Buddhist Congregation to improve Buddhist education.
The Buddha was born in India, 624 B.C. His names were Gautama Sidhartta, Sakya Muni. He was a greatly critical, thoughtful, reflective person with meditative mind. In his youth, though living in luxury, he constantly and intensely meditated and inquired into the nature of reality, the nature of body, mind, self, and especially the nature of suffering associated with birth, old age, disease, death. He realized the impermanence and futility of luxurious life.

Then he renounced this world and searched for ultimate truth, liberation, and emancipation for all. He studied with the wisest teachers of his day. Ascetic Gautama with great analysis was not satisfied with the disciplines and doctrines propounded by these teachers, which only led to a high degree of mental concentration, but did not lead to disgust, detachment, cessation (of suffering), tranquility, intuition, enlightenment, and Nibbāna.

He did not believe in ultimate power of the creator or anyone and did not long for that power to save him. The Buddha gave an excellent example of methodological doubt and belief (Elbow 1986): to believe or doubt anything with good reasons and test. As a student, he did not totally submit to his teachers. Before long, he could attain the same state those teachers had attained. He challenged the views of his religious teachers. None of the great teachers and ascetics at that time knew how to answer his questions for ultimate truth and final liberation and how to end suffering, so he continued the search on his own. He was a critical student, learning by discussing, debating or even challenging to his teachers. He did not wait for the total transfer and blessing from his teachers. Later on, he decided that enlightenment is not something he
could get from his teachers but that would be gained only by his own effort, his own ways, his creation.

After six years of cultivation and meditation ascetic Gotama attained enlightenment. That is the greatest creation he made for mankind: discovering the Path leading to final liberation. So, observing his life, we can find that his ways of understanding this life, learning, discussing with his teachers, searching for the Truth, and attaining enlightenment were very critical and creative.

After enlightenment, the Buddha tirelessly traveled everywhere, taught the Dharma (Buddhist doctrine) for 49 years, in over 300 Dharma Assemblies, and left limitless Dharma treasures in the world. Now we review the teaching mission of the Buddha and can get the methods, techniques used by Him. He taught 84,000 Dharma doors to counteract men's 84,000 kinds of afflictions. The Buddha's style of teaching was skillfully adaptable to the mood and concerns of his listeners. He responded to the questions, doubts, and problems of his audience and took cues from events. His laws are determined by the accidents of time, place and situation. Because the Buddha dharma has always adapted to people's different abilities and allowed free choices, the teachings are diverse. The Buddha freely preached the Law according to the occasion and the mental and spiritual capacities of his listeners. It may be safely said that within his teachings there are ways of preaching suitable for all kinds of people. The Master has labored to expose students to the fullest possible range of the Buddha's teaching.

The most striking characteristic about the Buddha's teaching is its crystal clarity. It combines the beauty of language, profound logic and the facts of lived experience. The Dharma begins with something that is very close to our lives with some similes easy to catch its deep meaning as in Lotus Sutra or in Dhammapada Sutta.
The Buddha carefully considered the hearers’ particular backgrounds. He delivered his sermons suitable to the temperaments of his hearers, this method is called as ‘upaya-kosala,’ i.e. expedient means. The current words in Indian philosophy and religions at that time were used by the Buddha creatively with new meanings. This is stated by T.W. Rhys Davids—a Buddhist scholar and a member of Pali Text Society—as “pouring new wine into the old bottles.” In many cases he described his paths of liberation with analogy of the processes of production in the hearers’ careers.

The Illustrative approach was also an important and often used approach in his teachings. Analogies, similes, stories and examples drawn from ordinary life were used skillfully to make the sense of teachings clear. For example, in the following tale he described different levels of mankind as different lotuses in a pond:

As in the case of a blue, red or white lotus pond, some lotuses are born in the water, grow in the water, remain immersed in the water, and thrive plunged in the water; some are born in the water, grow in the water and remain on the surface of the water; some others are born in the water, grow in the water and remain emerging out of the water, unstained by the water. Even so, as the Exalted One surveyed the world with His Buddha-Vision, He saw beings with little and much dust in their eyes, with keen and dull intellect, with good and bad characteristics, beings who are easy and difficult to be taught, and few others who, with fear, view evil and a life beyond.” (Venerable Nārada Mahāthera, 1988, p.41),

The Analytical approach was the Buddha's favorite. Whenever he gave a sermon, he elaborated and analyzed all aspects of this sermon as in cases of Amitabha Sutra, Surangama
Sutra. In assemblies with a very large audience, in groups of people, or face to face with a particular person, the Buddha taught in the way of having dialogues and conversations with them and helped them step by step understand deep meanings of the Dharma. With great love, compassion, wisdom, and a variety of teaching skills, the Buddha easily taught and converted a great mass of people. He taught the ways to live the ways to realize and experience truth.

For all the above mentioned reasons, the Buddha has been recognized as one of the greatest Teacher that mankind has ever seen: “There can be no doubt that the historical Buddha was a great teacher... Even from the viewpoint of present day pedagogy, the Buddha’s methods are interesting and still applicable in many situations” (Gard, 1962, p. 63). The Buddha gives people freedom to exercise their critical thinking and self-judgment. Buddhism allows the followers to observe Truth by themselves and rejects blind faith. We can categorize Buddhism not as a system of faith and worship, but rather as a Path to Supreme Enlightenment.

We often see that religions demand total faith and submission of the followers to the supreme authority of God, supernatural powers, and religious founders as an inspired apostle declares, "And whatsoever ye do, in word or deed, do all in the name of the Lord" (New Testament, Colossians, Chapter 3, 3: 17). Religious followers must believe and act in accordance with God’s words, God’s commandments since God is an Absolute; he is Truth, the Creator: "God has the right to tell us what to do because He is our Creator (Gen. 1:1, 26, 27; Acts 17:24-31). "Fear God, and keep his commandments: for this is the whole duty of man." (Ecclesiastes 12:13)

There have always been some conflicts between religion and science. The scientists use an objective approach to measure, calculate, describe, explain, predict phenomena in the world, while religious followers rely on beliefs, supernatural authority, revelation, personal experiences.
to approach the truth and goals. Religion relies on authority from book, tradition, Gods, saints while in science, the authority is in the evidence and reasoning, always opening to challenge. The differences of religion and science are described by Albert Einstein (1930, p.41):

[A] religious person is devout in the sense that he has no doubt of the significance and loftiness of those superpersonal objects and goals which neither require nor are capable of rational foundation. They exist with the same necessity and matter-of-factness as he himself. In this sense religion is the age-old endeavor of mankind to become clearly and completely conscious of these values and goals and constantly to strengthen and extend their effect. If one conceives of religion and science according to these definitions then a conflict between them appears impossible. For science can only ascertain what is, but not what should be, and outside of its domain value judgments of all kinds remain necessary. Religion, on the other hand, deals only with evaluations of human thought and action: it cannot justifiably speak of facts and relationships between facts.

For these reasons, Peter Atkins (1998), Professor of Chemistry at Oxford University, said: "Science is almost totally incompatible with religion." However, unlike other religions, Buddhism propounded by the Buddha lays emphasis on seeing Truth, on knowing it, and on understanding it, on practice and realization not on blind faith. The Buddhists come to Buddhism as Ehi-Passiko, "come and see", but not to "come and believe."

During 49 years of teaching, the Buddha always stressed that all the hearers question, challenge him until they themselves understand and realize the Truth. He himself already tested the doctrines, teachings as human beings and in turns these were for the followers to test for themselves. The Buddha left a great part for the Buddhists to think, act and discharge their
responsibilities as he often encouraged: "You yourself must make an effort. The Tathagatas (Buddhas) are only preachers" (Dge Dun Chos Phel, 1985, Chapter XX). They can’t totally rely on the Buddha. A Buddhist is not a slave to anything, he learns and practices to be the Master of himself:

A Buddhist is not a slave to a book or to any person. Nor does he sacrifice his freedom of thought by becoming a follower of the Buddha. He can exercise his own free will and develop his knowledge even to the extent of attaining Buddhahood himself, for all are potential Buddhas (Sri Dhammananda, 1998, p.21).

Actually in a strict sense, Buddhism is not a religion. It provides ways of analyzing and solving problems of life, breaking the circle of rebirth and attaining eternal peace and happiness. As Venerable K. Sri Dhammananda (1998, p.4) remarks: “Buddhism is the only great religion of the world that is consciously and frankly based on a systematic rational analysis of the problems of life and of the way to its solution.” When the Buddha met a person, he gave all teachings particularly necessary for that person to overcome all his own problems, to cultivate in the right Path and perfect himself.

Buddhism has the power to survive the modern challenges posed by scientific progress, the spirit of rational enquiry, and humanistic and atheistic philosophies. The Buddhists are free to investigate into all matters with senses and intellect. We have rights to reject or accept them with logic, analysis and living experience.

To know how the Buddhists establish right belief, we should read Anguttara Nikaya, Tika Nipata, Mahavagga, Sutta No. 65, Kalama Sutta, the discourse of the Buddha described as "the
Buddha's Charter of Free Inquiry." This discourse encourages free inquiry that is exempt from blind faith, dogmatism, and intolerance. The story read as follows:

The Buddha once visited a small town called Kesaputta in the kingdom of Kosala. The inhabitants of this town were known by the common name Kalama. When they heard that the Buddha was in their town, the Kalamas paid him a visit, and told him:

'Sir, there are some recluses and brahmanas who visit Kesaputta. They explain and illumine only their own doctrines, and despise, condemn and spurn others' doctrines. Then come other recluses and brahmanas, and they, too, in their turn, explain and illumine only their own doctrines, and despise and condemn and spurn others' doctrines. But, for us, Sir, we have always doubt and perplexity as to who among these venerable recluses and brahmanas spoke the truth and who spoke falsehood.'

Then the Buddha gave them this advice, unique in the history of religions:

'Yes, Kalamas, it is proper that you have doubt, that you have perplexity, for a doubt has arisen in a matter which is doubtful. Now, look you Kalamas, do not be led by reports, or tradition, or hearsay. Be not led by the authority of religious texts, nor by mere logic or inference, nor by considering appearances, nor by the delight in speculative opinions, nor by seeming possibilities, nor by the idea; 'this is our teacher'. But, O Kalamas, when you know for yourselves that certain things are unwholesome (akusala), and wrong, and bad, then give them up... And when you know for yourselves that certain things are wholesome (kusala) and good, then accept them and follow them.'

The Buddha went even further. He allowed his disciples to examine even the Buddha, himself, until the disciples are convinced by the true value of their Master. In Buddhism, we should not accept things because of external authorities, but we must judge them with our
reasoning, intellect, and personal experience. We have a human mind to think, but some people, because of their weaknesses and extreme respect for some external authority, do not give a chance for that mind to think without bias. The Buddhists are even allowed to examine the Buddha and his words to find the truth and to accept what they consider fit, reasonable and beneficial to them. The Buddha once said that, "those who believe me but don't understand me spoil me." The Buddhists believe the Buddha, not because of the authority or out of respect for the Buddha, but because of the justification of his words.

The Buddha often encourages all the people and his followers to listen, then think about his teachings and feel free to question him. There is much room for creation and flexibility in Buddhism. They should accept what they understand, and apply them into their lives fruitfully. So, the way the Buddhists learn and practice Buddhism (dealing with problems of life) is similar to that of the scientists dealing with scientific matters. Sir Edwin Arnold (author of *The Light Of Asia*) stated: "I have often said, and shall say again and again, that between Buddhism and modern science there exists a close intellectual bond" (cited in Quotations 2010). Albert Einstein said that:

The religion of the future will be a cosmic religion. It should transcend personal God and avoid dogma and theology. Covering both the natural and the spiritual, it should be based on a religious sense arising from the experience of all things natural and spiritual as a meaningful unity. Buddhism answers this description. If there is any religion that could cope with modern scientific needs it would be Buddhism (Dukas and Banesh, 1954, p. 21).
Before entering into Nibbana (great demise), the Buddha left some last words: “some of minor precepts formulated by me can be ignored” (Sutta Nikaya, Vol III, No.2, 23-8-83). This opens up a great extent of flexibility and adaptability in Buddhism. After the Buddha’s Nibbana, Buddhism evolved into many sects of which there are two major ones: the Theravada sect, orthodox sect and the Mahayana sect, liberal sect. A Buddhist can select teachings and precepts best suited to him among a vast treasure left by the Buddha. A monk community must decide to keep certain precepts and ignore other precepts while living in a certain circumstance and environment. A preacher decides how to teach and what to teach to the people in a certain region or country according to the needs, mood, levels of the people and the living environment. There are some fundamental things that all the Buddhists must follow, but there are still many changes and variations in Buddhism during the course of time while it spreads far and wide all over the world.

There are special characteristics of Buddhism in different countries and different ways of teaching and practicing of Buddhism in different countries. The Buddhists bring the spirit of Buddhism into life and develop it to adapt certain living circumstances as D. T. Suzuki (1973, 42) rightly remarks:

It is great mistake to think that any existent religious system was handed down to posterity by its founder as the fully matured product of his mind, and, therefore, that what followers had to do with their religious founder and his teaching was to embrace both the founder and his teaching as sacred heritage—a treasure not to be profaned by the content of their individual spiritual experience. For this view fails to take into consideration what our spiritual life is and petrifies religion to its very core. This static conservatism, however, is always opposed by a progressive party which looks at a religious system
from a dynamic point of view... religion is a living force; for they gradually bring it to
light the hidden implications of the original faith and enrich it in a manner undreamed of
in the beginning.

So, Buddhism was found by the Buddha—a great critical and creative Master. This is
shown through every thought, word and action of his life. Buddhist patriarchs, from generation
to generation, have developed his teachings and introduced them to people from East to West in
many different ways. A Buddhist is not a blind follower, subservient to a super power, but
should be a critical and creative person in believing, learning, practicing, and exchanging ideas
to others. Every Buddhist learns and practices Buddhism creatively according to his own
capacity, working and living environment. More than anyone else, the teachers in Buddhist
schools should be the inspiring agents in inheriting and transmitting the quintessence of
Buddhism that help to produce qualified successors and spread the seeds of Wisdom,
Compassion, and Emancipation of Buddhism widely. By that, Buddhism can meet the needs of
the people of all times and all places.
CHAPTER II
SURVEY AND REFLECTION ON EDUCATION, LEARNING AND TEACHING

To become a good learner or teacher, first of all we must have significant theories of learning and teaching, and then we can apply them in certain circumstances appropriately. This chapter provides a survey and reflection on education, learning, teaching, and critical and creative thinking. Extensive quotations from the literature convey the ideas that have most significance for me in my reading and gathering for a good source of reference for learning and teaching in Buddhist schools.

Some Significant Definitions of Education

Learning and teaching are very important and continuous processes of a person from birth to death. Therefore, investigation and investment on learning and teaching shall produce the best profits in our lives. Especially, a teacher must know how important his career is, and in order to carry out teaching task satisfactorily, he must be trained in pedagogy and understand the nature, aim and methods of education, learning and teaching.

Of all beings, mankind is the most evolved being. Man is primarily distinguishable from the lower animals because of his educability, intelligence; desire to be active, energetic, original, moving ahead. Education is an important factor deciding progress, achievement, success. Through education man acquires necessary knowledge, skills, promotes his intelligence, and ensures his progress.

The word education is derived from the Latin word “educare” which means “to bring forth.” It was the Latin author Varro who said. “Educit obstetrix, educat, nutrix, instituit,
paedagogus, docet magister” which means, “the mid-wife brings forth, the nurse bring up, the tutor trains, and the master teachers” (Panurge 2007). Accordingly, education doesn’t merely mean the acquisition of knowledge or experience, but “it means the development of habits, attributes and skill which help a man to lead a full and worthwhile life” (Taneja 1974, p. 5). We can also find in Taneja’s (1974) book, a list of definitions of “education” given by famous philosophers and educators:

• Education “develops in the body and in the soul (of the pupil) all the beauty and all the perfection of which he is capable of” - Plato
• Education develops man’s faculty, especially his mind so that he may be able to enjoy the contemplation of supreme truth, goodness and beauty in which perfect happiness essentially consists - Aristotle
• Education is the process of development of innate powers of man - Mahatma Gandhi
• Education is not merely acquiring knowledge, gathering and correlating facts; it is to see the significance of life as a whole (Krishnamurti 1981, 14)

Education is to draw the best in people and to develop their faculties. It is to foster the highest degree of peoples’ excellence. It aims at all-round development of individuals. Education is a complicated affair, as it is supposed to equip people for life. As Dewey claims, “Education must provide for the development of the individual and for his participation in society” (cited in Archambault 1964, xxi).

