Chapter Two

I have come to believe that a great teacher is a great artist and that there are as few as there are any other great artists. Teaching might even be the greatest of the arts since the medium is the human mind and spirit - John Steinbeck

Review of related Literature

Pedagogy is not a mere matter of teaching technique. We often tend to misconceptualise it by falling in love with the technical understanding of the term. It is much more than that. It is a sort of a cultural intervention in the overall development of a human being by taking into account aspects like society and community as a whole into consideration. As a result, pedagogy can be best defined as an approach of teaching combined with all the ideas, values, ethics which as a result evolves into the understanding of the subject matter.

Drawing from the work of Professor Robin Alexander (2004), the National Strategies have developed the following working definition:

*Pedagogy is the act of teaching, and the rationale that supports the actions that teachers take. It is what a teacher needs to know and the range of skills that a teacher needs to use in order to make effective teaching decisions.*

The concept of pedagogy as providing scaffolding for learning has been important for informing instruction in the early years. Scaffolding derives from Vygotsky’s notion of the ‘zone of proximal development’, a zone that includes
everything that is achievable with assistance that would otherwise lie beyond individual capability. This zone varies with culture, society, and experience but it must be fostered in joint activity that creates a context for learner and expert interaction within a social context.

Bruner (1996) elaborates the concept of scaffolding further, from the initial position that teacher and learner are in asymmetrical states, with the teacher knowing and understanding more than the learner. It is incumbent upon the teacher to not only transfer knowledge, but also understand what the learner already knows. In order to do this, the teacher must induct the learner into the discourse and format of the activity itself. The role of the learner within the activity may then be orchestrated by the teacher and supplemented by actions that:

- **Highlight the critical features of the activity.**
- **Channel the learners’ activities so that she/he can succeed.**
- **Turn errors into opportunities to learn and develop critical independent thinking.**
- **Enable procedures to be commented on and explained.**
- **Allow responsibility for the activity to be gradually transferred to the learner, contingent on his/her ability to succeed.**

(Adapted from Meadows, 1994, p.314).
Wood and Wood (1996) summarize scaffolding as the support and augmentation learners need to develop their cognitive resources and enable the learner to reach her/his zone of proximal development.

Pedagogy is both the behaviour of teaching and being able to talk about and reflect on teaching. Pedagogy encompasses both what practitioners actually do and think and the principles, theories, perceptions and challenges that inform and shape it. It connects the relatively self-contained act of teaching and being an early years educator, with personal, cultural and community values (including care), curriculum structures and external influences. Pedagogy in the early years operates from a shared frame of reference (a mutual learning encounter) between the practitioner and the learner.

- In order to develop the effectiveness of their pedagogy, practitioners should:
- discuss and consider the Key Statements with others
- identify the links within and between the Areas of Focus
- identify personal beliefs and values
- identify personal strengths and weaknesses
- identify range of own knowledge and understanding
- consider the meaning of ‘effectiveness’ and evidence for effectiveness of practice
- identify training needs
- draw up and consider ‘stories’ of pedagogy (Examples included on the following pages)
consider, reflect upon and analyze actual teaching and learning episodes in relation to framework.

While taking a look into pedagogy, one has to first of all come across the concepts of Teaching and Learning respectively as no model of pedagogy can be developed without having an in depth understanding of both the terms.

**Learning**

Learning, as a process, involves essentially knowing. However, all kinds of knowing do not result in learning. Knowing, in order to result in true learning, must be need-based. So also, only when the learner believes in what he knows. According to the most widely accepted definition, ‘knowledge is justified true belief.’ That it is a kind of belief is supported by the fact that both knowledge and belief can have the same objects.

In The Problems of Philosophy (1912), one finds Bertrand Russell’s famous distinction between knowledge by acquaintance and knowledge by description. According to the Russellian distinction, what I know by acquaintance is supposed to be what is directly present to me. When I am aware of something that is live, something that I can relate to myself, and something that I can actually work with, such knowledge is direct, immediate, certain, practical and personal, and forms the basis for the second type which can have only a varying degrees of probability. As J.L. Austin (1962) points out, the expression “I know” commonly has “performative” rather than a “descriptive” use. The
verb “to know” is used to signify a disposition, or as Gilbert Ryle (1949) puts it, it is a ‘capacity’ verb. Therefore, to have knowledge is primarily to have the power to give a successful performance (A.J. Ayer, 1956).

For a better exposition of the typology of knowing, we now turn to the trifurcation of knowing, that is, knowing THAT, knowing HOW, and knowing IT. We learn about objects, people and events as objects of our awareness, as something that is given or that lies out there, or as something that is described by others and/or to be described to others. This is purely propositional or rational form of knowing. The nature of such knowing is intellectual. In Gilbert Ryle’s (1949) terms, this is characterized as knowing THAT. We also learn about objects, people and events by engaging ourselves with them in real situations, by linking (that is, by interacting and communicating) with others. If the former type (that, knows THAT) is objective and mediated knowing, this is direct, immediate, practical and personal, subject to one’s understanding and belief. In Ryle’s terms, this type of knowing is characterized as knowing HOW. Although knowing THAT is not a prerequisite of knowing HOW, knowing HOW substantiates and supports knowing THAT by way of rationalization.

**Psychological Theories of Learning**

If human learning is taken to mean a process of bringing about permanent changes in an individual’s cognitive, affective and psychomotor dimensions, the end point of all the psychological theories of learning seems to be the same, that is, change; and that too, in different aspects of the personality. For
example, change in the behaviour according to the S—R Psychology or Behaviour Modification theory, change in perception according to Gestalt Psychology, change in the knowledge structure according to Cognitive Psychology or Information Processing theory, change in the whole personality according to the Humanistic Psychology, and so on.

**Stimulus—Response Psychology**

(*Behaviour Modification Theory*)

The ‘empiricists’, starting from Aristotle to John Locke, and then to John Watson, argued that all human behaviour results from simple experience and interaction with the environment. Behaviorism or behavioural psychology, deriving its strength from empiricism, rejected the innateness and introspectionist view of the mental phenomena in order to make psychology a science and to equip it with the tools of objectivity and measurement.

**Pavlov’s Classical Conditioning**

The origin of behaviour modification theory can be traced back to a Russian scientist Ivan Pavlov’s (1849—1936) classical conditioning experiments with dogs in the early part of the twentieth century. His experiments yielded the following observations:

Stimulus Response (behaviour)

1. Food (unconditioned) Dog’s salivation (unconditioned)
2. Food + Bell (unconditioned) Dog’s salivation (unconditioned)
3. Bell sound (conditioned) Dog’s salivation (conditioned)

Thus, Pavlov defined learning as a behavioural change produced by biological conditioning. Learning, according to him, is the response to an external event or stimulus to which an organism has become accustomed or psychologically ‘conditioned.’

**Watsonian Theory of Conditioning**

Deriving the theoretical support from the British empiricism of John Locke, Theory of Evolution of Charles Darwin, and Classical Conditioning theory of Ivan Pavlov, John B. Watson (1878—1958), an American radical behaviorist, argued that all learning is a matter of conditioning. “Give me a dozen healthy infants, well-formed, and my own specified world to bring them up in, and I’ll guarantee to take anyone at random to become any type of specialist I might select” was his challenge. Watson insisted that psychology should study only objective, observable behaviour. Although Watson’s system of behaviorism was rather extreme in some of its theories, his methodology has found its way into much of modern-day psychology. His theories of learning dominated American psychology for the first half of the twentieth century.

**Thorndike’s Connectionism**

Similar to Pavlov’s experiments with dogs, Edward Lee Thorndike (1874—1949), an American conducted experiments with cats: cats put in a closed box trying to get out getting food. While scrambling to escape, a cat usually found
the right string to pull to open the door. With each experiment, a cat took less
time to find the string. Thus, by trial and error, the method of how to find the
string got stamped in the animal’s brain. Thorndike’s theory of connectionism
thus underlines that human beings learn by trial and error. Thorndike also
formulated several laws of learning by trial and error, such as the following:

1. Law of Readiness dealt with a state of being prepared to act, or the
subject’s set. Behaviour in accord with the set is “satisfying”, and
behaviour not in accord with the set is “annoying”.

2. Law of Exercise. Frequency and recency of response lead toward greater
practice or exercise of that response than the practice or exercise of any
single incorrect response. (The Law of Exercise was felt to operate only
when followed by the Law of Effect.)

3. Law of Effect states that a
response followed by a satisfying effect (that is, finding food) is more
firmly implanted in the mind than one followed by an annoying effect
(that is, not finding food). This law was later to be called reinforcement
through reward and punishment.

