

## Pre-University Teachers' Teaching Skills

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### Abstract

The Pre-University (PU) stage of education is significant for students as it is the connecting bridge between school and professional life. Therefore, this stage must instill the essential skills within students which will facilitate the students to pursue higher education or apply for the field of work. To achieve the development of students with the required skills to be independent and skilled, it is imperative for the teacher to use teaching skills in the precise manner. Teaching skills is the vital link necessary to translate the teachers' theoretical knowledge to the students thereby promoting effective learning by the students. This study focuses on the missing and much needed teaching skills which are deemed important for a Pre-University teacher of the 21<sup>st</sup> century. The researchers also suggest a great demand and necessity for training Pre-University teachers to enhance their teaching skills required for the successful development of the 21<sup>st</sup> century learners.

**Keywords:** Teaching skills, Pre-University teachers

### 1.0 Background

The present education system in India follows the Indian Education Commission also known as the Kothari Commission (Kothari, 1966) pattern consisting of 10 years of primary and lower secondary education, 2 years of higher secondary education and 3 years of higher education. Pre-University colleges or junior colleges offer Pre-University education consisting of the 2 years (I Pre-University level and II Pre-University level) of higher secondary education provided by the state government after which the students are required to write and pass a state level exam which is compulsory to join for higher education. The Department of Pre-University, Government of Karnataka is the organization for implementation of higher secondary education in the state. They function under the department of Primary and Secondary Education. There are 1202 Government Pre-University colleges (run by the government of the state), 637 Aided Pre-University colleges (private colleges aided by government), 1936 Unaided Pre-University colleges (private colleges that are not aided by the government), 165 bifurcated Pre-University colleges (Pre-University colleges separate from the degree colleges) and 13 Corporation Pre-University colleges (Pre-University colleges that are set up and run by the municipality body of the state) as of the year 2011- 2012. The schooling is differentiated at the Pre-University level into arts, science and commerce streams for students to choose according to their choice of further general education and professional courses. There are 23 subjects, 11 languages and 50 combinations offered in the Pre-University curriculum out of which the students are to choose 4 subjects and 2 languages which are offered as different combinations. All the Government, private aided and private unaided Pre-University colleges come under the purview of the Department of Pre-University Education in the matters of administration, academic and examination (Department of Pre-University Education Karnataka).

Pre-University stage is a critical stage for students as this provides a stepping stone for either higher education or for placement in a suitable job. The Pre-University education is mainly regarded as a preparation for university courses. Reddy (2006) stated that the Pre-University stage is the bridge between secondary and higher education and provides knowledge and skills bases for general education, higher education and professional education. While examining the enrolment ratio of students in the Pre-University level, it was found that, for the 1<sup>st</sup> year Pre-University in the year 2010-2011 the enrolment was 5.17 lakhs and the enrolment in 2<sup>nd</sup> year Pre-University was 4.50 lakhs and only 4.03 lakhs students took the II PU examination in 2010 indicating a dropout rate of 0.67 lakhs between the 1<sup>st</sup> year and 2<sup>nd</sup> year (Department of Pre-University Education, Karnataka, 2011, Forum Of Karnataka Retired Education Officers [F-KARE], 2012). Two of the reasons for the drop out of students, among many stated by F-KARE (2012) is that of heavy academic load, which students find difficult to comprehend and the change in medium of instruction from Kannada medium to English medium. Deepika (2011) stated that in Karnataka out of 56.7% of eligible candidates (students completing their Pre-University) only 12.2% join higher education hence after Pre-University only a very less number of students enter the higher education stream, thus highlighting the importance of the Pre-University level of education. Pre-University level of education must build the students in aspects of knowledge and skill to help them in the field of work and future studies. Therefore, there is a requirement of skill development that would enable the students to be self-dependant to

think, as well as to work. These skills can be infused in students, only if the teachers teaching at this level are capable and equipped with certain teaching skills.

## **2.0 Need for skill based training of pre-university teachers**

Pandey (2011) stated “teachers are the greatest assets of any education system as they stand in the interface of the transmission of knowledge, skills and values required for the students’ development. Therefore, it is internationally accepted that the quality of the teachers is crucial and has been significantly associated with the quality of education in general and particularly students’ learning outcomes”. Mehta (2011) expressed that, the teachers have to develop the necessary and required abilities and skills of teaching for making the education “qualitiful”.