Buddhist Education has many great aims: to help people learn about Buddha’s teachings, understand about themselves and the world, perfect themselves, make the best use of life, make themselves the most useful to the society and others, establish good relationship with others,
build up an ideal paradise on earth, end all kinds of suffering, guard people living in peace and happiness, realize Buddha’s nature inside themselves, and become Buddhas. Every Buddhist, through many ways, should have good Buddhist education and training to fulfill his religious purposes and make his best living.

Learning Theories and Their Educational Implications

Learning is the process of acquiring knowledge or skills. Ruggiero (1998, p. 25) states that “we can obtain authentic knowledge in any one of three ways: personal experience, observation, and report from others. The first is the most reliable.” What actually happens within the learner when he learns? Hilgard and Bower (1975, 13) draw an image illustrating that learning processing as:

Learning is often concerned with the acquisition of knowledge. Let us think for a moment about what that means. Acquisition refers basically to a change in “possession”: at one time, the organism did not “possess” a given bit of knowledge; at later time, it did. What caused that acquisition? At a minimum, something had to happen to the organism to change its state of knowledge. Typically we suppose that the organism had some specific experience which caused or was in some way related to the change in its knowledge state—either the world put some sensory information into it, or it may have tried out some more action and observed the consequences.

In this section, I mention the most important theories of learning and examine them to see how learning process work, which roles the teachers and learners can take in the process.

The Classical Conditioning of Pavlov (1849-1936)
In the experiment of Pavlov a dog is classically conditioned by pairing one kind of bell to food, such that, eventually, when that bell is rung, the dog salivates. As Hilgard and Bower (1975, p.73) describe:

> The history of a simple conditioned reflex begin with its acquisition through repeated reinforcement, that is, the repeated following of the conditioned stimulus by the unconditioned stimulus and response at appropriate time intervals...

Pavlov was a centrally significant figure in the development of American behaviorism; behaviorists like John B. Watson took inspiration from Pavlov’s work to use the conditioned reflex as the basic building block for their theoretical reconstruction of behavior...

Watson interprets learning in this way (cited in Hilgard and Bower, 1975, p. 33):

> ...as classical conditioning. We are born with certain stimulus-response connections called flexes... We can build a multiplicity of new stimulus-response connections by the process of conditioning. If a new stimulus occurs along with the stimulus for the reflex response, after several such pairings the new stimulus alone will produce the response. This conditioning process, first described by Pavlov, makes it possible for each response in the original repertoire of reflexes to be elicited by a great variety of new stimuli in addition to the ones that originally elicited it. This, according to Watson, is how we learn to respond to new situations.

Such conditioning, however, is only part of the learning process. We must not only learn to respond to new situations; we must also learn new responses.
The educational implications of Pavlov's classical conditioning theory of learning require that the teacher should expect the desired responses and set up the conditions, provide stimuli for the students to deal with in the classes. Thus, the learning process requires active roles for the teacher and students. However, the teacher is the designer and provider of the conditioning with certain kinds of stimuli. The teacher must consider reflexes of the students and usefulness of the responses that students may face in similar situations in their present and future lives. The students respond, decide, and have new experiences.

The Connectionism of Edward Lee Thorndike (1874-1949)

In Thorndike's experiment, the experimenter placed a hungry cat into a puzzle box. The cat had to perform certain actions such as pulling a string or pushing a button to escape. Thorndike established the principle of "The Law of Effect": animals learn by trial and error or reward and punishment. The learning is then strengthened by the cat forming a connection with a positive action. Thorndike believed that humans learn when they form connections:

By a satisfying state of affairs is meant one which the animal does nothing to avoid, often doing things which maintain or renew it. By an annoying state of affairs is meant one which the animal does nothing to preserve, often doing things which put an end to it (Hilgard and Bower 1975, p. 54).

The most characteristic form of learning for both lower animal and man was identified by Thorndike as trial-and-error learning, or, as he prefers to call it later, learning by selecting and connecting. In this paradigmatic situation, the learner is confronted by a problem situation in which he has to reach a goal such as escape from problem-box or attainment...
of food. He does this by selecting the appropriate response from a number of possible responses”. (Hilgard and Bower 1975, 29).

If the occurrence of an operant is followed by presentation of a reinforcing stimulus, the strength is increased (Hilgard and Bower 1975, 208).

The educational implications of Thorndike’s Connectionism are as follows:

- The teacher should design for problems-based learning in the class.
- The curriculum should indicate the expectations and satisfying outcomes of the course.
- The students themselves learn by practice, through trial and error. The teacher should probe and know the expectations and desires of the students. Lessons in the class should be connected in some ways with the students’ lives, then they would try to learn and get the experience.

The Operant Conditioning of Skinner (1904-1990)

Burrhus Frederic (BF) Skinner experimented with a Skinner Box. This is a maze where a rat was asked to push a lever to receive food. The rat would not do much in the beginning. Skinner would help the rat begin to learn behaviors that would get the rat closer and closer to pressing the lever. He would use positive reinforcement to reward the rat for behaviors, as Hilgard and Bower describe:

He (Skinner) proposed that two classes of response be distinguished, a class of elicited responses and a class of emitted responses. Responses which are elicited by known stimuli are classified as respondents. There is a second class of responses which need not
be correlated with any known stimuli. These emitted responses are designated operants, to distinguish them from respondents... (Hilgard and Bower 1975, 208)

These responses, unlike Pavlov’s elicited responses, are not automatically associated with a particular stimulus. Emitted responses act on the environment to produce different kinds of consequences that affect the organism and thereby alter future behavior. The educational Implications of Skinner’s Operant conditioning are:

- The participant is given reinforcement each time they deliver the targeted response.
- There are strong relationships among environmental events and behavior. Classroom should be a good controlled setting to produce desired behavior and result.
- Volunteering in participation is important for learning.

Skinner emphasized the active role of the learner. According to Skinner, the learner "does not passively absorb knowledge from the world around him but must play an active role" (Burton, 1996, 49). Skinner identifies three components necessary for learning: doing, experiencing, and practice (Burton, 1996).

The Insight Experiments of Kohler (1913-1917)

Kohler’s experiments with apes were done in the years 1913-1917. In a single box situation, a lure, such as a banana, was attached to the ceiling of the chimpanzee’s cage. The lure was out of reach but could be obtained by climbing upon and jumping from a box that was available in the cage. The box-stacking problem required that a second box be placed upon the first before the banana could be reached. The stick problems required the use of one or more
sticks as tools with which to take in food out of reach beyond the bars of the cage. Kohler's experiments are described in the following ways:

Kohler's interpretation of such performances by his apes was that they were intelligent attempts at problem-solving; that confronted with a problem, the animal could survey the relevant conditions, perhaps "think through" the probable success of a given act, then test it out as a possible solution to the problem. Kohler was particularly concerned with the way his apes might suddenly "see" the instrumental value of a tool (the stick as an extended arm) as a means to the goal. Because of these perceptual interpretations of the "Eureka" experience, they were dubbed insight experiments and the repetition of the successful act following insight was called insight learning (Hilgard and Bower 1975, p. 254).

Kohler's experiment represented a major step toward discrediting the validity of the associationist explanation of learning. Kohler demonstrated that learning was more than simply a mechanical trial and error affair. He concluded that while some learning appears to be accidental, his chimpanzees displayed a kind of learning that appeared to be insightful (Phillips 1974, p. 25).

The question of whether problem-solving occurs by trial and error versus insight is described in this passage:

When confronted with a novel problem, how does the learner reach solution? The stimulus-response psychologist finds the learner assembling his habits from the past appropriate to the new problem, responding either according to the elements that the new problem has in common with familiar ones, or according to aspects of the new situation
which are similar to new situations met before. If these do not lead to solution, the learner
resorts to trial and error, bringing out of his behavior repertory one response after another
until the problem is solved... According to the cognitive theorist, the preferred method of
presentation permits a perceptual structuring leading to “insight”, that is, to the
understanding of the essential relationships involved (Hilgard and Bower 1975, p. 25).

The educational implications of Kohler’s insight experience are:

- That the human brain and intelligence are far better than chimpanzee’s and they can
  perform many complicated tasks better.

- The teacher should prepare and present in the class some problems regarding the
  issues in such a way that can cause “insight” or “aha” moments in students, then students can
  understand the deep nature of the issues and all the solutions.


We can gain a sense of Piaget’s work through the depiction in the following passage of
Hill (1977, p. 213):

The formation and change of schemata is the essence of cognitive development. A child,
of course, has schemata relevant to a great many topics, and the number becomes even
greater as one approaches adulthood... Schemata are constantly changing; such change is
the essence of cognitive development. The process by which they change is known as
accommodation. When a child (or any person, for that matter) has an experience which is
inconsistent with a schema, there will be a tendency for the schema to change so as to
accommodate this new input...
Even more common than accommodation is the opposite process, by which schemata influence the interpretation of experiences. This process is known as assimilation...The meaning of the stimulus is determined by the schemata which the person uses to recognize and interpret it. This “modification” of the stimulus into a part of the individual’s total cognitive world is what Piaget means by assimilation.

When a child experiences a new event, this disturbs equilibrium, then he, in many ways, tries to assimilate and accommodate the new information until regains equilibrium. Three fundamental processes: assimilation, accommodation, and equilibration result in intellectual growth. Two additional concepts are needed in order to understand what Piaget means by equilibration, a term often met in his writings, these are assimilation and accommodation:

Assimilation: knowledge derived from the environment is not a mere passive registration through perception but depends on the prior experiences producing a background into which the new environmental experience fits. Piaget calls the previous background the child’s schemes or structures. Piaget uses the term assimilation for this process of “fitting in” or becoming a part of existing cognitive organization. Such assimilation is then the first part of the two part process of interaction between external reality and the child’s own attained cognitive structure. The second part of the process consists in the child’s changing his scheme or structure somewhat so as to conform to new external reality. This is the process of accommodation. An adjustive process is needed to fit external reality into an existing structure (assimilation), and to modify that structure while this is taking place (accommodation). We may, then, call this adjustment equilibration (Hill 1977, p.323).
The educational implications of Piaget's Theory are:

- With knowledge about the students' scheme and structure, the teacher must plan an appropriate curriculum that enhances the logical and conceptual growth of the children. This emphasizes a learner-centered educational philosophy.
- Planning experiences to create opportunities for assimilation and accommodation.
- The active method of learning is the best and classroom environment should be favorable for the construction of knowledge taking place. For Piaget:

  Children do not receive knowledge passively but rather discover and construct knowledge through activities. As children interact with their psychological and physical environments, they begin to form structures of thought. These structures help to organize the child's experience and direct future interactions" (Meyers, 1986, p.13).

The Theory of Social Cognitive Development by Vygotsky (1896-1934)

Cognitive behavioral interventions can be traced to Russian psychologist Lev Vygotsky's (1978) basic notion on the ways in which a child becomes socialized. He explains that “children first respond to an adult’s instructions. Gradually, the child internalizes these instructions and assumes control of them; self control skills are said to be learned in this way” (Palinscar and Brown 1984, p. 117-175), and that “social experience shapes the way of thinking and interpreting the world available to the individual.” The following quote also describes Vygotsky's theory:

A basic premise of Vygotsky's theory is that all uniquely human, higher forms of mental activity are derived from social and cultural contexts and are shared by members of these
contexts because these mental processes are adaptive. They lead to knowledge and skills that are essential for success within a particular culture (Berk, 1995, p. 3).

Thinking involves social cultivation. If thinking is commonly distributed across social groups, it is easy to imagine that socialization plays an important role in the development of thinking. Vygotsky, who pioneered the role of social interactions in the development of individual cognitive competencies, expressed the essence of his view in a notable quote (Wertsch, 1985, p. 60 - 61):

Any function in the child's cultural development appears twice, or on two planes. First, it appears on the social plane, and then on the psychological plane... First, it appears between people as an interpsychological category, and then within a child as an intrapsychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts, and the development of volition. We may consider this position as a law in the full sense of the word... Social relations or relations among people genetically underlie all higher functions and their relationships.

The Vygotskian view is unique in that thinking is not bounded by the individual brain or mind. Instead the mind extends beyond the skin and is inseparably joined with other minds. According to Vygotsky's sociocultural theory, cognition is profoundly social phenomenon:

Social experience shapes the ways of thinking and interpreting the world available to individuals. And language plays a crucial role in a socially formed mind because it is our primary avenue of communication and mental contact with others serves as the major
means by which social experience is represented psychologically, and is an indispensable tool for thought (Berk and Winsler 1995, p.12).

Two complementary facets of Vygotsky’s perspective are that cognition is socially constructed and shared, and that language is the critical link between the social and the psychological planes of human functioning (also based on Berk and Winsler 1995, p.12). The educational implications of Vygotsky’s Theory of Social Cognitive Development are:

- There is a strong link between society and school, social relationships and cognitive developments or functions of cognition.

- Thus, all the social contexts of the lecture, all the activity settings, or interactions in classroom have significant impact on learning and development processes of the students since “Vygotsky regarded children as active agents in the development, contributing to the creation of internal mental processes by collaborating with others in meaningful cultural activities” and “Through collaboration and interaction with teachers, parents and other children, the child actively constructs new cognitive abilities” (Berk and Winsler 1995, p. 23 and 26).

- The teacher has to act an important and active role and must fully consider the zone of proximal development of students when giving instruction to move students to new level of understanding as:

According to Vygotsky, educative environments for children must utilize the zone of proximal development. When teachers continually offer children (or permit them to choose) problems that they are able to handle without assistance or provide experiences that are too distant from children’s independent mastery, then they fail to orient instruction so it enhances development. Instead, Vygotsky emphasized that teachers must
collaborate with children in joint cognitive activities carefully chosen to fit the child's level of potential development, thereby, advancing the child's actual development (Berk and Winsler 1995, p.12).

Reflection, to be aware of their own thinking, is an important task developing in children that helps their minds function better from time to time as described by Berk and Winsler:

Reflection, or thinking about one's thinking, is an essential part of learning and development. Children not only acquire new knowledge but step up to a higher level of mental development in that they begin to think about their own thinking. This change permits them to regulate their behavior more effectively, since it produces awareness and mastery of their own thoughts (Berk and Winsler 1995, p.108).

Overall, this theory lays emphasis on the role of the teacher and the interactive environment created in the classrooms as:

His classrooms reject typical reading and writing practices such as isolated reading (like sitting quietly, follow mundane directions, only read assigned texts, fill out worksheets, and take tests.) Rather, it emphasizes the creation of authentic social contexts in which children use, try out, and manipulate language as they make sense and create meaning (Forman, 1996, p. 22).

Brain-Mind Function in Learning by Jerome Bruner

Through brain-mind function research, Bruner identifies three classes of knowing: the iconic, the enactive and the symbolic. Bruner believes that the best way for students to learn is for teachers to confront them with problems so that they can seek solutions. According to Bruner, this is important because "conceptions that children arrive at on their own are usually
more meaningful than those proposed by others and ... students do not need to be motivated or
rewarded when they seek to make sense of things that puzzle them” (Reed and Bergemann 1994,
p. 392).

The educational implications of Jerome Bruner’s brain–mind function in learning are:

• The way to learn or to remember is to grasp the meaning and significance of facts
presented.

• The teacher must create a culture for learning in which students are provided
favorable means to construct knowledge themselves as culture is “the way of life and thought
that we construct, negotiate, institutionalize, and finally (after it’s all settled) end up calling
’reality’ to comfort ourselves” (Bruner 1996, p. 87). “Now, school is a culture itself, not just a
preparation for it, a warming up.” (Bruner 1996, p. 98).

• Education focuses on the functions of the mind and the development of cognition as
“Explaining what children do is not enough; the new agenda is to determine what they think the
are doing and what their reasons are for doing it” (Bruner, 1996, p.49). “The child is not merely
ignorant or an empty vessel, but somebody able to reason, to make sense, both on her own and
through discourse with others… capable of thinking about her own thinking, and of correcting
her ideas and notions through reflection… The child, in a word, is seen as an epistemologist as
well as a learner” (Bruner, 1996, p. 57).

• Curriculum and class activities provide chances for inquiry and combined actions that
result full development for the students as

We might ask, as a criterion for any subject taught in primary school, whether, when fully
developed, it is worth an adult’s knowing, and whether having known it as a child makes
a person a better adult. If the answer to both questions is negative or ambiguous, then the material is cluttering the curriculum (Bruner, 1960, p. 52).

- Is intelligence inborn gift or something a person can develop? Bruner shows ways of forming habits of learning, studying, working that generate and develop intelligence as

Intelligence, in a word, reflects a micro-culture of praxis: the reference books one uses, the notes one habitually takes, the computer programs and databases one relies upon, and perhaps most important of all, the network of friends, colleagues, or mentors on whom one leans for feedback, help, advice, even just for company (Brunner 1966, p. 132).