Guthrie’s Contiguity Theory of Learning (Theory of Associations)

Like Watson, Edwin R. Guthrie (1886—1959) advocated a psychology of
observable behaviour consisting of muscular movements and glandular
responses elicited by environmental stimuli. His theory of associations was in
the tradition of Pavlov and Thorndike, asserting a single principle to account
for learning.
In his contiguity theory of learning, Guthrie, in the 1930s and 1940s, took the point of view that Thorndike’s reinforcement principle is not necessary for learning, although it is important in using efficiently what has been learned.

Guthrie’s theory of associations emphasizes the single principle that contiguity is the foundation of learning. He viewed human behaviour in terms of contiguous movement rather than isolated responses. His principle of contiguity stated that when a combination of stimulus elements is accompanied by a movement, the movement sequence will recur, given the presence of similar stimulus elements. Guthrie held that learning is a pattern or chain of discrete movements elicited by both environmental and internal stimulus cues.

*Hull’s Hypothetico-Deductive Theory*

Clark L. Hull (1884—1952) began with Thorndike’s basic principles and developed them into a highly sophisticated system of postulates and theorems. Like other behaviorists, he saw human and animal learning in stimulus-response terms, arguing that a single set of principles could potentially explain the learning of both.

Most noteworthy of Hull was his development of Thorndike’s Law of Effect and Law of Readiness into the drive-reduction theory of reinforcement. While Thorndike’s Law of Effect defined reinforcement in terms of pleasure, Hull defined pleasure in terms of drive-reduction.

The main principles of Hull’s drive-reduction theory of reinforcement are
1. ‘Reinforcement’ would be substituted for ‘reward’, and would include both positive consequences, such as food (positive reinforcement), or learning motivated by a desire to avoid negative consequences, such as pain (negative reinforcement).

2. Stimuli will act as reward (positive reinforcement) to the extent that they satisfy biological needs, thus reducing their attendant drive-states.

3. Learned drives, such as desire for money or status, draw their reinforcing properties from their association with the reduction of biological drives in the individual’s past experience.

4. The presence of drive-reducing reinforcement, whether biological or learned, is necessary for initial learning, and later, to motivate performance of the learned behavior.

5. The stronger the motivating drive (for example, hours of deprivation from food or water), the greater will be the reward value of the drive-reducing stimuli.

Hull’s famous students such as Kenneth Spence, Neal Miller and O.H. Mowrer further refined and extended his theory to deal with varieties of behavioural processes and issues.

The Operant Conditioning Theory of B.F. Skinner was Burrhus F. Skinner (1904—1990), a neo behaviorist applied much his ‘operant conditioning’ theory directly to classroom practices. Conditioning refers to the process of
increasing the probability of occurrence existing or new behaviour in an individual by means of reinforcement.

Skinner uses the term operant conditioning, in contrast to the classical respondent conditioning, to describe how humans or animals function, trying manipulate or control their environment to meet their needs. In operant conditioning, the nature of the stimulus does not determine the nature of the response. An animal spontaneously emits operant behaviour, or behaviour which operates on the environment. The concept of ‘reinforcement’ is central to Skinner’s Operant Conditioning theory by which he means that behaviour is likely to occur, or conversely, not to occur as a response to an environmental reaction. A person animal tends to ‘repeat’ behaviour which has been ‘rewarded’ (positively reinforced), or tends to ‘stop’ which has been ‘punished’ (negatively reinforced). Extinction of undesirable behaviour is made possible through null or absence of reinforcement.

In Skinner’s opinion, reinforcement should be as continuous as possible, occurring after every response. Reinforcement must immediately follow a response if it is to be effective. Delayed reinforcement is much less effective in modifying behaviour.

Unlike primary reinforcement (as reinforcing the value of food for hunger), most reinforcement used in education or training is secondary or learned, for example, money, affection, approval and attention. Another major secondary reinforcer within the educator’s control is confirmation or knowledge of
results. Knowing that you have behaved correctly or satisfactorily is highly reinforcing. Self-instructional programmed material is sequenced by such small steps as to virtually ensure correct responses and the subsequent reinforcement the learner derives from knowledge of his correctness.

Positive reinforcement entails an addition to the situation (approval for instance); negative reinforcement removes something from the situation (possibly by adding something disagreeable). Punishment which decreases response probability presents a negative reinforcer (aversive stimuli), or removes a prior positive reinforcer. Complicated processes such as driving a car are learned by what Skinner calls chaining or shaping. Such knowledge is acquired step by step and then applied to a sequence of actions.

According to Skinner, language is a verbal behaviour, and all verbal behaviour and thinking develop from reinforcement of statements and commands which he terms as ‘tact’ and ‘mind’. The initial acquisition of language comes about through selective shaping of the random vocalization of the infant in order to approximate adult words.

**The Sign-Gestalt Theory of Tolman**

Edward C. Tolman (1886—1959) was a behaviourist, but different from Pavlov, Watson, Thorndike or Guthrie. It was Tolman who highlighted the importance of mental and cognitive factors in learning within the theoretical framework of behaviorism. Learning is the interaction of internal, mental
processes with the external events of our environment. Behaviour is not learned from trial and error but from thinking and considering alternatives.

Tolman, in the early 1930s, studied maze learning in rats and felt that cognitive factors are involved in the rat’s learning to run the maze. He did not believe that the rat is learning a series of mechanical choice-point turning sequences (response chaining or serial learning) as theorists such as Hull would postulate, but rather that the animal develops place learning, a kind of cognitive map of the maze which enables it to take alternate routes if the original path is blocked.

According to Tolman’s theory, behaviour is not purely mechanistic—a case of reflexes—but involves a mental process. We learn by observation, but we do not always act on what we have learned unless we are motivated. The following types of behaviour are cited in support of Tolman’s sign-learning theory:

1. *Latent learning*. Learning which is not evidenced by behaviour at the time it is learned is termed latent learning and has been studied in rats running mazes. Latent learning usually takes place when no1 is present and motivation (or drive) is not great. Rats allowed to explore a maze under such conditions indicate that they have learned something about the maze during this time by their performance when they are later rewarded for running it.
Tolman felt that latent learning indicates that during the non-rewarded exploration of the maze, learning of a cognitive map of the maze has taken place. The fact that the learning is demonstrated only later, in the rewarded situation, indicates that performance differs from learning.

2. **Reward expectancy.** The performance of the animal changes with the introduction of a more-desired or less-desired reward.

3. **Place learning.** If the original path is blocked, the animal will choose the shortest or most direct alternate path, rather than the one which is most like the original. This indicates that the rat has learned ‘spatial relationships’ that is, space or map like arrangements, rather than a series of movement responses. Now, who is right—Hull or Tolman? What is actually learned in the maze? Does the rat learn a series of responses, as Hull and others of his associative learning and conditioning point of view would have it; or does the rat learn a cognitive map and cognitive structures as proposed by Tolman and others who stress purposive behaviour and sign-learning? The answer to the question depends upon the theoretical stance taken by a particular theoretician. Some psychologists are willing to accept the possibility that different kinds of behaviour may involve different kinds of learning—either conditional habits or insightful understanding or some elements of both. Other psychologists prefer to attempt to explain all types of behaviour from a single theoretical point of view and try, for
example, to explain phenomena such as latent learning, reward expectancy, and place learning, solely in terms of stimulus—response associations.

**Social Learning Theory of Albert Bandura**

We learn by experience and by observing other people’s behaviour. We do not use everything we learn; instead we do what brings rewards and what is considered acceptable in our society. Learning can occur not only through response conditioning, but also through modeling, which is the imitation of the behaviour of others. Learning by modeling can occur even when the imitative responses are not themselves being directly reinforced, Bandura’s major concern is with learning that takes place in the context of a social situation where individuals learn to modify behaviour as a result of how others in the group respond. We are moulded by our thinking, by social rules, and by what we have learned from our models. Social learning does not require primary reinforcement, Gestalt Psychology German phenomenology of Edmund Husserl (1859—1938) served as the philosophical basis for Gestalt psychology. Phenomenology is a methodological approach to psychology and other disciplines that focuses on the unity and integrity of events and experiences. Husserl introduced to psychology a method of specific procedures of observation.

Roughly, Gestalt in German means “form, shape, configuration or overall organization.” Pragnanz is the basic principle of the Gestalt theory of
perception, stating that we make sense of what we perceive by organizing and reorganizing it to be more simple, complete and regular. Gestalt movement came into force as a strong reaction to Wundtian Structuralism.

About 1912, in Germany (and later in the United States) Max Wertheimer (1880—1943), Wolfgang Kohler (1887—1967), and Kurt Koffka (1886—1941) were opposed to the ‘atomistic’ idea that complex events can be reduced to component elements. As one field theorist Kurt Lewin who refuted the ‘atomistic’ idea put it in 1939, “The whole is greater than the sum of its parts.”