The current qualifications of teachers teaching in Pre-University in Karnataka, is that they require only a master degree in the specific subject where as the teachers of higher secondary schools (the 1<sup>st</sup> and 2<sup>nd</sup> year higher secondary education offered in schools of CBSE and ISC board of education) require a Bachelor of Education (B.Ed.) degree, along with a master degree in the relevant subject. The selection of teachers for the Pre-University level is based on the marks scored by the candidate in the entrance test conducted by the Central Admission Cell. After joining the lecturers can undergo a well structured orientation certificate course. Teacher appointed at the Pre-University level lack the professional training that is present in teacher training programme in various aspects as they have been directly appointed after a post graduate level. Once they join as lecturers there are no opportunities for up-gradation of their subject knowledge and teachings skills (F-KARE, 2012). Recently Karnataka Government made it mandatory as per the new Cadre and Recruitment (C&R) rules for the newly recruited teachers to have a qualifying B.Ed. degree as well as a master degree in the subject of teaching for teachers teaching in Pre-University colleges or junior colleges, as more that 2000 Pre-University lecturers do not have a B.Ed. degree (Deccan Herald, 2013; Bharath, 2013).

Although, a BEd. degree has been made a requirement for teachers teaching at Pre-University level, there is only 1 common teacher education (B.Ed.) programme that caters to both secondary and higher secondary level of teaching and is undifferentiated and generalized (National Council for Teacher Education [NCTE], 1998) except for teacher education (B.Ed. programme) offered by Regional Institute of Education (RIE) and State of Tamil Nadu that suit higher secondary teachers (Reddy, 2006). The NCTE (1998) had suggested a separate teacher education for the higher secondary stage in its Curriculum Framework for Quality Teacher Education 1998 but due to various reasons could not be implemented. NCTE (1998) described that the courses at the senior secondary stage have been enriched and their nature and goals are different. It also emphasised the fact that the characteristics of students have changed as well. There are suggestions stating that the 1 year B.Ed programme existing today is not enough for a senior secondary teacher and must be reformed to a 2 year B.Ed. programme. The presently, existing B.Ed. programme does not cater to dealing with these changes in the Pre-University level. In addition, the training of teachers has been reported to be a prime concern at present as the pre-service and in-service training of school teachers are extremely inadequate and poorly managed in most states (National Council for Teacher Education [NCTE], 2010; Knowledge Commission, 2008). Furthermore, there have been studies reported in the recent past stating that the teacher educators themselves do not have the quality to produced future skilled teachers therefore reducing the quality of teachers itself (F-KARE, 2012; Ministry of Human Resource and Development[MHRD], 2009; Desai, 2012; Rajnekar, 2012).

The analytical concept of teaching considers teaching as a complex skill comprising of various specific teaching skills. Teaching skills has been considered an important factor affecting, the teaching and learning process and the quality of a teacher. Teaching skills has been in focus by some since 1967, but due to different reasons have been neglected by few as well. The training in teaching skills for teachers is given during their teacher training programme only through a process called “Microteaching” which consists of few teaching skills which are considered essential for teachers. According to Gage (1968) (as cited in S.K.Mangal & U.Mangal, 2009, p. 139), “Teaching skills are specific instructional activities and procedures that a teacher may use in his class-room. These are related to the various stages of teaching or in the continuous flow of the teacher performance”. According to Ober et al. (1971) (as cited in Aquino, 1997, p. 199), “Teaching skills are required to be developed by teacher in order to translate planned instructional strategies into effective practice in the classroom”. Passi (1976) (as cited in S.K.Mangal & U.Mangal, 2009, p. 140) has defined teaching skill as “a group of teaching acts of behaviours intended to facilitate pupil’s learning directly or indirectly.” Adediwura & Tayo (2007) stated “to promote order and learning in the classroom every teacher should possess essential teaching skills. No one can teach something to someone without doing it in some particular way and that way of teaching has significant effects on the entire teaching and learning situation”. They also state that “skills are the required characteristics or ingredients for effective teaching which have a significant effect on the students’ performance”. S.K.Mangal

& U.Mangal (2009) state that the complex task of teaching may be safely analyzed into limited but well-defined components called 'teaching skills' or 'technical skills' of teaching. According to Bhargava (2009), "Effective teaching skills are a precondition for translating theory into practice. Implementation of teaching principles in the classroom is facilitated with certain skills acquired by teachers through education and training. These skills can be observed and measured in terms of a student's change in behaviour (objectives realized). An insight of when and where to apply relevant and different teaching skills, is the yardstick for a teacher's performance. The effectiveness of a teacher's behaviour is determined not by number of skills she uses in the class, but on how these skills are interwoven, adjusted and refashioned to make pedagogy an effective tool in putting students in the mould of active learner, explorers and thinkers".

In light of the above stated definitions, the researchers have compiled different recent research studies among many, in order to stress the significance of teaching skills across the world, in different levels and streams of education. This study also highlights the importance, quality and effect of existing training programmes in developing the required teaching skills.

