CHAPTER TWO

REVIEW OF LITERATURE

SECTION A

“Human resources are like natural resources; they're often buried deep. You have to go looking for them; they're not just lying around on the surface. You have to create the circumstances where they show themselves”.

— Ken Robinson

2.1 Introduction

Competency Based Management is one of the key approaches of Human Resource Management (HRM) that calls for appreciation in the value of people in the organization and lays special emphasis on greater employee self direction and responsibility and the search for excellence rather than standard performance. Competency based management (CBM) or competency management involves identifying the competencies that people need to perform a job well in all areas of organizational activity and constructing a framework and using it as a foundation for recruitment, selection, training and development, rewards and other aspects of people management (Horton, 2002).

The rationale behind study and application of CBM in organizations lies in the shortcomings of traditional HRM approaches which rely only on work analysis, job descriptions, people’s formal qualifications and experience in predicting performance on the job. On the contrary, CBM lays special emphasis on knowledge, skills, attitudes and behavioral patterns of individuals which distinguish between superior and average performers (Horton, 2002) and takes under its ambit dynamic factors like technological changes, increased diversity, growing importance of knowledge capital, team-oriented environment and personal career planning (Dubois, Rothwell, & Kemp, 2004). Today’s modern organizational designs are based on processes rather than functions and are characterized by fewer levels of hierarchy, broader skills, team culture, quality circles, performance based pay, and participative industrial relations. Such factors are beyond the realm of traditional Taylor-Ford management which was built on centralization of decision authority and narrowly defined occupations. Thus the modern firms need employee competencies rather than just task related knowledge, intelligence and credentials for achieving excellence (Leoni, 2012). This wave of gradual change in the domain of Human Resource Management has also forced human resource management (HRM)
scholars and academic practitioners to focus more broadly on development of competencies necessary for successful performance in a professional role (Chyung, Stepich and Cox, 2006). In contrast to the traditional role of an educator being confined to only dissemination of knowledge to students, it is now highly imperative for today’s generation of Teachers and Educators to enrich and hone their inventory of professional competencies (knowledge, skills and attitudes) requisite for bridging the gap between theoretical approaches and practical industry requirements.

2.1.1. Evolution of the concept
The seeds of competency based management were first sown in the field of education. In the late 1960s, sweeping globalization, increasing international competition and technological developments posed great performance challenges to the economies of US and Britain. Such challenges pointed towards the need for restructuring and major transformations to be taken place in the educational set up of both countries. Ground breaking work by Professor of Psychology at Harvard University, David C. McClelland brought revolutionary changes in the field of education in 1973. McClelland, (1973) introduced the term “competency” for the first time in his seminal article-“Testing for Competence Rather than Intelligence”. He argued that traditional academic aptitude and knowledge content tests indicate only the academic performance but fail to predict outstanding on the job performance. His research rested on the notion that outstanding on the job performance can be predicted through enduring, underlying personal characteristics called as competencies rather than intelligence and aptitude (Vazirani, 2010). Emergence of this naive phenomenon was a game changer in the field of education as it paved the way for reforms in educational setting, teacher training programs and curriculum structures in 1980s. Owing to such developments, American government introduced curriculum utilization, semester system and quality ratings in higher education in 1990s. This was followed by streamlining national skills standards of occupational competence across all sectors in the country (Horton, 2002).

2.1.2 COMPETENCIES - Definitions, Meaning and Concept
There is a consensus among researchers of the competency field on the fact that definition of a competency is a daunting task (Vazirani 2010) and (Soderquist et al, 2010). Having pioneered in the field of competency studies, Richard E. Boyatzis (1982) defined Competency as “an underlying characteristic of a person, resulting in superior performance in a job”. The definition given by Lyle M. Spencer and Signe M. Spencer (1993) as stated by Ozcelik & Ferman, (2006) was based on the similar notion expressing competencies as “the combination of underlying attributes, skills, traits, knowledge
and motives of a person which have been causally related to superior performance in a job”. These definitions showed inclination towards the behavioral approach of competency based management (input based) as these highlight the significance of inputs like qualities, attitudes, motivations and behaviors that produced excellence and outstanding performance. Lucia and Lepsinger, (1995) defined competency as “a cluster of related knowledge, skills, and attitudes that affects a major part of one’s job (a role or responsibility), that correlates with performance on the job, that can be measured against well-accepted standards, and that can be improved via training and development” (Ozcelik & Ferman, 2006). Having incorporated the current trends in competency field, Timothy & Michael, (1999) proposed a comprehensive definition of competency as “a set of observable performance dimensions including individual knowledge, skills, attitudes and behaviors, as well as collective team, process and organizational capabilities, that are linked to high performance and provide the organization with sustainable competitive advantage”. From the work of Hofrichter & McGovern, 2001, we derive that, while competency being a means, the end is performance.

2.1.3 Model explaining the concept of Competencies

The meaning and concept of competencies were best explained by David Mc Clelland with the help of an Iceberg Model validated by McBer and Hay Group in 1973 (Vazirani, 2010).

In an Iceberg Model, the visible tip marks a person’s knowledge and skills and the hidden part below the waterline stands for underlying and enduring personal characteristics or self concepts, traits and motives. While the knowledge and skills are easier to assess and identify, it is below the water-line competencies that have a crucial impact on how effectively an individual performs on the job and are often difficult to identify. These include self concept (attitudes, values and self-image), social role, Traits and motives represent the larger portion of the iceberg, hidden below the waterline (McClelland, 1973 as stated by (Vazirani, 2010). Below the water-line competencies are also known as behavioral competencies and entail all the person-oriented competencies, better known as meta-competencies such as creativity, initiative, persistence in problem solving, discipline, assertiveness, and empathy (Soderquist, Papalexandris, Ioannou, & Prastacos, 2010). Competencies as behaviors can be defined as “talents and qualities that make up an individual and that can be deployed by the individual independently of what is the content of his or her particular job at a particular point in time in a particular organization”. These competencies are critical to organizational success, and cannot be easily evaluated in terms of sufficiency.
In the quest for outstanding performance and perfection at workplace, “Competencies” came to be recognized as the most promising “people based tool” which supports employee development and increases productivity (Ozcelik & Ferman, 2006).

The present study reviews the literature on competencies and their application in various facets of the business environment.

2.2 Application of competencies in Business Environment

Research study by Blancero, Boroski, & Dyer, (1996) aimed at finding the application of competencies in the field of HRM. The researchers attempted to ascertain the staff competency requirements in Human resource. The common basis considered for competency ratings were use of the vision statement, the performance requirements, and behavioral illustrations. Three categories of competencies emerged namely Core Competencies, Leverage competencies and Role specific competencies requisite for HR Professionals and Managers. Cluster of core competencies consisted of personal integrity (Ethics, Standards of Quantity, and Good Judgment), Ambition and drive (Results Orientation, Initiative, Enthusiasm, and Self-Confidence) and Team skills (Teamwork, Relationship Building, Communication, and Listening) while Leverage Competencies (which provided flexibility in making assignments involving multiple roles) were identified as Influence, Utilization of Resources, Customer Awareness, Creativity, Questioning, and Organizational Astuteness. Role specific competency such as Knowledge of Business strategy, turned out to be a unique competency critical for only one role: Strategist/Generalist. Leadership emerged as a shared competency important for two
roles i.e. Initiative Leader and Organizational Leader. Thus competency requirements varied according to the roles assigned to the individuals.

The study conducted by Radsma, (1999) demonstrates the application of competency practices in IT Consulting companies and financial companies in Canada. The research investigated the utility of competency practices by front-line users in various HR domains for contribution to job performance and satisfaction. The companies linked the competency practices to areas of performance management, training and development and career planning. It was further affirmed that Competency practices helped the managers in learning about their staffs strengths and weaknesses. The findings of the study pinpointed numerous challenges faced by organizations regarding design and implementation of competency models. Competency-based initiatives were time consuming, ultimately increased employee cynicism due to lack of follow up and often resulted in a robust short lived inventory of skills rather than a competency model leading to a compendium of professional knowledge and skill sets instead of job or task specific profiles requisite for successful performance.

While advocating the use of competency based performance management system in organizations, Martone, (2003) identified two categories of competencies one of which was organizational competencies since a competency based performance management involves aligning employees' job performance with the organization's goals. Customer/Client Service, Business Development, Technical Competency, and Personal and People Development were recognized as the most important organizational competencies. Another set of competencies was that of cultural competencies which included Integrity (genuine, candid, and open), professionalism (conscientious and efficient in meeting commitments and achieving goals), and quality (achieving the highest quality of service, products, and deliverable) as these traits were considered representative of an organization’s culture.

The research work of Dainty, Cheng and Moore, (2004) led to identification of key behavioral competencies that underlie superior levels of performance of construction project managers. The research identified 12 core behavioral competencies which distinguished superior performers from average workers- Achievement orientation, Initiative, Information seeking, Focus on client's needs, Impact & influence, Teamwork, Team leadership Analytical thinking, Conceptual thinking, Composure and Flexibility out of which Composure and Team Leadership made a significant contribution to the prediction of job performance. These competencies could be successfully aligned with selection and performance management frameworks as in management development, succession planning and team deployment of construction organizations for ensuring successful performance of superior construction project managers.
Relevant contribution came from pioneering American Society for Training and Development (ASTD) Competency studies (William & Wellins, 2004) that recognized competency model as a useful tool to guide individual development, professional development and career success. The model incorporated roles enacted by learning and performance professionals and their respective areas of expertise. Competencies were grouped into three broad categories i.e. Interpersonal (building trust, communicating, influencing stakeholders, leveraging diversity, networking); Business management (business acumen, strategic thinking, proposing solutions, driving results, planning and implementing assignments) and personal competencies (adaptability and modeling personal development). Areas of expertise for working learning and performance professionals were identified as improving human performance, training, measuring and evaluating, organizational change, coaching, designing learning, career planning, talent management and managing organizational knowledge. Roles that managers assumed under working learning and performance function were that of learning strategist, business partner, project manager and professional specialist. The findings also suggested that development needs can be met through training, education, rotational experiences, mentoring, coaching, organized work assignments, e-learning experiences, and many other learning-oriented interventions.

Ozcelik and Ferman, (2006) discussed the implementation of Competency based perspective in Human Resource Management in a multinational enterprise in Turkey. The main objective was to identify superior performers in the company. The starting point of the framework was the statement of definition of the competencies and related behavioral indicators. The competencies required for the job and organizations were selected depending on the position, role or level of responsibility. Other factors added to the competency model were business needs and corporate cultural values of the organization (like integrity, having a collaborative spirit, and creativeness were reflected within the competency framework as “Integrity,” “Teamwork and Cooperation,” and “Creative Thinking,” respectively). The model guided the selection, Training & Development, performance management processes of the company. For instance, Assessment centers and behavioral event interviews were the main competency-based selection methods used by the company. The competency model was integrated with the performance-management system so as to focus employee behavior on strategic priorities and to assess both performance results and competency behaviors (knowledge, ability, and personal characteristics) that predicted performance on the job.

Another research study by Rao & Palo, (2009) broadly categorized managerial competencies into six areas - Personal value system (Personal productivity, Ability to manage people, Balanced learning habits and skills, Introspection skills,); Strategic Vision (Awareness of organizational mission, Agenda
setting, Change process expert, sensitivity to events, Creative thinking, Entrepreneurial skills); Leadership and Decision (Liaison, Participative decision making, Providing feedback, Resource allocation skills, Team building, Delegating effectively); Conflict and Negotiation Management (Conflict resolution skills, Crises management, Diagnostic use of concepts, Disturbance handling, Group management skills, Negotiation skills, Solution implementation); Communication (Oral/Written communication, Briefing subordinates, Information processing skills, Reporting, Spokesperson); Administrative and Technical Knowledge. These managerial competencies were based on four pillars identified as Knowing the Organization, Leading and Managing People, Managing Resources and communicating effectively.

Foraunet, (2009) demonstrated the utility of competency based management in the domain of public sector. This was done by initiating a research study at Fisheries and Oceans Canada to explore the usage of competency-based management for developing people management competencies for leaders within a technical, knowledge-based workforce. Six main themes emerged from the interview responses: Management, Organizational and External Awareness, Teamwork, Leadership, Self-Awareness and Communication along with the following subthemes: motivation (self and others), learning (self and others), attitude, involvement of staff in decision-making processes, knowledge of strengths and weaknesses (self and others), knowledge of HR practices and understanding the big picture. Participants also identified multiple ways to learn people management competencies. This included acting opportunities and assignments, job sharing, role models, coaching and mentorship, courses, constructive feedback from peers and supervisors and the use of 360-degree feedback mechanisms. Certain gaps were also brought forward. Participants reported absence of formal training plan and also expressed the need for greater support from senior managers and HR in dealing with performance issues and employee learning. All focus group participants felt the challenge of managing scientific and management responsibilities together. Also the task of motivating others sometimes proved challenging.

Another industry that adopted the concept of competencies was the banking sector. Mansoor, Malik and Mat, (2010) identified the variables that enhanced the competency levels of the staff members of Bank Islam Malaysia Limited (BIMB). Five features of the organizational learning - internal exchange, learning approaches and participative policy making, learning climate, reward flexibility and informing that might influence the level of competency (dependent variable) were investigated with the technique of multiple regression analysis out of which internal exchange indicated the highest contribution followed by informing, learning approaches and participative policy making, learning climate and lastly reward flexibility. Thus the combination of the Organizational Learning features as a
whole was capable of explaining 52.7% of its contribution towards establishing competencies among the organizational staff. The study emphasized on the importance of Internal Exchange i.e. the activities focused on delighting customers and the willingness to create a win-win outcome through the process of negotiation and participation.

Bonder, Bouchard, & Bellemare, (2011) demonstrated the implementation of working competency framework in a federal government organization namely Service Canada which is a service delivery agency. They furthered their study by incorporating three clusters of competencies namely, "core competencies" required of all employees (personal characteristics), "group competencies” required for certain job roles (primarily abilities and skills), and "task competencies" related to specific jobs (primarily knowledge). The dimension of ‘core competency’ of employees reflected organizational values. "Client Focus" emerged as one such core competency that reflected the service oriented and learning culture of Service Canada, a competency required by all employees. The Company’s competency model lacked an effective communication strategy and a governance structure for better awareness of CBM tools and to address key decisions regarding competencies.

Jena & Sahoo, (2012) identified the broad work-based competencies for executives with the main objective to identify the requisite competencies of outstanding performers in key positions, and eliminate the competency gaps so as to ensure commendable performance of employees. The identification of competency parameters was affected by two factors i.e. organizational culture and organizational strategy leading to emergence of following competency clusters Entrepreneurial (Vision & Mission statement, Business strategy, Functional strategy); Meta Competencies (Creativity, Self-knowledge, Forecasting and Anticipating change.), Functional (Innovativeness, Decision-making, Knowledge management, Customer-focused, Coping with stress, Cross Functional Perspective); Social/Interpersonal (Persuasiveness, Sensitivity, Flexibility, Empathy, Relationship building, Emotional resilience, Networking Ability); Intellectual/Cognitive (Information Collection, Problem Analysis, Numerical Interpretation, Judgment, Organizational Awareness, Learning Orientation, Technical Expertise, IT and Computer Literacy); Individual/Personal (Knowledge, Skills & Ability, Adaptability, Stress Tolerance, Self – Management, Change Orientated, Goal seeking, Achievement Orientation, Self-efficacy); Leadership/Result Oriented (Risk Taking, Decisiveness, Goal clarity, Organizational Commitment, , Strategic Thinking) And Ethical/Value Based (Aligning with Company Values, Adhere to Code of Conduct, Rewards right Behaviour). It was established that the competencies led to superior managerial performance of personnel thereby resulting in improved organizational performance.
Another Indian study by Sarkar linked competency management to the domain of knowledge management by building a knowledge based development conceptual model. The model focused on identifying the required competencies and the desired level of the required competencies. The result was a comprehensive set of 16 competencies namely Innovativeness, Effective Communication, Stress Management, Conflict Management, Openness to Change, Decision Making, Effective planning, Creativity, Self-Management, Learning Ability, Quality Consciousness, Resource Orientation, Positive thinking and Team Building. Then the model was applied for the training need assessment through gap analysis. The gap analysis for Manager (Training & Development) revealed that there was high gap for competency - ‘Communication’, ‘Effective planning’ and ‘Decision Making’ whereas a low gap existed for ‘Learning ability. It was an indicator that the proposed competency mapping model proved useful in identifying development needs of individual employees with significant difference. Besides the development of managerial and work based competencies, the recent studies in the competency field underline the utility of competency based management in fostering life – long learning competencies among employees. Sienkiewicz, Domińczak, & Konador, (2013) demonstrated the application of competencies in a knowledge intensive services (KIS) sector in Poland. The purpose of their research study was to link the subject of competency management to the domain of life-long learning (LLL) of employees. The variables related to the company approach in competency development included: clearly defined goals and objectives of training, development of individual training plans, supporting individual workers, analysis of the efficiency of training, development of career paths and defining budget for training activities while the dependent variable was participation of workers in any form of lifelong learning. The results showed that companies that have positive approach to competence development of workers have much higher probabilities of LLL intensity at company level.