- As a contribution to human resource to the nation, education, according to Bruner, must discover and make the best use of man’s power, for “As a teacher, you do not wait for readiness to happen; you foster or ‘scaffold’ it by deepening the child’s powers at the stage where you find him or her now” (Bruner, 1996, p. 120). “One thing seems clear: if all students are helped to the full utilization of their intellectual powers, we will have a better chance of surviving as a democracy in an age of enormous technological and social complexity” (Bruner, 1960, p. 10).

- Learning by discovery means that education is a process of discovery. Information or knowledge is most effectively gained by personal discovery, and then classified inactively, iconically or symbolically.

- Constructivist education states that if students were given appropriate instructions to pursue concepts on their own they would gain a better understanding. The teacher would then engage students in active dialogue and guide them when necessary so that students would progressively discuss, work together and build their own knowledge base, rather than be "taught."
In his seminal work, *Frames of Mind*, psychologist Howard Gardner (1993) asserts that human intellectual competences can be activated in a variety of ways. Further, "he suggests that intelligence has more to do with the capacity for solving problems and fashioning products in a context rich and naturalistic setting" (Armstrong 1994, p. 1-2).

Gardner theorizes about the existence of a set of multiple intelligences. He suggests that humans have an ensemble of capacities, and for every goal currently being pursued, there is presumably a set of intelligences that could readily be mobilized for its realization, as well as a set of intelligences whose mobilization would pose a greater challenge (based on Gardner 1993, p.384). Gardner identifies seven ways of knowing. These seven intelligences as categorized in Gardner (1993, p.3) are:

- Bodily-Kinesthetic, which involves using the body to solve problems, create products, and convey ideas and emotions.
- Interpersonal-Social, which refers to the ability to work effectively with others, to understand them, and to notice their goals, motivations, and intentions.
- Intrapersonal-Introspective which involves the ability to be deeply aware of inner feelings, intentions, and goals.
- Logical-Mathematical, which involves the ability to reason deductively or inductively and to recognize and manipulate abstract patterns and relationships.
- Musical-Rhythmic, which includes sensitivity to pitch, timbre, and rhythm of sounds, and responsiveness to music.
• Verbal-Linguistic, which involves ease with reading and writing skills, and sensitivity to the nuances, order, and rhythm of words.

• Visual-Spatial, which involves the ability to create visual-spatial representations of the world and to transfer those presentations mentally or concretely, and to think in pictures. Any domain can be realized through the use of several intelligences.

The educational implications of Howard Gardner’s Multiple Intelligences are:

• That the teacher should make use of multiple intelligences in preparing the lessons and presenting in the class. Throughout the courses (inside and outside classes), the teacher should design activities for students to activate and enhance their seven intelligences. Depending on the content of the lesson, the teacher should focus on the use of one or several intelligences of the seven intelligences. The teacher should not be too ambitious to cover much material in the class; instead, he should be prepared and allow time for students to chew on, digest and get insight on the information and contents of material being presented through their activities of intelligences.

• Once the decision has been made to dedicate time to particular items, it then becomes possible to approach these topics or notions in variety of ways - not necessary seven ways, but in a number of ways that prove pedagogically appropriate for the topic at hand. Nearly every topic can be approaches in a variety of ways. Pluralistic approaches should be encouraged (Gardner 1993, p. 208).

Consciously being aware of that and making the best use of the seven intelligences, the teacher and students can obtain the best results in teaching-learning activities, and can students develop their intelligences for lifelong use.
Brain-Based Learning Theory by Caine and Caine (1991)

This is founded upon the following 12 principles:

1) The brain is a parallel processor.
2) Learning engages the entire physiology.
3) The search for meaning is innate.
4) The search for meaning occurs through “patterning.”
5) Emotions are critical to patterning.
6) The brain processes parts and wholes simultaneously.
7) Learning involves both focused attention and peripheral perception.
8) Learning involves conscious and unconscious processes.
9) We have at least two different types of memory: A spatial memory system, and set of systems for rote learning.
10) We understand and remember best when facts and skills are imbedded in natural, spatial memory.
11) Learning is enhanced by challenge and inhibited by threat.

The educational implications of Brain-based learning theory are:

• The nervous system and the brain are the physical foundation of the human learning process. The teacher and students should be equipped with cognitive science and know what happen in the brain structure when one is learning, also how and when the brain works best, then create favorable conditions for the brain to work and can make the best use of the brain and cognitive system.
• Teachers should make the best use of all laws or principles regarding cognition such as
  - The sensory registers
  - Short-term or working memory
  - Long-term memory
  - Attention
  - Perception
  - Encoding
  - Schema, patterning, the construction of meaning
  - Storage
  - Recall of reconstructed information
  - Consciousness
  - Brain and language
  - Emotion

  When focusing on the working of the brain, for learning-teaching activities are carried out effectively. Costa (2001, xvi) justifies the need of knowledge about brain functions when dealing with educational activities as:

  Knowledge is a constructive process rather than a finding. The brain’s capacity and decide to make or elicit patterns of meaning is one of the keys of brain-based learning. We never really understand something until we can create a model or metaphor derived from our unique personal world. The reality we perceive, feel, see, and hear is influenced by the constructive processes of the brain as well as by the cues that impinge upon it. It is
not the content stored in memory but the activity of constructing it that gets stored.

Human don’t get ideas; they make ideas.

- A teacher must gain knowledge of as many of these learning theories as possible and select an appropriate learning theory or a set of learning theories suitable for presenting certain lessons in the classrooms. Otherwise, he would be confused and can’t discharge his teaching tasks as Phillips (1974, p. 24) states:

  The extent to which the teacher is successful in the resolution of conflict in problematic areas is at least as much a function of his learning theory as of his guiding philosophy. Unless the teacher is aware of the differences in the various types of learning theories, he will be confused over the kind of learning he is fostering through classroom practice.

- The teachers must understand the ways in which the students learn. Taking that into account, teachers can constantly seek the best and most efficient means of teaching. I believe this part should be a useful source for a teacher to refer and draw teaching skills so that he would avoid failing in a haphazard manner and confusing situation, as Lewis and Greene complain:

  That so many learn poorly when confronted by formal study is really not at all surprising when you consider the haphazard manner in which the skills are acquired. We are never taught in any systematic way how to learn, but have to pick up the necessary techniques as a result of experience, from watching others performing certain tasks, by following rules for rote memorizing and out of mistakes we make (Ramsland 1992, p. ix).

Through my survey of these learning theories as above, we can see that the students don’t sit leisurely and wait for the knowledge to be imparted to them easily, but they must take some active roles in the learning processes. We can say that learning is essentially a process of
knowledge construction in which the learner must play an active role. The teacher must know
that and should prepare for the settings and the roles for the students to play. The minds of the
teacher and students should engage and function in harmonious rhythms, as described below:

Learning is a partnership of two or more willing minds. Your teachers can assist you with
information and guidance, but much of the responsibility to learn is on your shoulders. If
you welcome this responsibility, you will exercise more control over your college
experience, both in and out of the classroom. Then, even if some of your instructors fail
to meet their responsibilities in the partnership, you can still salvage the situation from
your side.

Having more control will make you feel more fully involved, and feeling more involved
will make you more enthusiastic about your education; as a result, you will not only
increase your capacity to learn but will probably enjoy the process more. You will also
experience a greater sense of freedom and direction (Ramsland 1992, p.4).

In general, there are three ways of knowing, as explained by Vincent Ryan Ruggiero
(1998, p.25): “We can obtain authentic knowledge in any one of three ways: personal
experience, observation, and report from others. The first is the most reliable.” “Report from
others” is often used in Asian Buddhist schools now, and this method must be accompanied by
personal experience and observation. The teachers should make the facts in their “report”
personal, real, concrete, tangible, and experimental to each and every student. The teacher should
help students to think through and get insight into the contents of the “report” or lessons, as
Woditsch (1991 p.5) explains:
Good teachers will insist that you never confuse the task of imparting a disciplined body of knowledge with the business of dispensing facts and information. A body of knowledge is alive; otherwise it would be called a corpse. What’s vital in a discipline is what thought has made, is making, and will make of its subject matter. More than anything else, a discipline is systematic thinking, and to convey the discipline means to engage students in its models of thought. We should be more accurate and could make our points more easily if we call academic fields “disciplined bodies of thought” rather than “disciplined bodies of knowledge.”

The learning process is not simply to input new information into mind put to “wrestle” with, but means to understand, digest, make connections, reflect, and apply it in learner’s life. According to John Dewey:

Of course intellectual learning includes the amassing and retention of information. But information is an undigested burden unless it is understood. It is knowledge only as its material is comprehended. And understanding, comprehension, means that the various parts of the information acquired are grasped in their relations to one another—a result that is attained only when acquisition is accompanied by constant reflection upon the meaning of what is studied. There is an important distinction between verbal, mechanical memory and what older writers called: “judicious memory” The latter seizes the bearings of what is retained and recalled; it can, therefore, use the material in new situations where verbal memory would be completely at a loss (Archambault 1964, p.249).
In Vietnamese, we have a saying: "knowledge is what remains after we have forgotten all things learned." Since knowledge is not easily and directly imparted, it is gradually, firmly, and deeply constructed by the learner: "All knowledge is constructed, and the knower is an intimate part of the known" (Belenky, et al. 1986, 137). Teachers should always bear in mind three principles of learning:

1) We learn best by doing.

2) We learn best when there is a need for learning.

3) We learn best new things in terms of the old. (Gilbert G. Weaver 1960, p. 52)

Students learn best when they are given opportunities to think, play around, and act in the settings for some new knowledge to be adopted. Unless students are shown or feel new information or knowledge—why it is important and how it relates to them in some ways now and after—they won't put sincere efforts in learning. New knowledge must be built on prior knowledge or cognitive structure of students.

Two notable philosophical foundations for learning to be effective are:

Empiricism is the view that experience is the only source of knowledge. Special emphasis is given to sensory experience, although some allowance is made for knowledge derived from intellectual reflections regarding relations among a number of experiences...

Rationalism is the general philosophical position that reason is the prime source of knowledge, that reason alone rather than authority or spiritual revelation, or intuition, or sense data is the only valid basis for knowledge, belief and action. Understanding, the comprehension of knowledge from reason, should be the aim of empirical as well as philosophical investigations. (Hilgard and Bower 1975, p. 5 and 7)
Teaching

Teaching consists of the activities of educating or instructing; activities that impart knowledge or skills. Generally, we have three teaching strategies as Sternberg and Spear-Wetling (1996, p. 38) describe:

The first strategy is lecture-based or didactic: The teacher simply presents the material to be learned, there is very little teacher-student interaction, except perhaps for an occasional question from a student requesting clarification, or an occasional question from the teacher. In addition, there is no interaction among students, at least not any interaction relevant to the topic at hand.

The second strategy is a fact-based questioning approach: The teacher asks the students many questions, which are designed primarily to elicit facts. The feedback from the teacher revolves primarily around responses such as “right,” “good,” “yes,” “no.” In this strategy, there is much teacher-student interaction, but the interaction tends to be brief, and follow up to individual questions is generally limited. Just as in the didactic strategy, there is little or no student-student interaction unless it is “covert interaction” such as about what to wear to the dance on Saturday night.

The third strategy [a thinking-based, questioning approach, or simply as a dialogical approach] is the one that we argue is usually the most appropriate for the thinking of thinking skills. This strategy can be characterized as a thinking-based questioning approach, or simply as a dialogical approach, because it encourages dialogue between teacher and student. This dialogue may be either oral or written. In this strategy, the teacher asks questions to stimulate thinking and discussion. There is generally no one
right answer to these questions, so feedback like “right” or “wrong” is generally not
given. Instead the teacher tends to comment on or add to what students have said, and
may even change stance on an issue to play the devil’s advocate. If the discussion
rambles too far the field, the teacher may make comments or ask questions that serve to
focus the discussion. Thus, in this strategy, distinctions between student and teacher tend
to blur, and the teacher becomes more of a guide or a facilitator, rather than a teacher in
the traditional sense. Unlike the fact-based questioning strategies, the dialogue strategy
has a lot of follow-up to individual questions. There is also more interaction among
students with the dialogical strategy than with the other teaching strategies.

In many Asian Buddhist schools that I have learned in and visited, the first strategy,
lecture-based or didactic, is mainly used. Now I strongly feel the need for alternative or balanced
use of the other two teaching strategies: fact-based questioning approach and dialogical
approach, or teaching with more interactions between the teacher and students as well as
between students and students in classroom. A teacher should not always adopt only didactic
strategy but be flexible in ways of teaching: “Teaching takes the form sometimes of training and
at other times of indoctrinating, instructing, and conditioning” (Green 1971, p.21).

I like both tasks of a teacher, “teaching that…” and “teaching to…” that Thomas F. Green
(1971) introduces in his book The Activities of Teaching. He explains:

There are some teaching contexts within which we are concerned primarily to shape
behavior, to mold habits. There are other contexts, however, in which our primary
interest is to shape beliefs or to communicate knowledge. This distinction is embedded in
the linguistic contrast between “teaching someone to do so-and-so” and “teaching
someone that so-and-so." By the first of these expressions we clearly mean to focus on
the formation of behavior and by the second to focus on the formation of behavior and by
the second to focus on the transmission of knowledge (Green 1971, p.22).

Students in Buddhist schools are more often taught what to think than how to think.
Education within most academic disciplines has been primarily concerned with presenting
students with "facts" on a variety of topics—the "knowing that" while offering little about
"knowing how." So, improving students' thinking skills involves encouraging them to think
about not only what knowledge is generated, but how that knowledge is generated. The teacher
not only focuses on imparting information or knowledge, but also and more importantly teaches
and enhances students thinking skills, behavior, habits of learning or how to learn. Learning is
not ended after leaving school; learning is a lifelong task. Students should be equipped tools to
continuously learn and explore:

Learning is never-ending pursuit of knowledge. It extends far beyond the acquisition of
factual information. It consists of the exploration of unchartered territory. Learning
demands questioning and probing into realms—known and unknown (Reed and
Bergemann 1933, p.391).

The way to obtain knowledge is through the inquiring mind interacting with others and
with the world can be thought of in this way:

Knowledge emerges only through invention and re-invention, through the restless,
impatient, continuing hopeful inquiry human beings pursue in this world, with the world,
and with one another (Freire 1993, p.53).
In religion or Buddhism, the teacher should not be respected to an extreme extent as to be identified with truth. The teacher is only a guide and everyone must search the truth for himself with the help of his guidance:

An educator is not merely a giver of information; he is one who points the way to wisdom, to truth. Truth is far more important than the teacher. The search for truth is religion...To create a new society, each one of us has to be a true teacher, which means that we have to be both the pupil and the master; we have to educate ourselves.


The Buddha clearly instructed us to consider his teachings as the finger pointing at the moon. Finger is just a means by that people should get the aim the moon, the Truth. Many people mistake the finger, the label, the teaching, for the moon that is the experience itself. In Buddhism, no matter how much one learns, as long as he still relies mainly on external authorities and is proud of the mass of literature he gathers, he is no more than a bookworm. The most important things for him to do constantly are to reflect, introspect, to understand himself and realize the truths contented in booked knowledge, then and only then, he can manifest all these values in his activities, living and in relationships with other people. Krishnamurti (1981, p. 17) shed light on this issue:

The ignorant man is not the unlearned, but he who does not know himself, and the learned man is stupid when he relies on books, on knowledge and on authority to give him understanding. Understanding comes only through self-knowledge, which is
awareness of one’s total psychological process. Thus, education, in the true sense, is the understanding of oneself, for within each of us that the whole of existence is gathered.

What we know call education is a matter of accumulating information and knowledge from books, which anyone can do who can read. Such education offers a subtle form of escape from ourselves and, like all escapes, it inevitably creates increasing misery. Conflict and confusion result from our wrong relationship with people, things and ideas, and until we understand that relationship and alter it, mere learning, the gathering of facts and the acquiring of various skills, can only lead us to engulfing chaos and destruction.

The problem existing in Asian Buddhist schools now is the overuse of didactic or lecture method with so much authority of the teacher and with less or no activities and interactions of the students in the classrooms. I call it the traditional way of teaching. Throughout this synthesis, I campaign and present all necessary tools for teaching with more interactions and effectiveness, since I share the view of Paul Torrance (1983, p. 22):

Teachers generally have insisted that it is more economical to learn by authority. Recent research suggests that many things, though not all, can be learned more effectively and economically in creative ways rather than by authority. It also appears that many individuals have an especially strong reference for learning creatively, learn a great deal if permitted to use their creative thinking abilities, and make little educational progress when we insist that they learn by authority. Such suggestion open exciting possibilities for better ways of individualizing instruction.
Thinking is the basic function of our minds. We ceaselessly think. The great French mathematician and philosopher Descartes (1596–1650) said, “I Think Therefore I Exist.” It is the most profitable business for us to invest in thinking. How to enhance our thinking? How to make the best use of our thinking? Everyone should ask these questions and continuously develop our minds and improve our lives, as Stuart Maclure said, “Thinking is like breathing, a normal activity for every normal human being. Ordinary life depends on the ability to think” (cited in Fields 1995, p.57).