Rubio (2009) emphasises the requirement of teaching skills to be an effective teacher and states that possessing deep content knowledge was not the only requirement to be an effective teacher but having skills such as organisational, management and communication, organizing instructions, providing relevant assessment and fair evaluation was also very necessary. Also, creating a warm classroom climate, promoting enthusiasm, motivation and maintaining an interactive classroom are the responsibilities of an effective teacher. Similarly, Nath (2009) in his study has also expressed the importance of teachers' teaching skills such as set induction, stimulus variation, questioning, explanation, communication, handling of technology, collaboration, managing distracters, research guidance, and closure along with the respective sub-components as the teaching skills required by teachers of higher education in the present technological era. Sharp (2009) has focussed and described about teaching skills such as differing roles and temperaments of teachers, multiple learning styles of students, teaching, authority and power, evaluating student writing and evaluating student midterm and final exams.

There have been many studies by different researchers with focus of teaching skills with respect to the school level of education. In Hyderabad district of Sindh, the qualification requirement of teachers teaching in colleges (XI and XII), as presented by Shaikh & Bhutto (2011), is similar to the situation present in Karnataka now. In their study on teachers of public higher secondary schools and colleges, the researchers reported that, there was no difference in professional teaching skills and overall attitude between public higher secondary teachers (subject specialist's teachers with masters in professional degrees) and college lecturers (teachers with no such professional degree). Their research indicated the failure in quality of professional teaching courses, teaching as a profession, and on the part of administration and management. Maria (2011) in her study reported that, the teachers considered both personal and "didactic and pedagogical skills", as well as pedagogical knowledge were associated with effectiveness of a teacher. The study was based on a national survey in Greece among secondary education teachers. The studies by Adediwura & Tayo (2007) and Laut (1995) have reported a significant relationship of teaching skills on student performance.

Through past reviews of literatures, researchers found that teaching skills are not limited to the field of school education alone but are also considered important in higher education in different streams. Al-Hattami a, Muammar a & Elmahdi a (2013) in their study investigated the importance of training programmes to enrich higher education faculty members' teaching competencies and involved all the stakeholders of an educational system in eastern Saudi Arabia. They reported that the participants had declared the importance and requirement of professional training programme to improve their teaching skills and that high quality training programmes was necessary and essential to compete in the changing world. Likewise, Gibbs & Coffey (2004), in their international study on the effectiveness of training university teachers, report that training university teachers in teaching skills have a positive impact in the teachers' approach to teaching, and students' approach to their learning.

The significance and evolution teaching skills has also acquired a significant position in the field of medicine. Studies by Skeff et al. (1997) stated clinical teachers have the challenging and profound responsibility to convey the art and science of current medical practice. They have described the need for development of clinical teachers and have also listed the training programmes towards teaching improvement with a supporting fact that clinical teaching is laden with many educational challenges requiring a breadth of skills. In fact, the researchers found that, the Johns Hopkins Faculty Development Program in Teaching Skills (JHFDP/TS) is a 9 month, 1 half- day per week course that has been offered annually since 1987 for medical educators, faculty and fellow associates from Johns Hopkins Medical Institutions and other institutions in Baltimore, Washington, which offer training in teaching methods, skills, curriculum development and their related aspects (Knight et al., 2005; Johns

Hopkins Medicine). An assessment was also conducted by (Knight et al., 2005) with participants of the programme from 1987 through 2000 and results indicated that the participants had shown positive outcomes in the professional and personal lives of the participants. Frattarelli and Kasuya (2003) conducted a study, involving implementation and evaluation of training programmes to, improve teaching skills of Obstetrics and Gynaecology residents and help residents teach.

Furthermore, there have been studies in India associated with effectiveness of teacher training in developing teaching skills in a teacher. Goswami & Barman (2013) in their study have reported that training of higher secondary level teachers of Darrang, Assam were not satisfactory. A study by F-KARE (2012), reported the missing and much needed skills in teacher education curriculum. They are Content skills (capacity to collect, analyze, organize and apply information), Communication skills (speaking, listening, communicating and applying information), adaptability skills (problem solving, innovation and creativity), developmental skills (managing personal and professional growth), interpersonal skills, teamwork, leadership skills and evaluation skills. Bhargava (2009) in her study, compared the teaching skills of in-service teachers in Ranchi, Jharkand who were trained through regular and distance mode and found that there was no significant difference in using set induction, illustration with examples, recapitulation, blackboard writing and use of teaching aids skills but there was a 5% difference in questioning and evaluation skill. Likewise, Ullah, Farooq & Memon (2008) studied the effectiveness of teacher education programmes in developing teaching skills for secondary level of Punjab. They studied pre- service teachers and considered 5 teaching skills which were skill of clarity, skill of variety, skill of task orientation, skill of engagement and skill of students' success. The researchers reported that only skill of students' success was exhibited by 28% where as the other skills were exhibited by just 20% of the sample teachers, indicating that there was no significant teaching skills development through teacher training.