One method of Gestalt psychology is phenomenology, or a kind of trained introspection. One of the interests of the Gestalt psychologists is the figure-ground relationship, or the fact that we see part of a pattern as an object and the remainder as background. Gestaltists held a point of view of learning other than that of the S—R psychologists that understanding or cognitive processes are necessary to learning and problem solving.

Studies of cognitive problem-solving and insight were conducted by Kohler on the island of Tenerife off the coast of Africa in the early 1920s, using the chimpanzees as subjects. His The Mentality of Apes (1925) gives a detailed description of his work with apes and his theory of learning by insight. By ‘insight’ it means the grasping of relationships (figure-ground relationship and part-whole relationship) necessary to the solution of a problem, as opposed to blind ‘trial-and-error’ behaviour (Thorndike’s Law of Learning). Sometimes, insight into the solution of a problem occurs suddenly, after much struggle.
Kohler found that the chimpanzees used insightful strategies in solving puzzles, and the rapidity of solutions impressed him as evidence of insightful learning.

Edward C. Tolman’s contribution to learning theory deserves to be mentioned in the context of gestaltism. Although he belonged to behavioural school of psychology, Tolman was different from other behaviorists. Tolman, in the early 1930’s, studied maze learning in rats and felt that cognitive factors are involved in rat’s learning to run the maze. According to his “Sign-Gestalt” Theory of Learning, behaviour is not purely mechanistic—a case of reflexes—but involves cognitive factors. Behaviour is not learned from trial and error but from thinking and considering the alternatives. We learn by observation, but we do not always act on what we have learned unless we are motivated. It should be noted that the modern ‘doze’ technique, derived from the closure principle of Ebbinghaus, widely used in reading research, has the gestalt basis.

Cognitive Psychology

The nativists or innatists starting from Plato, later Kant, and then to Descartes, viewed human nature as a consequence of inborn or innate predispositions. This view held that much of our behaviour, from the organization of our perceptions to the early acquisition of language, was built on pre-established mental structures present at birth.

Cognitive psychology, rooted in the ideology of nativism, later rejected the narrowness of the so-called stimulus—response view of human behaviour, and
learning, in particular. Cognitive psychologists such as, Vygotsky, Bruner and Ausubel argued that learning is an active and ongoing process of meaning construction and reconstruction which involves the use of strategies and the transformation of sensory experience into new categories and organized concepts. These conceptual categories and structures have been described by various theorists such as Kant, Herbart, Piaget, Rumeihart, Bartlett, Pepper, Bruner, and Smith in terms such as schemalsche, nata, apperception, long-term memory, world hypotheses, cognitive structure, and theory of the world. George Kelly (1970) uses the term personal constructs or mental templates which the individual “creates and then attempts to fit over the realities of which the world is composed”.

Thus, ‘cognition’ came to be used as a general term to describe those mental processes discussed earlier, which transform sensory inputs in various ways by coding, storing in memory, and retrieving it for later use (Neisser, 1967). This, according to Information Processing theory, can occur at all the three stages in the sequence of learning: Input (registration), Storage (retention), and Retrieval (recall). For these reasons, Bartlett and others have seen normal memory as more reconstructive than reproductive. This notion attributes a certain creative quality to memory, where eventual recall is influenced not only by other knowledge, but is also guided by a sense of internal logic.

Theories of retention and forgetting are closely related to theories of learning. Within the scope of cognitive psychology, we find differently named theories
of learning such as Subsumption theory (Ausubel), and Hypothesis Testing theory (Pepper, and Smith) prominent. The common idea behind all these theories is’ that an individual, as a result of his experience with the world, has formed a knowledge structure already, with which he/she makes sense of the new incoming information by way of classifying, coding, testing, validating and subsuming.

The Subsumption Theory

David Ausubel (1967) contends that learning takes place in the human organism through a process of relating new events or items to already existing cognitive structures. It is this process of comprehension or cognitive relatability that, according to Ausubel, accounts for a number of phenomena: acquisition of new meanings and knowledge, retention, the mental organization of knowledge as a hierarchical structure, and the eventual occurrence of forgetting.

Ausubel strongly believes that each of the academic disciplines has a structure of concepts which form the information processing system of the discipline. He argues that each of the disciplines consists of sets of concepts which are hierarchically organized. That is to say, at the top of the discipline are a number of very broad concepts which include or ‘subsume’ less inclusive concepts at lower stages of organization. He conceptualizes the disciplines as levels of these hierarchically organized concepts that begin with perceptual data at the bottom and proceed through increasing levels of abstraction until the most abstract concepts appear at the top.
In postulating his subsumption theory Ausubel makes distinction between reception and discovery leaning, rote and meaningful learning. In reception learning, the principal content of what is to be learned is presented to the learner in the finished form. The learning does not involve any discovery on the learner’s part. The student is only required to internalize the material that is presented to him so that it is available for reproduction or other use at some future date. In discovery learning, on the other hand, the principal content of what is to be learned is not given, but must be discovered by the learner before he can internalize it.

Similarly, Ausubel distinguishes rote from meaningful leaning. He describes rote leaning as the process of acquiring material as “discrete and relatively isolated entities that are relatable to cognitive structure only in an arbitrary and verbatim fashion, not permitting the establishment of (meaningful) relationships”. Thus, rote leaning involves the mental storage of items having little or no association with existing cognitive structure (for example, leaning phone numbers, street numbers, route numbers and postal codes and the like).

Meaningful leaning, on the other hand, may be described as a process of relating and anchoring new material to relevant established entities in cognitive structure. In other words, it is a process of hanging newly acquired items on the existing, but relevant, cognitive pegs. As new material enters the cognitive field, it interacts with, and is appropriately “subsumed” under, a more inclusive conceptual framework. The very fact that new material is subsumable, that is,
relatable to relevant established categories in cognitive structure, accounts for its meaningfulness. Most of our present day classroom learning has much in common with Ausubel’s reception and rote learning rather than with the discovery and meaningful learning. Interestingly enough, almost all the teaching styles and techniques are geared towards the same end.

Any learning situation can be meaningful if (1) the learner manifests a meaningful learning set, that is, a disposition to relate the new learning task non-arbitrarily and substantively to what he already knows; and (2) the learning task itself is potentially meaningful to him, that is, relatable to his cognitive structure on a non-arbitrary and non-verbatim basis. In other words, cognitive anchoring or learning takes place when, ceteris paribus, the leaning ability of the learner matches with the learners’ ability of the material.

Like Bruner, Ausubel believes that the structural concepts of each discipline can be identified and taught to the students and they then become an information processing system for him. The task of the school according to Ausubel is to identify clear, stable, and organized bodies of knowledge within the disciplines. The most important kind of learning which the school can foster is the acquisition of these bodies of knowledge. The major task of the educator is to transmit these stable bodies of knowledge in such a way that the learner will incorporate them meaningfully into his own system, and they become his own and for him. ‘Subsumption’ means that the new ideas should be consciously reconciled and integrated with previously learned content.
The role of advance organizers in promoting ‘integrative reconciliation’

Ausubel (1967) describes advance organizers as relevant introductory materials at a higher level of abstraction, generality, and inclusiveness as the learning material itself. The hypothesized function of the organizer is to provide ideational scaffolding for the stable incorporation and retention of the more detailed and differentiated material of the learning task, and, in certain instances, to increase discriminability between the new material and apparently similar ideas in cognitive structure.

He further explains, for completely unfamiliar learning material it would be necessary to furnish only an expository organizer consisting of more inclusive or superordinate ideas that could subsume or provide ideational anchorage for the new material in terms that are already familiar to the learner. But for relatively familiar learning material, or material organized along parallel lines, a comparative organizer would be used, both to integrate ostensibly new concepts with basically similar concepts existing in cognitive structure, and to increase discriminability between new and existing ideas which are essentially different but confusably similar. Comparative organizers are expressly designed to further the principle of integrative reconciliation.

**The Hypothesis Testing Theory**

We approach any real life problem, event or a situation with a set of assumptions and expectations, however raw and vague it may be. We first try to make sense of things by matching our hunches and assumptions with the
realities. When they match, comprehension takes place; confusion follows the mismatch. We try to modify and adjust our hypotheses to fit into the realities. Thus, we go through a process of theorizing our experiences, building a cognitive structure or a ‘system of internal representation’ of external realities.