Many in the human resources field believe that competency-based management can facilitate in identification of the learning and development needs in order to minimize the gaps between the skills an individual brings to the job and the desired characteristics (Joyce, 2006). Thus Competency Based Education is being increasingly recognized as a tool used by colleges and universities to develop knowledge, skills, abilities, behaviors and attitudes which are essential to performing real life work roles and tasks (Koenigsfeld, J. P., 2008).

2.3 Rationale behind competency based education:
Advoacted by Frank Bobbitt, superintendent of Los Angeles City Schools in 1927, competency-based education gained momentum in the late 1960s (Lee, 2011). While distinguishing between traditional
education and competency based education, Vinton (1979) stated that in competency based instruction, learners are given precisely stated objectives regarding what competencies are required and what criteria would be used to assess their performance where as in the case of Traditional education, objectives are vaguely stated or not stated at all. While traditional education holds time constant implying that trainees who learn at different rate will demonstrate varying degrees of achievement at the end of the time period where as competency-based instruction holds achievement as constant meaning that a unit is ended when one can demonstrate the required competency. Also Traditional education strongly emphasizes program entrance requirement as opposed to competency-based instruction which places its heaviest emphasis on exit requirement. Thus the main premise behind the development of CBE curriculum is to bridge the gap between theoretical academic content and practical industry/job requirements (Berdrow, I., & Evers, F. T., 2011) (Waldmann-Williams, T. E.,2001). In order to fill this void in present education curriculum, competency based instruction and tools are increasingly being applied in various facets of educational settings.

2.4 Application of Competency Based Management to the field of Education

Since the greatest educational asset is the “teacher”, the critical ingredient of teaching now being recognized is the professional competence of a teacher, i.e. “the ability of human to deliver quality professional service designed to increase probability of intended learning” (Hunter, 2001).

In light of the above statement, ‘Teaching is now defined as a series of decisions and the implementation of those decisions, which increase the probability of intended learning” (Hunter, 2001). The following section of reviewed literature first explores the professional competencies of teachers and then studies the competency requirements and preconditions necessary for successful implementation of competency based management to educational set up.

2.4.1 Professional Competencies of Teachers in Higher Education

Teaching competencies are a cluster of three attributes i.e. knowledge, skill and attitudes. While explaining the three components, Medley & Crook, (2001) opined that knowledge pertained to the subject area knowledge, knowledge of pedagogy or any such knowledge that may enhance teacher performance. Skill may relate to content, writing, performance skills involved in lecturing, planning deployment of knowledge and skills and those involved in implementation of complex strategies. Attitudes may pertain to self, to pupils, to colleagues, to profession and to values. Thus we review the
professional competencies of educators and teachers associated with higher education under three components namely knowledge, skills and attitudes.

2.4.1(a) Knowledge

This component included following sub components:

Knowledge of subject

Derived from an extensive review of competency based management in organization, the knowledge component in the business environment entails primarily knowledge that is related to specific jobs (Bonder, Bouchard & Bellemare, 2011) and administrative and technical knowledge (Rao & Palo, 2009). According to Defillippi & Arthur, (1994), Such job related knowledge falls under the category of Know-how competencies and is reflected in individual job descriptions and can be nurtured through HRM approaches such as Job Analysis, Job design, Performance appraisal and Training and development. But in the educational set up, job specific knowledge and knowledge of business strategies (Blancero, Boroski, & Dyer, 1996) are substituted by knowledge of subject of expertise, principles of learning and knowledge of practical applications of the discipline.

A qualitative study conducted by Hill (2014) at a southeast U.S. university during an 8-year period led to meaningful contribution to the domain of teacher’s competencies. The author explored the perspectives of 107 graduates during a class exercise regarding effective teaching skills. One of the most crucial competencies recognized by students was that of knowledge about the subject matter which further involved having relevant practice experience, providing relevant, real time information, teaching practical applications as well as theory, presenting evidence-based information and also being knowledgeable about students’ cultural background. Another cluster of generic teacher competencies developed by Oliva & Henson, (2001) in a State of Florida explained basic knowledge as demonstrating an awareness of patterns of physical and social development in students, emphasizes on the importance of the knowledge of learning process and principles as important ingredients of teaching expertise (Olivia & Hensen, 2001). Hunter identified few learning principles which were pervasive at all levels. These included “providing maximum guidance “, reinforcement”, ‘mass practice’ and ‘distribute practice for long retention’.

Source of Teacher’s Knowledge: An Important predictor of teaching competencies

Further investigating the literature on teacher’s knowledge, it was found imperative to study about the source of knowledge of the subject or pedagogical content where from teachers have gained that knowledge. According to N, J & P (2001), knowledge base of teaching has significant influence on
teacher’s activities. From this standpoint, it was argued that along with formal academic credentials (Williams, 2012), teacher’s practical knowledge brought about by exposure to field experiences, hands-on training should be included in the knowledge base of teachers along with formal academic credentials (N, J, & P, 2001). An important source of knowledge being talked about in the previous literature refers to the knowledge gained from informal experiences and contexts known as experiential knowledge or knowledge from experiential learning, which entails thorough reflection and active use of previous life and learning experiences for evolution of deeper understanding (Barth, Godemann, Rieckmann, & Stoltenberg, 2007). Thus, the source of knowledge can be divided into three major categories, namely, Formal education, Practical exposure and Knowledge from Experiential Learning.

**Knowledge of Students**

In today’s competitive business environment, knowledge of the customer has been recognized as an important competency for successful managers and involves focus on client needs (Bonder, Bouchard, & Bellemare, 2011); (W. Jones, 1995) as well as activities aimed at delighting customers by creating win-win situation from a business proposition (Mansoor, Malik and Mat, 2010). But in an educational institution, student is the ultimate consumer. Thus derived from business environment, knowledge of student has been identified as an indispensable competency by various researchers.

The intent of the study by Hollins, (1993) conducted in a California urban school district was to determine specific teacher competencies required for efficient teaching for culturally diverse learners. Possessing the Knowledge of Students was viewed as one of the critical competencies essential for teaching culturally diverse populations. This pertains to knowledge of students’ cultural backgrounds so that educators are able to work with diverse “race, class, gender, nationalities” and respect the individuality of the student. It also encompasses an understanding of appropriate pedagogical practices for presenting subject matter in different learning styles that are responsive to cultural, group, and individual needs of learners. Competencies of knowledge about subject, students and learner performance were assessed through teachers’ documentation that revealed growth in the ability to formulate and test new hypotheses about how particular students learn and respond to the social context of the classroom.

Qualitative case study conducted by Williams (2012) was also aimed at exploring how master teachers in 9 transfer high schools of United States learnt the competencies they perceived were required to engage at-risk students so that they persist and graduate. The primary sources of data were: in-depth interviews involving 13 teachers and 10 principals and assistant principals in 9 alternative high schools. The qualitative results showed that the key competency of “Ability to know what and how to teach” was indicated by 87% of study participants. The ability to teach comprised ability to apply
knowledge gained from training and past practices and Understanding students’ backgrounds coupled with the ability to integrate this knowledge into classroom practice.

‘Knowledge of students influencing Individualized Instructional Efficacy of Teachers :’
Past literature on “knowledge of students” also emphasized on the importance of individualizing instruction in order to cater to diverse and unique student learning needs of students in the classroom (Marvel et al., 2007), (Jones, 2008), (Okrasinski, 2010). The importance of individualizing classroom instruction lies in the notion that each student is a package of unique learning characteristics, different background knowledge, differentiated learning style and a variety of interests. Thus following a single approach for all by faculty members can lead to failure in student learning and effective classroom instruction (Jones, 2008). Having assessed the level of knowledge of each student and individual learning gaps, a teacher can make a thorough selection among a variety of individualized /personalized learning methods such as Mastery learning (Chan, & Lin, 2003), (Gertner & VanLehn, 2000), (VanLehn et al., 2000); using examples related to student’s backgrounds and prior experiences (Jones, 2008) and Alternative assessments offering a varied combination of assessment techniques such as student portfolios, grading and project work used to determine performance proficiency of students. The previous literature has identified various problems in successful implementation of this personalized approach of teaching in classroom by the faculty. Faculty members are faced with constraints of time available for covering content, lack of appropriate equipments or material to support individualized learning and presence of large classes which make it a tedious task for faculty to follow individualized approach (Bonwell, C., Eison, & A., 1991). Apart from these barriers, teachers tend to resist the implementation of individualized learning in classroom because of feelings of discomfort and anxiety accompanied with trying methods other than the ones they have been habitual of using in classroom, lack of incentives or sufficient rewards to change and lack of adequate preparation and needed set of skills requisite for successful delivery of personalized / individualized approach of teaching (Bonwell, C., Eison, & A., 1991).

Knowledge of Self
Literature on competency based management echoes the importance of “knowledge of self” for effective managers in organizations (Sarkar), (Jena & Sahoo, 2012). Derived from the field of business, the term includes under its purview, self-awareness (release of ego), knowledge of one’s own strengths and weaknesses (Foraaunet, 2009) and self-management (Sarkar).
2.4.1(b) Skills

The second component of competency i.e. skills comprises of following sub components:

Role oriented skills

Various researchers in the field of competency based management have discussed about the significance of task specific or role oriented skills. Such skills necessitate professional expertise over one’s role in the organization (Jena & Sahoo, 2012), problem solving capabilities, decision making skills required under one’s position or role assigned in the organization, business acumen, planning and implementing assignments (Williams & Wellins, 2004), information processing skills or information gathering skills (Dainty, Cheng and Moore, 2004); (Rao & Palo, 2009); and (Jena & Sahoo, 2012).

Role oriented skills of educators as identified by Olivia & Hensen, (2001) in a study conducted at the Council of Teacher Education in Florida involved planning skills, identifying long range goals as well as short range objectives for a given subject area, skills in developing instructional materials as per student learning needs and selecting and sequencing related learning activities appropriate for a given set of instructional objectives, developing learning objectives and administrative skills (establishing a set of classroom routines, formulating standards for student behavior).

Teacher’s skills in ‘Instructional Planning and Objective setting’: Path to ‘Pedagogical Innovation’

Of the many listed role centric skills of teachers in the previous literature, planning of instruction and objective setting to insure student competence in subject matter and requisite skills is the essence of teaching and learning (Hollins, 1993). In this regard, teacher’s efficacy and skills in setting appropriate and relevant objectives which address differentiated student learning needs holds crucial importance in teaching. A common theme running through the previous literature on objective setting is the diverse nature of learning objectives. Learning objectives for today’s generation of students should seek to address broader and complex concerns such as developing global perspective of education, critical skills of problem solving, decision making and industry relevant competencies such as life skills, soft skills etc. (Gfroerer, 2000). According to Bonner, (1999), an array of carefully crafted and comprehensive set of lesson/learning objectives leads to diversity in teaching methods because different objectives require different conditions of teaching. A single method or teaching practice cannot seek to fulfill all the learning objectives. Because of this multiplicity and richness in teaching methods influenced by diversity in learning objectives, a growing body of researchers has alleviated the concept of effective teaching practices and methods to pedagogical and educational innovation. According to Vieluf, Kaplan, Klieme, & Bayer, (2012), any teaching practice which embodies a new
idea, has potential to improve student learning outcomes and is adaptive to student’s generic, social and personal learning needs of today is considered as ‘pedagogical innovation’.

**Teacher’s role beyond classroom: A Changing perspective**

Gleaning through the extant literature of teacher’s role oriented skills, it was realized that, with the changing dynamics of higher education owing to complex business landscape, the role of teachers in the development of students has also become more cogent and elaborated (Berdrow & Evers, 2011). The role of faculty members is not only confined to planning curriculum and knowledge dissemination but to effectively prepare students for successful application of knowledge and demonstration of skills learnt in real world situations (Gfroerer, 2000). This in turn requires systematic efforts and skills of teachers in promoting personal development of students which seeks to enable students to cope with complex situations, apply problem solving skills and make decisions. In this regard, the previous study by Barth, Godemann, Rieckmann, & Stoltenberg, (2007) have emphasized upon a radical shift in teacher’s role from delivery of teaching to delivery of learning processes in extracurricular settings, formal and informal settings. According to Azevedo, Apfelthaler, & Hurst, (2012), such academic settings are manifested in the form of developmental opportunities within study programs (through guest lectures, seminars); provision of student support (through career counseling or faculty guidance); opportunities to gain work experience (by way of field projects, internships etc) and opportunities for attribute development and achievement (through workshops and training programs).

**Interpersonal and Intrapersonal skills**

This category has been drawn from the inputs of competency based approach in the field of business management. Interpersonal skills take under its ambit communicating in terms of briefing subordinates (oral /written), reporting (Rao & Palo, 2009), influencing stakeholders, networking abilities (Williams & Wellins, 2004), relationship building (Jena & Sahoo, 2012) and team building skills (Blancero, Boroski, & Dyer, 1996).

In the context of educational environment, interpersonal skills of instructors include establishing meaningful relations with students wherein educators counsel students, develops rapport, creates safe and non-threatening learning environment that assist students in developing interpersonal traits like mutual trust and cooperation (Olivia & Henson (2001), students to learn (Hollins, 1993), is flexible about class activities and demands of adult learners’ lives (Hill, 2014).

(i) **Student Motivational Skills of Teachers**

The significance of motivational skills among teachers, as an indispensable interpersonal trait, has been deeply acknowledged in the past literature (Hill & Houghton, 2001); (Berdrow & Evers, 2011). According to the previous researches, motivation provided by teachers is necessary to promote the
involvement of students in the learning processes and create a learner centric environment (Berdrow & Evers, 2011) and for effective classroom management (Crews and Bodenhamer, 2009). Motivational skills of teachers are demonstrated by their ability to reward students for their positive behaviour and achievements (Hill & Houghton, 2001); promoting student participation in their own learning (through exercising control on classroom learning activities) (Stuyven, Dochy, & Janssens, 2008) and engagement in challenging, differentiated and stimulating learning opportunities (Okrasinki, 2010).

(ii) Communicative competence of teachers

Another extensive research on Interpersonal skills of teachers conducted at a California urban school, Hollins, (1993) presented a set of competencies viewed as essential for teaching culturally diverse populations. Among the competencies, “Communicating with Diverse Learners” and “Developing Interpersonal Relationships” emerged as two most important competencies. According to Hollins, (1993), “Efficient Teaching is a composite of cultural understandings, interrelated behaviors, actions, and reactions that are planned and intuitive”. It was easier to assess teachers’ knowledge about content, pedagogy, and specific learners than to assess teachers’ performance in delivering instruction that will generate the desired learning outcomes and personal responses. The assessment process required teachers to present a plan for ongoing professional development incorporating systematic inquiry that related knowledge about students to instruction and the social context for learning. Under this process, teachers were required to maintain a teaching portfolio that included careful documentation of learning experiences and students’ responses and events or situations that have an impact on the social context of the classroom.

Communicative competence as a part of interpersonal skill involves basic as well as social communication skills. Basic communication skills pertain to the ability to orally communicate information, write with appropriate grammar and sentence structure, read, comprehend and interpret information (Olivia & Hensen) whereas Social Communication Skills involve using different communicative strategies and mode of presentation by teachers using mutually understood conventionalized sounds, signs, or gestures, and employ written symbols that facilitate learning of diverse population of students (Hollins, 1993).