Nothing is more valuable than a sound-thinking mind. Good thinking ensures better performance and achievements in whatever we do:

There is not thing more practical than sound thinking. No matter what your circumstance or goals, no matter where you are, or what problems you face, you are better off if your thinking is skilled. At a professional—shopper, employee, citizen, lover, friend, parent—in every realm and situation of your life, good thinking pays off. Poor thinking, in turn, inevitably causes problems, wastes time and energy, engenders frustration and pain (Paul and Elder 2002, p.7).

Unlike animals living with their instincts, a human is endowed with a mind and ability to think, which help us to navigate out courses for development. The distinction of a bee and a human architect is that before we build a house on the earth, the architect builds that house in his mind. Every human production comes first onto human mind, then made into the world, yes, of course, with modification, adjustment during the course of development and materialization. It is especially significant in this civilized, high-tech world. In the first verses of Dhammapada sutta, the Buddha teaches that “Mind is the forerunner of all states. Mind is chief mind-made are they.”
We all acknowledge, in words at least, that ability to think is highly important; it is regarded as the distinguishing power that marks man off from the lower animals. But since our ordinary notions of how and why thinking is important are vague, it is worthwhile to state explicitly the values possessed by reflective thought. In the first place, it emancipates us from merely impulsive and merely routine activity. Put in positive terms, thinking enables us to direct our activities with foresight and to plan accordingly to ends-in-view, or purposes of which we are aware. It enables us to act in deliberate and intentional fashion to attain future objects or to come into command of what is now distant and lacking. By putting the consequences of different ways and ‘lines of action before the mind, it enables us to know what we are about when we act. It converts action that is merely appetitive, blind and impulsive into intelligent action (Dewey cited in Archambault 1964, p.212).

It is a sad fact and a great loss that some people don’t have opportunities or don’t care to learn how to think: “Some people study all their life, and at their death they have learned everything except to think” (Halpern, 1997, p.67-79). Education has made great step of advancement in the last decades, starting with pointing out the weakness lying in educational system:

In 1929, Dewey suggested that so much in education was the result of “routine, tradition, accident, and transitory, accidental influences,” because the field lacked the "existence of systematic methods of inquiry, which then they are brought to bear on a range of facts, enable us to understand them better and control them more intelligently, less haphazardly and with less routine.” He went on to suggest that education needed to rely less upon the
intuition of practitioners and more upon the methods of science. This need is still present today (Amidon 1967, p. 3).

Still, in America, the battle is still going on between the traditionalists and progressives, as described here:

Make no mistake about it. Education in America today is a battle between two cultures, the culture of progressive education and the culture of traditionalists who believe that all students should learn conventional curriculum at a high level (Cunningham cited in Boostrom 2005, p. 82).

The best way to innovate schools is to infuse effective thinking skills program into the whole school curriculum. Joseph Hester (1994, p. 3) describes the necessity and the ways to do that in his book:

Since the early 1980s, the school improvement process has generated one innovation after another... One clear task remains: the integration of strategies for improvement with an effective thinking skills program. This thinking skills program must also be supported by current research and developmentally ordered across the whole school curriculum. The thinking skills defined by this program should then be integrated with those school improvement processes that have effectively improved student learning and achievement. Careful planning will ensure that skillful thinking will be infused within the context of curriculum and instruction.

1. Show the need for the infusion of critical thinking skills into the school curriculum
2. Present a practical model for including critical thinking in the practice of teaching.
3. Explicate this model by demonstrating its applicability and consistency with current cognitive and developmental research.

Education is used to transmit knowledge from the teachers to the learners. But it can only be done through thinking and no other ways, since “Genuine knowledge is inseparable from thinking minds” (Paul, 1992, p.656). Additionally:

There is no way around the need for minds to think their way to knowledge. Thought is the key to knowledge. Knowledge is discovered by thinking, analyzed by thinking, transformed by thinking, assessed by thinking, and, most importantly, acquired by thinking. There is no way to take the thinking out of knowledge, or the struggle out of thinking, just as there is no way to create a neat and tidy, step by step path to knowledge that anyone can mindlessly follow (Paul 1992, p.vii).

John McPeck (1981, 34) rightly asserts the role of critical thinking in education:

What I shall argue is not only that it would be a good thing if our educational institutions insofar as the purpose of schools is to educate, this task logically cannot be accomplished without critical thinking. In short, critical thinking is a necessary condition for education. Furthermore, traditional methods of teaching are unable to meet educational aims as Glaser (1984, p. 294) remarks:

However, many traditional teaching methodologies are not adequately responsive to our best understanding of how thinking and learning proceed. Successful teaching takes as its objective the fostering of constructive reasoning on the part of the learner. Thinking is a generative activity—a means for continuous growth of knowledge and skills.
Enhancing students’ capacity to think is the most important role of schools, since it helps students deal effectively with learning tasks and problem-solving in life. It is not easy to find theories or principles in books or schools to deal with the complicated situations in life, but only good thinking mind can help us in solving all problems:

Most teachers want the best for all their pupils. In citing their teaching goals, most teachers state that they hope their pupils will grow in their abilities to act thoughtfully and maturely, as well as to take on and deal effectively with the complex problems of life in the twenty-first century. Many teachers, in fact, consider the promotion of each pupil’s capacity to think as a top-priority educational goal, more important today than ever before in the history of education (Raths 1986, p. xi).

One of the most important aims of education is to help make people good citizens of the country and the world. All the governments should be concerned about that since the students today will decide the future of the countries tomorrow. In the modern world, the mind is a source of power. But the mind needs to be trained and developed. It is not complete and perfect when one is born into this world:

[M]ind is not a name for something complete by itself; it is a name for a course of action in so far as that is intelligently directed; in so far, that is to say, as aims, ends, enter into it, with selection of means to further the attainment of aims (Dewey 1916, p. 155).

The US Government realizes that and provides all favorable conditions for educational systems to be the best places for the students to acquire tools and techniques to always make the best use of their minds in life:
Every school in America will ensure that all students learn to use their minds well so that they may be prepared for responsible citizenship, further learning and productive employment in our nation’s modern economy (U.S. Government Document, Goals 2000, 1994).

Everyone's mind has a great potential. The problem is that some don’t know how to mobilize that resource. Once this potential power is activated properly, all the solutions to human problems and the key to success can be found within the “frame of mind”:

...any solutions to the human gap as well as any guarantees for the human future can be sought nowhere else but within ourselves. What is needed is for all of us to learn how to stir up our dormant potential and use it from now on purposefully and intelligently (Gardner 1993, p.369).

Thinking is a great asset of mankind. Good thinking guards full development of a person. Special attention and arrangement should be made for teaching for thinking beside other objectives or other fields of knowledge. Nickerson (1987, p.32) strongly addresses that concern as:

We want students to become good thinkers because thinking is at the heart of what it means to be human; to fail in this regard is to preclude the full expression of one’s humanity. Thinking well is a means to many ends, but it is also an end in itself. Similarly, Robert Glaser (1984, p.27) asserts that: "If the acquisition of good thinking skills is to happen in school, particular attention needs to be focused on that special goal. It is not likely that students will obtain this goal coincidentally with the achievement of other objectives." He stresses that “abilities to reason and to think can only be attained when the thinking skills are interwoven with acquired knowledge and not left as subsequent add-ons." It is obvious that:
education must be concerned with the social group and prepare a person to play his part in it, shaping man to lead a moral, useful and cooperative life in the community or guiding the development of the human person in the social sphere. Awakening and strengthening both his sense of freedom and his sense of obligation and responsibility is an essential aim. He must know all his parts in communities and society, which he belongs to, and in order to be successful he must be good at them. It is education that can help him to learn these parts well as well as help him to perform them well (Maritain 1943, p. 13).

A good citizen cares deeply for the welfare, well being of others, security and development of the country. Critical thinking enables him to do all that satisfactorily because “Critical thinking leads to the “promotion of good citizenship…” In a democracy, citizens have an obligation to think deeply about significant issues” (Nickerson 1987, p.31). Education cultivates in man good habits and values, facilitates character building, development of personality through his perspectives, justification and selection with thinking and reasons:

Thus, fundamentally, the goal of education is the cultivation of the requisite antecedent traits and values: self-esteem and courage, a valuing of the pursuit of truth and the comprehensive elegant address of complex problems. Therefore education bears the responsibility for the development of the whole individual—values and voice, disposition and capacity—to imagine and reason well… (Walters 1994, p.44).

It is very interesting to examine the relationship of knowledge, freedom and progress. A person that has a good knowledge shall have great freedom. He is not a servant unwillingly loyal or obedient to other authorities. He resorts to his rational self-criticism. Also, he knows his
position and his rights and has much freedom. All his actions based on right knowledge lead to
good results. In Buddhism, wisdom leads to liberation. Also, a person enjoying freedom can
easily enrich his knowledge. He is given opportunities to learn, practice, test, and act to gain
knowledge. He can advance and transcend all previous limitations. Then, knowledge and
freedom enable all progresses within the individual or society. Intellectual disciplines and
“fitness” of mind should be nurtured for all the complexity in life:

The problem of knowledge, freedom, and productivity requires that we, for the first time
in our history, take true intellectual discipline and the “fitness” of our minds seriously,
since both are necessary conditions for the ability to adapt to accelerating change and
complexity. We must create new conditions in school and society under which
intellectual virtues long ignored—intellectual courage, intellectual humility, intellectual
perseverance, intellectual integrity, faith in reason, and fairmindedness—can develop.
We must learn to be comfortable with, indeed to value, rational self criticism. We must
begin to devote as much time to intellectual habits as we now do to physical ones, and
admit, finally, that rationality and openness of mind are not automatic or “natural” states
that can be left to themselves to emerge and flourish. To begin to do this, we must
reconceptualize the nature of teaching and learning in every context of life. We must
make disciplined practical reasoning and problem solving into a normal occurrence in
everyday situations, not extraordinary performance of an elite few.

In short, knowledge, freedom, and social progress are deeply intertwined.
Education—in the broad sense of any skilled act of disciplined, self-evaluated learning—
has a crucial role to play in fostering these critical values (Paul 1993, xiii).
Life is like a river ever running. Everything is in the process of constant change. In this rapid world, when facing changes or in new situations where booked knowledge and past experiences can’t be any kind of help, then only critical and creative thinking can help one deal with situations, to adapt and make timely changes. To prepare for that, students must form a habit from schools to work with change and to expect change. That is why critical thinking is vital for survival, adaptation, and progress in personal and social life:

Critical thinking is the essential foundation for adaptation to the everyday personal, social, and professional demands of the 21st Century and thereafter. The most inescapable imperative of the future is continuous change; change that involves complex adjustments to the increasingly complex systems that dominate our lives. Therefore, the distinguishing characteristics of those who will not only survive but flourish in the future, will be traits and abilities, both intellectual and emotional, that entail excellence in evaluating and responding to complex changing conditions…

We need to construct, through socialization, education, and new social practices, a new “second nature” for the mind. We must work within the human propensity toward habit by learning how to shape our minds to a qualitatively different kind of habit: the habit of not only continually changing but of continually expecting to change. We must cultivate the habit of continually raising our systems of routine to a conscious level with the express purpose of reshaping them in an unending series of acts of intellectual self-improvement. No domains of our lives—as teachers, parents, citizens, workers—will be spared if legitimate “peace of mind” is to be restored (Paul 1993, p. v).
Many schools and cultures have not done enough for that. Yes, it is also the problem with Asian Buddhist schools. If a student is trained in these schools, then he comes to Europe or America for religious cultivation of propagation, then a whole set of problems unexpectedly confront him. All of the things he has learned before would be of little or no use in new circumstances. Unless he has the capacity to analyze the new situations, knows his base, his position, decides where to start, with whom and which manners to deal, what to learn first in the new environment, he could hardly survive or develop:

The question of how to survive in the world is the question that continually transforms itself. Accelerating change, increasing complexity, and intensifying danger sound the death knell for traditional methods of learning. How can we adapt to reality when reality won’t give us the time to master it before it changes, again and again, in ways we can but partially anticipate? Unfortunately, the crucial need for ever new modes of thought to adapt to new problems and situations in new and humane ways is ignored by most cultures and most schools. Short-term thinking, which leads to quick-fix solutions, is largely the rule of the day. Great power is wielded around by little minds. Critical thinking is not social value in any society (Paul and Elder 2002, p. 5).

Today we don’t need very much to input or store information into our minds, because technological devices, machines and computers help us with that. The most important thing for us is to know how to deal with the huge mass of information. So, mental processes and thinking processes should be illustrated, experimented, practiced, and developed in schools. They are the useful tools to exploit human heritage. Without them, we are just like the handicapped in front
the treasures. This means that these thinking processes should form an integral part of the school curriculum.

Mankind not only learns to preserve the past treasure but also learns to create new things for progress and development. That is why amongst all the living, human life is the most evolved creation in the universe. Education must aim for that otherwise the society will stand still or advances slowly. Education should produce creative people. Creative minds and creativity are not born but trained, educated and developed. Jean Piaget addresses that necessity:

The principle goal of education is to create men who are capable of doing new things, not simply of repeating what other generations have done—men who are creative, incentive, and discoverers. The second goal of education is to form minds which can be critical, can verify, and not accept everything they are offered (Fogarty and Bellanca 1993, p. 23).

In every sector of real life in this competitive world, there is a great demand of creative people who can make new products with less cost, less time, more attractions, more usage and convenience. Educational systems should be arranged to meet that demand. To meet that goal, traditional teaching by authority must give way for teaching for creativity. Students should get good training and preparation before entering into modern competitive life:

Almost every phase of life activity today is in dire need of creative people—people with vision, people with originality and initiative. The world is constantly paying large premiums to those who can invent a new idea, a new device, a new way to make something. This does not mean that new ideas are generally welcomed; many of the greatest ideas have been at least temporarily spurned and their initiators dishonored. Such people are important, however, to the very survival of the human race. We need a large
number of people who can and will face facts, no matter how uncomfortable and
threatening; who will think and act independently of past attitudes and in terms of the
world as it is now...

When it comes to learning, however, we have generally assumed, or acted as
though we assumed, that it is better to teach altogether or primarily by authority rather
than creativity (Torrance 1963, p. 91).

Paul Torrance (1963, p. 89) observes that traditional teaching is still prevalent in religion,
but that goes against man’s natural inclination and God’s command:

Man’s natural inclination is to learn creatively. By learning creatively he acquires much
of his really useful knowledge. By learning creatively he acquires his enduring beliefs.
God has commanded man to live creatively. Yet in education we have traditionally
insisted that man acquire his knowledge from authority. In religious education we have
usually insisted that he acquire his beliefs from authority.

How should religious education be conducted? An image of religious education sketched by J.
Krishnamurti (1981, p. 38) should serve as an inspiration for religious education with critical and
creative thinking:

Dogmas, mysteries and rituals are not conducive to a spiritual life. Religious education in
the true sense is to encourage the child to understand his own relationship to people, to
things and to nature. There is no existence without relationship; and without self-
knowledge, all relationship, with the one and with many, brings conflict and sorrow...

Our so-called religious training discourages questioning and doubt, yet it is only when we
inquire into the significance of the values which society and religion have placed about us
that we begin to find out what is true. It is the function of educator to examine deeply his own thoughts and feelings and to put aside those values which have given him security and comfort, for only then can he help his students to be self-aware and to understand their own urges and fears.

Yes, nowadays “routine, tradition, accident, and transitory, accidental influences” are still prevalent in Buddhist schools. More research and better methods of learning and teaching should be introduced into these schools to improve educational performance in those schools. Some teachers still stick fast to their traditional ways of teaching. I wholeheartedly back up the progressive educationists who are trying to accelerate educational reforms. The survey and presentation of theories of learning and teaching as above are for that aim. We will deal more with the shift from traditional, passive ways of learning and teaching to more interactive, creative ways in the following chapters.
CHAPTER III

TEACHING EXPERIENCES DRAWN FROM INTERVIEWS

I chose to contact and conduct interviews with educators, religious lecturers, and teachers who have made significant steps towards the shift from traditional teaching to creative teaching. Their experience and techniques would serve as valuable supplements, equipments and as a bridge for me to connect from the schools to real life. I wanted to discover which factors have made them good teachers and if these factors can be applied into Buddhist schools. I interviewed three teachers who graduated from CCT graduate program of the University of Massachusetts: Laura Rancatore—English and literature teacher for classes 6, 7 and 8; Leor Alcalay—Lecturer of Quincy College, Boston; Basye Hendrix—Business Communications Instructor, University of Massachusetts, Boston; and Francis X. Clooney, S.J.—Professor of Comparative Theology, Harvard University. This chapter consists of some notable ideas and experience drawn from the interviews.