“Theories are nets cast to catch what we call ‘the word’: to rationalize, to explain, and to master it. We endeavour to make the mesh ever finer and finer (Popper, 1968). Popper (1979) makes a clear distinction between perceptual experience and scientific knowledge by positing the two theories of knowledge: the bucket theory and the searchlight theory. The bucket theory is perception based, and the searchlight theory is hypothesis guided. All learners, children in particular, are like a scientist. A scientist endeavours search for order, for uniformities, for lawful relations among events and entities in the observed phenomenon. Popper (1968) elaborates this in the following: A scientist, whether theorist or experimenter, puts forward statements, or systems of statements, and tests them step by step. In the field of the empirical sciences, more particularly, he constructs hypotheses, or systems of theories, and tests them against experience by observation and experiment.

Or, as Charles Darwin noted, “Without hypotheses there can be no useful observation.” That is how a scientist goes about building scientific knowledge. Similarly, the basic learning process of every human being involves, as Frank Smith (1975) puts it, “the experimental testing of cognitive hypotheses”. He asserts that “Like the scientist, a child uses his own theory, or cognitive structure, to make sense of the world around him. And a child also conducts
experiments in order to develop and modify his theory, following procedures similar to those of the scientist”. Smith conceptualizes the basic process for modifying or elaborating cognitive structure, with which all normally endowed children and adults are innately equipped to learn, a four-stage procedure: The first stage is that of ‘tentative modification cognitive structure and generation of a hypothesis or a set of hypotheses’ about the problem we encounter. Such hypotheses are normally tacit and implicit. The second stage in the basic learning process is observation and obtaining data. Data, by themselves, are of no use unless the observer (the learner) ‘tests his hypotheses against the data.’ And in the process, the learner ‘evaluates feedback’. The learner may find either his hypothesis fully (or partially) matching or mismatching with his observation. In other words, he gets positive or negative feedback. From this stage, the learner proceeds to the fourth stage of confirming or rejecting or modifying his earlier set hypotheses. Thereby, the cognitive structure of the learner gets evolved. Finally, it should be noted that all the learning theories of cognitive psychology including those of the developmental psychologists are basically nativistic, that is, schema based, and hence they are mutually complementary, and appear superficially similar.

Humanistic Psychology
The term humanistic reflects the focus on defining a human psychology with emphasis on individual existence and variability, in contrast to the biological foundation of behaviourism.

This approach is the result of the Third Force Movement, which in turn is based on the ideology of Existentialist philosophers such as Martin Heidegger, Soren Kierkegaard, Nicolas Berdyaev, Karl Jaspers, Martin Buber, Gabriel Marcel, Wilhelm Dilthey, Jacques Maritain, and Jean-Paul Sartre, Personal constructs theory of George Kelly, and the Humanistic philosophy and psychology of Maxine Greene, Gordon Allport, Abraham Maslow, Carl Rogers, Charlotte Buhler and Rollo May. Humanistic psychology is primarily a clinical application of a psychology of the individual. Although it accepts the importance of physiological and instinctual influences on personality, humanistic psychology emphasizes individual growth to reach experiences of total realization of the vast potential for personal resources.

Much of existential thinking on the nature of knowledge is grounded in “phenomenology”, a world view that seeks to describe the appearance of things and events as they present themselves directly to our private consciousness. These things and events thus possess a subjective as well as an objective reality. According to this view, learning is an active process of reconstructing knowledge driven by the learner.
Teaching

Words are not empty symbols. They convey meaning and they have history. Etymologically, ‘learn’ and ‘teach’ are derived from the same root. ‘Learn’ comes from the Middle English learning, which in turn is derived from the Old English learner (meaning ‘to learn, to teach’), the base of which is lar, the root of lore (akin to Sanskrit jnan or vid). Lore originally meant ‘learning’ or ‘teaching’ (The New Grolier Webster International Dictionary of the English Language, 1976).

Similarly, the word ‘teach’ is derived from the Old English teaching (meaning to teach, show, command) which in turn is derived from the Old Teutonic taikjan the root of which is teik (meaning ‘to show’) and is traceable to Sanskrit dic. The term ‘teach’ is also related to ‘token’ (Old Teutonic taikjan)—a sign or symbol. So, according to historical linguistics ‘token’ and ‘teach’ are cognates. In this sense, to teach means to show someone something through signs or symbols; to use signs or symbols to evoke responses about objects, events, persons, and so forth. Thus viewed, ‘teach’ is associated with the medium in which teaching is carried on (Smith, B.O., in M.J. Dunkin (Ed.), 1987).

With this brief etymological note on the terms ‘learn’ and ‘teach’, let us turn to the modern conception of ‘teaching’.

The most important, if not the only, thing that goes on or expected to go on in the classroom is ‘learning’. Teaching is useful insofar as it facilitates learning.
As described in the preceding pages, learning’ is seen as the relatively permanent change in a person’s knowledge or behaviour due to curricular experience. ‘Teaching’, as a reciprocal activity, is intended to bring about the desired change ‘In the learner. Hence, teaching as an activity cannot be described in isolation from learning. As John Dewey once pointed out, unless someone is learning, there is no teaching, just as there is no selling unless someone is buying. In one sense ‘teaching’ is done by an agent, a person more knowledgeable than the learner himself. In another sense, this is done by the learner himself through what is called Ekalavya method. This involves ‘auto-instruction’ and ‘auto-correction’. In such method of learning, the learner utilizes more and more of one’s meta-cognitive knowledge and skills. But even in such situations, ‘teaching’ takes place implicitly, though the teacher is absent at the scene. Thus seen, functionally ‘learning’ and ‘teaching’ are inseparable.

Teaching is a necessary condition for learning to take place, but not necessarily a cause of it. What causes learning is basically an epistemological question, the discussion of which falls beyond the purview of this, book. However, it can be stated tersely that it is in the human nature to learn. The desire to understand things and the ability to learn is human. For a better perception of ‘teaching’ as an activity, it is necessary to examine a somewhat comprehensive definition of teaching given by Israel Scheffler (1965): Teaching may be characterized as an activity aimed at the achievement of learning, and practiced in such manner as to respect the student’s intellectual integrity and capacity for independent judgment. Such a characterization is important for at least two reasons: First, it
brings out the intentional nature of teaching, the fact that teaching is a distinctive goal-oriented activity, rather than a distinctively patterned sequence of behavioral steps executed by the teacher. Secondly, it differentiates the activity of teaching from such other activities as propaganda, conditioning, suggestion, and indoctrination, which are aimed at modifying the person but strive at all costs to avoid a genuine engagement of his judgment on underlying issues.

Four points underlying Scheffler’s definition merit our attention. According to him, teaching

1. as an activity, is intended to induce learning.
2. is practised in such manner as to safeguard the learner’s intellectual integrity and capacity for independent judgment.
3. is a distinctive goal-oriented activity, rather than a distinctively patterned sequence of behavioural steps.
4. is different from propaganda, conditioning, suggestion, and indoctrination.

Models of Teaching and Methods of Presentation

Philosophical Models of Teaching

Following his characterization of teaching, Scheffler further presents three philosophical models of teaching, namely, the impression model, the insight
model and the rule model, and suggests new criteria for assessing the purposes of education.

The impression model reflects the cumulative growth of lore or knowledge, rather information in the learner’s mind. “The desired end result teaching is an accumulation in the learner of basic elements fed in from without, organized and processed in standard ways, but, in any event, not generated by the learner himself”, The impression model shares more of Locke’s ideas of tabula rasa and empiricism, and the basic features modern information processing theories. Acquisition and storage of readymade knowledge indeed finds a place in our curriculum but the danger in treating the learner’s mind as a store for cumulative growth of public knowledge. “Our aim in teaching should surely be to preserve and extend this growth. But we cannot do this by storing it piecemeal within the learner” warns Scheffier.

The insight model represents the nativist ideas and the gestalt principles which suggest that ‘knowledge’ in the true sense cannot be derived from outside, but to be generated from within in the form of insights and intuition. This idea finds a place in ancient Indian educational thought and practice. Knowledge, in its private sense, is a matter of vision, and this cannot be dissected into elementary sensory or verbal units that can be transmitted from the teacher to the pupil. It can, at most, be stimulated or prompted by what the teacher does, but ultimately, it is a vision or an insight into meaning, which makes the crucial difference between simply storing and reproducing learned sentences on the
one hand, and understanding their basis and application, on the other. It is the insight of the learner that helps him come into terms with reality, and thereby transform the ‘public’ knowledge into ‘personal’ knowledge.

The rule model suggests learner’s rational character and critical judgment through increased participation in adult thoughts and experience. The rule model reflects much of existential and personalist philosophies. The marked feature of this model is autonomy and innovation that is the learner’s ability to construct and evaluate fresh and alternative arguments, the power to innovate or create, rather than just the capacity to reproduce the inert ideas and stale arguments earlier stored. The rule model acts as a bridge between the impression model and the insight model in that it places general principles of rational judgment on the accumulated knowledge on the one hand, and the personal and intuitive grasp of the student on the other.