Teacher’s Interpersonal skills: An important prerequisite for a Positive Learning Environment beyond classroom

Authors writing about communicative competency have gone a step ahead by emphasizing on the importance of communicative competency beyond classroom boundaries not simply confined to instructional delivery (Vella, 2002), (Williams, 2012). This calls for building a healthy rapport between teachers and students by fostering positive interactions outside classroom. According to the research...
work by New York City Department of Education, the manifestation of communication competency outside classroom boundaries is articulated in the form of timely counseling to students to resolve their mental blockages, engaging in meaningful dialogue on daily basis and hence catering to their specific learning needs and fulfilling them (Williams, 2012).

Besides interpersonal skills, intrapersonal skills also hold considerable significance in both business as well as educational environment. Intrapersonal skills in business set up are demonstrated by conflict resolution skills, group management, negotiation abilities (Rao & Palo, 2009). In an educator’s context, intrapersonal skills are reflected by productive exchanges among faculty members, between faculty members and top management of the university.

(iii) Technology Integration skills

Researchers in the competency field have listed technology use as an important skill for effective business managers. This skill includes IT and computer literacy (Jena & Sahoo, 2012) and understanding of technological applications to business. Similarly, in order to address the learning needs of today’s generation of students known as millennial, teachers also need to develop more effective ways to employ technology for higher order thinking (Goedde, 2006).

In an extensive research carried out by Mishra & Koehler, (2006) on technology integration into classroom, the authors elaborated teachers’ skills in technology as the ones which included knowledge of operating systems and computer hardware, ability to use sets of software tools such as word processors, spreadsheets, Internet browsers, and e-mail, knowledge of educational strategies and the ability to apply those strategies such as use of tools for maintaining class records, student performance records and ability to use generic technology-based ideas such as WebQuests, discussion boards, and chat rooms.

Kitchel, Cannon, & Duncan, (2010) initiated a research study on teaching and learning competencies of teachers by gathering data from a sample of 233 secondary business teachers using online survey method. The most critical perceived areas for in-service training as represented by the Mean Weighted Discrepancy Score ranking were teaching students to think critically and creatively, followed respectively by designing and developing digital-age learning assessments, designing and developing digital-age learning experiences, and motivating students to learn. Higher ranking to technological skills suggested the integration of digital age educational technology into course design and delivery.

**Integrating ICT into classroom learning: Path towards educational innovation**

“Teacher’s skills in E-Learning and the cogent need for professional preparation of teachers”

The growing importance for integration of digital learning and interactive technologies into classroom instruction further pressed the need for transition from use of Information and Communication
Technology (ICT Tools) to E-learning (BrckaLorenz & Garver, 2009). E-Learning is the application of ICT to the core business of education intended to deliver learning experiences characterized by online guidance, assessment and recording of progress. After a comprehensive research on growing body of literature related to e-learning, Romiszowski, (2004) encapsulated the concept of e-learning as the one which “imbibes both individual and collaborative group activity and involves both synchronous (real-time) i.e. online study as well as asynchronous (flexi-time) communication i.e. offline study”. The contemporary researchers on the subject of e-learning have advocated the use of a mix of both traditional classroom approaches with technology mediated interactive learning activities known as ‘blended learning’ to enhance the quality of education and bring transformative changes in learning processes (Olson, et al., 2011). Sufficient evidences have been documented in the existing literature which affirm that the implementation of e-learning improved quality and content of education, promoted development of skills in students such as critical thinking and problem solving, communication, collaboration and creativity (Al-Ghazo, 2008) (BrckaLorenz & Garver, 2009). In conjunction with the far reaching learning outcomes produced by integration of e-learning into classroom instruction, past and present researches have regarded E-Learning as one of the most important educational innovations (Romiszowski, 2004). However, it is also necessary to document the challenges embedded in the implementation of e-learning approach. The past research studies conducted by Salmon,(2005) ; Al-Ghazo, (2008) have reported significant barriers owing to lack of ICT and ICT-related pedagogical skills., shortage of ICT infrastructure and supportive facilities by management, reluctance of academic staff to change their methods of teaching and learning, inexperience of teachers in e-learning and pedagogical innovation. Against the backdrop of these challenges, research studies have discussed about the need for staff training and professional development to help teachers improve their skills in use of technology and integration of e-learning in student learning process (Bybee & Loucks-Horsley, 2000). The notion of professional development was seconded by Glenn, (2004) who echoed the need for continued professional development for current faculty to develop expertise in innovative uses of technology as part of the students’ learning experiences.

(iv) Life skills Integration abilities
Organizations are not only focusing on technical or role centric skills but are also placing huge emphasis on fostering lifelong learning of employees (Sienkiewicz, Domińczak, & Konador). Derived from the field of business management, lifelong skills are indispensable for teachers and educators in higher education.
The research study by Gfroerer, (2000) resulted in a concrete cluster of Life skills or cross-cutting skills that cut across all disciplines and lay a strong foundation for all academic, social, and career learning. Gfroerer, (2000) attempted to build a Competency-Based Transcript model for secondary education which was used as an assessment method wherein students demonstrated what they were able to do and were evaluated against set performance standards. The transcript was designed by a group of about 50 stakeholders, including school counselors, administrators, superintendents, teachers, business and community leaders, parents, and higher education personnel, including both traditional transcript information such as grades and standardized test scores, and the evaluation of demonstrated applied skills. The cross-cutting skills included were: Decision-Making and Problem Solving, Self-Management, Communication Skills, Ability to Work with Others, and Information Use (Technology, Research, Analysis). According to the author, due focus on cross-cutting competencies by teachers and school counselors, as well as administrators, developed self-worth in students as they felt confident in what they knew and what they were able to do. Students who had been taught to apply their valuable knowledge in demonstration of skills in early years experience self-esteem.

In another attempt to bridge the gap between university curriculum and skill requirements by corporate employers, Berdrow & Evers, (2011) provided generalist skills requisite for delivering learner centered and self-reflective course level initiatives in the field of professional higher education. The sample of the study included 816 Students from 5 Ontario universities, 794 university graduates working in 20 organizations and the managers of graduates. The resultant skills were factor analyzed into four distinct combinations: Managing Self (Learning, Time Management, Personal Strengths, and Problem Solving/Analytic), Communicating (Interpersonal, Listening, Oral Communication, and Written Communication), Managing People and Tasks (Decision Making, Leadership, Managing Conflict, Planning and Organizing) and Mobilizing Innovation and Change. The model focused on integration of competency development opportunities with topical content and teaching methods for individual course and was aimed at self-directed learning. The alumni acknowledged that the portfolio was useful in job interviewing and career development. A notable outcome of the process was that the portfolio helped in building students’ self-confidence. The students acknowledged that this competency based university education helped in developing and refining the skills valued by employers.

The research work of Rausch, Sherman, & Washbush, (2002) also emphasized the significance of practical and career development skills over conventional theories. The aim was to build a competency based and outcome focused model of management development that focuses on non-technical subjects.
that fall into the domain of behavioral sciences and include decision considerations pertaining to processes for setting and achieving goals and for effective interpersonal relations. The researchers enumerated the behavioral competencies of an effective manager namely: verbal communication, managing time and stress, managing individual decisions, problem solving, motivating and influencing others, delegating, setting goals, self-awareness, team building and managing conflict. Such skills were assessed by giving a field assignment or case study in basket exercises, case analysis, brief essay questions, role plays and simulations. Therefore frequently mentioned Life skills in the literature are creativity, problem solving, communicative competence, time and stress management and information use (Gfroerer, 2000), Rausch, Sherman, & Washbush, (2002) and Berdrow & Evers, (2011).

Teacher’s efficacy in Integrating Life skills to student learning: Fostering Innovation in Learning Environment of Students

A deeper study into the concept of life skills integration revealed that the skills, attitudes and capabilities of teachers are of paramount importance for the successful intervention of life skills into the learning environment of the students (Shechtman, Levy, & Leichtentritt, 2005). In conjunction with this, adequate teacher training programmes, which provide spaces to teachers to self-assess their own attitudes, life skills proficiency and internalization of life skills should be in place (Singh & Menon, 2015). Since building of life skills among students by teachers entails a rich blend of both formal and informal learning approaches (Merriënboer, Kirschner, Paas, Sloep, & Caniels, 2009), the integration of the whole concept of life skills in classroom learning necessitates and demands teacher’s capability and skills in implementing diverse range of teaching approaches and methods for successful experience of the concept. According to Helyer, Lee, & Evans, (2011), Life skills integration requires faculties to shift their focus from precise subject knowledge to more career relevant, industry specific competencies and practical skills demanded in real world. This further calls for teachers’ skills in diversifying their methods of teaching from traditional ones and altering their academic content that converges with real word practices (Helyer, Lee, & Evans, 2011). Hence once ensnared, the process of integration of life skills in classroom learning itself leads to pedagogical innovation and transformative changes in education.

2.4.1 (c) Attitudes

This component comprises of teacher’s attitudes with respect to teaching and learning and is characterized by following personal traits and behaviors:

Self-Efficacy

Researchers in the field of competency studies have identified efficacy or efficiency as an important competency for outstanding performers. Manager’s efficacy is reflected by efficiency in meeting
commitments and achieving goals (Martone, 2003) or in other words achievement orientation (Dainty, Cheng and Moore, 2004), result orientation, initiative, business orientation and self-confidence (Blancero, Boroski, & Dyer, 1996). Drawn from the inputs of competency management studies in business, self-efficacy has been discussed as an important teaching competency in the literature and relates to a “person’s subjective judgments of his or her own capabilities to organize and execute courses of action required to attain designated types of performances” (Williams, 2012).

The aim of the research work of Okrasinki, (2010) was to develop an understanding of the effect of Competency - based student teaching on new teachers’ sense of instructional efficacy (the feeling of preparation in implementing instructional strategies). The sample consisted of 95 CBP faculty members, 38 faculty members in the cooperating district who were CBP graduates, 109 other CBP graduates in the past 5 years. The data collected was primarily qualitative obtained through focus groups, open-ended survey questions, and past program evaluation forms. The information gathered revolved around issues of teacher preparation, instructional efficacy, aspects of competency-based student teaching, and implementation of effective instruction. The participants defined effective instruction as the one that engages learners, helps students build understanding, is based on knowledge of students, is differentiated, focuses on student learning, grabs learners’ attention, promotes hands-on learning, motivates students, uses multiple modalities, and focuses on helping students internalize content. Further the three indicators of self-efficacy learning from mistakes focus on individual growth, and being open to new ideas or strategies as indicated. Another researcher defined Research by Williams, (2012) posit that self-efficacy beliefs contribute to motivation in several ways such as the determination of the goals that people set for themselves, how long they persevere in the face of difficulties, and their resilience to failures.

**Teacher’s efficacy in Differentiated Instruction: A Move away from conventional teaching**

Delving deeper into the literature of Instructional efficacy of teachers, it has been emphasized that for classroom instruction to be effective, a teacher should incorporate a variety of strategies which caters to diverse learning needs of the students (Brooks & Brooks, 1993) and promote active learning (Felder, Woods, Stice, & Rugarcia, 2000). Such learner centric strategies have emphasized the integration of cooperative learning to classroom instruction. According to Felder, Woods, Stice, & Rugarcia, (2000), “Cooperative learning (CL) is an instructional approach in which students work in teams on a learning task under structured conditions designed to promote teamwork skills, positive interdependence, accountability and face to face interaction.” The past literature supports the notion that , when compared to conventional and passive teacher-centered instruction delivered through straight lecturing; active approaches of instruction such as cooperative learning produces superior
results, in terms of increasing information-retention, comprehension, motivation to learn and student’s interest in the subject matter (summarized by Chickering and Gamson, 1987 as stated by Felder, Woods, Stice, & Rugarcia, 2000).

The extensive work by Fry, Ketteridge, & Marshall, (2009) provides a comprehensive list of cooperative and active learning strategies which range from brainstorming sessions, buzz group, fishbowl, discussion, tutorial to tutor less learning, seminars, snowballing, role play, simulations, case studies, demonstrations and structured enquiries.

Further research on these strategies reveal that discussions, being the most commonly used CL strategy helps in developing thinking skills and allow them to apply information in new settings (Bonwell, C., Eison, & A., 1991) and are more engaging (Jones, 2008). Another CL strategy which incorporates the element of discussion, however slightly modified is fishbowl method which involves formation of small groups within a large observation group, followed by discussion and reversal (Fry, Ketteridge, & Marshall, 2009). This method has been known for promoting peer collaboration among students (Miller & Benz, 2008). Another CL Strategy which promotes peer collaboration or peer learning is Brainstorming (Biggs, 1996). Brainstorming involves generation of ideas from group interaction to foster lateral thinking (Fry, Ketteridge, & Marshall, 2009). The next most common instructional method after lecturing is tutorial which requires teacher’s instructional efficacy in elaborating, clarifying, misconceptions, and analyzing how other students interpret concepts or apply their interpretations (Biggs, 1996). A variation of tutorial method which rests on the efficacy of teachers for its effective learning outcomes is structured enquiries which involves the role of tutor (teacher) to provide lightly structured experiments and guidance to a group of students (Fry, Ketteridge, & Marshall, 2009). Previous findings in literature indicate that students developed better positive attitude towards the subject when tutored in structured learning conditions (Bonwell, C., Eison, & A., 1991). Other methods of CL which are taken place in structured environments are role plays and simulations which involve allocation of roles to students to be played according to a previously prepared scenario enabling students to analyze the problem from different standpoints (Bonwell, C., Eison, & A., 1991).

**Professional Vision**

In the business field, vision has been identified as an important entrepreneurial competency (Jena & Sahoo, 2012) and encompasses strategic vision, awareness of organizational mission, agenda setting, concern for excellence and sensitivity to events (Rao & Palo, 2009). But in the context of educational environment, strategic vision transforms into professional vision of educators and teachers. Recognized as a crucial element of teacher’s expertise, Professional vision as defined by Seidel & Sturmer, (2014) is “the ability to notice and interpret relevant features of classroom situations”. The
conceptual framework for professional vision consisted of two sub components – Noticing and Reasoning. Noticing describes whether teachers pay attention to events that are of importance for teaching and learning in classrooms, for example, influencing student learning in a positive or negative way, goal clarity, teacher support and motivational learning climate. Reasoning is identified by differentiated and integrated knowledge with a flexible application to various teaching situations and ability to predict the consequences of observed events in terms of student learning. Noticing element was further broken into three components of goal clarity, teacher support, and learning climate. Teachers’ reasoning about classroom sequences imbied the ability to clearly differentiate the relevant aspects of a noticed teaching and learning component (i.e., goal clarity) without making any further judgments. The ability to use what one knows to reason about a situation and the ability to predict the consequences of observed events in terms of student learning.

**Reflective thinking**

The competency of reflective thinking has been derived from the inputs of competency management studies in the field of business. Though the connotation in both contexts is different. In the business, successful or outstanding managers ought to possess analytical thinking, conceptual thinking and creative thinking (Dainty, Cheng and Moore, 2004). As we delve deeper into the literature on teaching competencies, reflection is seen as a core competency for educators and instructors in higher education.

Valli, (1997) defined a reflective person as someone who “thinks back on what is seen and heard, who contemplates, who is a deliberative thinker”. Reflective teachers link theory to practice by using varied sources of information, analyze problems from multiple perspectives, can alter their teaching behavior and context to accomplish desirable goals, foster student motivation and learning by making the curriculum interesting and engaging (Valli, 1997), possess understanding of methods of self-assessment and problem-solving, critical thinking and awareness of major areas of research on teaching and be able to engage in the scholarly activity of research by formulating and testing hypotheses in their own classrooms paving the way for philosophical and theoretical thinking (Hollins, 1993).

**Student Engagement competencies**

This category has been extracted from people management competencies being frequently discussed in the past literature of competency based business management. Foraunet, (2009) highlighted various people management competencies required by business managers and leaders. These include team building, effective leadership, motivation (self and others), involvement of staff in decision making and self as well as organizational awareness. Martone, (2003) had also recognized people development
as an important organizational competency. In the context of education, it is the students who need to be managed and developed by their instructors and teachers. Previous literature on competency based education echoes the significance of student engagement competencies.