Laura Rancatore’s Experience

I will be a teacher in classrooms and a preacher of Buddhism. Sometimes, my students would be the American-Vietnamese children who learn about Vietnam history, literature, languages, civilization, culture, and religion. Sometimes they will be a public audience attending a Buddhist lecture. Their knowledge, experience of life, wisdom, and background are quite different. For that reason, first, I selected Laura Rancatore for the interview.

According to her, to carry out the teaching task effectively, a good teacher must focus on following factors:
• The age: When teaching, a teacher must pay attention to age of students. The age affects the characteristics, temperament, dynamism, and activities for the classes. So, depending on the age of students the teacher can design for activities of the classes.

• Space: The table for the teacher should be set near the students. The teacher should be active, moving around the classroom so that the teacher can get close and contact every student. In this way, the teacher can understand the students' problems and give guidance to them timely.

• Class atmosphere: The teacher decides the choices of lessons, activities, and assignments depending on the mood of students while also conforming to the standards of education set by the state or the country. The teacher is also a partner of the class activities. For the students in classes 6, 7, and 8, the teacher must design games for the class.

• Background of students: The teacher must be aware of the background of the students: where they come from; who they are.

There are so many good attitudes and actions that a teacher should take to guide a class effectively, but for Laura it is most important that the teacher:

• Be open to different perspectives, always patient, sympathetic, understanding and caring for students
• Not think or do activities in only one way
• Give students encouragement and avoid punishment
• Give more free writings related to the tasks in classes
• Help students to grow day by day through small things, bringing out the hidden potentiality inside students.
Dr. Leor Alcalay's Experience

I went to Quincy College, Boston, and sat in Dr. Leor Alcalay's class. I knew him through the recommendations of some teachers and his Graduation Thesis of Master of Arts, Critical & Creative Thinking, University of Massachusetts, Boston. Visiting the College where he was teaching English language for newcomer students of different nationalities, I was encouraged by the good news that he had been named the teacher of the year 2005 of that College. He shared with me his views and methods of teaching, such as:

I try to create a classroom atmosphere where experiences are shared, ideas explored, personal and cultural perceptions compared, and where all these can steep and percolate in ways that lead to lasting, transformative learning. My educational mission is to welcome students into the new world of academia they have entered, from whatever path, and to make them feel at home in ways that enable them to achieve their full human potential.

To reach these aims, he prepares himself and acts in the classroom in such ways as:

I am almost constantly preparing in many ways, reading books, newspapers, magazines, articles, watching television ... I use my time beside class to find materials that connect, support, reinforce activities in classes. I prepare myself for my classes by asking myself not only: "What will I teach today?" but also "What will I learn today?" I am constantly learning as I teach, from myself, from my academic disciplines, and from my students—in terms of language, communication, culture, pedagogy, and knowledge. The varied experiences, unlimited potential, and determination of my students continually reaffirms to me that I need to not only set high standards but also explain the purpose behind
challenging assignments, grounding my classroom atmosphere of free inquiry and humor within an academically rigorous framework.

Observing what have been going on in his class, I drawn some notable characteristics, skills and techniques he uses, such as:

- Getting students interested in the topic he is introducing by connecting the present lesson with other lessons in the whole structure of the curriculum and daily life
- Sharing his own experience in lessons to the students
- Making jokes, using sense of humor to change the atmosphere, which makes the lesson more interesting and gets closer contact with students
- Presenting the lessons in the way of problem-based learning
- Constructing group presentation
- Giving chances for every student to participate in the discussions
- Acting as the performer in the class; his signs, movement all have purposes of conveying the meanings for the instruction
- Making the best use of class time for interaction; some other work he asks the students to do at home by themselves

After the class, he shared more with me the philosophy of teaching and strategies of a teacher to become a good performer:

1. Having problems as a student makes you a good teacher. I reflect: I had problems as a student, why I had problems, how did I learned something, how do I interact with materials, how did teachers present the subjects?
2. Teaching is a problem of making a bridge between the teacher’s idea and intention and the students’ ideas and knowledge. If there is no interaction with students, the teacher has no idea of students’ understanding or processing; there is a big difference between what students know and what teachers know.

3. Explore ways to get there, where they need to get to, provide them situations in which they think of different ways they get solutions, and make the students aware of where they are and where they get to.

4. Make the best use of time in classes. Students need to work systematically through the curriculum.

According to him, a good teacher should act in a role as an instructor, facilitator, performer, and orchestra conductor. A teacher has important tasks of designing and leading activities in classes. I could see happy faces, happy moments, a lot of fun in the classroom. I had a deep impression of his image as a good teacher. Indeed, he not only teaches them English or knowledge but develops in them critical and creative thinking.

Basye Hendrix’s Experience

In religion and philosophy, there are always different views, points, and controversies on hot and subtle issues. When a teacher allows more freedom for students and set up environments for discussions and arguments, he should also have ways to conciliate and resolute the disputes otherwise the arguments mislead too far without any good conclusions and results. Moreover, I am staying and working in USA where there is a diversity of communities and nationalities, and when giving lectures to public, where the audience members have different backgrounds. For these reasons, I selected and met Ms. Basye Hendrix, a Business Communications Instructor,
University of Massachusetts Boston. A CCT program graduate, she has changed herself from a professional tennis player to a teacher and lecturer in Communications and Dispute Resolution.

She made the best use of what she has learned from Critical and Creative Thinking Program to do well in her current position. Here is her sharing of teaching experience:

- Lectures and the syllabus are build up from current business situation
- Communication is very important in education as well as in business
- Listen and talk in productive ways; be open to accept many different ideas
- Ask better and different questions
- Peer work, group work, collaborative thinking, brain storming, and problem solving are important for learning and teaching
- Apply judgment when appropriate
- Reconcile opposites
- See relationships among options, make new connections
- Elaborate, extend and refine ideas and situations
- Analyze the dialogue or conversation, discussion, judge the strength of arguments, reasoning, evaluate options to have solutions

It is interesting that, she always picks up the real problems and disputes in life to give format and construct the syllabus. The students participate in these discussions as problem solvers. That requires and develops critical and creative thinking skills. After graduation, the students will be equipped with practical and valuable tools for dealing and solving problems in their business and their lives.
Francis X. Clooney’s Experience

Closely connected to my teaching in Buddhist Schools is Francis X. Clooney, S.J, Professor of Comparative Theology, Harvard University because he is teaching about religion in a famous University. I believe that he has some special ways of teaching religions. It seemed necessary for me to contact him, interview him, and get his views of religious education and teaching experience to apply into the Buddhist Education System. I had a good time interviewing and exchanging views with him about good ways of conducting religious education.

Religions demand faith on some premises. Is there still room for exercising critical and creative thinking? The first question I put to Francis Clooney was: Do religions allow critical and creative thinking or demand total submission? He answered:

We have to distinguish the location where the study is taking place. In the bible study, in the church context, in the monastery, there might be some contexts where we expect total submission. But there are two other ways. Even in church related very tradition, temple related tradition, there is always critical questioning, of the faith where you think about the faith, you ask question about the faith, you try to make connection to philosophy, culture and so on. Certainly in the Christian tradition it is very common, we have not only the bibles, but we have theology. Theology always tries to make connection with the world in which you live. If you read the bible in 600, 1200 or 2005 too different questions come out. The third context is in University. In University we have theological study, you can study religion with or without personal commitment to it. You can study texts, images, and much can be learned even from a person who does not believe it. The way of studying religion is important.
Regarding how a religious teacher can make classrooms good environments for learning and teaching, he remarked:

Most of that would have to do with what make a good teacher or a bad teacher. The teacher has to know the field, but also has to be able to be in dialogue with students. The professor gives the knowledge and students just sit there and take it, that is usually a bad image of learning and teaching.

Belief, Faith, and Respect may make them conservative, passive and some fields, matters as protected area sacred, untouchable. How can he deal with this? Here are the hints:

I should know what questions my students have?
And then where do we meet in the middle.
Some time the teachers are more open, students are more traditional
What do the students think when they read bibles by themselves?
You have to listen to your students. But in religion, there is a sense of balance between studying of religion in University and being aware that students in front of you may have personal beliefs. You don’t want to teach in a way that insults students or upsets the students.
What influences students to believe these things?
Teaching must depend on different settings and situations.
The interactions about faith—my faith and students’ faith. The students want to know what do you believe yourself. In some way that is a personal question, in some way that is a fair question - why are you teaching it?
As regards the means of communication and instruction, a special thing a teacher of religions must be aware of is that verbal language has its limitation and can’t express everything. Prof. Clooney's views on this:

In Church, we give the readings, we give the sermons, then we do the rituals—the words are not enough. But in classroom, classroom is about as far as words can go because I don’t think in classroom you have to be able to talk usefully about the mystical areas, the mystery of God, Nibbana. Using words is just like a pointer or some kinds of questions. But I would not expect to communicate the full truth of religion in classroom anyway. The intellectual part, conceptual part—they are the points we do in classroom. Images, pictures, music, chanting might can also communicate in the place where words stop communicating.

He also noted that the goals of studying religion affect the ways of teaching and learning. The instructor must prepare to teach the learners according to the situation or institutional setting, e.g., training priests, running a monastery, academic study, job training, transmitting information.

The hints, views, experience, techniques and skills obtained from all the interviews are definitely helpful for further investigation in my project and have wide application in Buddhist education. Although I have met these teachers just one time, the impression and influence will last long, as long as I am still a Buddhist teacher—and learner.
CHAPTER IV
BASES FOR A CHANGE FROM TRADITIONAL TEACHING TO INTERACTIVE AND EFFECTIVE TEACHING

As described earlier in this synthesis, many teachers in Asian Buddhist schools adhere "traditional" ways of teaching or didactic teaching that make the students feel bored, tired, sleepy-all negative feelings and states that eventually led them to remain and attend the classes reluctantly as a compulsory duty, dislike the time being in the classes and dislike the subjects taught by the teachers.

Those teachers are the adherers of "Didactic Theory" in teaching. What they most need now are learning, practicing and shifting to more interactive and effective ways of teaching with direction given by "Critical Thinking Theory" or "Critical Theory," for short. The teachers need to have a "shift" in their minds first through reflecting, thinking and changing perception about teaching before they can actually demonstrate that "shift" in classrooms. This chapter highlights the differences between traditional teaching and interactive and effective teaching based on "Didactic Theory" and "Critical Theory" and suggests working definitions of critical and creative thinking, as well as characteristics of critical and creative teachers and students.

Comparison of "Didactic Theory" and "Critical Theory"

It is good for the teachers to refer to the comparison of "didactic theory" and "critical theory" so that teachers can see the differences and make their own choices. All the points made below about this comparison are based on the presentation by Richard W. Paul (Paul, 1993, p.133-139).
The Fundamental Needs of Students

Under Didactic Theory, the fundamental need of students is to be taught more or less what to think, not how to think. Under Critical Theory, the fundamental need of students is to be taught how not what to think. It is important to focus on significant content, but it should be accomplished by raising live issues that stimulate students to gather, analyze, and assess that content. Yes, this is the most salient difference in the main task of teachers in classes between the two trends ("didactic" and "critical").

Teachers adhering to didactic teaching always try to introduce, bring in, or infuse students' minds with as much data, information, and "knowledge" as possible within the time limit in classes. They talk continuously without paying attention or caring how much the students can absorb the "knowledge" they are giving to them, how they react to their teachings, or what are going on in students' minds.

Data, sources of information, facts in modern life are rampant; we are living in the era of information explosion, so how can the teacher bring every relevant thing in the class to present to the students? This is why training in "how to think" will assume far more importance than the body of knowledge to be learned from "what to think." The most important task of the teachers is constructing a role model for how to think. The teachers should focus on improving students' thinking skills, which involves encouraging them to think about not only what knowledge is generated, but how that knowledge is generated, because "schools are culture for growing minds" (Eisner 1991, p.11). Learning is a lifelong task. What students often remember best about their teachers is not exactly what they taught, but what they were like.
The Nature of Knowledge

According to the Didactic Theory, knowledge is independent of the thinking that generates, organizes, and applies it. In Critical Theory, all knowledge of "content" is generated, synthesized, and assessed by thinking; that gaining knowledge is unintelligible without engagement in such thinking.

In chapter II, we already investigated and elaborated theories of learning, teaching and knowledge, and education, drawing the conclusion that "knowledge" is not something easily transferred from the teacher to students, but that students must participate in the process and construct knowledge actively by themselves through generating, synthesizing, and assessing. Thinking and knowledge must be put into usage otherwise it is meaningless or without confirmation.

Model of the educated person

In the Didactic Theory, educated, literate people are fundamentally repositories of content, analogous to an encyclopedia or a data bank, directly comparing situations in the world with facts that they carry about fully formed as a result of an absorptive process. An educated, literate person is fundamentally a true believer, that is, a possessor of truth, and therefore claims much knowledge.

In Critical Theory, an educated, literate person is fundamentally a repository of strategies, principles, concepts, and insights embedded in processes of thought rather than in atomic facts. Experiences analyzed and organized by critical thought, rather than facts picked up one by one, characterize the educated person. Much of what is known is constructed by the thinker as needed from context to context, not prefabricated in sets of true statements about the world. An
educated, literate person is fundamentally a seeker and questioner rather than a true believer, therefore cautious in claiming knowledge.

There are different images of “educated person” in the two trends. Both the teachers and students try to improve or modify themselves toward the “image” of “educated person.” The teachers following “didactic” trend are like a “data bank”, so proud of that bank, they claim greatest authority in the classrooms and they think they are generous enough to hand some portions of their “properties” to the students. On the other hand, the teachers following “critical” trend possess strategies, principles, concepts, and insights embedded in processes of thought; they are always the seeker and questioner. They don’t show up much authority in the classrooms. They often reflect about the knowledge and beliefs. They have and always try to improve themselves to become better teachers.

The Nature of Learning

In Didactic Theory knowledge, truth, and understanding can be transmitted from one person to another by verbal statements in the form of lectures or didactic teaching. In Critical Theory knowledge and truth can rarely, and insight never, be transmitted from one person to another by the transmitter’s verbal statements alone; one cannot directly give another what one has learned—one can only facilitate the conditions under which people learn for themselves by figuring out or thinking things through.

Teachers of the “didactic” trend believe that they can transmit knowledge to students by “one way” lecturing, teaching and talking to them. Meanwhile the teachers of the “critical” trend think the best they can do is to facilitate conditions or establish a classroom atmosphere favorable for the students to think the things through and obtain knowledge mostly by
themselves. That is the reason why Diane Halpern (2003, p 6) said: “Knowledge is not something static that gets transferred from one person to another like pouring water from one glass to another. It is dynamic. Information becomes knowledge when we make our own meaning out of it.”

The above-mentioned characteristics can help us to figure out the differences of activities in the classrooms of teachers and students in the two trends. There are still twelve more characteristics of “Didactic Theory” and “Critical Theory” that Paul (1993, p.133) lists in his book Critical Thinking, What Every Person Needs to Survive in a Rapid Changing World. We will touch them later when discussing about teaching and learning techniques.

The problem I see in Asian Buddhist schools is that most of the teachers follow “Didactic Theory.” I myself strongly believe that the teachers should minutely examine “Critical Theory” as presented by Richard Paul, and they should train and improve themselves as critical and creative persons and help students to enhance and make use of critical and creative thinking while learning. Then and only then, can the effectiveness of education in Buddhist schools improve. In the following sections I provide them the concept and content of “Critical and Creative Thinking” learning and teaching techniques that I gained from Critical and Creative Thinking Graduate Program that have changed me for the better in my teaching of Buddhism. I believe these are good remedies to cure the problems in Buddhist schools.

Critical thinking

There is a wide range of definitions of “critical thinking.” It is good to examine the survey of Diane Halpern (2003, p.7) of definitions of Critical Thinking, as described below:
Although many psychologists and others have proposed definitions for the term "critical thinking," these definitions tend to be similar in content. In a recent review of the critical thinking literature, Fischer and Spiker found that most definitions for the term "critical thinking" include reasoning, logic, judgment, metacognition, reflection, questioning, and mental processes. Jones and his colleagues obtained consensus from among 500 policymakers, employers, and educators, who agree that critical thinking is a broad term that describes reasoning in an open-ended manner and with an unlimited number of solutions. It involves constructing a situation and supporting the reasoning that went into a conclusion. Here is a simple definition that captures the main concepts: Critical thinking is the use of those cognitive skills or strategies that increase the probability of a desirable outcome. It is used to describe thinking that is purposeful, reasoned, and goal directed—the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions, when the thinker is using skills that are thoughtful and effective for the particular context and type of thinking task. Critical thinking is more than merely thinking about your own thinking or making judgments and solving problems—it is using skills and strategies that will make "desirable outcomes" more likely. Decisions as to which outcomes should be desirable are embedded in a system of values.