While the onus is on the teacher—the external agent in the impression model—in the insight models it is the responsibility of the learner for generating knowledge. In the rule model, however, it is the rational character and critical judgment of the learner that grows through the process of increased participation in adult experience and judgment. Hence, a shared responsibility of both is involved in the rule model. This transactional or participatory procedure respects and protects the dignity and freedom of the learner as well as the teacher. As a result of this transaction, the learner gets transformed. The
The goal of education then has to be concerned with ‘transforming’ persons rather than just ‘informing’ persons.

It is very unfortunate that educational practices have become a matter of the teacher’s shaping the student’s behaviour or of controlling his mind. In that case, teaching is in no way different from propaganda, conditioning, suggestion, and indoctrination. The purpose of education is to develop character in the broadest sense, that is, principled thought and action, in which the dignity and freedom of man is manifest. Our teaching needs thus to introduce students to those principles we ourselves acknowledge as fundamental, general, and impartial, in the various departments of thought and action.... In teaching, we do not impose our wills on the student, but introduce him to the many mansions of the heritage in which we ourselves strive to live, and to the improvement of which we are ourselves dedicated (Scheffler, 1965).

The idea that learning and teaching are reciprocal behaviour is suggested by the hyphenated expression ‘teaching-learning’ found in much pedagogical literature, signifying that teaching and learning are mutually related. In teaching-learning situations there are at least two sets of variables interplay. They comprise the internal conditions embodying the needs, interests, attitudes, purposes and perceptions of each learner, and the external conditions of the environment that provide the degree of safety and security, freedom and flexibility, encouragement, trust and openness that learners perceive in it. In this sense, even ‘teaching’ forms the part of the external conditions. The
educator (a term more meaningful than ‘teacher’) a major impact on the environmental conditions and thereby affects the organismic or internal conditions that influence learning.

Shift in the Emphasis has been discussed earlier in this book the teaching-learning situation a triad of the teacher, the learner, and the content or subject-matter. In the 60s and the 70s of the last century, educational theories and research were more concerned with the improved pedagogy for results in terms of student achievement. Till the 1970s, experimental psychology was concerned with effective teaching, that is, teaching for better results (cf. Joyce and Weil, 1972). After the 70s, educational psychology became more concerned with teaching children learn better and remember longer. In other words, helping children learn how to learn on their own. In the light of the transition from one priority over another, we witness consequential shift in the locus of control in the teaching-learning triad.

Teacher control is firmly based on the behavioristic notions of stimulus-response, reinforcement and conditioning. The teacher-control approach is built on the intention of adults to plan and teach approved subject-matter to pupils. The subject-matter is usually centered in the past, and in the ‘accumulated’ body knowledge. The end point of this approach is to bring about change in the learner behaviour, or put in educational terms, student achievement. The teacher plans the subject-matter according to its knowledge structure (in fact,
often done by an external body), decides what, how and how much and like, to be taught (this, too often, is done by others, the central authority), controls and directs learner behaviour through praise, rewards and punishment, and assesses and judges the learner performance. The teacher relies on formal methods, assignments, distinct lesson plans and printed materials as the main and the only sources. The teacher has fixed learning outcomes in behavioural terms which are known in advance and required uniformly for all learners. He or she gives all pupils the same contact with the same materials with little or no provision for individual differences.

Teachers close the lesson with a backward look, so-called “review”, and are done with when finished. The students are evaluated through the use of formal tests of recall and recognition items within a fixed time limit.

**Content or Subject-Matter Control**

This is based on the principles of cognitive psychology and information processing theories—how well the transmission of bodies of knowledge is to the learners. Different elements of the curriculum are interrelated, and are usually organized from simple to complex within the subject fields. The end point of this approach is the change in the knowledge structure of the learner. ‘Structuring’ means relating the parts into a meaningful whole. The usefulness of a structure for learning has to do with the learner’s ability to comprehend it and to use it as an organizing factor in their learning. Cognitive psychologists believe that parts are more easily perceived and remembered in relationship to
each other than in isolation. Ausubel strongly believes that each of the academic disciplines (that is, subject-matter) has a structure of concepts which form the information-processing system of the discipline (Ausubel, The Psychology of Meaningful Verbal Learning, 1963). Cognitive psychology (Bruner, Ausubel, Rumelhart) describes how knowledge, that is, sensory information, is structured and organized in the human mind, how the learner perceives, memorizes, stores and remembers such an external body of knowledge (for example, history, chemistry, botany, and the like). Although these theories see an individual as an active participant in the learning process, in essence, his learning behaviour is controlled and guided by the inherent structure of the subject matter and the teaching method employed by the teacher, for example, Bruner’s “concept attainment”, Taba’s “inductive teaching”, Ausubel’s “advance organizer” model (Joyce and Weil, 1972). On the whole, learner has no freedom, and learning is controlled, guided and manipulated.

Significant learning takes place when subject-matter is perceived by student as having relevance for his or her own needs and purposes. There is no set sequence of learning. Student engages with material in his or her own way and in own sequence. Learning is best achieved when self-criticism and self-evaluation are primary; evaluation by others is of secondary importance. Evaluation by students of a teacher’s performance is also necessary to help improve teaching. This approach does not have fixed learning outcomes which
are known in advance and required uniformly for all learners; hence no uniform measurement.

Subject matter is usually centered in the present and the future. Accumulated knowledge materials from the past are used freely in understanding the present problems and in predicting the future problems, and certainly not to wallow in the thoughts of the past. “The past should be springboard, not a hammock.”

Traditionally, teaching has been regarded as an antecedent or a causal agent of learning. From the liberal’s point of view, teaching is no longer a cause of learning but a necessary condition for learning. The supremacy of the “teacher” is brought down, but his responsibility as a “facilitator” of learning is raised.

Psychological Models of Teaching

A model for teaching is a pattern or a plan, which can be used to shape a curriculum or course of study, to select instructional materials, and to guide a teacher’s actions. Different psychological orientations, prominently four, viz., social psychology, behavioural psychology, cognitive psychology, and humanistic psychology serve as the sources for the development of different teaching models. Social psychology deals with how individuals conduct themselves in relation to other members of the group/society. How the behaviour of the individuals is influenced or shaped forms the subject matter of behavioral psychology. How the individuals come to know of the world around them by receiving information, organizing, storing and ‘retrieving the
information is the theme of the Information Processing theory of cognitive psychology. How the individuals develop their personality and how education helps an individual to transform himself as a whole person forms the scope of humanistic psychology.

Over the years, based on different psychological theories and orientations, a great many pedagogical models have been developed by people engaged in distinctly different kinds of educational activity. Some are based on empirical work, others on established theories, some on hunches and some on speculation about the meanings of theories and research conducted by others.

Models of teaching can be used in three ways: (1) For planning the curriculum, including aims and objectives for curriculum transaction and evaluation, (2) As specifications for instructional materials, and (3) As guidelines for the teacher’s classroom interaction with students. In other words, any model of teaching should serve these basic functions. All the three uses mentioned thus represent a form of teaching, although only the third represents interactive teaching (that is, the engagement of a student with his teacher), which are what most people referring to when they speak of teaching.

Bruce Joyce and Marsha Weil in Models of Teaching (1972) group the models on the basis of the sources of reality which theorists drew on as they focused on the learner and his environment. The authors organized several models into four families which represent different psychological theories and orientations.
toward man and his universe as indicated earlier in this section. The four families are those:

1. Oriented toward social relations and toward the relation between man and his culture, and which draw upon social sources;

2. Developed from an analysis of the processes by which human behaviour is shaped and reinforced;

3. Which draw on information processing systems and descriptions of human capacity for processing information; and

4. Which draw on personality development, the processes of personal construction of reality, and the capacity to function as an integrated personality as the major source.