Qualitative study of Williams, (2012) focused on exploring key competencies requisite for master teachers for student engagement in 9 transfer high schools of United States. Engagement competencies entailed ability to overcome the school challenges presented by students, Capacity to exhibit care, empathy and respect, be a people’s person, Capacity to mentor and be mentored, Ability to learn and to strive to learn continuously, Realize one’s limitations and seek help. Formal and Informal learning methods were identified for learning competencies. While the formal learning set up involved the attainment of their academic credentials and continuing professional development, sources of informal learning included dialogue with others, observation, reflection on current experiences and learning through reading and researching, learning via doing and trial and error.

**Teacher’s efficacy in fostering a supportive learning environment:**

According to Bangert-Drowns & Pyke, (2002), the competency of student engagement entails cognitive and motivational components such as empathy. The findings were seconded by the research study of Pietrzak, Duncan, and Korcuska, (2008) who found that students in a counseling program in adult education valued faculty who expressed empathy and concern for student’s learning. Comprehensive research study by Williams, (2012) provided an extensive list of widely accepted empathic behaviors which included sensitivity, patience, respect, and tolerance, listening to students and caring attitude towards students. Literature on building a caring relationship with students echoes the importance of creating a supportive learning context or classroom environment (Cranton, 2006) manifested in the form of delivering equal treatment to students regardless of their cultural differences (Hollins & Spencer, 1991); taking pride in their achievements (Hollins, 1993), and building friendly rapport with students by respecting their viewpoints (Cranton, 2006); (Pietrzak, Duncan, and Korcuska, 2008).

**Teacher’s efficacy in integrating Humor to classroom learning:**

The modern educational pedagogies also acknowledge the role of humor in fostering engaging student-teacher interactions. The most highly recommended types of humor in teaching involve funny stories, funny comments, jokes, and professional humor (content related). When humor used is compatible with the learning environment of the class, it has the potential to encourage, reduce anxiety, and engage students in spite of pressures (Torok, McMorris, & Lin, 2004). Williams, (2012) extended the domain of engagement competency to include ability to know what and how to teach, ability to exercise academic rigor, ability to overcome the school challenges presented by students,
ability to establish meaningful relationships with students, Capacity to mentor and be mentored, Ability to learn and to strive to learn continuously, Be passionate and Be authentic.

Teacher Resilience:
Resilience or emotional resilience forms a crucial component of managerial competency (Jena & Sahoo, 2012). Since today’s dynamic business environment is characterized by uncertainty, ambiguity, cut throat competition, an employee is always under the pressure to deliver the best and outperform others. This leads to stressful and conflicting situation at work. Thus resilience as a competency is required by the leaders and managers to cope up with rising performance standards and expectations and excel even in adverse conditions.

In an educational context, Teacher resiliency refers to the innate capacity of an individual to persevere in negative or adverse circumstances (Patterson et al., 2004). This personal trait holds a crucial place in literature because educators have to encounter many conflicting and stressful situations throughout their teaching careers. The characteristics of resilient educators include intrinsic motivation and personal characteristics like optimism, determination, creativity, self-reflection, persistence and perceived efficacy (Yonezawa, Jones, & Singer, 2011).

Teacher’s Resiliency: A driving force to transformative changes in teaching
The previous findings on resiliency by Kim, (2009) reflected that resilient teachers are capable of creating a positive work environment and exhibit commitment to work as well as students even in times of adversity (e.g., greater workload /work pressure/multiple responsibilities). The coping mechanism, embedded in resiliency trait, aids teachers in putting extra efforts to fulfill learning needs of students in times of stress and workload (e.g., multitasking, taking extra classes etc.) Owing to the growing importance of resiliency trait in prevailing stressful and competitive work situations, researchers embraced a wider perspective of teacher’s resiliency by recognizing it as an inevitable trait in bringing positive reforms in education by Kim, (2009). According to Henderson & Milstein, (2003), it is impossible to bring transformations for students, if educators are themselves not resilient. Due to higher level of commitment, self-motivation and positive perspectives, resilient teachers are open to trying new approaches in teaching pedagogies, collaborating with other faculties and adapting to changes and disruptions in work situations (Henderson & Milstein, 2003).

Further in-depth analysis of the above literature on competency based management in the business environment reveals the dominant factors that act as pillars for creating and building any competency framework or in other words are supporting environmental variables for implementation of competency based practices in the organization.
2.4.2 Reflection on Environmental Variables that facilitate successful implementation of Competency Based Management in the field of Education

As mentioned previously, an important prerequisite for application of competency based practices in the organizations identified by Ozcelik and Ferman, (2006) relates to cultural values reflecting collaboration, integrity, creativity, cooperation, teamwork etc. According to previous researches, competencies involving career motivation, personal meaning and identification stem from a firm’s culture (Defillipe & Arthur. 1994). Another factor identified in the competency literature relates to Organizational vision and Alignment of vision and mission with strategic goals and aspirations (Blancero, Boroski, & Dyer, 1996). It further implies that preconditions for the success of any project involving competencies include high level of management commitment and support, considerable staff involvement and input, commitment of adequate financial resources, and clearly defined objectives by top management (Pickett, 1998). Third important variable requisite for the smooth implementation of competency based practices in firms relates to existence of appropriate learning climate in the organizations. Past researches from competency based management field affirm the fact that competencies are learnt and nurtured through professional development activities like training, education, rotational experiences, mentoring, coaching (William & Wellins,2004), (Foraaunet, 2009), verbal presentations, role playing, simulations, and criterion referenced tests (Naquin & Holton, 2006), (Sienkiewicz, Domińczak, & -Konador) and many other learning-oriented activities (Mansoor, Malik & Mat, 2010).

Though derived from business environment and management studies, ample evidences of such analogous factors have been ingrained in the literature of competency management in the field of education. Researchers writing upon competency studies in the educational field too have focused upon similar preconditions such as the presence of Collaborative environment, creativity and innovation, Management support and Learning and development interventions which smoothen the processes of competency development among teachers in an HEI discussed as follows:

2.4.2 (a) Presence of A Collaborative culture:

The American Association of Colleges for Teacher Education cited that establishing of performance criteria, forming collaborative arrangements, and assessing performance were the factors directly related to the effectiveness of teacher education (Novicki, 1982). Russell, McPherson, & K. Martin, (2001) seconded the view that Collaboration permeates many innovative programs and creating collaborative environments such as communities of practice, and innovative approaches to teacher education involve faculty members listening to and valuing teacher candidates' histories and experiences facilitate personal and professional understanding and growth. The notion of collaboration
was also echoed by Williams, (2001) who believed that collaborations between business leaders and educationalists could create synergy, support the mission of each, and cultivate organizational effectiveness in institutions by minimizing the communication distance between the two groups (business and academics).

2.4.2 (b) **Presence of Management support:**
The research work of Williams, (2012) studied the influence of the work environment on the learning of competencies and identified factors that either hindered or encouraged the learning required to obtain competencies. The primary data was collected with the help of in-depth interviews involving 13 Teachers and 10 Principals and Assistant Principals in 9 alternative high school settings of United States. Work environment contextual factors, including leadership, organizational culture, curriculum, and student engagement emerged as key factors. External Factors like Education Policies/Politics and Resources and economic factors, prejudices, society’s opportunity structure posed a challenge to their work and learning. Insufficient time (contextual factor) was barrier to learning followed by availability of financial resources. Another contextual factor “work experience” served as a support for learning. Personal factors like personal need to achieve and family influences had an impact on their learning. Variables such as external governmental policies, school leadership, structure, school mission and culture, systems policies and procedures, school climate, management practices, etc. also played an important role in educational outcomes (Williams, 2012).

2.4.2 (c) **Presence of Learning climate:**
Qualitative case study conducted by Williams (2012) in 9 transfer high schools of United States explored the methods in which teachers could learn those competencies and factors that hindered or advanced the learning of competencies by the teachers. In-depth interviews were conducted with Teachers, Principals and Assistant Principals. The majority of participants (78%) stated that they learned the required competencies through formal learning over informal learning. The formal learning set up involved the attainment of their academic credentials and continuing professional development. Various sources of informal learning were also mentioned by the participants namely dialogue with others supported by 96% participants followed by observation (65%). Reflection on current experiences and learning through reading and researching was supported by 57% of teachers, backed by 52% teachers supporting learning via doing and trial and error. The researcher further concluded that teacher’s content knowledge and academic credentials, ongoing professional development, and knowledge associated with “how to teach” provided the foundation for their informal learning experiences.
The importance of professional preparation of teachers has been well documented by Crews, Moore, Rader, & Rowe, (2006); Shumack & Forde, (2008). In order to prepare students with the competencies necessary to compete in a global environment, Teacher’s professional development is critical in this endeavor (Kitchel, Cannon, & Duncan, 2010). The learning needs of today’s higher education students have radically expanded with emphasis being shifted from theoretical or technical knowledge to the concepts of life skills, soft skills, employability skills. Regular engagement of teachers in developmental and professional learning activities is important to enable them to better respond to these changes of society brought by waves of transformations in information technology, internationalization, and changing industry requirements etc. (Mizoue & Inoue, 1993). According to Gupta, (2013), “Professional development is the development of a person in his/her professional role. It includes the provision of constant learning and developing opportunities to broaden the scope of professional capabilities of a person to their role and responsibilities. Capabilities refer to the combination of attributes, skills, knowledge which enable a person to perform to high standards in a given context and role”. It is worth mentioning that the concept of professional development of teachers has been talked in congruence with synonymous words entailing faculty development, academic staff development, in service education of teachers, competency development. The study by Barth & Rieckmann, (2012), elevated the concept of academic staff development (ASD) to bring transformative changes in university education. According to their study, the one year academic staff development programme conducted through the mode of workshops at Universidad Técnica del Norte (UTN), Ecuador, in 2009 reported changes at three levels, namely personal level, organizational level and student level. The report confirmed that implementation of ASD fostered personal competence development in teachers through improved their interdisciplinary skills, enhanced collaboration opportunities, and initiated curriculum change through collective action and reflection. The transformation in performance teaching routines influenced the learning processes of students in the classroom, thus leading to new perspectives on the university itself.

**Professional Development of Teachers: An important prerequisite for fostering innovation in Institutional Learning Environment**

To encapsulate the findings of the previous studies (Hénard, 2008), it is apt to acknowledge ASD as catalyst in bringing not only pedagogical innovation but innovation in the learning environment of students and the organization. The contemporary research studies have linked the concept of professional development of teachers as one which brings educational innovation, innovation in the learning environment of students as well as institutional innovation. (Barth & Rieckmann, 2012), (Hénard, 2008). While exploring the dimensions of innovation, Goodsell, Maher, & Tinto, (1992) had
enclosed experimentation with teaching approaches, pedagogical content, collegial support network of faculty, students and administrators and research support and cooperation among faculty as key perquisites for bringing about radical changes in any educational institution.

2.5 Role of Knowledge Management in addressing the preconditions for competency development in Higher Education Institutes

Knowledge Management in HEIs
The field of Knowledge Management (KM) is wide and diverse encompassing a plethora of definitions and different perspectives. This research study embraced a particular view of KM which is in conjunction with the context of competency development of teachers within the Higher Education Institutions (HEI). However this is an under-researched and a relatively new area for this context (Cranfield & Taylor, 2008).

HEIs have been considered as a reservoir of knowledge creation and flourish on the culture of knowledge sharing for bringing innovation, creativity and transformative changes in education (Cronin and Davenport, 2000). An evolving body of researchers support the notion of application of KM practices in HEIs to facilitate their functional and operational processes (Kidwell et al. 2000), to provide a strong knowledge base for research-based practices and strategies (Cronin and Davenport, 2000) and to enable the institutions to use information in creative ways so that naive insights and knowledge can evolve (Lawson, 2003). From this standpoint, Ramachandran, Chong, & Ismail, (2009) have defined KM in the context of educational settings as “a systematic process of knowledge creation, capture, organization, storage, dissemination, and application by the academics of various faculties sharing similar areas of interest in advancing theirs as well as the endeavors of the HEIs”. Embedded in this definition, are two approaches: one which engulfs processes that capture and codify knowledge extracted from people, in repositories for ready access and the other one resting upon human interaction to exploit the knowledge residing in their minds with focus on knowledge sharing among faculties and establishing constructive dialogue (Wonga & Aspinwallb, 2006).

2.5.1 Knowledge Management and Competencies
Competencies have been taken as a part of more general area of Knowledge Management. In the context of KM, competency has been defined as “a combination of tacit and explicit knowledge, behavior and skills that gives someone the potential for effectiveness in task performance” (Draganidis & Mentzas, 2006). From the perspective of KM, Researchers have postulated that the concept of competency management is directed to leverage internal knowledge and further consistent knowledge management initiatives (Ley. and Albert, 2003), to leverage personnel development and knowledge
sharing (Draganidis & Mentzas, 2006). Hence, the concept of competencies addresses the component of knowledge that an employee or an organization should possess in order to achieve his/its targets. Since competencies flourish under conditions of knowledge sharing, the methods of competency development improve KM initiatives by focusing on knowledge sharing culture in an HEI.

A common theme running through the literature on competency initiatives and knowledge management is that, since individual knowledge and competencies are difficult to control, the organization should be capable of creating adequate structures and co-operative environments to stimulate favorable relationships, support and encourage learning and knowledge acquisition for developing the necessary knowledge to achieve such goals (Lustri, Miura, & Takahashi, 2007). As opined by Von Krogh et al. (2000) and Wang and Ahmed (2003), the present study discusses the dimensions of knowledge management in the context of knowledge creation and knowledge sharing conditions which seek to address competency development endeavors in HEIs. In other words, these dimensions of KM envelope and fulfill the preconditions necessary for competency development of faculties as discussed in the competency literature in preceding section.

**Collaborative Environments and relationships: Culture of knowledge sharing among faculties**

The research findings by Petrides & Nodine, (2003) suggest that presence of effective knowledge sharing practices encourages professional teamwork and collegial relationships based on trust and shared goals of further learning, thus fostering the development of collaborative groups such as informal research groups and communities of practices (COPs) among faculties. There are evidences in the literature which support the notion that fostering capacity building through COPs is important for development of teaching materials and experimentation in the educational organization. These collaborative processes provide a strong foundation for determining the pedagogical competencies among teachers (Hénard & Roseveare, 2012). According to Ramachandran, Chong, & Ismail, (2009), an effective exchange of knowledge among faculties amidst such collaborative arrangements exists in presence of a proper reward system and attractive incentives to overcome the barriers of resistance and inhibitions to share knowledge. An adequate reward system to motivate faculties to share knowledge consists of a mix both monetary and non-monetary rewards such as attractive salary structure, research funding, opportunities for promotion, sabbatical leaves etc.

**Management Support in terms of communication infrastructure requisite for knowledge sharing arrangements:** The changing teaching and learning paradigms in HEIs seek to strengthen communication among stakeholders of education for greater exchanges of knowledge and interactions further actualized into concrete programs for competency enhancement and other learning and development endeavors.
In this regard, presence of an updated IT infrastructure can enable knowledge dissemination to a wider group of academics or stakeholders outside the boundaries of a particular HEI for eg, collaborations in form of online communities, web conferences, online tutorials etc (Ramachandran, Chong, & Ismail, 2009). hence promoting knowledge sharing practices and collaborative arrangements in any HEI. From the perspective of knowledge sharing in HEIs, Previous research studies by Albers and Brewer, (2003); Lawson, (2003) have postulated that an effective IT infrastructure should provide for smooth processes of knowledge storage and retrieval; knowledge distribution and knowledge application by the academics of various faculties sharing common areas of interest in their professional endeavors. The above processes of knowledge storage, retrieval, distribution and application combined together constitute the Knowledge Management (KM) processes of an HEI. Effective IT Enabled KM Processes play an indispensable role in encouraging collaborations among players in HEI i.e. students, faculties, management, industry experts and corporate officials (Ramachandran, Chong, & Ismail, 2009). In this regard, an extensive study by Alavi & Leidner, (1999), presenting a detailed process-view of organizational knowledge management with a focus on the role of IT is worth mentioning. Alavi & Leidner, (1999) explained the significance of IT based KM processes by quoting examples from organisational point of view. For instance, the processes of Knowledge storage and retrieval incorporates the use of database management systems, search engines. By retaining organization memory and making requisite information readily available on various aspects such as competency repositories of faculties, student performance portfolios etc., the databases provide organizational support in solving recurring and routine organizational problems such as student evaluation, faculty self-evaluation, evaluation by peers etc. The processes of knowledge distribution enabled by computer networks, online discussion forms, E-mails and group support systems facilitates communication among parties among whom required information needs to be exchanged and hence strengthens organizational ties among parties. Lastly the IT driven knowledge application processes, with the use of interactive websites, groupware, enhance professional teamwork, group problem solving, decision making through enhanced communication, coordination and collaborations actualized in the form of increased interactions and knowledge exchanges among parties (Alavi & Leidner, 1999).