Halpern (1997, p.4) defines critical thinking as a learnable skill:

Critical thinking then is the process of evaluation or categorization in terms of some previously accepted standards... this seems to involve attitude plus knowledge of facts plus some thinking skills... The "critical" part of critical thinking denotes an evaluation
component. Sometimes the word "critical" is used to convey something negative, as when we say "She was critical of this movie." However, evaluation can and should be a constructive reflection of positive and negative attributes. When we think critically, we are evaluating the outcomes of our thought processes—how good a decision is or how well a problem has been solved. Critical thinking also involves evaluating the thinking process—the reasoning that went into the conclusion we've arrived at or the kinds of factors considered in making a decision. Critical thinking is sometimes called directed thinking because it focuses on obtaining a desired outcome.

John Chaffee (2004, p.32) gives us a shorter definition of critical thinking:

The word critical comes from the Greek word for “critic” (kritikos), which means “to question, to make sense of, to be able to analyze.” It is by questioning, making sense of situations, and analyzing issues that we examine our thinking and the thinking of others. These critical activities aid us in reaching the best possible conclusions and decisions…

The word critical is also related to the word criticize, which means “to question and evaluate.” Unfortunately, the ability to criticize is often only used destructively, to tear down someone else’s thinking. Criticism, however, can also be constructive—analyzing for the purpose of developing a better understanding of what is going on. We will encourage in constructive criticism as we develop our ability to think critically.

Similarly, Ian Wright (2002, p. 43) comes to a definition of critical thinking by analyzing the term “Critical”:


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Critical also has several different senses, only one of which is relevant to our purposes here. The original meaning of the word derives from the Greek, kritokos, meaning skilled in judging. This is what critics do: They make skillful judgments about works of art, movies, policies, and so on. These are not always negative. A good critic points out the strengths and weaknesses, the good points and the bad, and arrives at a judgment. This is the essence of what we want to capture when we add “critical” to “thinking.” A critical thinker is someone who judges well.

In 1963, Ennis published an influential article in the Harvard Educational Review, “A Definition of Critical Thinking.” He has continued to tinker with his definition of critical thinking, which he now defines as “reasonable, rational thinking that helps us decide what to believe and do” (Lipman 2003, p. 43). Ennis’s definition is short, but vast and remarkable. This definition recognizes wide role that critical thinking plays in everyday life, because all behavior depends on what we believe, all human action depends upon what we decide to do. Similarly, Nickerson, Perkins, and Smith (1985, p. 4-5) propose an active definition of critical thinking:

Clearly, figuring out what to believe, in a wide variety of contexts, is an especially important aspect of modern life. And to do that in a rational way requires the ability to judge the plausibility of specific assertions, to weigh evidence, to access the logical soundness of inferences, to construct counter arguments and alternative hypotheses—in short, to think critically.

Glaser (1985, p. 24) pays much attention to attitude and skills when describing critical thinking in terms of an “attitude of being disposed to consider in a thoughtful, perceptive manner
the problems and subjects that come within the range of one’s experience,” and “knowledge of the methods of logical inquiry and reasoning.”

Paul (1993) gives a definition of critical thinking as “the art of thinking about your thinking while you are thinking in order to make your thinking better.” He later on goes further to elaborates the art of thinking:

Critical thinking is a systematic way to form and shape one’s thinking.

Critical thinking is distinguishable from other thinking with the awareness of the systematic nature of high quality thought, and is continuously checking up on himself or herself, striving to improve the quality of thinking (p. 20).

And:

a) The art of thinking about your thinking while you’re thinking so as to make your thinking more clear, precise, accurate, relevant, consistent, and fair.

b) The art of constructive skepticism

c) The art of identifying and removing bias, prejudice, and one-sidedness of thought

d) The art of self-directed, in depth, rational learning

e) Thinking that rationally certifies what we know and makes clear wherein we are ignorant (p. 136)

Daniel E. Flage (2004, p. xv) emphasizes the role of critical thinking in reasoning and judging a claim:

Critical thinking is careful reasoning. It is a deliberate, efficient, and effective means for determining whether a statement or claim is, or probably is, true or fail. If you cannot
determine whether the claim is true or false, critical thinking helps you determine the
degree of confidence you should place in the claim.

Tishman and Perkins (1995, p. 25) focuses on the products of critical thinking when they
state that “Critical thinking is a matter of directing our minds along paths more likely to yield
sound products of thought—sound beliefs, decisions, solutions to problems, plans, policies, and
so on.” Daniel E. Flage (2004, p. 56) also goes further to identify prominent characteristics of a
critical thinker as:

A critical thinker is economical in verbiage and evidence. He uses no more words than
necessary to make a point...
A critical thinker is committed to relevant and depth in reasoning. He seeks
understanding all aspects of an issue, a problem, or an argument.
A critical thinker craves consistency; two propositions are consistent if it is possible for
both to be true.
A critical thinker is open-minded. She is willing to examine new ideas and reexamine her
own claims if new facts come to light... A critical thinker consider new hypotheses and
ask whether there are reasons to believe they are more probable than the old ones. She
examines the evidence, she evaluates the arguments on each side of the issue:
A critical thinker is willing to doubt; He questions the evidence supporting claims
including claims he believes.... The critical thinker recognizes that he often needs to act
on the basis of probable truth, while seeking greater certainty.
A critical thinker is curious. She has a desire to learn.
A critical thinker is industrious. He recognizes that the road to truth is often long and difficult. A critical thinker is willing to devote all his abilities to reach that goal. He is persistent.

A critical thinker is detached from her subject of inquiry. She is willing to set aside her own interests and emotional attachments in seeking truth.

A critical thinker is civil. He treats the work of others with tolerance and respect even he argues that their beliefs are misguided.

A critical thinker respects humor.

Creative Thinking

Halpern (2003, p. 397) focuses on two aspects of “creativity”; “unusual and appropriate” when giving a definition to it:

Creativity is a difficult word to define. We say that someone “is creative” when she has produced an outcome or a product that is both unusual and appropriate (or meaningful or useful or particularly good). Thus, creativity is defined by two aspects of its consequence (novelty and quality) and not the process that led to the consequence.

Beside the “novel and appropriate” aspects of creativity, Hennessey and Amabile (1987, p. 7) mention the “task is open-ended”:

What do we mean by creativity? Psychologists have approached this problem of definition from a variety of angles. In the past, they tended to center their discussions around either the creative person or creative process. Although today many theorists continue to think of creativity as a process, their definitions most frequently cite characteristics of the product as the distinguishing signs of creativity.
Bruner, for instance, views the creative product as anything that produces “effective surprise” in the observer as well as a “shock of recognition” that the product or response, while novel, is entirely appropriate. (Glover 1989, p. 212)

Shari Tishman (1985, p. 1) gives a combined definition of critical and creative thinking:

Critical and creative thinking can be considered higher level productive thinking. It does not involve memory, simple comprehension, nor recall; critical thinking is analytic and evaluative. Creative thinking synthesizes information; it develops new or unusual ideas. Though theorists may differ on which specific skills are considered critical and creative thinking, the following are generally accepted definitions:

Critical thinking: The process of analyzing and evaluating statements, arguments, information, and experience.

Creative thinking: The generation and combination of ideas and experiences to transform them into new ways of thinking, producing, and acting.

John Chaffee (2004, p. 276) gives a definition of critical and creative thinking and highlights the relationship between them:

Thinking critically and thinking creatively are two essential and tightly interwoven dimensions of the thinking processes. These two forms of thinking work as partners to produce effective thinking, enabling us to make informed decisions and lead successful lives.

Thinking creatively: The cognitive process we use to develop ideas that are unique, useful, and worthy of further elaboration.
Thinking creatively; The cognitive process we use to carefully examine our thinking and the thinking of others in order to clarify and improve our understanding.

For example, imagine that you are confronted with a problem to solve. Thinking critically enables you to identify and accept the problem. When you generate alternatives for solving the problem, you are using your creative thinking abilities, while when you evaluate the various alternatives and select one or more to pursue, you are thinking critically. Developing ideas for implementing your alternatives involve thinking creatively, while constructing a practical plan of action and evaluating results depend on thinking critically.

It is apparent that thinking creatively and thinking critically interact in continual and complex relationships in the mind of an effective thinker.

Chaffee (2004, p.31) also notes that “Creative thinking and critical thinking work as partners to produce productive and effective thinking, enabling us to make informed decisions and lead successful lives.”

Ian Wright (2002, p. 53) shows the role of critical thinking in judging a design (or product) —to see if it is interesting, or new:

Critical thinking and creative thinking are linked. When we say that someone has produced a creative solution to a design problem, then we have made a judgment. When we use a term like creative, we are saying something more than it is novel, interesting, or new. We use our critical faculties to judge the design, just as the creator has used his critical faculties to produce the design.

It is worth considering the ten characterizations of creative thinking presented by Matthew Lipman (2003, p.245):
What would be some examples of critical and creative characterizations of creative thinking? Consider these:

a. Originality. Thinking for which there are no clear precedents.

b. Productivity. Productive thinking is thinking that, when applied in problematic situations, generally brings forth successful results. This is a value-concept that is heavily reliant upon consequentialist considerations.

c. Imagination. To imagine is to envisage a possible world, or the details of such a world, or the journey one may take to reach such a world. To have other worlds in which to dwell—and to make them available to others to dwell in also—is no mean feat.

d. Independence. Creative thinkers are those who, as we say, "think for themselves," and who are not stampeded into thinking the way the crowd thinks.

e. Experimentation. Creative thinking is hypothesis-guided rather than rule-guided thinking... Creative thinking involves a constant trying out, or testing, as well as a searching for firm support, which makes it probative.

f. Holism. The emerging character of the whole, in creative thinking, plays an important role in determining the progressive selection of additional parts.

g. Expression. Creative thinking is expressive of the thinker as well as of that which is thought about. To think creatively about a tree that one perceives reveals the character of the tree and that of the thinker.

h. Self-transcendence. The restlessness of creative thinking reveals itself in a striving to go beyond its previous level.

i. Surprise. The meaning of originality lies in its consequences, and surprise is one of those consequences, when the originality is not merely novel but fresh.
Generativity. Creative thinking not only is a stimulus to satisfaction, pleasure, joy, and delight in others, but it in some cases stimulates other's creativity.

Enhancing critical and creative thinking

By examining the preceding definitions and characteristics of critical and creative thinking we can see that critical and creative thinking are every necessary and extremely useful in every activity of human. But, the sad fact is that many people ignore or don’t know that, so their thinking is not critical and creative. As Richard Paul (1993, p. 134) remarks:

It is certainly of the nature of the human mind to think—spontaneously, continuously, and pervasively—but it is not of the nature of the human mind to think critically about the standards and principles guiding its spontaneous thought.

There is no business more profitable than investment in enhancing the ability of thinking. Critical and Creative Thinking can serve as tools for survival and success in the world of rapid changes, in the era of high technology, information explosion, and “world-family.” This demands a great ability of each individual to face, adapt, adjust or go beyond the situations or living environment. Everyone must resort to the power of mind and the power of thinking, thought, or mind decides the fate, status of individual and the world of mankind as a famous quote of James Lane Allen (1849-1925), an American novelist and short story writer: “You are today where your thoughts have brought you; you will be tomorrow where your thoughts take you.”
A sharp mind is the best equipment for a person to have. Only each individual with his mind can decide for himself in right time, right place and handle with all rapid changes happening to him:

We all know that the world is changing rapidly and that new issues arise and old ones are revisited. How should we respond to these? Should we throw up our hands and let others decide for us? Or should we make up our own minds and, where desirable and feasible, become agents of change? (Wright 2002, p. 12)

Skills and knowledge gained from certain schools or universities are not enough for people especially when they change major, field of work and job. They continue to learn after leaving schools and that is life learning as former U. S. President Bill Clinton (1994, p. 8) said: “We know that the average American, because of changes in the economy at home and abroad, will change work seven or eight times in a lifetime.... If that is true, it is clear that we need an agenda as a people for lifetime learning.”

So, schools nowadays make it an important aim to teach and enhance critical and creative thinking for students. This can serve them right time when they are in schools and after leaving schools; they can study better, work and live better in and after schools. John Chaffee (2004, p. xi) highly encourages teaching students critical and creative thinking in schools as:

Critical thinking is the cornerstone of higher education, the hallmark of an educated person, and teaching a course in critical thinking is one of the most inspiring and rewarding experiences that a teacher can have. Because the thinking process is such an integral part of who we are as people, the prospect of expanding students’ thinking implies expanding who they are as human beings—the perspective from which they view the world, the concepts and values they use to guide their choices, and the impact they
have on the world as a result of those choices. Teaching persons to become critical thinkers does not simply equipping them with certain intellectual tools; it involves their personal transformation and its commensurate impact on the quality of their lives and those around them. This is truly education at its most inspiring!

Wilbert J. McKeachie (1992) was not very optimistic when mentioning about helping students “learn to think” in colleges: “Everyone agrees that students learn in college, but whether they learn to think is more controversial” (cited in Halpern 2003, p. 10). Academic institutions in the United States have focused on forging the ability to think critically in every academic field, responding to the educational goals set by National Education Goals Panel (1991, p. 237):

In the United States, the topic of critical thinking gained widespread attention when the National Education Goals Panel established educational goals that the United States would strive to achieve by the year 2000 and beyond. Panel members realized that our best hope for a strong global economy and for citizens who can participate in the democratic process is to produce college graduates with a broad knowledge base and strong critical thinking skills.

An educated, thinking citizenry is the best way, perhaps the only way, to ensure world peace and adequate resources. Accordingly, one of the educational goals that they set for the year 2000 and beyond was that: “The proportion of college graduates who demonstrate an advanced ability to think critically, communicate effectively, and solve problems will increase substantially.”
Not only USA, nowadays, critical and creative thinking is the widespread felt need to get high priority in educational aims in every schools all over the world also, as described in some researcher's reports:

Numerous other countries have recognized that the world community is growing smaller and the need for a citizenry that can think critically is imperative in every country. Such was the conclusion of a panel of experts on higher education that met in Mexico. They agreed that "the job of the university today is to turn out students who can think in a rapidly changing world." News reports from Pakistan and many different countries in Eastern Europe and Asia also document phenomenal growth in the number of college courses designed to help their students become better thinkers (Halpern 2003, p. 5).

Can critical and creative thinking be developed?

Yes, very few things that man possesses is inborn. Most things man learns, practices and acquires in life, including the ability to think effectively. That is tested by many researchers:

Although there has been some debate about whether it is possible to produce long-lasting enhancements in the ability to think effectively..., we now have a considerable body of evidence that thinking skills courses and thinking skills instruction that is embedded in other courses can have positive effects that are transferable to many situations. Numerous qualitatively different forms of outcome evaluations for thinking courses provide substantial evidence for the conclusion that it is possible to use education to improve the ability to think critically, especially when instruction is specifically designed to encourage the transfer of these skills to different situations and different domains of
knowledge. In fact, it is difficult to identify any aspect of critical thinking that could not be taught and learned. Self-reports by college students show that the overwhelming majority believe that they have made substantial gains in their ability to think critically after completing a thinking skills course... Students rate themselves higher on numerous self-report scales including the willingness to suspend judgment, ability to evaluate conflicting claims, use of likelihood and uncertainty, and utilization of numerous problem-solving heuristics such as working backward from the goal, eliminating useless information, and evaluating the credibility of an information source (Halpern 2003, p. 11).

Through meeting and interviews I have witnessed teachers developing themselves as critical and creative teachers. In my case, for instance, I have attended Critical and Creative Thinking Graduate Program of University of Massachusetts, Boston, talked with critical and creative persons, and examined materials regarding on these subjects. I now find myself changed and improved a lot in terms of habits of thinking, attitude, techniques of thinking and quality of thinking and teaching Buddhism. I am confident with the progress in the way of becoming a better Buddhist teacher. I will give some examples of that in later chapters.

Critical and creative thinking helps students study better

Critical and creative thinking is very useful for every activity of mankind, especially for learning since, in learning, students always use their minds and thinking. Many surveys show that college students who receive coursework in critical thinking score significantly higher on a
multiple-choice test of thinking skills than comparable students who don’t take such a course. Halpern cites more instances for that in her book, *Thought and Knowledge*:

The strongest support for beneficial outcomes from critical thinking instruction comes from a collection of studies by Nisbett and his colleagues... For example, in one study, Nisbett and his coauthors phoned students at their home after the coursework was completed, under the guise of conducting a survey. They found that students spontaneously applied the thinking skills that they had been taught in school when they encountered novel problems, even when the school-related context cues were absent (Halpern 2003, p. 12).

It is not good for students to just sit and listen then receive knowledge from the teachers but they must take part in some processes actively, through that, they can gain knowledge. Critical and Creative Thinking helps students to work with all the processes inside and outside classes.

Can critical and creative thinking help teachers teach better?