**Pedagogical-Content Knowledge (Teaching Skills)**

Pedagogical content-knowledge constitutes the crux of teacher development, in addition to subject and curricular content-knowledge (Shulman, 1986). Teachers cannot teach effectively or well-manage their classrooms without grasping the information, principles and theories of their subjects. However, subject content-knowledge is insufficient to make competent teachers. Curricular knowledge assists teachers to understand curriculum domains, models, evaluation, syllabi, and materials and different programmes, and how these relate to other disciplines (Pollard & Triggs, 1997).
Subject and curricular knowledge, however, have limited use without assisting teachers to develop a broad range of teaching skills necessary for them to demonstrate they can transform their subject and curricular knowledge into forms comprehensible to learners; using different teaching strategies, procedures, techniques, examples, and other useful ways of content representations. Pedagogical skills, therefore, enable teachers to understand learners and what facilitates and impedes their cognitive, affective, psychomotor, and social development (Pollard & Triggs, 1997; Shawer et al., 2008). With subject, pedagogical and curricular knowledge, teachers become self-confident since meagre or abundant subject, curricular and pedagogical knowledge influence their ability to better manage their classrooms (Shawer, 2006). EFL teachers who have developed a range of teaching skills can handle “different learner strategies, be good classroom managers (organizers, initiators, monitors, advisors and resource-providers), help students to learn from their errors, motivate them, promote learner autonomy and cater for different abilities and learning styles” (Basanta, 1996, p. 263).

The teacher should be regarded as; first and foremost, a teaching and learning specialist who possesses skills of diagnosis and can offer a remedial prescription in relation to problems in the field. The fact that most teachers are on government payrolls, and tend towards collaborative work through government institutions, is no more pertinent to the argument than the same fact being applied to doctors in hospitals. The fact that a doctor is on
government hospital payroll in no way lessens the rightful expectations that she or he possesses autonomous diagnostic and prescriptive skills.

The effect was to strengthen the view that teaching was not an incidental craft to follow naturally from mastery of subject content, but a highly complex blend of theoretical understanding and practical skill. The result was to fortify the notion of teacher as a highly developed autonomous professional, with a requisite professional knowledge base and practitioner skills which could stand alongside the equivalent in medicine, law and engineering.

Accomplished teachers command specialized knowledge of how to reveal and convey subject matter to students. They have a ‘pedagogical content knowledge’ command of a wide repertoire of teaching strategies that enable them to organize, adapt, and present the curriculum in ways that take due account of the specific contexts within which they teach and their students learn. They are aware of the preconceptions and background knowledge that students typically bring to each subject and of strategies and instructional materials that can be of assistance. They understand where difficulties are likely to arise and modify their practice accordingly. Their instructional repertoire allows them to create multiple paths to the subjects they teach, and they are adept at teaching students how to pose and solve their own problems. (NBPTS 1999, 3-4)
Newmann and associates’ (1996) work developed the concept of ‘authentic pedagogy’, Darling Hammond’s (1997) work the notion of ‘quality pedagogy’ and Education Queensland’s School Reform Longitudinal Study (QSRLS 1999) the notion of ‘productive pedagogies’, all in their own way identifying the essential blend of knowledge and skills required for effective teaching.

In NSW, the Quality Teacher Program (2000) submission, titled Pedagogy for the Future, outlines contextual challenges faced by schools and teachers today, identifies ‘new’ and ‘effective’ pedagogies designed to meet these challenges, and specifies implications for teacher education. Reflecting reliance on the 50 years of educational research referred to above, including the more recent spate of work on pedagogy and its effects, the two key implications for teacher education are spelled out as: (1) the quality of student learning outcomes is directly dependent on the quality of the teacher; and (2) the essential components of effective teaching are command of subject, and knowledge of and capacity to implement effective pedagogical practices. The submission identifies as part of its new and effective pedagogies those which could only result from universities and schools working together on pedagogic issues in schools. The theme of the research and applied dimensions of the profession working more closely together, including in the business of teacher education, is implied in all of the projects which focus on the new pedagogy.

Many of these ideas about the primary impact of the teacher would seem to reflect some of the earlier thinking from the 1960s and 1970s, noted above,
about teacher autonomy and teacher professionalism. These are the very ideas which have been arguably under some challenge in the era of the 1980s and 1990s which has interpreted competencies and outcomes as requiring a high degree of standardization and so system, rather than teacher, control (Finn 1991; Carmichael 1992; Mayer 1992). The emerging concept of teacher professionalism is different, however, from that of the earlier era, and ironically the difference is largely because of the expanded sense of competencies and outcomes that has developed as a result of the trailing of the past decade or so. From this trialing, it has become increasingly recognized that a purely technical and/or vocational approach to competencies and outcomes is limited. The competencies that an individual requires for a full and meaningful life are many and varied, some at the technical end of the knowing spectrum, with some at the other extreme, or more aesthetic end, and with the vast majority in the communicative, or human relations, centre. This fits well with research about learning and ways of knowing that have characterized much epistemic and learning research of the past few decades (cf. Habermas 1972; Biggs and Collis 1982).

Ideas about effective curriculum practice must fit with our expanding understanding of the complexities of knowing and learning, and the multiple contexts in which current students will ultimately have to function. Among the features identified as crucial to teaching which is aimed at understanding is the integration of higher order thinking skills. These are developed during the teaching of content knowledge in contexts that encourage students to align
what they are learning with real-life experience by thinking critically or engaging in problem-solving (Brophy 1998). Within this, there is recognition both of the reality of a range of thinking and knowing (and therefore learning) dimensions and of the many different personal and social realities in which these dimensions will become meaningful. The new NSW Higher School Certificate has been constructed with very explicit recognition of these same realities and, especially in its new mode of criterion referenced assessment, will be gearing its curriculum around this recognition. In a word, new pedagogical research has likely done more than anything before it both to underpin the vast complexity of teachers’ work and to specify just what the nature of that work truly is.

The word pedagogy has a long history in education and is understood in diverse ways, depending on the cultural context in which it is used. As a classroom teacher, I used to think that pedagogy was one of those cringeworthy words that was difficult to pronounce and even more difficult to get a sense of its meaning. I now see pedagogy as a useful and inclusive term that has the potential to name and integrate appropriate ways of being with students in classrooms. In recent times, the term pedagogy has been referred to as “appropriate ways of teaching and giving assistance to children and young people” (van Manen, 1999, p. 14), “the art and science of teaching” (NSW Department of Education and Training, 2003), or simply as “classroom practice” (Lingard, Mills & Hayes, 2000). I would like to suggest that pedagogy, as I describe it in this paper, can be a very constructive way of
framing the synergistic relationship between teaching, learning and assessment practices in classrooms. Assessment is often left out of the term pedagogy and included as an afterthought to support pedagogical practices, but I believe it plays an integral role within our pedagogical practice and should become an inclusive component when we talk about pedagogy.

While van Manen (1999) provides an interesting history of the language of pedagogy, he also presents an imperative that pedagogy should not lose its original concerns that were “guided by an interest in the learner’s experience and in the relational sphere between teachers and their students” (van Manen, 1999, p. 17). In short, “the practice of pedagogy may be defined as constantly distinguishing more appropriate from less appropriate ways of being and interacting with young people” (van Manen, 1999, p. 19). The emphasis on *distinguishing* in van Manen’s quote illuminates the importance of our identity and dispositions as teachers. The ability to distinguish or discern what are appropriate ways of being and interacting with young people requires teachers to be “personally present” for their students (van Manen, 2002). The relational, emotional, moral and personal dimensions of the *Tracey Smith* teaching/learning process are an integral part of the notion of pedagogy. Van Manen (2002) calls these the *pathic dimensions of pedagogy*, and suggests that the act of teaching depends on the teacher’s personal presence, perceptiveness, thoughtfulness and tact for knowing what to say and do in classroom situations. Such personal and professional attributes have also been identified as essential
characteristics of highly accomplished teachers of mathematics (Bishop, Clarke & Ocean, 2002).

Clearly, pedagogy is concerned with developing appropriate relationships with students that take into account many relational aspects that play a crucial role in our interactions with students as they learn any given subject. The complex relationships that make up the intricate web of classroom life are reflected in the statement that “the term pedagogy recognizes that how one teaches is inseparable from what one teaches, from what and how one assesses and from how one learns” (NSW Department of Education and Training, 2003, p. 4). As teachers, the term pedagogy has the potential to capture the nature of our daily practices that we undertake with the learners in our care, including the ways we plan for and implement assessment.

**Pedagogical Framing**

_Planing_- it is extremely important for a teacher/instructor to plan in advance what he/she would be doing in the classroom. As our work deals with Higher Education Pedagogy, planning has to be extremely flexible and in accordance to the class with which one would be dealing. Proper planning would help the teacher to execute what he/she aims for in a better way which leads to learning in the real sense of the term.

_Interaction_- this is an important aspect of the pedagogical framework. How one interacts with the group of learners and vice versa allows one to understand
the socio-psychological situation of the learners and also helps in developing in them a critical way of thinking so that they can come up with fresh ideas in/for the subject matter with which they are or have to deal with.

**Management**

It is extremely vital in this part of the world with the kind of cultural differences our country has. A teacher has to possess exceptional managerial skills in order to be successful as a teacher in this part of the world.