**Learning Climate involving Management policies and actions promoting group learning situations that foster knowledge creation and sharing.** Sufficient evidences can be found in the existing literature which confirm that the Institutional support in terms of learning and professional development opportunities are necessary for capacity building and competencies development of teachers which further help teachers in generating improved student learning outcomes and deliver
quality teaching. According to Chalmers, (2007) as stated by Hénard & Roseveare (2012), “Provision of opportunities for professional learning and development, and obtaining relevant teaching qualifications, are indicators of an institutional climate that acknowledges the importance of the preparation of staff for teaching”. The extensive study by Hénard & Roseveare, (2012) on quality teaching in HEIs propounded that the new teaching and learning paradigms of HEIs place overarching focus on collaborative working through learning platforms achieved through cooperation with colleagues from other departments and with external stakeholders who constitute learning communities for knowledge sharing. From the collaborative view of learning, apart from in-service training programs for faculty (conferences with experts, workshops on practical applications, refresher courses etc.), Learning experiences and conditions in HEIs prevail through communities of practice, discussions with students and the academic community on teaching practices, management support to foster student achievement (through counseling, career advice, mentoring), support for participation in institution’s internal process such as benchmarking of practices, Students’ evaluation (i.e. programme ratings, evaluating learning experiences) self-evaluation of experimentations, peer-reviewing, and institutional development based programmes. The past literature confirms that these collaborative processes and group learning conditions foster pedagogical competencies of teachers and build collective commitment across faculty directed towards achieving the objective of improving teaching quality and hence bringing innovation in education (Hénard & Roseveare, 2012).

The study by Barth & Rieckmann, (2012) seconded the view that well designed learning programmes are born out of collaborative reflection on the quality of teaching and learning drawn from not only the individual teachers but also deans, heads of programmes, industry experts and other team players in the education field.

Following are the instances of such collaborative learning conditions which hold a significant place in the literature of professional learning of teachers.

Collaborative learning opportunities are embodied in scholarly activities which include promotion of research work and building of research networks among faculties (Gupta, 2013). Scholarly practices entail multidisciplinary and inter disciplinary research, these often result in research partnerships and rich research networks between faculty and researchers in industry (Heslop, 2014). Collaborative learning opportunities also entail participation of faculty in offering consultancy services to industries and assisting in R & D activities, and engagement of faculty in university – industry interaction (UGC) in order to cater to the ever changing demands of the social system and build responsive pedagogical theories and practices (Gupta, 2013). University links with industry flourish alliances and partnerships with industry for job creation and employability promotion, entrepreneurship
opportunities etc. Similar examples exist in the literature which prove that collaborative learning opportunities lead to strategic and constructive partnerships among stakeholders of education involving educators, researchers, industry experts, university officials (Heslop, 2014).

2.6 Exploring collaborative learning of teachers through the lens of ‘Social Capital’: An evolving perspective

The contemporary researchers (Schuller, 2001), (Calabrese, 2006) have explored the dimensions of institutional partnerships through the lens of a relatively naïve and under researched concept of social capital (Calabrese, 2006). In general, social capital describes the networked reciprocal relationships between and among people and between and among groups based on trust and built on a set of shared values on norms (Pigg and Crank, 2004). Calabrese, (2006) accentuated in his study that the concept of social capital was crucial for development of effective partnerships. This is because strategic partnerships entitling collaborative agreements can flourish and persist only under conditions of sustaining relationships based on trust, mutual interdependence, and empowerment of both parties among parties under concern. The dimensions of trust, mutual interdependence, empowerment, collective action are the defining attributes of social capital. Social capital flourishes through the formation of the creation of emerging networks, trusting relationships, reciprocity, shared norms, knowledge sharing and collaborations and social agency (Pigg and Crank, 2004).
CHAPTER 2
SECTION B: Review of Policies

2.1 Introduction

The scope and field of competency based education is very vast and complex. Therefore the success of any competency based initiative hinges upon a concrete mechanism and standards that warrant its deft implementation and a considerable amount of space in policies and plans enunciated by educational bodies for professional development of teachers in India.

The present section of the review of literature throws light on the various policy initiatives taken in the direction of professional development of teachers. A deeper study of the reviewed policy variables reveals the extent to which such policy initiatives are contributing to the development of teacher competencies under the broader head of knowledge, skills and attitudes. In other words, it studies the scope of various policies and procedures taken by teacher education institutions and university departments in defining and developing professional competencies of teachers associated with higher education in India. This section analyses the policy initiatives that support teachers to acquire and develop competencies (knowledge, skills and attitudes) following the Organogram of Education Machinery in India as described below:

Figure 2: Teacher Development in India, Source: Author’s own compilation of Data
Summary of policy documents impacting teacher education and development

2.2 Detailed Account of Policy Initiatives

The Ministry of Human Resource Development (MHRD) (Government of India)

The Ministry of Human Resource Development (MHRD) was created on September 26, 1985, through the 174th amendment to the Government of India (Allocation of Business) Rules, 1961.

The government acknowledged the importance of a comprehensive form of education that warrants a better quality of life and an all-round development of our citizens. This could be achieved by building...
strong foundations in education. In pursuance of this mission, MHRD was established which currently works through two departments: ((MHRD))

- Department of School Education & Literacy
- Department of Higher Education

**Department of School Education & Literacy (SE & L)**

The aim of Dept. of SE & L is “universalization of education” and making better citizens out of our younger folk. It was established with the vision to ensure education of equitable quality for all to fully harness the nation’s human potential.

The Mission of the department is to reinforce the national and integrative character of education in partnership with States/UTs; Improve quality and standards of school education and literacy towards building a society committed to Constitutional values; Provide free and compulsory quality education to all children at elementary level as envisaged under the Right To Education Act, 2009; Universalize opportunities for quality secondary education and Establish a fully literate society.

**National Council for Teacher Education**

National Council for Teacher Education is a Statutory Body under the Ministry of Human Resource Development (MHRD) of Government of India. It was established by an Act of Parliament 1993 on 29th December 1993 with a view to achieving planned and co-coordinated development of the teacher education system throughout the country, the regulation and proper maintenance of norms and standards in the teacher education system and for matters connected therewith. The mandate given to the NCTE engulfs the whole compendium of teacher education programmes including research and training of persons for equipping them to teach at pre-primary, primary, secondary and senior secondary stages in schools, and non-formal education, part-time education, adult education and distance (correspondence) education courses.

Policies and Documents prepared by NCTE are reviewed and analyzed as under:

- The National Policy on Education (NPE), 1986
- National Curriculum Framework On Teacher Education

**2.3 The National Policy on Education (NPE), 1986**

The National Policy on Education (NPE), 1986 and the Programme of Action there under, envisaged a National Council for Teacher Education with statutory status and necessary resources as a first step for overhauling the system of teacher education. NPE was adopted by Parliament in May 1986. A committee was set up under the chairmanship of Acharya Ramamurti in May 1990 to review NPE and
to make recommendations for its modifications. The revised guidelines of the Policy highlighted the key role of higher education in producing teachers for the education system (Clause 5.24) and outlined the need for restructuring the system of teacher education.

**Innovation and Improvement**

Clause 5.31 of the Policy has thrown light on the need for transformation of teaching methods to pave the way for development of curricula, material and research with the help of modern audio-visual aids. Adequate attention would be paid to teacher orientation. This would encompass preparation of teachers at the beginning of the service as well as continuing education, systematic assessment of teacher’s performance and the like.

Clause 8.11 of the policy further acknowledged the need for upgradation of educational technology for the purpose of training and retraining of teachers, for improving quality and inculcating abiding values in formal as well as non-formal sectors.

According to clause 9.1 of the Policy document, teachers should have the freedom to innovate and devise appropriate methods of communication that suit the needs and concerns of the community.

As per clause 9.2, The Recruitment of teachers would be based on merit, objectivity and in conformation with functional and spatial requirements. The pay and service conditions would be in congruence with their social and professional responsibilities. Teachers’ evaluation process would be open, participatory and data based. Accountability would be linked to performance of teachers with incentives for good performance and disincentives for non performance.

**Skill Development**

The policy identified continuous upgradation of skills as a critical development issue (Clause 4.14). For this, there was a compelling need to implement employment/self employment oriented, need and interest based skill training programmes.

In this regard, Clause 6.15(v) of the policy has talked about multi-tasking by teacher educators in the areas of teaching, research, development of learning material and managing the institution. For this purpose, initial as well as in-service training would be made mandatory along with adequate training reserves for the faculty members. Also, Staff Development Programmes would be integrated at the State level and coordinated at Regional as well as National Levels. Again, Clause 9.4 states that pre-service and in-service components of Teacher Education were inseparable while Clause 9.5 stressed upon the need for chalking out new programmes to ensure continuing education for teachers. As per Clause 9.6 of the policy, necessary resources and guidance regarding curricula and methods would be extended to National council of Teacher Education.

**Constructive Partnerships and Associations**
The NPE signifies a constructive partnership between the Union Government and the States (Clause 3.13). While the roles and responsibilities of the States being unchanged, the Union Government would accept a larger chunk of responsibility to reinforce the national and integrative character of education, to maintain quality and standards including teaching profession at all levels, to cater to the needs of research and advanced study and to look into the international aspects of education and Human Resource development.

According to the Clause 6.14 of the NPE, Collaboration and networking relationships between institutions at various levels would be fostered. The policy emphasized on creating an attitude of innovation and improvement.

Clause 9.3 highlights the role of teacher associations in upholding professional integrity and enhancing the dignity of teachers. For the same, NPE had directed National Level Association of Teachers to prepare a code of Professional Ethics for Teachers.

The Policy guidelines have stressed upon the need to intensify nation-wide effort in Human Resource Development in order to bring about progressive transformation in Education system (clause 12.2).

Reflection

The National Policy on Education recognized the need of Teacher Orientation (both pre-service as well as in-service training) and Continuous upgradation of skills in order to enable teachers to multi task in their profession. Though the document also touched upon the softer aspects of teaching such as freedom of teachers in decision making, collaborative environment but the greater tilt is towards hard and skill based components of teaching such as merit based recruitment of teachers, Accountability of performance etc.

Thus the major thrust of the policy rested on only one component of competencies i.e. skills and not much significance was attributed to the other two components i.e. knowledge and attitudes or the qualitative aspects of teaching.

2.4 National Curriculum Framework On Teacher Education

The National Council for Teacher Education (NCTE) came out with a Curriculum Framework for Quality Teacher Education (Curriculum Framework hereafter) in 1998 to provide guidelines in respect of the content and methodology of teacher education.

2.4.1 National Curriculum Framework On Teacher Education, 1998

The NCF, 1998 focused on raising the professional status of teachers by enhancing their professional competencies and performance skills. The intent of the document was to instill within the
teachers, greater commitment to society, their students and their profession, and also empower them to face new challenges.

**Professional development of Teachers**

The framework attached special importance to Professional Development of Teachers.

According to Clause 1.5, the revamping of teacher education curricula was a pressing need of the hour. “Professionalism requires knowledge, authority, skills, commitment, competency, mission, ability to provide the exclusive expert service and adherence to a professional ethical code”. It talked about blending both Academic and professional skills of teachers. The transition from information-based to experience-based and from the traditional instruction domination to newer constructiveness orientation was the major objective of the framework.

One of the emerging concerns in Teacher Education as listed in clause 2.4 of the framework was development of open learning systems because of its potentialities for improving knowledge, professional skills and competencies. For this, suitable reading materials and short term programmes needed to be developed in which the role of teacher educators can hardly be ever emphasized. For fulfillment of concerns of a knowledge society, integration of four guiding principles in teacher education curricula, namely Learning to know’, ‘Learning to do’, ‘Learning to live together and ‘Learning to be’ was recognized the need of the hour.

**Teacher Education and Management**

**Teacher Education**

The Council talked about strengthening the role of teacher education institutions (TEIs).

Clause 1.3 directed the TEIs to provide for qualified faculty, adequate infrastructure and learning resources, including print material, off-line IT material and computers as per prevalent NCTE norms for quality transaction of its teacher education programme. The TEIs were further encouraged to promote corporate institutional life based on values and ideals enshrined in the preamble of Indian Constitution for all stakeholders in the institution e.g. students, faculty, non-teaching staff etc. The Council also entrusted the TEIs with the task of expediting action research and faculty research projects; and undertaking organization of on-campus and off-campus professional development activities and programmes for its faculty.

As per clause 2.3.6, Teacher education institutions needed to forge stronger links between (a) TEIs & other university departments (b) between sister TEIs, (c) between school education system & school clusters and (d) with community and its resources. Community linked teacher education, research and extension programmes need to be undertaken.
In order to ensure coordination between various programmes and various agencies of teacher education, formation of a high level task force was recommended in clause 6.4 of the framework. Such a task force would consist of representatives of state apex bodies, experts, teacher association, representative teacher educators and university representatives may be constituted in each state for preparing plans of teacher education and evolving effective machinery for collaboration between school education and teacher education.

**Multiple Models of Teacher Education**

It was noticed that the present system of teacher education was confined to a single linear model which produced only one type of teachers. But the nation needed general teachers, subject specialists, experts in management, planning, finance and administration, teachers for counseling and guidance, physical and aesthetic education etc. Therefore, the need of the hour was introduction of multiple, flexible and integrated models that paved the way for task-oriented teacher education.

**Emphasis on Continuing Education**

Another major concern as discussed in clause 4.2 was the re-education of teachers so as to prepare them to adjust to the new social and educational contexts and help them learn the professional competencies and performance skills in a particular context. In-service education of teachers was recognized as essential for bridging the gaps of pre-service education and for meeting the demands of the changing educational scenario, its context and concerns. It was also essential for promoting the desire for ‘lifelong learning’ and also for ‘learning to learn.’ Programmes of the education of teacher educators are organized by the universities, which are by and large generic in nature and not stage specific. Agencies involved in in-service education of the teachers include The University Grants Commission (UGC), National Council of Educational Research and Training (NCERT), State Council of Educational Research and Training (SCERT), District Institute of Education and Training (DIETs), and a few Non-Governmental Organizations (NGOs). Whereas NCERT and UGC provide funds for all areas in educational research, NCTE may have the provision to fund research projects especially on teacher education.

**Evidence Based Teaching**

The document attributed critical importance to the arena of Research in Teacher Education. Clause 7.2 of the document revealed gaps in the field of research. The courses of research methodology were weak. Anthropology, history, philosophy, management, finance, planning and comparative education etc. were completely neglected. Statistical jargons were used without understanding their meaning, significance and relevance. The socio-economic level of development and cultural differences between India and Anglo Saxon countries from where the tools and
techniques are imported are not given due consideration. Many of the researches serve neither the utilitarian purpose nor do they cater to the need of excellence or create additional knowledge or revise the existing one.

They needed professional vision and empirical base-line data. Researches in teacher education needed to be more rigorous in treatment and more focused on objectives. There was a marked dearth of researches in the area of perspective planning. Researches in perspective planning needed to focus more closely on how teacher education plans are formulated, what is the mechanism of their implementation and monitoring school culture, organizational culture and leadership style need to be re-researched in the context of trends like student autonomy, student unrest, cultural plurality and inclusive education.