The task of teachers is to help students learn well all the things they need to learn from the programs of study as well as gaining necessary equipment for their present and future lives. As shown above, critical and creative thinking is very useful for study, so if the teachers are not critical and creative thinking persons it is hard for them to help students to acquire critical and creative thinking. Moreover, in order to teach well, a teacher not only needs vast knowledge in the field but must master teaching skills, techniques, and the art of performance in the classrooms—all these related to critical and creative thinking. I hope that, from reading up to this line, a teacher adhering to “traditional” ways of teaching must rethink his teaching and make a decision, a resolution, a “shift” in his mind to make use of, combine, or infuse students with
critical and creative thinking. The following chapter will show how a teacher can use critical and creative thinking to best deal with every phase of his task of teaching, before, in, and after a class or course with my own case as an example.
CHAPTER V

MY EXPERIENCE AND PROGRESS IN TEACHING BUDDHISM &
A PLAN FOR BETTER BUDDHIST EDUCATIONAL SYSTEM

From 2004-2010, in Boston (Massachusetts) and in Cleveland (Ohio), USA, I have taken two roles in Buddhist Education: a teacher of Vietnamese-American children and a preacher to the Buddhist public. In this chapter, I briefly present the most salient factors that I valued and have been using when teaching.

Classes with Vietnamese-American Children

Setting goals of the class

This Vietnamese-American children class is open with some vivid goals, such as equipping the students with knowledge and experiences of Buddhism, Vietnamese language, culture, civilization, history, citizenship, morality, and developing their thinking power. I am happy to see that the students day by day grow more interest in learning; their progress consolidates their purposes. I am fully aware that education is the principal tool of human growth, essential for transforming the unlettered child into a mature and responsible adult. Above all, an educational policy guided by Buddhist principles must aim to instill values as much as to impart information. It must be directed, not merely towards developing social and commercial skills, but also towards nurturing in the students the seeds of spiritual nobility.

When running the class, I aim at two goals at the same time: to impart my knowledge, experience and skills to them; and to help them to develop their own thinking skills to know the ways of learning by themselves and to digest all the things they acquire. The best things a teacher
can teach a student are how to learn or how to think for themselves so that they can find their own way through the problems and concerns they meet in life. Mental reflection is necessary for students to become conscious of their thinking designs and to become skilled at applying them to new situation.

Children should be given freedom for self-determination. Dealing with them, I take the children as respect-worthy human beings and provide them every opportunity to grow freely. I take the philosophy of education, the word "education" literally means "to bring forth," which indicates that the true task of this process is to draw forth from the mind its innate potential for understanding. As Galileo said, "You cannot teach a man anything; you can only help him to find it within himself." Similarly, Aristotle considered that education is essential for the complete self-realization of man.

Children need critical thinking skills to understand different problems facing them in this rapidly changing world. Critical thinking programs in education are important in a society in transition. I need to guide students to extend new learning with relevant situations both in and out of the classroom. To meet these goals, the classroom must be a controlled environment for education, a good place for a person’s training and education. It is a special context that provides opportunities for experience that promotes the development of the children’s thinking skills. The students can retain their inherent creative talents with good educational system. The classroom is one of the important instruments of any educational system. In the classroom, students will receive good knowledge and know how to channel this gift into everyday life. The class should have good access for and useful techniques to enhance the creative process. Students are invited to choose those they are drawn to and add them to their own repertoire of talents.
I try my best to make the class a supportive environment. I care to develop students’ thinking by classroom instruction, modeling, practice, and careful coaching. I am concerned about, support, and value creativity in their students. If education strives to prepare children for a productive life in society, the educational system must accept responsibility for supporting and developing creativity. The classroom is a place that should, as Cole et al. (1999) note “encourage independence, risk-taking, and intrinsic motivation,” all of which “have been found most conducive to creativity.” I know the role of the teacher is important in the development of creativity of the students: “Teachers accept and encourage creative thinking, tolerate dissent, encourage students to trust their own judgments, emphasize that everyone is capable of creativity, and serve as a stimulus for creative thinking through brainstorming and modeling.” (Torrance and Myers 1970, p.77)

Preparation before the class

Preparation before the class is important and decisive for all processes and achievement in the class. The time in the class is always limited so preparation can help the teacher to make the best use of it. Preparation makes a teacher an active instructor, avoid passive and embarrassed moments, perform all things in a good order. I am doing many things beside class as reading books, newspapers, magazines, articles, watching television, talking with people, hot issues happening in real life then I try to connect these things with curriculum and activities in classes. A good teacher must grasp the syllabus and know exactly the goals he should reach in this class, the tasks he has to perform, the strategies he has to follow and all other things, such as questions, exercises, assignment, visual aids, and materials to be prepared. With good
preparation, a teacher is confident to perform the tasks well and can become a critical and creative teacher. The teacher should show up in the class in time.

Setting up a good atmosphere in the class

In order to perform the tasks effectively, the teacher must be like an orchestra conductor to guide the students as if they were members in the music band. The teacher should be a dear person, best friend to the students, always encouraging and supporting students, make the class a supportive community, a family as close as when one of them can’t attend the class or misses the class too much. The teacher must pay attention and care about the mood of all students so that they can help in making change to the plans, teaching, giving questions or tasks to them accordingly.

Teachers and students should have an open relationship built upon trust. The student should feel that his teacher is generally trying to help and also feel able to approach his teacher for any needed help. The teacher should be active, moving around the classroom whenever possible so that the teacher can get close and contact every student physically and psychologically. In this way, the teacher can understand the students’ problems and give timely guidance to them.

Inside the class, cultural conditions must be favorable for the growth of creativity in that traits favorable to creativity are more easily available such as freedom, divergent thinking, emotionality, playfulness and originality, so creating such environmental conditions stimulates critical and creative thinking of the students. Students should not face ridicule or negative criticism. I express my views to the students, listen to theirs attentively, and acquaint them with other views. The students and I are free to give our own ideas, to challenge anything that they disagree. I teach, yes, but I don’t force them to accept all of my words. I don’t expect them to just count on me. The combination of freedom and basic guidance contributes to an environment
conducive to creativity. I can serve as a stimulus for creativity through their feedback, directing, questioning, and explaining. I enthusiastically encourage children to develop more than one solution to a problem then can see greater creativity in problem solving. Allowing choices is possible due to the absence of standardized evaluation—the material of instruction is my choice, and that contributes to the atmosphere of individual expression and personal growth. In every subject and every hour I teach, I encourage creative and critical thinking such as emphasizing depth, encouraging freedom in thinking and creativity, welcoming questioning attitudes, giving students opportunities to participate and “think through”, asking students to evaluate issues, using a variety of activities and assignments to help students actively take parts in class activities and trying in opening up their minds, and exploring the subjects. I am trying my best to be close to them, to maintain positive teacher-student relationships.

My role of a teacher is primarily that of a facilitator. I provide them clear instructions and encourage divergent thinking and creative responses through techniques such as brainstorming and by using questions to examine and expand her students' thinking. I would be able to direct the students to information sources and help them to use good reasoning skills. Both group and individual investigations and activities should be included in the curriculum, and students should be given responsibility for their own learning. I relate to students as individuals, respect students as persons, must be friendly toward students, accessible to students, be a dynamic and energetic person, enthusiastic about the subject, enjoy teaching, have an interesting style of presentation, and have self-confidence. As the instructor, I get the discussions in the class moving and keep it on track. I must find problems to solve, know how to ask questions to bridge the gaps between what they know and what they don’t know. Especially for the children, a good teacher should
make the class enjoyable and make the lessons more interesting. From time to time, I tell stories and share my own experience to the students.

I help children learn to think and solve problems in creative ways by giving them the freedom to make mistakes and by respecting their ideas. Children naturally are "afraid to take risks, afraid to explore new ideas, and afraid to fail" so creativity needs to be supported in the classroom. Creativity has been identified as a high-risk job for students. I encourage them to take risks, explore the matters deeply, independently, and apply their knowledge, experience in the present living situation or in the future. The best way to enhance creativity is to create a climate that is conducive to increasing task motivation. In this way, we are able to explore deeply ethical dimensions of issues, and the students will be better able to form their own moral views.

I am warm, kind, sympathetic to the students, concerned for students' progress, encourage class discussion, invite students to share their knowledge and experiences, invite criticism of my own ideas, interact with the students in many ways. I act as the performer in the class; I use signs, movement intentionally, all which have purposes of conveying the meanings for the instruction. During the time in class, I help keep students motivated and involved. I use motivational aids such as providing competitions, praises, written comments, and prizes reasonably. A good teacher needs to appear in control at all times and able to deal with any situation that may arise. He is able to maintain a general authority over the classroom but still remain open and approachable to students.

Humor can be an effective tool in teaching; humor can contribute a positive environment for learning. I remember in a CCT class, Dr. Nina Greenwald invited a special guest to help us to generate humor atmosphere and have laughs in our lives as "Laughter is the Best Medicine." At times, when speaking, we want to use it as a break before going on to something else. It enables
us not only to create an affective or positive environment, but is a source of enjoyment. Humorous situations allow my students to express themselves without fear of ridicule and criticism. Anxiety and stress is reduced and the students are encouraged to take more risks in doing all things designed in the class. It can allow the shy or timid student in our class to participate with the group work, as Provine, a neuroscientist engaged in studies of the development, evolution and neural mechanisms of behavior said, “Indeed, the presumed health benefits of laughter may be coincidental consequences of its primary goal: bringing people together” (Provine 2000).

Similarly, Watson and Emerson (1988, p. 89) stress the importance of humor and encourages the teachers to facilitate learning with humor:

When humor is planned as part of the teaching strategy, a caring environment is established, there is an attitude of flexibility, and communication between student and teacher is that of freedom and openness. The tone is set allowing for human error with freedom to explore alternatives in the learning situation. This reduces the authoritarian position of the teacher, allowing the teacher to be a facilitator of the learning process. Fear and anxiety, only natural in a new and unknown situation, becomes less of a threat, as a partnership between student and instructor.”

Dickinson (1961, p.110) also proves that laughter can help facilitate learning joyfully, actively and effectively when stating that “classrooms in which laughter is welcome help bring learning to life.” Therefore, humor should be an integral part of a positive learning classroom environment.

For children, play has an important part in the class. The teacher should design and allow suitable time for play, as “all work and no play makes Jack a dull boy.” The Association for
Childhood Education International (2002, p. 110) believes that “play—a dynamic, active, and constructive behavior—is an essential and integral part of all children’s healthy growth, development, and learning across all ages, domains, and cultures.” I like to have games while teaching and learning. Games and fun can help the students learn better. In teaching four subjects, I compose some plays and have students act in the plays. They are very creative to take the roles and even they can act better than expected. After witnessing them playing, I have a much better play. It should both permit speculation and may, should at times, be playful to allow one’s imagination to function, as Gordon (1961, p. 110) said: “Not all play is creative, but all creativity contains play. Play in the creative process means the activity of floating and considering associations apparently irrelevant to the product.”

Games and “open competition” can be used not only to get students to participate, but also act as a “bridge” for students to construct their own knowledge and challenge alternative conceptions. For instance, giving a history lesson by two people act out roles in that scenario and the students have to learn and consider the words, behaviors and actions,... of the characters through that they learn more and have deep impression. Team role playing is an excellent exercise because the students who act out the roles learn many things: analyzing problems from various perspectives; trying various solutions in a scenario; developing teamwork; and co-operation and creative problem solving in groups.

Brainstorming can be an effective way to generate lots of ideas and then determine which idea(s) best solves the problem. I present a problem and then ask them to give ideas, solutions or answers. A person collects their ideas and write on the board in a certain amount of time. Everyone is free and encouraged to give his/her own ideas. Then, we, together analyze the ideas generated and gathered to draw a best solution from them. The students are happy with
brainstorming because they feel that they all contribute their parts during the course of developing and finding the solutions.

Teachers should have useful techniques to enhance the creative process. Students are invited to choose those they are drawn to and add them to their own repertoire of talents. The best way to enhance creativity is to create a climate that is conducive to increasing task motivation. Teachers should support the studies of the children, love them, care for them, care about all the difficulties and all their academic tasks, and hope that they do well in school and have good future. If that extrinsic motivation is in place then the intrinsic motivation of the children is promoted and the children have favorable conditions to do well and to be creative.

Time and Tasks Management

The teacher has important tasks in designing and leading activities for classes. The teacher decides the choices of lessons, activities, and assignments depending on the mood of students while conforming to the curriculum standards set by educational authorities. A good teacher should have a clear goal and task for each class.

We know that in order to perform creatively one needs to have interest, freedom, and time. If a student is assigned many tasks or difficult tasks with little time or in rush, then how can he understand the problems, try different ways for the solutions, take part in all necessary processes and find out the best solutions? If he has to do his assignments, homework and academic tasks in haste, and if he just wishes to pass the exams and the courses, then he does not have the chance to conduct intense studies and make something creative as a result of his studies. Like every organ take time to grow, that person is potentially creative, but does not allot enough time to this activity. Teaching is a problem of making a bridge between the teacher's idea and
intention and the students' ideas and knowledge, so interaction with students and understanding their responses are very necessary and that take time.

I try to make the best use of precious time in classes. Time must be set out for communicating and sharing ideas and I announce the time limited for them and remind them with the remaining time for the task. Not giving students enough time to ask questions leaves students with only a partial understanding of the material. Students who were confused about an assignment or a certain fact would be left to figure it out on their own and not to have the appropriate, accurate information that should be provided by the teacher.

For children, a teacher need to be patient with them in order to fully clear up any misunderstanding that students may have. I give the tasks to them, closely observe them, and readily guide them step by step. Sometimes, they are unexpectedly very creative, their responses and actions can be unexpected and wonderful. I make the best use of class time for interaction; some other work, I ask the students to do at home by themselves. I give children explicit practice in various aspects of critical thinking, e.g., logical reasoning and dialogical discussion. The assignments and exercises help students to develop thinking power since: “Assignments that compel students to thinking their own way through the logic of the content, using their own experiences, their own assumption, and their own ideas” (Paul 1992, p. 302).

I believe that later on when facing some difficult tasks, students can encourage themselves by asking: Why don’t I try the task? Is it really impossible? Wasn’t I successful in a similar situation in the past? Why should I set back instead of moving ahead? In that way, students are trained to develop thinking power, reasoning, creativity, self-confidence, and courage. I must give immediate response to students’ questions or answers, provide timely
feedback, and explanation to help them find the ways out of the deadlock. I work with them as a partner through the following processes:

- Listen and talk in productive ways, being open to accept many different ideas
- Ask better and different questions
- Organize and guide peer work, group work, collaborative thinking, brainstorming, and problem solving are important for learning and teaching
- Apply judgment, praise, encouragement, guidance when appropriate
- Reconcile opposites
- See relationships among options, make new connections
- Elaborate, extend, refine ideas
- Analyze the dialogue, conversation, or discussion, judge the strength of arguments, reasoning, and evaluate solutions

We set up the class in a way as involving a great deal of discussion, interchanging of questions and answers between teacher and student and between students with one another. Such discussion, if it is to be educationally profitable for all concerned, must involve them in thinking. From time to time I provide chances for dialogue. It can be in the form of student-to-student dialogue, group discussion, or presentation in front of classes. That helps students to think, search, work, share, reflect, discuss, assert, change themselves or receive many good things from others. I use key tactics to enable members to engage more in discussing and learning process: pausing (to allow time for thought), paraphrasing, expressing your concerns, probing (to go further), putting out your ideas and pulling them off the table (i.e., suggest and withdraw ideas in a timely way), paying attention, assuming positive presuppositions, providing data (always important in discussion), pursuing a balance between advocacy and inquiry (keeping a balance
between your position and those of others). I help students to grow up day by day through small things, bringing out the hidden potentiality inside students.

Developing Good Habits in the Learners

Students should learn and act actively in the class. In every matter they should listen, learn, think, question, doubt, wonder, explore, analyze, debate, advocate, hypothesize, idealize; they should create, exchange ideas, generate alternatives, ask questions and anticipate outcomes. Some of the knowledge we take for granted may, in fact, not be true, so students should look at the matter with fresh eyes. Childish curiosity is good; students can ask “Why is this so?” and that can lead to good results; adult can learn children with that to understand everything around us and in religion also. As Balkin (1990, p. 32) said, “It is the essence of problem solving ... the creative person must continually rethink, reconsider, replace, refine, redo, reaffirm, reprocess, rewrite, and reconceptualize.”