**Assessment**

This has to taken as an integrative concept. Mere assessment of what is written misleads us about the learner. In order to develop a learner into thinking individual factors like his/her behavior, attitude, social interactions etc are to be taken into consideration

**Development**

One can come to the developmental aspect of a learner by getting to know how a learner or groups of learners have progressed overall. As it is said, development has to complete. There is no point producing parrots as we normally do from this education system.

Pedagogy has often been defined quite broadly in continental Europe and the term is sometimes applied in a similar way in UK early childhood contexts. At times this results in accounts where the use of the terms pedagogy and
curriculum appear indistinguishable. The recent approach in the House of Commons Select Committee on Education and Employment (2000) enquiry into early learning has been quite different; where ‘pedagogy’ (referred to as ‘teaching’) has been understood as analytically distinct and complementary to, the term; ‘curriculum’.

Here curriculum may be understood as denoting all of the knowledge, skills and values that learners are meant to learn in educational establishments. For many alternative purposes curriculum has also been defined to include all of the hidden and/or unintentional learning as well.

Pedagogy is often referred to as the practice (or the art, the science or the craft) of teaching but in the early years any adequate conception of educative practice must be wide enough to include the provision of learning environments for play and exploration. The term ‘teaching’ may therefore be unhelpful in this context, but effective early childhood pedagogy must still be ‘instructive’. Instruction may therefore be defined to incorporate all of those processes that occur within the classroom that aim to initiate or maintain learning processes and/or to be effective means to achieve educational goals (Creemers, 1994). In these terms it is clear that every effective form of pedagogy must be instructive in some way.

Different early years practices are informed by different educational philosophies and values and by the different assumptions that are held about learning, learner development, appropriate styles of instruction, and curricula.
So it isn’t at all surprising that the pedagogic practices applied in different educational sectors and settings should be different. In fact there are wide differences of opinion and variation in understanding regarding the degree of influence that adults should have over the curriculum (Bennett et al., 1997). However, in both oral and written submissions of evidence to the House of Commons Select Committee on Education and Employment there was widespread agreement that ‘Early Years education should be play-based’. In accepting the terms set out above it can be seen that the provision of an instructive play environment in itself constitutes an instructive technique and to be an effective pedagogue requires the practitioner to be skilled in the selection of appropriate techniques to facilitate learning.

As Rumbold (DES, 1990) observed, in the UK there has been a widespread consensus regarding the importance of play among early childhood educators for many years. However, this has not led to pedagogic uniformity (Bennett et al., 1997). In common with the views of many authorities and practitioners, particularly in Scandinavia, early years pedagogy has often been seen in direct opposition to practices involving ‘teaching’. It is therefore extremely significant that the role of the practitioner is defined in the new Curriculum guidance for the foundation stage (DfEE/QCA, 2000) as an explicit ‘teaching’ role that includes:

“establishing relationships with children and their parents, planning the learning environment and curriculum, supporting and extending children’s
play, learning and development, and assessing children’s achievements and planning their next steps”.

While the introductory statements refer to the different ways that learners learn, and the need for practitioners to draw upon; ‘a range of teaching and care strategies’, the desirability of applying ‘play’ based pedagogy is re-emphasized: “Practitioners need to plan learning experiences of the highest quality, considering both learner’s needs and achievements and the range of learning experiences that will help them make progress. Well-planned play is a key way in which learners learn with enjoyment and challenge during the foundation stage.”

In arguing for a ‘scientific basis for the art of teaching’, Gage (1985) has referred to the distinction between knowledge that is general (nomothetic knowledge), and knowledge that applies to the understanding of a particular event or individual (ideographic knowledge). He argued that teachers creatively apply their nomothetic knowledge to the ideographic problems posed by the unique class of students that they are faced with; with all of their specific needs, socio-cultural status and cognitive and affective demands. Pedagogy refers to that set of instructional techniques and strategies which enable learning to take place and provide opportunities for the acquisition of knowledge, skills, attitudes and dispositions within a particular social and material context. It refers to the interactive process between teacher and learner.
and to the learning environment (which includes the concrete learning environment, the family and community).

This provides a definition wide enough to take in such indirect instructional behaviours as the encouragement of parental involvement while distinguishing it from curriculum in the terms previously suggested. A wide range of authorities (incl. Mortimore, 1999, Leach & Moon, 1999, Bowman et al 2001) have applied essentially the same model where, in their day-to-day interactions with learner and parents, capable educators are seen to draw upon a repertoire of pedagogical techniques that have been in some way tested and/or stood the test of time and experience. From this perspective the task of this study is to identify more fully the range of techniques applied by the most effective pedagogues in early learner hood education.

Critical Pedagogy

Critical pedagogy is not a set of ideas, but a way of ‘doing’ learning and teaching. It is a practice motivated by a distinct attitude toward classrooms and society. Critical students and teachers are prepared to situate learning in the relevant social contexts, unravel the implications of power in pedagogical activity, and commit themselves to transforming the means and ends of learning, in order to construct more egalitarian, equitable, and ethical educational and social environments (Canagarajah, 2005).
The term ‘critical pedagogy’ was not coined until Henry Giroux coined it in his influential book “Theory and Resistance in Education” in 1983(Darder et al., 2003). (Chase, 1988). CP looks at education as a political enterprise (Kinchehlo, 2008) and aims to raise students’ “consciousness”, a term borrowed from Freire, to make them more aware of the power games in the society and their own position in that game (Burbules & Berk, 1999). It is the “pedagogy of inclusion” (Pennycook, 2001) and has in large part been created to give the marginalized students the “right to speak” (Peirce, 1989, 1995, 1997). Through breaking away with the principles of “banking” concept of education and a mutual “dialogue” among the teachers and students, the oppressed students come to resist domination and oppression, hence aiming for social transformation both in the classroom, and in a larger scale, in society and the whole world (Freire, 1972; Pennycook, 1989; Akbari, 2008; Sapp, 2000).

Critical pedagogy is a teaching approach which attempts to help students question and challenge domination, and the beliefs and practices that dominate them. It tries to help students become critically conscious.

According to Ira Shor (1992) a student can be critically conscious by: Thinking, reading, writing, and speaking while going beneath the surface meaning.

A student must go beyond: Myths, clichés, received wisdom, and mere opinions. Most importantly students must understand the deep meaning, root
causes, social context, and personal consequences of: any action, event, object, process, organization, experience, text, subject matter, policy, mass media, or discourse.

The objective of this pedagogy (method of education) is to empower students and help them help themselves and the aim is to liberate students from oppression. Teachers must become “warrior intellectuals”, people who know their students and their backgrounds and who are willing to fight for them (Kincheloe, 2008).

We should think in terms of teacher-student and student-teacher - that is:

1. a teacher who learns and
2. a learner who teaches (Freire, 1968)
3. One of the key objectives of critical pedagogy is to allow students to gain the necessary social skills to allow them to actively participate in a transformed & inclusive democratic community.
4. When you can identify the sources of power, recognize your own position in relation to power and understand the political nature of what you learn you can develop your own social actions.
5. Critical pedagogy seeks to give those who have been excluded from power the right and ability to have an input into civic life (Kincheloe, 2007).
According to the history of education, the term ‘curriculum’ was originally related to the concept of a course of studies followed by a pupil in a teaching institution.

*plural curricula: A plan of instruction that details what students are to know, how they are to learn it, what the teacher's role is, and the context in which learning and teaching will take place. [www.ncrel.org/sdrs/areas/misc/glossary.htm]*

*a comprehensive overview, including activities planned for delivery to the students, the scope of content, the sequence of materials, interpretation and balance of subject matter, and motivational, instructional, and assessment techniques to be used. (2) a set of ordered intended learning outcomes. [www.wmich.edu/evalctr/ess/glossary/glossary.htm]*

Curriculum is based on a philosophy and indicates the direction in which we channelize our efforts in the process of teaching and learning using approaches, methods and techniques appropriate to the learners, subjects etc. It is an organized programme of study undertaken by a student in any school, college, university or any other institution of learning. It offers a framework for study activities and experiential learning based on a specific goal it is designed to achieve. It has to have a plan of instruction which specifies what the students
are to know, how they are to learn it, the role of the teacher in it and the context in which the teaching-learning process will take shape.

Richards, Platt, and Weber (1985) point out that a curriculum is an educational programme which states

1. the educational purpose of the programme (the *ends*)
2. the content, teaching procedures and learning experiences which will be necessary to achieve this purpose (the *means*)
3. some means for assessing whether or not the educational ends have been achieved.

The third one strikes us instantly and poses a serious question on whether or not it is being taken into consideration.

A curriculum has to be capable of transmitting the vital properties and features of education effective both in theory and practice. It has to look into its *dimensions* and its *general principles* which would make it applicable in any circumstance providing us with satisfactory outcomes.