2.4.2. National Curriculum Framework, 2005

The Executive Committee of NCERT had taken the decision, at its meeting held in July 2004, to revise the National Curriculum Framework, following the statement made by the Hon’ble Minister of Human Resource Development in the Lok Sabha that the Council should take up such a revision. In the context of these decisions, a National Steering Committee, chaired by Prof. Yash Pal and 21 National Focus Groups were set up. Membership of these committees included representatives of institutions of advanced learning, NCERT’s own faculty, school teachers and non-governmental organizations.

The NCF 2005 outlines major shifts in the sphere of teacher education programme(Clause 5.2.3) and places different demands and expectations on the teacher, which need to be addressed by both initial and continuing teacher education. It was now an understood fact that the quality and extent of learner achievement are determined primarily by teacher competence, sensitivity and teacher motivation.

**Teacher autonomy**

The framework attributed high level of significance to Teacher’s Autonomy and Professional Independence. As per clause 4.8, Teacher autonomy was essential for ensuring a learning environment that addresses children’s diverse needs. Currently, the system of administrative hierarchies and control, examinations, and centralized planning for curriculum reform, all constrained the autonomy of the teacher. Teachers should be given an equal platform to voice their opinions and ideas.

**Shift in Teacher’s Role: Teacher as a Facilitator**

The role of a teacher needed to be shifted from being a source of knowledge to being a facilitator, of transforming information into knowledge/wisdom, as a supporter in enhancing learning through multiple exposures. This means a transformation of a teacher’s profile as a custodian and manager of all teaching learning processes to a facilitator of children’s learning in a manner that the child is helped...
to construct her knowledge. This requires teachers to participate in the construction of syllabus, textbooks and teaching learning materials. Such roles demand that teachers be cognizant about curriculum, subject content and pedagogy, community and school structures and management.

**Shift in the Concept of Knowledge: Multidisciplinary and Practical Knowledge**

Knowledge in teacher education is multidisciplinary in nature within the context of education. It should be generated from experiences in the actual field through observation, verification, and practical field exposures. In other words, conceptual inputs in teacher education need to be articulated in such a manner that they describe and explain educational phenomena—actions, tasks, efforts, process, concepts and events.

**Shift in Performance Appraisal: Continuous Improvement**

The scheme of performance appraisal in the teacher education programme should be made a continuous and periodic feature rather than being only an annual affair. Various forms of appraisals include self-appraisal, peer appraisal, teacher's feedback, and formal evaluation at the end of the year. Irrespective of its type, all appraisals aim at improvement, understanding one's own strengths and weaknesses, and identifying the next goals in the learning process.

**Innovation**

One of the major agendas as listed in clause 5.5.2 of National Curriculum Framework, 2005 was to encourage innovations in the sphere of teacher Education. In this regard, Universities had a critical role to play in responding to the wide-ranging aims of the curricular framework, especially in emphasizing and encouraging pluralism in education, addressing the needs of children, and integrating new curricular areas.

The boundaries of knowledge base of education were to be expanded to include diverse socio-cultural contexts to which children belong as well as the complex nature of classroom realities in India. Clause 5.6.1 urged University departments of education, social science as well as the sciences to include the study of education in their research agenda. Multidisciplinary and collaborative research bringing together scholars from different disciplines was important in generating a research base that is critical for translating the ideas in the curriculum framework into enabling classroom practices. Further the framework pressed upon the need for institutional linkages between universities and institutions such as SCERTs and DIETs to strengthen their academic programmes of teacher education and in-service training as well to develop their research capacities.

**2.4.3 National Curriculum Framework for Teacher Education, 2009**

The National Council of Teacher Education (NCTE) has prepared the National Curriculum Framework of Teacher Education, which was circulated in March 2009. This Framework has been prepared in the
background of the NCF, 2005 and the principles laid down in the Right of Children to Free and Compulsory Education Act, 2009 which necessitated an altered framework on Teacher Education which would be consistent with the changed philosophy of school curriculum recommended in the NCF, 2005.

Reflective Practices, Participatory and Professional Learning and comprehensive evaluation formed the core of the vision of teacher education as laid down in Clause 1.8 of NCF, 2009.

Reflective Teaching and Learning
As per the framework, Pedagogical knowledge has to constantly undergo adaptation to meet the needs of diverse contexts through critical reflection by the teacher on his/her practices—teaching, evaluating and so on. Teacher education should provide opportunity to trainees for reflection and independent study without packing the training schedule with teacher-directed activities only.
Teachers need to be trained in organizing learner-centered, activity based, participatory learning experiences—play, projects, discussion, dialogue, observation, visits, integrating academic learning with productive work;

Qualitative Evaluation
The evaluation protocol of teacher education should be comprehensive and provide due place for evaluation of attitudes, values, dispositions, habits and hobbies (in addition to the conceptual and pedagogical aspects) through appropriate quantitative as well as qualitative techniques.

Further, the package of recommendations in NCF,2009 intent to enhance the status of educational studies in general and professional development of teacher educators in particular.

Professional development
Following recommendations were put forth for enhancing professional development of Teacher Educators:

- Arrangement of Periodic academic enrichment activities, for instance, public lectures, film and book discussion sessions, need based issues etc, short-term orientation courses on teaching learning skills and meta learning strategies related to different curricular areas.

- The Centre for teacher resource and academic support: provision of teacher resources, textbooks, multimedia, internet access; platform for teacher interaction, exchange, seminars, study sessions, academic support face to face as well as through ICT; development of learning and teaching materials for use in schools and sharing across schools.

- Establishing four Regional centers of educational management in the IIMs and NUEPA to provide a PG degree in educational management for Heads of DIETs, SCERTs.
The National Curriculum Framework, 2009 not only laid emphasis on professional development of teachers but pressed upon the need for promotion of Continuing Professional development i.e. In-Service education of Teachers. Clause 5.3 enlists few guiding principles while designing In-service programmes for teacher educators:

- **Content and pedagogic approach:** Programmes must build on the principle of creating ‘spaces’ for sharing of experiences of communities of teachers among themselves, to build stronger shared professional basis of individual experiences and ideas. Equally, structures and people in supervisory position must be educated to support and provide space to encourage teachers to plan and practice autonomously.

- **Addressing teachers as learners:** Any effort to strengthen teachers’ professional practice must equally respect them as professionals. This includes matters of training content and approach, and how they are implemented. Programmes must strengthen the teachers own identity as a professional and nurture the linkage with the academic disciplines of their interest. This is necessary because of the fact that the quality of pedagogical inputs in teacher education programmes depend largely on the professional competence of teacher educators.

- For imparting continuing professional development, NCTE set up under its ambit, The University School Resource Network which is a multidisciplinary project involving multilevel institutions envisages forging academic connectivity between higher education and elementary education systems, which networks Jawaharlal Nehru University, Delhi University, Institute of Home Economics, Gargi College, DIET, Motibagh, Mirambika, Ankur and participating schools. The Council also executed a district level project in Karnataka named Vidyankura, housed in National Institute of Advanced Studies. Apart from this, various foundation programs on professional development are being run by organisations like Eklavya, Digantar and VidyaBhavan Society, Rishi Valley, Banasthali and Sri Aurobindo Education Centres, etc.

**Comparative Analysis of NCF 1998, 2005 and 2009**

The central focus of NCF, 1998 was the improvement in professional status of the teachers. To pursue the objective of improving performance skills, knowledge and professional competencies of teachers, NCF recommended introduction of open learning systems, re-education of teachers through in-service training, Multiple Modes of Teacher Education instead of single linear models and encouraged research based on empirical data and professional vision.

National Curriculum Framework for Teacher Education, 2005

NCF, 2005 outlined the changes in teacher's profile more precisely as compared to NCF, 1998. It regarded teacher as a facilitator rather than a mere custodian of knowledge. Teacher's Autonomy and Professional Independence were the catchwords of the document. The framework put the thrust on universities and educational departments in expanding the horizons of knowledge to address issues of student diversity and fostering the culture of innovation through institutional linkages and meaning collaborations.

National Curriculum Framework for Teacher Education, 2009

The document of NCF, 2009 not only talked about development of professional competencies but went one step ahead by stressing upon the need of systematic evaluation of such qualitative aspects of teaching such as attitudes, beliefs, etc. The framework also highlighted the importance of reflective practices in teaching, participatory learning experiences and participation in academic enrichment activities for ensuring continuous professional development of teachers.

Department of Higher Education (HE)

The Dept. of HE is engaged in bringing world class opportunities of higher education and research to the country so that Indian students do not lag behind from their international counterparts. The department was established with a vision to realize India’s human resource potential to its fullest in the higher education sector with equity and excellence. The mission as spelt out in the Citizen’s Charter is to provide greater opportunities of access to higher education with equity to all the eligible persons and in particular to the vulnerable sections; expand access by supporting existing institutions, establishing new institutions, supporting State Governments and Non-Government Organizations; initiate policies and programmes for strengthening research and innovations and encourage institutions – public or private - to engage in stretching the frontiers of knowledge, promote the quality of higher
education by investing in infrastructure and faculty, promoting academic reforms, improving governance and institutional restructuring towards the inclusion of the hitherto deprived communities.

**The University Grants Commission**

The University Grants Commission is a statutory organization established by an Act of Parliament in 1956 for the coordination, determination and maintenance of standards of university education. Apart from providing grants to eligible universities and colleges, the Commission also advises the Central and State Governments on the measures which are necessary for the development of Higher Education.

**2.5 Initiatives in the UGC Tenth Five-Year Plan (2002-2007)**

Though the earlier plans chalked out by UGC also spelt out initiatives and efforts taken in the direction of professional development of Teachers but the Tenth Plan addressed the new challenges confronting the education sector emerging in the 21st century.

The UGC also began its Golden Jubilee year on December 28, 2002. The then Prime Minister Atal Bihari Vajpayee, spoke of the need to take a fresh look at the UGC Act of 1956 in order to reform the higher education structure to cope with the emerging challenges of access, quality, relevance, and international competence.

At the time of the Tenth Plan, despite having one of the largest and most complex networks of educational institutions, India could only provide access to 6.9 percent in the relevant age group. Therefore, higher education had to be rapidly expanded. The lack of infrastructure facilities and resources had often degraded the standards of quality and excellence. Thus The Tenth Plan laid down certain educational objectives. One was to achieve a profound transformation of higher education so that it became an effective promoter of sustainable human development. At the same time, both teaching and relevance of curriculum had to be tweaked to forge links with the world of work. Teaching, research and community extension functions had to come together to make learning a lifelong experience. Quality was to be enhanced through the use of information highways and multimedia teaching material provided to teachers.

The major initiatives taken under X Plan are as follows:

**Faculty Development Program**

Under this, The Commission would provide assistance for award of “Teacher Fellowships” for doing M.Phil. or completing Ph.D. to teachers of those Universities and Colleges which are included in the list maintained under UGC Act, 1956.
The objective of the “Teacher Fellowship” under Faculty Improvement Programme is to provide an opportunity to the teachers of the Universities and Colleges to pursue their academic/research activities leading to the award of M.Phil./Ph.D., degree.

The Teacher Fellowship for the Ph.D. programme would be for a period of two years. Extension of one year could be granted based on the justification and merits of the case. Teacher Fellowship for M.Phil. programme would be for one year extendable for another six months if necessary and justified (Point 3.10.1.).

The teacher should be permanent/confirmed (or have been appointed on a regular basis in case of Government colleges.) (Point 3.1). A Teacher Fellow will be eligible for reimbursement of actual contingency expenditure subject to a maximum of Rs. 10,000/- per year (Point 4.1).

Point 8.1 lays down the procedure for monitoring the progress of the scheme. The supervisor/guide of the Teacher Fellow must give a ‘progress report’ in the mid-month of the period for which the fellowship is awarded. In case of a negative report given by the Supervisor/Guide, the awarded fellowship to the Teacher Fellow may be withdrawn by the UGC.

**Adult, Continuing Education, Extension and Field Outreach**

One of the goals of the UGC is to transform the university system into an active instrument for social change through the institutionalization of Extension as the Third Dimension and by ensuring that the university system is adult learner friendly and pro-life long learning. The aim of the Third Dimension is to promote a meaningful and sustained rapport between the Universities and the community.

The major thrust areas as listed in point no.5 include integration between formal and non-formal education and out of school learning processes; enrichment of the learning process of faculty and students through exposure to community needs, problems, issues and reaching out to socio-economic and cultural groups; and development of courses linked specifically to business and industry which would include work ethics, work culture and preparation for the changing world of work.

Under this scheme, UGC lists down the following functions of the department:

**Teaching, Training and Research**

It includes the following:

- Teaching courses in Adult and Continuing Education and Extension & Field Outreach
- Conducting need-based continuing education courses, including online courses on credit or non-credit basis;
- Conducting Orientation and Refresher courses for university and college teachers with the Academic Staff College;
• Undertaking research in the subject;
• Training for human resource or skill development for the different target groups

**Catalyst Role:** Assessing the needs of the university students and out of university learner for continuing education programs and career guidance

**Collaborative and Networking Role:** The department shall undertake collaborative programs and network with business and industry; university departments; N.L.M.A; NGOs, Civil Society, development and government agencies and others and International organizations / universities and agencies, such as UNESCO, UNICEF, UNDPA, International Council for Adult Education, Asia South Pacific Bureau for Adult Education and similar organizations

**Documentation and Dissemination**

It includes Publication of News Letters, journal, magazine, e-journal, creation of an interactive website, preparation of materials, dissemination of materials and information, etc.

**The scheme for promotion of Yoga Education and Practice and Positive Health in Universities**

The concepts of positive health and lifelong learning are relatively new and need to be strengthened.

The Commission has formulated a scheme for promotion of yoga education and practice in the X Plan and a new component of positive health is being added to this scheme.

The objective of the scheme is to impart special education in various areas like yoga, positive health, career, personality development etc. for the overall development of students, teachers and non-teaching staff of universities (point 2).

All eligible universities, which are included under Section 2(f) and have been declared fit to receive central assistance under Section 12(B) of the UGC Act of 1956, are covered under the scheme. The target group is students, teachers and non-teaching staff of universities (point 3). The UGC would provide grants to the selected universities up to the end of X Plan period only i.e. 31st March 2007. The UGC would provide financial assistance as under (point 4.1):

- For organizing 3-5 days awareness programme: Rs 25000 per programme
- For Equipments: Rs 1,00,000 (one time grant)
- Honorarium to Instructors: Rs 1,80,000 p.a.

The topics covered under awareness programme include General counseling, AIDS, Drug abuse, Sex education and reproductive health, Art of healthy living, Stress management and Sound body and mental health.
Innovative Programmes: Teaching and Research in Interdisciplinary and Emerging Areas

Keeping in view the need for training of personnel through the University system, the UGC implemented the Scheme of Innovative Programmes which has been renamed as “Teaching and Research in Interdisciplinary and Emerging Areas” in the Tenth Plan period to support

i) the specialized courses at Under-graduate and Postgraduate levels including 2 year PG Diploma after graduation and one year PG Diploma after Post Graduation in Interdisciplinary and Emerging Areas and

ii) Accommodate brilliant ideas and innovative proposals to influence teaching, research, academic excellence, societal growth and relevant activities in various disciplines which meet educational, national and global priorities and to promote group / departmental research work in universities and colleges.

The duration of the Innovative Programme is for a period of 5 years. The UGC financial assistance is on 100% basis. The funds may be provided for most essential and critical requirements of laboratory equipment, contingency, staff etc. for starting the courses in interdisciplinary and emerging areas. The limit of the financial assistance will be Rs. 50.00 lakhs for nonrecurring and recurring items plus staff (for courses only) on actual basis.

Provision of Orientation Programmes

It was realized that the present system did not provide adequate opportunities for the professional development of teachers. It was therefore, necessary to develop inbuilt mechanisms to provide opportunities for teachers within the framework of knowledge society. Thus the concept of Academic Staff Colleges came into being.

The ASC’s main philosophy is to keep in mind that the teacher is central to the system. An ASC may be established in a university as a separate entity to be newly set up and designated within the university. The academic staff college is a UGC-sponsored separate entity. It is an inter-university institute catering to the needs of colleges and universities within a state/ neighboring states. For the purpose of organizing orientation and refresher courses for in service faculty members, the UGC has established and funds a network of 66 Academic Staff Colleges across the country.