### 3.0 Conclusion

Pre-University is a significant stage of students, after which many students will pursue job opportunities or apply for higher education. Therefore, it is a critical stage requiring a need of diverse skill and knowledge for becoming independent and self sustainable. Hence, it is a prime concern to develop skilled teachers in order to develop skilled students to become self dependant skilled individuals. Teachers with better teaching skills such as better communication, better skills in instruction can enhance students' learning and help retain the students and reduce the rate of dropouts at the Pre-University level.

There have been various studies regarding 21<sup>st</sup> century skills as a present requirement in the students of the 21<sup>st</sup> century. This development of the 21<sup>st</sup> century skills depends on various factors such as curriculum, implementation, assessment etc. The teachers are found to be an important component in the process of implementation of these 21<sup>st</sup> century skills in order to develop the same in students.

Table 1. The common and different in 21<sup>st</sup> century skills mentioned in various frameworks as reported by Voogt & Roblin (2010)

<b>Mentioned in <i>all</i> frameworks</b>	<b>Mentioned in <i>most</i> frameworks (i.e., P21, EnGauge, ATCS and NETS/ISTE)</b>	<b>Mentioned in a <i>few</i> frameworks</b>	<b>Mentioned only in <i>one</i> framework</b>
<ul style="list-style-type: none"> <li>- Collaboration</li> <li>- Communication</li> <li>- ICT literacy</li> <li>- Social and/or cultural skills; citizenship</li> </ul>	<ul style="list-style-type: none"> <li>- Creativity</li> <li>- Critical thinking</li> <li>- Problem solving</li> <li>- Develop quality products /Productivity (except in ATCS)</li> </ul>	<ul style="list-style-type: none"> <li>- Learning to learn (ATCS, EU)</li> <li>- Self-direction (P21, En Gauge, OECD)</li> <li>- Planning (En Gauge, OECD)</li> <li>- Flexibility and adaptability (P21,EnGauge)</li> <li>Core Subjects:                             <ul style="list-style-type: none"> <li>- Mathematics; communication in mother tongue; science (EU, P21,ATCS);</li> <li>- History and arts (P21 and ATCS)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Risk taking (En Gauge)</li> <li>- Manage and solve conflicts (OECD)</li> <li>- Sense of initiative and entrepreneurship (EU)</li> <li>- Interdisciplinary themes (P21)</li> <li>- Core Subjects: economics; geography; government and civics (P21)</li> </ul>

The common and different 21<sup>st</sup> century skills mentioned in various frameworks as reported by Voogt & Roblin (2010) are depicted in table 1.

A report by F-KARE (2012) put forward that the need of in-service teacher training courses provided to be, skill and competency based. In addition, there is also a need to design and develop suitable courses for PU teachers which will help them to enhance knowledge and skill levels in their respective teaching subjects. Certified courses based on skill application and analyses are to be taken up. Under these circumstances certain additional competencies are needed for teachers teaching at the Pre-University stage. They have also emphasised on development of communication skills (Verbal and Non-verbal, & Soft Skills), administrative skills (Decision making, Human relations, and work culture), leadership skills, team building and creativity skills, thinking skills, scientific temper, career planning and time management skills, Information & Communication Technology (computer applications, multimedia, computer aided learning, use of internet, etc.), ability to take up research projects including action research, curriculum design and development, evaluation and feedback (blue print, question paper design and setting), alternate methods of learning (distance and open learning, self-learning, programmed learning), designing need based remedial courses, teaching pedagogy (methods and materials of teaching, effective classroom teaching techniques, projects and assignments, and use of Technology in teaching) as the required teaching skills for teachers and principals at the Pre-University level. They also suggest for conducting orientation programmes for a minimum of at least 2 weeks keeping in mind the main objectives of capacity building for faculty to meet the emerging challenges in the education field. The orientation programmes must develop faculty improvement programmes in every subject in collaboration with university staff colleges and other research centres and also develop skill matrix of the subjects, development of communication, teaching, interpersonal skills, compare and analyze the skill gap of the faculty along with other suggestions. Bhargava (2009) in her study expressed that the ways in which teaching skills are learned and practiced in teacher training institutes remain different from the style in which teachers use them every day in a classroom and recommended that the difference between the two needs to be minimized.

This research study stresses upon the need and significance of teaching skills, required by teachers teaching at the Pre-University level of education. After reviewing the various research studies, the researchers suggest a need for developing a training program keeping in mind the various requirements of students in the 21<sup>st</sup> century, the drawbacks of teacher training programs, the missing teaching skills required by the teachers. The researchers also recommend that there be continuous upgrading, development, access and provision of in-service program in teaching skills in such a way that teachers apply them in everyday classroom practically for effective teaching by the teacher and effective learning by the students.

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