Dimensions of a curriculum are inclusive of the relationship between the learner and the society, its aims and objectives, content and subject matter. It is defined through selection, scope and logicality, methodology and evaluation pattern that would govern the curriculum. What is important is also its breadth and depth. Breath involves contact with major divisions of knowledge, problems of mankind and their solutions, values and culture, distinctive
methodology etc while the depth focuses on concentration of these attributes, prerequisites, sequences and integration.

Bent and Kronenberg (1961) suggest that it must ‘involve a continuous process of design and monitoring. The curricular activities should be selected on a valid basis. The curriculum should be flexible: allowing selection, organisation, and evaluation on a continuous basis.’ Nothing of this kind is practised due to the rigidity of the curriculum which ends up in producing people who would be absolute failures in the world outside the classroom.

Johnson (ed) (1989) suggest that in order to plan a curriculum, those involved should

(a) Analyse the learners’ target language proficiency and the present language needs and

(b) Survey the resources in the institution and the community (eg people, places, materials)

Then

1. Select: Language functions for emphasis
2. Choose: Relevant social/academic/vocational situations
3. Identify: Topics of interest to students at the relevant age
4. Specify: Appropriate communicative expressions and formulae, structural patterns and notions (stemming from 1-3 above)
5. **Determine**: Exponents: (a) of high frequency, (b) those generalisable (stemming from 1-4 above)

6. **Gather/Prepare**: Audiovisual materials that would be useful in teaching better

7. **Provide for the use of**: school, community, other resources to ensure an interdisciplinary approach

8. **Prepare/Adapt**: Dialogues and mini-dialogues for *unambiguous* presentation and oral practice of exponents, functional expressions, structures and notions.

9. **Grade (text or teacher-prepared materials)**: Tasks and activities for learner interpretation and performance in the class – for the whole class, group, pair or an individual work. (This is very crucial for the structuring of learning experiences and most of the curricula fail to specify and grade such materials, and may not be very effective as a result.

10. **Evaluate**: Student growth (as *one* clue to the efficiency of a given plan and the strength of your materials.

Then

Divide 1-10 into units and/or modules.

In his discussion on ‘Curriculum Development’, Johnson (1991) offers the following line of argument
1. End specifications are the exact characterization of the target proficiency, whereas means specifications are the specified methods by which the target proficiency will be achieved.

2. End specifications depend on (a) the specification of objectives in verifiable behavioural terms, (b) the changing view of language learning from one of the mastery of grammatical system to communicative language ability. Means specifications will help decide Language Teaching methodology in the context of Second Language Acquisition or the learning of a Foreign Language.

3. Programme implementation relates to the availability of resources and the kind of teacher training facilities that have been provided as a part of the system.

4. Classroom implementation consists of the structuring of the teaching and learning acts.

5. Needs analyses use a process that involves (a) perceptions about the learner, (b) perceptions about their needs, (c) identification of the areas to be emphasized, (d) educational rationale, (e) the type of information available/collection, (f) the method of information collection, (g) the purpose for collecting the information, (h) the time of information collection, and (i) the manner in which these analyses are going to be used.
1. Orientation given to these needs will be decided on the basis of: (i) Language proficiency, (ii) Psychological/Humanistic, and (iii) language for specific purposes.

2. Curriculum evaluation would involve an assessment of (1) objectives (2) content (3) materials (4) activities planned both inside and outside the classroom (5) teachers (6) texts (7) tests and (8) the entire range of strategies planned/used.

David Nunan (1984) says that ‘the curriculum is concerned with the planning, implementation, evaluation, management and administration of education programmes’ one can therefore believe that there are numerous syllabi within a curriculum which has to have a link in order to make it more fruitful and result oriented wherein learning-teaching is at the centre and everything else revolves around this process.

In fact, the term curriculum is mostly used to refer to the existing contract between society, the State and educational professionals with regard to the educational experiences that learners should undergo during a certain phase of their lives. For the majority of authors and experts, the curriculum defines: (i) why; (ii) what; (iii) when; (iv) where; (v) how; and (vi) with whom to learn.

Originally, the curriculum was considered as the product of a technical process. In other words, as a document prepared by experts, depending on the state of
the art of disciplinary and pedagogical knowledge, Benjamin Bloom and Hilda Taba were the most well-known authors of this period.

Following the works of Stenhauser as well as of other researchers in education, the major part of the educational community considers that the curriculum has both a political dimension and a technical or professional dimension. Indeed, the curriculum relates to the connections between the goals of education and everyday life in learning institutions, schools, colleges and universities. According to one of the most significant theorists of the curriculum, this defines ‘what counts as valid knowledge’ (Bernstein, 1973, p. 85). Increasingly, theorists of education recognize the political component of the curriculum—the fact that the curriculum is a field of ideological and political struggle that takes place in each society in order to give meaning to education. It is recognized that this meaning not only originates among experts, following professional criteria, but also through complex cultural processes.

**Management**

The literature on classroom management revolved round assertive and non-assertive teachers. Assertive teachers had two classroom management styles. Autocratic/authoritarian teachers managed their classrooms by imposing behaviour and instruction related protocols on their students. In contrast, democratic teachers involved their learners in almost all classroom undertakings. On the other hand, non-assertive (lassie-fair) teachers paid little attention to classroom order. The *non-assertive or passive* teachers' impact on
students was negative, since their students felt frustrated in their anarchic classrooms. Similarly, students felt disappointed and suppressed in the hostile or authoritarian teachers’ classrooms. In contrast, assertive teachers who showed confidence and consistent expectations had positive effects on student behaviour, as they learnt how to trust and respect others (Canter, 1992).

Research has shown that teachers taking classroom discipline a priority provided a conductive context to effective classroom teaching and learning whereas lassie-fair contexts had negative implications for classroom pedagogy (Akar & Yildirim, 2004; Lacina-Gifford, Kher & Besant, 2003; Pedder, 2006). However, research investigating the direct impact of classroom management on learning has been sparse. Most research focused on training teachers to use a set of classroom management strategies to well-manage classrooms. The 'means' and 'end' have been classroom management itself because researchers examined the impact of some strategies on improving classroom discipline. However, the literature supplied the current study’s experiment with the most effective classroom management strategies in addition to hinting at close links between effective classroom management and effective learning and teaching.

One line of research examined the impact of classroom management techniques on student behaviour. For example, Victor (2005) conducted an experiment to examine the impact of some classroom management techniques (means) on improving student behaviour in the classroom (end). The study concluded that the treatment programme resulted in significant improvement in students'
positive behaviour, such as a decrease in non-compliance, shouting, and tantrum.

Another strand of research examined the impact of certain management strategies on teacher classroom management skills. Akar and Yildirim’s (2004) study indicated that constructivist contexts assisted teachers in organising students in cooperative work and taking individual differences into consideration. Schmidt (2006) concluded that classroom management training enabled teachers to respond to different student characteristics, behaviours, and instructional needs in addition to developing appropriate relationships with students and parents. Slider, Noell & Williams (2006) reached similar conclusions.

Another research investigated teachers' cognition of effective and ineffective classroom management strategies. Lacina-Gifford et al (2003) examined pre-service teachers' knowledge of most effective strategies. The study concluded that most teachers found talking to students, involving parents, reinforcing good behaviour, and rearranging classroom as effective strategies. In contrast, confronting, yelling at, lecturing, and punishing students were ineffective strategies.

Few studies examined the relationship between classroom management and learning. Cher, Meow & Ching’s (2005) study indicated that effective classroom management strategies, such as establishing disciplinary and
educational rules and dividing work among students, had a positive impact on student learning. Pedder (2006) reached similar results.

Many cross-subject studies indicated a positive impact of abundant teacher pedagogical knowledge on their ability to teach and student learning (e.g., Gudmundsdottir, 1991; Kinach, 2002; Lee, 1995). Similarly, previous EFL studies indicated a positive influence of abundant teacher pedagogical knowledge on improving teaching ability and student learning (e.g., Barkhuizen & Gough, 1996; Gahin, 2001; Author, 2009). Other studies indicated that program interventions improved EFL teacher ability (Borgan & Thai Ha, 1999; Linne, 2001; Schleppegrell & Bowman, 1995). It has become clear that no research examined the impact of classroom management on student-teachers' pedagogical skills. The current study, therefore, sought to answer these research questions:

1. Have the target classroom management strategies been actually used in the classrooms under study?

2. What are the student-teachers' perceptions of the target classroom management strategies impact on their generic-education teaching skills?

3. What are the student-teachers' perceptions of the target classroom management strategies impact on their language teaching skills?
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