Content of Orientation Programmes and Refresher Courses

The content of the Refresher course would have essential percentage of the core material in the subject discipline along with required percentage of areas of emergence and priority, (both national and global), essential laboratory and practical component, computer application and I.T. Contents, if required with relevant advancement to the subject discipline.
The Special orientation programme for newly appointed Lecturers was designed to inculcate in young lecturers the quality of self-reliance through their awareness of the social, intellectual and moral environment and to enable the teachers to discover themselves and their potential through a positive appreciation of their role in the total social, intellectual and moral universe within which they function.

**Components of the Orientation Course are described as follows:**

In order to achieve the above objectives, the curriculum for the orientation course may have the following four components with minimum of 144 contact hours, that is, six hours daily for a four-week programme:

**COMPONENT A:** Awareness of linkages between society, environment, development and education.

It includes study of Multiple cultures, Role and responsibility of a teacher, Values-based education and Globalization and higher education

**COMPONENT B:** Philosophy of education, Indian education system and pedagogy

It includes the following:

- Philosophy of education: Aims at values-based education; role of social and educational institutions, comparative educational systems, internationalization of education
- Quality assurance in higher education: Indicators of quality assurance, assessment and accreditation
- Learner and the learning process: Understanding the adolescent learner, motivation, interests, human development, memory, aptitudes, intelligence, learning styles.
- Methods and materials of teaching: Prescribed texts, effective classroom teaching techniques, and assignments.
- Technology in teaching: Concept of teaching, levels of teaching and phases of teaching; audio, video, educational films, computers, etc.
- Curriculum design: Approaches, curriculum development, needs-based courses and remedial courses.
- Alternate methods of learning: Distance and open learning, self-learning and informal learning

**COMPONENT C:** Resource awareness and knowledge generation. This component should aim at helping the teachers to be self-sufficient, and continuously abreast of new knowledge and techniques, processes, methods and sources of knowledge

It includes the following:

- Information technology: New modes of information storage and retrieval, computer applications, communications, multimedia, computer-aided learning, Internet
- Research: Research projects, sponsoring agencies, academic writing and publication, etc.
• Industry-university linkages.

**COMPONENT D:** Management and personality development.

**It includes the following:**

• Communication skills: Verbal and non-verbal
• Thinking skills and scientific temper
• Leadership, team building and work culture
• Administrative skills: Decision-making, service rules, human relations and interpersonal effectiveness
• Educational management: Institutional management, management of committees, examinations, hobby clubs, sports and co-curricular activities
• Student guidance and counseling
• Mental health: Attitudes and values
• Career planning, time management
• Teacher effectiveness: Qualities of an effective teacher, code of conduct, accountability and empowerment

**Short Term Courses under this schemes organized by UGC are mentioned as follows:**

• Professional Development Program
• Effective Communication and soft skills for Academicians
• Workshop on Audio – Visual Aids in Teaching
• Short Term Course in reforms in higher education
• Short Term Courses in soft skills Development
• Research Methodology for Lecturers and Research Scholars
• Workshop on how to participate in International and National Sem. / Sym./Conf. / W.S.
• Workshop on how to organize International and National Sem / Sym. / Conf. / W.S.
• How to write Research Paper
• E – Learning and Effective Teaching
• Capacity Enhancement Programme
• Capacity Building for Teachers Education
• Staff Training Programme (University & Colleges)

**Active Involvement of Decision-makers and Leaders In Higher Education**

It was further recognized that no scheme for orientation of teachers can succeed if the decision makers and administrators of higher education do not understand the importance of such courses.
Therefore, along with courses for newly appointed teachers, orientation programmes for heads of department, principals, deans, officers, etc. must be organized with a view to acquaint top-level administrators with what teachers are learning in the orientation courses. This exposure will enable decision-makers to actively participate in the scheme; at the same time, these administrators would be able to modify their own roles as supervisors of higher education by demanding newer role behavior from teachers.

2.6 Initiatives in UGC Eleventh Plan (2007 - 2012)

The preparation for the Eleventh Plan began in 2007. The then Prime Minister Dr. Manmohan Singh termed it, an “Education Plan” to usher in the “Second Wave” of development of higher education. The Eleventh Plan brought higher education on the priority list of the government. The UGC took note of outdated courses, inadequacies in teaching and research facilities, lack of interaction with industry and the ‘outside society,’ absenteeism among teachers, and obsolete teaching and examination methods together with other operational infirmities. Many corrective measures were needed to improve the quality of education, especially at the college and university level in all its diversity beginning with the central government at one extreme and individual teachers, at the other. To improve the quality of teaching, the quality of teachers had to improve which, in turn, depended on the physical, economic and social environment under which the teachers worked. Financial support and enabling rules were needed at the institutional level to facilitate faculty participation at seminars, both national and international, teacher mobility and faculty exchange programmes, launching of joint academic endeavors, encouragement for course restructuring and improved teaching methods, creating inter-departmental or interdisciplinary interactions and student-faculty exchanges.

The broad initiatives of UGC XI Plan are discussed as under:

**Life Long Learning (LL) and Extension Activities**

With the formulation the Eleventh Five year Plan (2007-20012), the Government of India put forward the idea of expanding the scope of the Continuuing Education Program by developing it as Lifelong Education and Awareness Program (LEAP). Since Lifelong Learning has become a fundamental goal of recent educational policies often advocated as a way to achieve socio-economic development and a tool for promoting knowledge based society, the UGC would extend support to this area during the XI Plan.

All the different programmes initiated earlier under various terminologies viz; Adult Education, Continuing Education, Extension, Population Education, Student Counseling, Placement Services and
e-learning will be reformulated and developed as **Life Long Learning Programmes** so as to bring them in tune with ever expanding global knowledge scenario.

During the XI Plan, concrete attempts would be made to expand the programme by covering at least 50% of the universities in the country. The UGC will be providing recurring grant in the range of Rs. 2-10 lakh per year and non-recurring grant of Rs.5 lakh to the departments of LL during the XI Five Year Plan

Broadly, the colleges are expected to impart soft skills including Computer Literacy and English speaking skills to students and organize Lifelong Learning Programmes in consultation with the *Jan Shikshan Sansthans* or the University Department of LL. The main thrust of LL programmes should be to provide a wide variety of Lifelong Learning opportunities to all sections of society. These may include Continuing Education Courses—both university based and community centered, Equivalency Programme, Quality life Improvement programmes, Individual Interest Promotion Programmes, Vocational Education / Skill Training, Induction/ Sensitization Programmes for peoples representatives, education of older adults etc.

**Innovative / Emerging Areas: Teaching and Research in Interdisciplinary Innovative and Emerging Areas**

Under this, the Committee would identify new and emerging areas and specialized or interdisciplinary courses at the Under-graduate and Post-graduate level by the applying universities / institutes and colleges, which have the involvement of active researchers, scientists, social scientists, technologists, industrialists and academicians and the course proposed belongs to emerging or hi-tech areas or in the areas of national and global priorities. The duration of the Innovative Programme is for a period of 5 years. The limit of the financial assistance will be Rs.60.00 lakhs for nonrecurring and recurring items plus staff (if approved) on actual basis.

**Capacity Building for Women Managers In Higher Education**

Women academicians all over the world, particularly in management, are heavily underrepresented in the university system, and male culture still prevails. It is, therefore, essential to offer training programmes to women in higher education for capacity building to become managers in order to participate in policy and decision making, ensuring gender sensitivity in governance and administration of the university.

To achieve this, UGC proposed following activities in the XI Plan:

**1. Capacity building through:**
   a. Sensitization/Awareness/Motivation (SAM) Workshops
   b. Training of Trainers Workshops – Regional (Residential)
c. Management Skills (MS) Workshops (new to be introduced in the XI Plan) –
Regional (Residential, Non-Residential or Mixed Pattern)
Module for management skills introduced imbibed Time and Stress Management, Team Building and Decision Making Skills, Communication and Negotiation Skills, Management Skills Training of Trainers (MSToTs) Workshops (new to be introduced in the XI Plan – Residential or Mixed, Research Stimulation (RS) Workshops (new to be introduced in the XI Plan) -Regional (Residential). These workshops intended to develop training skills and how to use the management skills modules among the trainers who will be selected from the above (MS) workshop participants.

Other New Activities under this category included:

2. Networking, Information Dissemination Cell
Recognizing that information is a critical resource in the process of capacity building of women managers, planning for this activity commenced in the X Plan, the Networking and Information Dissemination Cell (N&I Cell) is proposed to be implemented in the XI Plan.

3. Publications and translations
   - Manuals/modules and other printed material
   - Research reports
   - Databases and bibliographies
   - Directory of women participants/academicians
   - Directory of women managers in higher education
   - Documentation such as case studies and role models of women in management

Incentivisation of Teachers, Subject/ Discipline based Association for Organization of Various Academic and Research Activities.
At present, the UGC had no specific scheme to support the Subject Associations or the Journals. Accordingly, it has been proposed to launch a scheme to support specific activities of Subject / discipline based Associations at the National level.
The objective of the Scheme will be to support Subject Associations in Social Sciences Humanities & Languages in organizing specified activities in order to encourage teachers and researchers to participate in Conferences/Seminars/ Workshops and to present papers leading to publication. The maximum assistance available under this head will be Rupees 2.0 lakh.
The following activities will be supported through the Scheme:
   - **Core Grant for National Subject Associations.** A core annual assistance will be provided to national level Subject Associations for secretarial support, day to day office expenses,
communication and dissemination of their activities and outputs etc. The grant will be subject to a ceiling of Rs. 3.00 lakh per year

- **Annual Conferences of the Association.** The UGC will provide financial support to the maximum amount of grant will be Rupees seven lakh for holding of the Annual Conference of the National Subject Associations and for publication of the Conference Proceedings.

- **Journals.** The UGC would provide financial support to journals published by the Subject Associations as well as universities / university departments and other research institutions. The financial support under this head will be subject to a maximum of Rupees five lakh for Academic Association and three lakh for University department or fifty percent of the audited cost of publication, distribution and dissemination of the journal whichever is less

- **National and Regional Conferences, Seminars** as well as Workshops for upgradation of teaching and research.

2.7 Initiatives in UGC Twelfth Plan (2012-2017)

The role of higher education in the development process became even more significant with the emergence of “knowledge-based economy.” The world was becoming more interconnected and global markets were emerging for skills and innovations. In order to address these changes, UGC enunciated Twelfth Plan and discussed its initiatives under broad heads of Access, equity, engagement and outcomes; content and quality; research and innovations; faculty development and inter-university resource sharing; internationalization in higher education; alternative modes of delivery of higher education; models of financing; and good governance. Following Initiatives were taken under XII Plan:

**Scheme for Incentivisation of Teachers, Subject/Discipline Based Association for Organisation of Various Academic & Research Activities**

During XI PLAN, The UGC launched a new scheme to support specific activities / discipline based associations at the National Level. The Commission has decided to continue this scheme during XII PLAN. The guidelines for XII Plan are same as mentioned earlier in XI Plan earlier in the document.

**Establishment and Monitoring of the Internal Quality Assurance Cells (IQACs) in Universities:** Internal Quality Assurance Cell (IQAC)” was conceived under XI Plan of UGC Guidelines. It was established as a mechanism to build and ensure a quality culture at the institutional level. The UGC provided seed money during the XI plan of Rs.5.00 lakh to each University and Rs.3.00 lakhs to each College as one time grant, to meet the establishment and strengthening expenditure of the IQAC.
Under the present scheme i.e. XII Plan, The UGC will provide financial assistance of Rs.5.00 lakhs (to be released in two installments of 90% and 10% of the total assistance) to each University in order to meet the establishment and strengthening expenditure of the IQAC.

The Monitoring Mechanism is a three-tier process:

a) The State Quality Assurance Cell (SQAC) and Affiliating Universities shall monitor the functioning of IQACs in the colleges coming under their jurisdiction.
b) NAAC and other respective accrediting bodies shall monitor the functioning of IQACs in universities and other Institutions of National Importance.
c) NAAC peer teams and those of other accreditation bodies will interact with the IQACs.

NAAC is entrusted with the task of performance evaluation, assessment and accreditation of Universities and Colleges in the Country. It is heralding a ‘Quality Culture’ among the various constituents of the Higher Education Institutions (HEI), as well as enhancing the awareness of Institutional Quality Assurance with all stakeholders.

At the instance of NAAC, many Universities have established the Internal Quality Assurance Cell (IQAC) as a post accreditation quality sustenance activity.

**Coverage**

All universities established and/or incorporated by or under a Central Act, a Provincial Act or a State Act and an institution declared Deemed to be University under Section 3 of UGC Act, covered under Section 12B of the UGC Act, 1956 and declared fit to receive general institutional development grants.

**The IQAC shall have the following functions**

- Development and application of quality benchmarks/parameters for the various academic and administrative activities of the University;
- Facilitating the creation of a learner-centric environment conducive for quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process;
- Organization of inter and intra University workshops, seminars on quality related themes and promotion of quality circles;
- Development of Quality Culture in University;
- Preparation of the Annual Quality Assurance Report (AQAR) of the University based on the quality parameters/assessment criteria developed by the relevant quality assurance body (like NAAC, NBA,AB) in the prescribed format;
- Bi-annual development of Quality Radars (QRs) and Ranking of Integral Units of HEIs based on the AQAR;
Scheme of Faculty Development Programme for Colleges

The Programme aims at enhancing the academic and intellectual environment in the Institutions by providing faculty members with enough opportunities to pursue research and also to participate in seminars / conferences / workshops.

The programme encompasses the following:

i) Award of Teacher Fellowship for doing M.Phil./Ph.D.

Only 20% of the permanent (regular, for Government Colleges) teachers are eligible to avail Teacher Fellowship, from an institution at any point of time. 15%, 7.5% and 27% out of the total Fellowships allocated to a College will be reserved for SC, ST and OBC (non-creamy layer) candidates, respectively. The Teacher Fellowship for Ph.D. programmes would be for a period of two years. Extension of one year could be granted for Ph.D. candidates based on the justification, recommendation by the Supervisor/Guide, and 'No Objection' certificate from the Parent Institution. The Teacher Fellowship for M.Phil. programme would be for one year, extendable by another six months, if necessary and justified.

A Teacher Fellow will be eligible for actual contingency expenditure, subject to a maximum of Rs.15,000/- per year. The Supervisor/ Guide of the Teacher Fellow must give a 'Progress report', after half the period of Fellowship is over. In case of a negative report given by the Supervisor/Guide, the awarded Fellowship to the Teacher Fellow may be withdrawn by the UGC.

ii) Participation of Teachers in Academic Conferences in India (PTAC)

The Commission will assist permanent teachers or teachers appointed on regular basis (in case of Government Colleges) for participating in academic conferences/seminars/ workshops in India (PTAC). The participating teacher will be provided TA/ DA as per rules of the Institution where the teacher is employed and Registration Fee will be allowed. 20% of the teachers will be eligible during the Plan period to avail of assistance under the scheme.

iii) Short-term visit of Young Faculty members to reputed institutions.

The Commission will assist permanent / regular teachers below the age of 40 years (45 years for SC/ST/Minority Community and Women teachers) to spend a short time (not less than two weeks and not more than two months) at reputed institutions of their choice in order to improve and update their research and pedagogical skills. A teacher may avail of this opportunity of academic exposure not more than twice during the Plan period. TA/DA rules of the Institution where the teacher is employed will be applicable. The ceiling of assistance for the colleges (for Short-term visit) will be as under, for the entire Plan period and should be claimed annually by the college:
In order to boost up research and faculty resources in science and engineering related departments, University Grants Commission, decided to launch a new Programme called "UGC-Faculty Recharge Programme". Under the Programme, fresh talent, at all levels of academic hierarchy, is to be inducted in selected departments / centers through a nationally-conducted competitive process and the inductees are to be placed as Assistant Professors, Associate Professors and Professors. To impart distinct identity to these specially selected faculties, a prefix 'UGC' has been added to each of these categories for instance UGC-Assistant Professors, UGC-Associate Professors and UGC-Professors, respectively. It is intended to ensure that individuals with exceptional creativity, zeal and commitment to research and teaching will be selected through this Programme and shall be eligible to receive developmental funds under UGC scheme.