Here below are some favorite techniques I learned from Graduate Program, Critical and Creative Thinking, U Mass Boston, USA that I often apply in children classes:

Enhancing student’s creativity through the practice of five steps:
1. Think of everything that helps you to be creative.
2. Use “What if” questions to challenge usual assumptions and expectations.
3. Reverse goals or ideas: Interpreting things as the reverse of what we normally think stretches mental flexibility and stimulates constructive alternatives.
4. Deliberatively think of unusual, nutty things: How ridiculous strange and crazy can we be in our thinking? This is a starting place for genuinely useful ideas that nonetheless depart from old assumptions of what is possible or appropriate. Take on new and different perspectives.
5. Think of unusual and new combinations, reverse goals, form new mental connections, invent games that inspire your thinking, and force yourself to think of many alternative ideas. Brainstorming is now a commonly used term describing the awareness plan of forcing yourself or a group to generate a large number.

When facing a problem, in order to get good ideas or directions, the students should be trained to ask themselves with questions starting with: Why? What? When? Where? How Often? Who? How? Then they also should:

- Rethink
- Reconfigure
- Resequence
- Relocate
- Reduce
- Reassign
- Retool

The students should be designated to form group work and brainstorming. I guide the students to work in a group brainstorming session following these steps:

- Define the problem the group concern, and lay out any criteria to be met.
- Keep the session focused on the problem.
- Ensure that no one criticizes or evaluates ideas during the session. Criticism introduces an element of risk for group members when putting forward an idea. This stifles creativity and cripples the free running nature of a good brainstorming session.
Encourage an enthusiastic, uncritical attitude among members of the group. Try to get everyone to contribute and develop ideas, including the quietest members of the group.

Let people have fun brainstorming. Encourage them to come up with as many ideas as possible, from solidly practical ones to wildly impractical ones. Welcome creativity.

Ensure that no train of thought is followed for too long.

Encourage people to develop other people’s ideas, or to use other ideas to create new ones.

Appoint one person to note down ideas that come out of the session. A good way of doing this is to use a flip chart. This should be studied and evaluated after the session.

Anyone should look at the issue from different angles and come up with many ideas, because “anyone can learn to explore more options in a decision-making situation or to look more carefully at both sides of the case” (Tishman and Perkins 1995, p. 41).

It proves very beneficial because when working together a lot of wonderful ideas are gathered and that lead fantastic results: “Anytime we join with others, newness and creativity pop up to astonish us. The surprise within the surprise of every new discovery is that there is ever more to be discovered.” (Wheatley 1996, p. 69)

In a group, “students must learn to compare, describe and discuss their approaches to problems. Alternative strategies are valued, and multiple strategies—rather than a single, sanctioned approach—are encouraged” (Russell and Economopoulos 1994, p. 1-4). Therefore, “It is the teacher’s responsibility to be accepting of the student’s response, to provide encouragement and reinforcement for all ideas, and to reduce or eliminate the criticism of other class members” (Feldhusen and Treffinger, p. 71).
I am enthusiastic, excited, and take part in learning activities with the students, promote confidence, and together we draw conclusions from these discussions. Students can use all knowledge gained to solve the problems. As Biehler and Snowman (1993, p. 15) said: “Good problem solvers share two general characteristics: a well organized meaningful fund of knowledge and a systematic set of problem-solving skills.”

I often apply twelve things, also drawn from CCT Program, when managing and helping students to learn and create in the classroom:

1. Provide in-class time for individuals and groups to just think and let their ideas marinate.
2. Reward creative ideas and products through public recognition—even if the ideas are still developing or perhaps fail.
3. Encourage students to take unique and different approaches in their work and reward any efforts in this direction.
4. Allow mistakes and model positive, supportive responses to mistakes. Encourage learning from their mistakes.
5. Encourage mental flexibility—taking other viewpoints that they might not usually take.
6. Explore the environment to stimulate curiosity about their world.
7. Question students’ assumptions and guide them to dig deeper and consider their beliefs and others’ to expose students to other ideas.
8. Stop evaluating or judging too soon. There is a time and place when ideas and their constraints need to be considered, but not too soon or the process will falter.
9. Foster cooperation rather than competition.

10. Offer choices.

11. Encourage dissent and diversity.

12. Regularly provide positive feedback.

I also like to use the KAQF (Knowledge, Actions, Questions, means to Find answers to the questions) framework in the class. From my knowledge and experience, I have some assumptions, then I make questions to get data and to test the validity of the assumptions. Based on the answers and the analysis of the data, I make plans for actions and then we have some corresponding findings. These findings again combine with my knowledge and experience to help give direction for further research:

\[ \text{Vision} \rightarrow \text{planning} \rightarrow \text{action} \rightarrow \text{review} \rightarrow \text{critical reflection} \rightarrow \text{vision} \rightarrow \text{planning} \rightarrow \text{action} \]

Bransford and Stein (1984) use the acronym IDEAL to describe the process of problem solving:

I - Identify the problem
D - Define and represent the problem visually
E - Explore possible strategies to solve the problem
A - Act on the chosen strategy
L - Look back and evaluate the outcome.

The National Education Association stated: "All youth need to grow in their ability to think rationally, to express their thoughts clearly, and to read and listen with understanding" (McTighe and Schollenberger 1991, p. 2). Students or children are prepared and assisted to
develop their thinking, and then they can become successful people in the future. If not, they won’t be able to face matters and problems occurring in their present and future lives, as:

Societal demands for higher order thinking are increasing. Employability studies document the need for a future work force capable of more sophisticated thinking than was generally required in the past. Such skills as independent analysis, flexible thinking, and collaborative problem solving are now considered basic requirements for many jobs” (McTighe and Schollenberger 1991, p. 2).

As the instructors for others, I think of the use and make others be aware of theory, opinion, reasons, evidence, logics, conclusion, detect, examine, guess, explain, judge, estimate, believe, and criticize. Reflection and mediation are very important for making use of our potentials and inside resources. We must nurture the skills of the students to stimulate critical thinking: interpretation, analysis, evaluation, inference, explanation, and self-regulation. The following sayings reflect these points: “The purpose of teaching thinking is to prepare students for a future of effective problem solving, thoughtful decision making, and lifelong learning,” (Fishman and Perkins 1995, p. 1) and “Give me a fish and I will eat today. Teach me to fish and I will eat for a lifetime” (Costa 2001, p. 370).

All education consists of transmitting to students two different things: (1) the subject matter or discipline content of the course (“what to think”), and (2) the correct way to understand and evaluate this subject matter (“how to think”) (Beyer 2001, p. 275). A questioning mind and exploring mind is important for a critical thinker. He does not take anything for granted, he may question everything. He is not satisfied at some limits; he wishes to go beyond. He has an active mind that has him go along. Delores Gallo also highly values the exploring mind: “Curiosity,
wonder and a desire to understand deeply are also fundamental dispositions for successful thinking" (cited in Perkins 1987, p. 36).

McTighe and Lyman (1988, p. 78) provides us with many tools for problem solving, such as:

- Knowledge—Comprehension—Application—Analysis—Synthesis—Evaluation
- Or Tell—Ask—Picture—Identify—Predict
- Retell—Summarize—Ask—Picture—Decide
- Read the problem carefully, reread it if necessary
- Determine the meaning of key words or special terms
- State the goal in your own words
- List the important information
- Draw a picture or a diagram of the problem.
- Look for patterns
- Break the problems into smaller pieces.
- Recall similar problems and how they were solved.
- Use systematic trial and error (guess and check)
- Work backward from the final result.
- Be flexible and try different approaches.
- Match your solutions with the original goals. Does it make sense? Is it accurate?

Learning by doing should be emphasized. Working in groups should be encouraged. Accounting classes should not only focus on accounting knowledge. Teaching methods that expand and reinforce basic communication, intellectual, and interpersonal skills should be used.
The teachers should promote "collaborative learning," an instruction method in which students at various performance levels work together in small groups toward a common goal. The students are responsible for one another's learning as well as their own.

School helps to prepare students well to enter real life in the future. The Goals 2000: Educate America Act states that: "...every school in America will ensure that all students learn to use their minds well so that they may be prepared for responsible citizenship, further learning and productive employment in our nation's modern economy" (U.S. Government Document, Goals 2000, 1994).

Reflection and Evaluation

After each class, I have time to think of that class to evaluate what are strong points, weak points in that class. What experiences and lessons are drawn out of that class? What change should I make to perform better? I grade the assignments carefully, fair-mindedly. I am aware that comments, grading, prizes serve as means for aspiration, motivation, and stimulation for the students. I also notice what progress I have made in teaching and they have made in learning and growing. What did the students do well, what not? Why so? What are unexpected? Sometimes we have a meeting to evaluate the class together, publicly or secretly (by writing anonymous comments and complaints).

I am happy to receive special instructions, knowledge, and experiences from CCT. All these things guide me in thinking, teaching, and living. I believe that these knowledge and skills are also very helpful to the students in learning, thinking and living. The students and I are on the journey of exploring many wonders in gaining knowledge and life. Yes, I like the idea that
the best things the best teacher can teach us are how to think and how to learn because they are the keys—the decisive factors leading to success in education and life.

The cultural, scientific, and social progress of any country depend on the extent of the development of creativity among its citizens. In modern times the progressive nations try to develop critical thinking and creativity in their next generation. Needless to say, everyone recognizes that such quality help a person and people to achieve their goals, to do things effectively, satisfactorily, successfully. So, one of the major tasks I am aiming at is to help them develop their minds, their thinking, their inner selves, potentials.

Public Speaking

Another major task of mine is to deliver public speaking, especially on Sunday. It requires a lot of knowledge, skills and experiences to carry out the task well. Critical thinking helps me and convinces others how to doubt or believe, how to select a topic for talk and discuss, how to raise an issue and how to guide the audience take part in the same journey-in-process. Don’t let the audience just sit idly or fall into sleep; stimulate them to follow, act, enjoy, share, question, and solve the problems all together.

I have to select a good topic. The chosen topic is suitable for the function, environments, mood, levels, age, and temperament of the audience. Though I have a summary and plan for the speech, I must be flexible and adjust it to adapt to the reaction of the audience. I must overcome fears, calm down, get control over myself, the situation, and the environment. The speaker has to make the best use of body language: facial expressions, hands, feet, space allowed for him. While speaking, I pay much attention to the environment in which I am speaking and see how I can make it work for me.
While delivering speeches I make use of the following courses:

**PSYCH 650 Advanced Cognitive Psychology:** With knowledge about cognitive psychology, e.g., mastering the functioning of attention, perception, memory, imagery, and information-processing, I am aware of what are going on in their minds, to give a deep impression on them, to make the pictures vivid, to allow time and deliver some things perceptible and to make their minds remember some important things for a long time.

**PHIL 501 Foundations of Philosophical Thought:** Socrates dared to express his ideas without caring to conform to the beliefs and authorities at that time. His love of the truth and his braveness of expressing his thoughts is worthy of respect. I should encourage audience to doubt, to challenge me, raise and find the answers to: Why is that so? What are the reasons? What for? The Buddhists are free to investigate into the matters with senses and intellect. We have rights to reject or accept them: doubt or believe things.

We should not accept things because of external authorities but we must judge them with our own reasoning. The Buddhists are even allowed to examine the Buddha and his words to find the truth and to accept what they consider fit and beneficial to them. The Buddha once said that: “those who believe me but don’t understand me spoil me.” The answers are not easily found, but can be reached by every student by working with others.

**CrCrTh 502 Creative Thinking:** While speaking, I have a favorable attitude towards creativity and I develop the following attitudes: the ability to accept change and newness; a willingness to play with ideas and possibilities; a flexibility of outlook; the habit of enjoying the good, while looking for ways to improve it. All the audience and I should develop qualities relating to creativity and become curious and optimistic, always seek problems, enjoy challenges, see problems as opportunities, and imagine. The ways of developing the speeches
depend upon the expectations, demands, approvals, and condemnations of other listeners and communities. To become a good teacher or speaker is not as simple as following another person but I must develop my own style. Creativity helps in getting the attention of the listeners, providing tasks in which they can participate, and generally making the speech or lectures enjoyable.

CrGrTh 627 Issues In Antiracist And Multicultural Education: Some impressive things I learned from this course can be applied in delivering speeches, such as, the interaction between a person and his living conditions, culture, custom, belief, social norms, values, and tradition. Living conditions often affect considerably one’s thoughts and actions. Yes, in public venues, there are many listeners of different races, ethnicities, different background and cultures, or even people with belief in other religions. I must be sensitive to and tolerate all students and opinions.

I select a style of teaching adaptable to the mood and concerns of my listeners, responding to the questions and even the non-verbalized thoughts of my audience and taking cues from events. The laws are determined by the accidents of time, place and situation. I always try to know the living conditions of the participants there so I can understand them more. If I do not know about the culture in which the people live, I hardly succeed in teaching. Bringing their different backgrounds, the people should make a gathering more interesting.

I also show the participants the adaptation of Buddhism to cultures. There are many different sects in Buddhism, so participants should be supplied with a variety of tastes in Buddhism. There are similarities and differences among Vietnamese Buddhism, Chinese Buddhism, Japanese Buddhism, Korean Buddhism, and Thai Buddhism. A speaker who teaches successfully in a gathering of the Japanese is not sure to succeed in teaching a gathering of the Vietnamese if he does not try to learn about Vietnamese culture, custom, and traditions. So, I
always care about the background of the participants and relate the points in the lessons with the views of other religions, traditions, and beliefs in different regions or different countries, and continents.

Raising good questions is a fantastic way to impress their audience and make them work together toward a desired destination. I use skills to keep the audience awake, such as to ask rhetorical questions, maintain eye contact for a second or two with as many people as possible, be provocative, be challenging, change the pace of my delivery, move around, change the volume of my voice, tone, sound, volume, speed, pace, pause, tell jokes, generate gentle humor. One of the most important means of developing power in public speaking is to pause either before or after an important word or phrase.

I also have a Paltalk forum called PhatPhap Nhiem Mau (categories: Asia) where the Monks, Nuns and the Buddhists all over the world can gather and discuss Buddhist Topics and run Buddhist classes. I opened the forum in 2006 when I finished all the CCT courses. Just like Sunday public speeches in the Buddhist Temples, many principles, skills, tactics, knowledge, and experience gained from the CCT Program are so useful and help me to run the Paltalk Forum (based on www.Paltalk.com) successfully in the position of the Manager and regular preacher.

Prospects for Better Buddhist Education

In general, in Vietnamese Buddhist schools around the world, though the students pass the entrance test, their backgrounds or levels are very different. The University needs the presence of Buddhist Monk lecturers who are of great Buddhist virtue and Buddhist knowledge. Unfortunately, currently there are many lecturers who have not been trained in pedagogy, so they
don't possess many teaching skills. We need to have more and more Buddhist Teachers trained in pedagogy. Moreover, I want to have them trained with CCT courses or transfer the knowledge and experience learned from CCT courses to them.

The Buddhist Research Institute in Hochiminh City, Vietnam should organize more and more seminars and workshops in Buddhist teachings to evaluate the present Buddhist schools, point out strong points and weak points, provide solutions and then make publications regarding techniques for teaching and learning available in Buddhist schools. The Ministry of Buddhist Education of Vietnamese Buddhist Congregation should have more programs, sending educators to visit Buddhist schools and sit in Buddhist classes, work closely with Buddhist Teachers, and provide opportunities for the teachers to exchange teaching's experiences.

We are planning some good changes in our University. The curriculums are posted in our University's website and we welcome comments and suggestions. We are going to conduct seminars, workshops, symposium on Buddhist education to exchange views on theories, skills, practices of Buddhist education. The Dean of Academic Affairs has scheduled to meet with representatives of students to listen to their ideas and opinions about modifying learning and teaching activities in the School.

The Vietnamese-American Unified Buddhist Congress in the United States of America is still young. We need more investment in Buddhist education. Buddhist teacher in America must be aware of American and Western culture and civilization. Students here can express their feelings and opinions freely so we can collect their ideas and make changes accordingly. Most Buddhist teachers here should graduate from American Universities and, in addition to Buddhist knowledge, should gain skills for interaction and communication in classes. In summer retreats
most Buddhist Teachers gather in a place for some weeks. We must have ways of making best use of these opportunities for exchanging experiences of learning and teaching Buddhist.

I will continue to research on the project and contribute to Buddhist education. Some questions in my minds now are: How can we (I and those who have the same concerns and tasks) get attention of the teachers who prefer conventional teaching and encourage them to change into more interactive ways teaching? Which authorities or organizations can help or cooperate in making changes for the better? Who are the ideal teachers? How can Buddhist teachers meet together and discuss on the issues more and more? Who are responsible for improvement in Buddhist education? Where can we find source of needed funding? How can the concerns of all the related organizations be focused and become the impetus for a bright prospect of Buddhist education in the future? I believe that with joint effort, Buddhist schools will be great schools where all the teachers and students live and grow actively every moment and the time at schools are the best time and most influential in their whole lives.

Many more things are waiting for us to do, with many prospective signal and successes through for years of teaching and applying Critical and Creative Thinking in Buddhist Education. I am doing my best and hoping for better and desired change in Buddhist education in a near future.
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