Skill Development for Community Colleges and Universities

According to the current report of UGC, the country faces a demand–supply mismatch, as the economy needs more ‘skilled’ workforce and also the managers and entrepreneurs than created annually. Owing to a wide disconnect of Higher Education Institutes with requirements of the workplace, rigidity in terms of duration of courses, timings for teaching-learning, place of study and choice of subjects. The skill oriented courses available in the market have low credibility and acceptability with the employers. There is also a worldwide shift from conventional educational system to competence based qualification system.

Thus, with a view to make the skills acquired by the learners acceptable nationally, the Government of India enunciated National Skills Qualifications Framework (NSQF) on 27th December 2013. It is a nationally integrated education and competency-based skill framework which provides for multiple pathways, both within vocational education and between general and vocational education, to link one level of learning to another higher level and enables learners to progress to higher levels from any starting point in the education and / or skill system. The NSQF organizes qualifications according to a series of knowledge, skills and aptitude and has been established with the objective to integrate relevant skills into the higher education system and to provide opportunities for community–based lifelong learning by offering courses of general interest to the community for personal development and interest.

Comparative Analysis of UGC Guidelines pertaining to X, XI and XII Plan
**Tenth Plan**

The **Tenth Plan** aimed at overhauling the higher education of the country. This encompassed facilitation of need based continuing education through faculty development programs and extension activities, healthy collaboration between institutions and innovations in teaching and research. Qualitative aspects of teaching such as positive heath and life long learning also found space in the document. It was also enunciated in the plan that in order to give concrete structure to such initiatives and schemes, active involvement of top management and decision makers was indispensable.

**Eleventh Plan**

The focus in the eleventh plan shifted to quality of teaching and improvement in the profile of teachers. Inadequacies in teaching and research, lack of interaction with industry and the ‘outside society, and obsolete teaching were duly noted and corrective measures were recommended. Various schemes of Capacity Building, Incentivisation of Teachers for promotion of research activities and Life Long Learning Programmes took pace in order to meet global requirements for skills and innovations.

**Twelfth Plan**

Owing to the emergence of knowledge based economy, The Twelfth Plan took under its ambit, comprehensive university reforms that addressed plethora of issues such as access, equity, quality, engagement, promotion of talent, innovation and research etc. In order to overcome the inadequacies of conventional education, The UGC advocated competency based education in the sphere of both vocational and general education through National Skill qualifications Framework that organizes qualifications according to a series of knowledge, skills and aptitude for promotion of personal development and life long orientation of learners.

**Reflection**

The gradual movement of academic reforms in the direction of qualitative aspects of teaching and learning are reflective of emergence of competency based system of teacher education which encompasses development of knowledge, skills and attitudes and thus paves the way for professional development of teachers.
2.8 UGC Guidelines with respect to Performance Appraisal: Report of the Task Force On Performance Appraisal of Teachers 1998:

The Mehrotra Committee Report on revision of pay scales of teachers in Universities and Colleges has emphasized the need for developing a satisfactory system of evaluation of teachers which will help their career development by securing feedback for self improvement. The Task Force is of the view that the record of evaluation made by the teachers and verified by the Institutions will be an open document which should be the basis for recognition of excellence in performance as well as for further improving the overall efficiency of the system.

The Task Force developed a system of evaluation of the performance of teachers along with specially designed formats for the guidance of the institutions, the main contents of which are:

- Research Experience & Training
- Research Projects carried out
- Seminars, Conferences, Symposia Workshops etc. attended
- Innovations/Contributions in Teaching (Design of Curriculum, Teaching methods, Preparation of resource material including books, reading materials, Laboratory manuals etc., Remedial Teaching/Student Counseling
- Positions held/Leadership role played in organizations linked with Extension Work and National Service Scheme (NSS), or NCC or any other similar activity.
- Participation in Corporate Life: (Membership/Participation in Bodies/Committees on Education and National Development, Professional Organization of Teachers)
- Improvement of Professional Competence: (Details regarding refresher courses/orientation attended, participation in summer schools, workshops, seminars, symposia etc. including open university courses/M.Phil., Ph.D.)

2.9 UGC Guidelines with respect to Merit Promotion Scheme for College Teachers

A scheme of Merit Promotion was introduced during the 6th Plan Period, with a view to providing suitable opportunities to the teachers working in the Colleges for career advancement in recognition of their significant contributions in the field of teaching, research and allied educational activities. The scheme is intended to be in the nature of a flexible complementing scheme where a teacher after critical assessment of his work at the end of a specified period can be promoted to the next higher level and the position thus held by him is treated as personal to the incumbent and no resultant vacancy is required to be filled.
College teachers wishing to have their work assessed and considered for Merit Promotion should present the details of their work to their college latest by 31st December, each year. For this purpose, the institutions may keep the profile of teachers with them in which the teachers may at the end of each year indicate the details of their contributions of teaching, research, curriculum development, educational reforms, innovative teaching and other forms of academic work done in the institution as well as the work done in the field of extension and continuing education, sports and cultural activities and improvement in academic qualifications.

Components included in the Performa in which profile of teachers be maintained each year under Merit Promotion Scheme are:

- Teaching methods applied
- Audio-visual aids provided by College and Utilization of such aids by the teacher in teaching demonstration experience
- Any experiment / apparatus designed or fabricated by him for improving teaching.
- Academic & Professional Advancement during the year: (Research facilities offered in the college, Research qualifications acquired, Research Projects undertaken, Seminars / Workshop / Conferences participated, Names of refresher courses / orientation programmes in which participated, Participation in other activities of the college like Adult & Continuing Education, Community Services, NSS, Sports & Culture, Activities etc., Membership of various professional / other bodies in the college )

**Reflection**

UGC Provisions with respect to both Performance Appraisal and Merit Promotion aim in the direction of self improvement and professional advancement of teachers. Besides the quantitative aspects like experience, designation, academic qualifications, the documents also reflect on the qualitative aspects of teaching. The components of both the documents pay adequate consideration to knowledge based and attitudinal components of competencies such as knowledge expansion and generation through research activities, participation in orientation and refresher programs, seminars and conferences as well as attitudinal development through engagement in leadership activities, corporate initiatives etc. The focus is not alone on the delivery of content but on the manner in which lessons are delivered by teachers. This encompasses adoption of multimedia tools, innovative methods of teaching applied, experiments introduced etc. Thus the content of both the documents drive home the fact that apart from core discipline-based knowledge, a teacher needs to hone his/her professional competencies to meet the changing demands of the curricula and expectations of the learners (students).
2.10 UGC Regulations with respect to Pay Scales and Minimum Qualifications for Appointment of Teachers

UGC Notifications on Revision of Pay Scales, Minimum Qualifications for Appointment of Teachers in Universities and Colleges, 1998

Recruitment and Qualifications: The direct recruitment to the post of Lecturers, readers and Professors in the Universities and Colleges was on the basis of merit through all India advertisement and selections by the duly constituted Selection Committees set up under the Statutes/ordinances of the concerned university. The minimum requirements of a good academic record, 55% of the marks at the master’s level and qualifying in NET was the basis of appointment of Lecturers.

Career Advancement

Minimum length of service for eligibility to move into the grade of Lecturer(Senior Scale) was four years for those with Ph.D, five years for those with M.Phil. and six years for others at the level of Lecturer and for eligibility to move into the Grade of Lecturer(Selection grade)/ Reader, the minimum length of service as Lecturer(Senior scale) shall be uniformly five years.

For movement into grade of Reader and above, the minimum eligibility criterion would be Ph.D.

For the promotion from Reader to Professor, the candidate was required to present before the selection committee with some of the following:

- Self appraisal reports (required)
- Research contributions
- Seminars/conferences attended
- Extension and field outreach activities

The requirement of participation in orientation/refresher course each of at least 3 to 4 weeks duration and consistently satisfactory performance appraisal reports, was the mandatory requirement for career advancement from lecturer to lecturer(senior scale) and from lecturer (senior scale) to lecturer (selection grade).

UGC Notifications on Revision of Pay Scales, Minimum Qualifications for Appointment of Teachers in Universities and Colleges, 2013

The overall selection procedure shall incorporate transparent, objective and credible methodology of analysis of the merit and credentials of the applicants based on weightage given to the performance of the candidate in different relevant dimensions and his/her performance on a scoring system Performa, based on Academic Performance Indicator (API).
In order to make the system more credible, university may assess the ability for teaching and/or research aptitude through a seminar or lecture in a classroom situation or discussion on the capacity to use latest technology in teaching and research at the interview stage.

**Proposed scores for Academic Performance Indicators (API) In Recruitments and Career Advancement Scheme (CAS) Promotions of University/College teachers.**

**Category 1: Teaching, Learning and Evaluation related activities**
Based on teacher’s self assessment, API Scores are proposed for Teaching related activities (classroom teaching and outside classroom interaction with students), Domain knowledge, Participation in examination and evaluation and Contribution to innovative teaching etc.

The min. API score required by teachers from this category is 75.

**Category 2: Co curricular, Extension and Professional Development Related Activities**
Such activities include Discipline related co-curricular activities, extension and dissemination activities like public lectures, seminars etc, Administrative responsibility, contribution to collective/corporate life of the institution. The min API by teacher for eligibility for promotion is 15.

**Category 3: Research and Academic Contributions**
These include research papers published in referred journals, non-referred but reputable journals, conference proceedings, research projects carried out, consultancy projects, research guidance given, Soft skills development programmes, refresher courses, methodology workshops, Faculty Development Programmes attended. The minimum API score required by teachers from this category is different for different levels of promotion and between university and colleges.

**Comparative Analysis of UGC Regulations 1998 and 2013 w.r.t Pay Scales and Minimum Qualifications of Teachers**
Pay Scales and Minimum Qualifications for Appointment of Teachers, 1998

The recruitment procedure was merit based and promotions were based upon number of years of service along with some loosely defined criteria of participation in research and orientation programmes. Only a satisfactory performance appraisal report was mandatory for being promoted to higher levels.

Pay Scales and Minimum Qualifications for Appointment of Teachers, 2013

The appointment of teachers depended upon objective based analysis of merit and credentials and performance was evaluated on strictly defined criteria of weightages given as per Academic Performance Indicators i.e. API Scores for co-curricular and professional activities like research publications, participation in conferences, outside classroom interaction with students, contribution to corporate life etc.

Reflection

The gradual transition of Appointment, Promotion and Performance evaluation procedures from purely merit ranking to objective based grading of teachers on professional parameters point towards the emergence of competency based teacher education that encompasses development of professional competencies (knowledge, skills and attitudes) among teachers in order to enable them to keep pace with increasing demand for global skills, innovations and internationisation of curricula.
2. 11. Gap Analysis

As derived from the past studies, it is now understood that, competencies are a combination of knowledge, skills and attitudes, the identification of which, leads to superior performance and individual development. The “knowledge and skills” components of competency are easier to identify and could be developed by technical training and formal education whereas the “attitudinal“ components of the competency definition are difficult to identify and could be developed with informal learning methods, field experiences and professional training and development initiatives. A significant inclination of the past studies towards the behavioral (attitudinal) components of competency explains that while knowledge and skills are an important prerequisite for an individual to execute his job but it is the attitudes, self concept, motivations and personal characteristics which are a subject of considerable attention and are increasingly being recognized as an indispensable part and parcel of one’s professional inventory of desirable characteristics suitable for the job.

In a similar fashion, the profile of a teacher, apart from being an efficient disseminator of knowledge, also demands him/her to be an effective decision maker, a change agent and a reflective practitioner. Such transformations pinpoint the need to delve deeper into the less tangible behavioral attributes, teachers’ personality traits, learning processes, life experiences, education beliefs and motivational aspects among teachers. The competency based management tools have been touted as a means to facilitate individual development and to sharpen the professional competencies of teachers and educators in higher education and are an enabler in solving a multitude of imbalances between present educational pedagogy and that of industrial requirements.

However, the mirror view of past literature on competency studies as well as polices relating to competency development leaves us with significant gaps with respect to issues of application and implementation of competency based tools in the sphere of higher education.

- The first and foremost gap identified in the literature echoes about the limited level of engagement between teachers and students. The reasons for the same can be traced back to lesser implementation of individualized learning by teachers in classroom teaching and integration of competencies beyond classroom learning. In this context, soft skill training initiatives must be strengthened in order to nurture the behavioral components of competencies. This endeavor further requires adequate arrangements for the successful delivery of soft skills and life skills among teachers. For instance, Virtual Training can be imparted in higher educational institutions so that the faculty can grasp the competencies and skills in a creative, engaging and practical manner. Similar professional development programs need to be chalked
out to address the learning and training needs of teachers so as to transfer and imbibe such life-long learning skills among students enrolled in higher education.

- Apart from lack of training facility, the reviewed literature also reflects dearth of proper education and awareness among educators with respect to objectives of competency based instructions, competency based assessment tools and evaluation techniques due to which competency based initiatives are often resisted by faculty members who perceive it as only a drain upon their teaching time and efforts.

- Also willingness on the part of teachers to unlearn, learn and reinforce new concepts, notions and hone their skills is lacking. In order to convert this reluctance of teachers towards change into consensus on usefulness of competencies, crafting of effective communication strategies between faculty and management is the need of the hour.

- The role of educational bodies in enriching professional competencies of faculty members is limited. The management should take up the role of a change agent in ameliorating teaching content in light of changing industry expectations. Such changes also call for effective leadership on the part of management which is at present, highly lacking.

- Also, the support mechanism of management of the institutes in terms of knowledge management initiatives is also restricted which further seems to curtail the flow of innovation through meaningful exchange of ideas and healthy collaborations among faculty members as well as other players in higher education.

- A vast body of available literature discusses the significance of developed competencies in terms of knowledge of teachers for achieving educational outcomes but the aspect of knowledge sharing among faculty members and the institute’s management has been barely explored rather ignored which has long term implications for influencing innovation in educational learning environment. In this regard, the role of the management of the institute needs to be intensified in providing motivational incentives for knowledge sharing and promoting academic networking for generation of pedagogical innovations in the learning environment of the educational institute.

A profound analysis of the various policy documents echoes about following significant gaps identified with respect to issues of competency development among teachers.

- It was noticed that The National Policy on Education, 1986 laid emphasis on only up-gradation of skills ignoring the other two components of competencies i.e. knowledge and attitudes. Though the document talked about teacher orientation through both pre-service and in-service training but direct mention of competency building or training could not be found. It was
further observed that not much significance was attributed to the subject of professional
development of teachers. This is evident from the fact that out of two hundred clauses
contained in the document; only seven clauses are dedicated to the area of Teacher Education.
Similar gaps were observed in the document of National Curriculum Framework for Teacher
Education prepared by National Council for Teacher Education (NCTE). Out of hundred
clauses contained in NCF, 2005, the discussion regarding Teacher Development was confined
only to nine clauses. Though The Council has thrown light on the development of professional
competencies and improvement in the professional status of teachers, but it has not
supplemented its content with any concrete measures to be taken in the direction of systematic
implementation of such a competency based education and training nor has it suggested any
mechanism for evaluation of competencies among teachers.

- In the area of higher education, the phrase “competency-based” has been used in a variety of
ways in the national discourse. Plans enunciated by UGC have addressed the qualitative aspects
of teaching and learning such as development of soft skills among teachers, Introduction of
Life Long Learning Programs, Personality Development through various orientation and
Refresher Courses. But such competency development based initiatives are nested within an
umbrella term of “Continuing Professional Education” or “Faculty Development Programs”
and no separate policy has been drafted so far which contains the rubric for a competency
based program or lays down competency standards for teachers. In order to ensure lasting
impact on teachers, Competency Based Education programs must be given the latitude to exist
apart from other numerous developmental initiatives for teachers.

- Though The Government of India has enunciated National Skills Qualifications Framework
(NSQF) which is a competency-based skill framework organizing qualifications according to a
series of knowledge, skills and aptitude in the field of vocational education but such an effort in
the field of management education has not been taken so far.

In a nut shell, we can say that the transition from conventional education to competency based learning
and teaching has already begun and is in nascent stages of building competency-based learning
pathways. But a lot needs to be done in terms of building a solid foundation for development and
implementation of a fully fledged competency based program for teachers in India.