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## Teaching Skills of Teachers for the 21<sup>st</sup> Century Classroom

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### Abstract

Teacher is the heart of any education programme. The quality of education is more significantly depends on the quality of its teachers. For ensuring the effective and quality education 21<sup>st</sup> century teacher requires mastery in subject knowledge as well as competent with different new and updated teaching learning skills also. 21<sup>st</sup> century education is not only be cognitive development, but also building character and creating holistic and well-rounded individuals equipped with the key 21<sup>st</sup> century life skills in every sphere of life. The objectives of the paper are to identify the require skills of the teachers for the 21<sup>st</sup> century classroom, to analyze the teaching skills of the teachers of 21<sup>st</sup> century. This paper would like to describe the key features of the national education policy 2020 about teachers and require teaching skills for the 21<sup>st</sup> century classroom. Today's STEM education is more popularized and it has created a demand for teachers to reform the content and teaching methods of their classroom, in the same way new set of classroom create demands for the advance pedagogy where teachers need to competency with TPACK. As a modern teacher he/she should know the way of thinking and way of working with the society and that's why to promote the creativity, critical thinking, problem solving ability among the student's teacher need to competency with 4C skills such as communication, collaboration, creativity and critical thinking.

**Keywords: STEM Education, Techno Pedagogical Knowledge, Cognitive Development, Critical Thinking**

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### Introduction

Teacher is one of the most important pillars in our society and they play a crucial role for the transformation of intellectual and technical skills from one generation to next through education. The growth and development of any nation depends upon education system. The most important factor in the educational development is the teacher who needs to professionally equip with various skills, competencies, determination and accountability to give his best to the individual as well as society (Kanika). Educational development means that educational activities that will produce not simply graduates who are only good at looking for jobs but those who see themselves as wealth creator and instrument for societal change. According to Kothari Commission (1964-66)- “India destiny being shaped in her classroom”. The teachers shape destiny of student and that of the future citizens who eventually shape the destiny of the country. Teacher education is vital in creating a pool of school teachers that will shape the next generation. Teacher preparation is an activity that requires multidisciplinary perspectives and knowledge, formation of dispositions and values and development of practice under the best mentors(National Education Policy 2020). The key overall drive of curriculum and pedagogy transformation across all stages will be to move the education system towards concrete understanding and towards learning how to learn and away from the culture of rote learning as is mostly present today. The aim of education will not only be cognitive development, but also building character and creating holistic and well-rounded individuals equipped with the key 21<sup>st</sup> century skills. A shift in the nature of the learner and, subsequently, in the learning process, also leads to a shift in the nature of the 21<sup>st</sup> century teacher. Teacher plays a pivotal role in the interaction cycle in the classroom. And changes in the essence and role of a teacher are unavoidable, with changes in the overall teaching learning scenario.

**Significance of the study**

Teachers are the backbone of our society. Today's we need of a teacher who can physically fit, mentally strong, emotionally balance, pedagogically sound and digitally equip. Presently we all are living in an era where we should know about the 21<sup>st</sup> century life skills for betterment of life in every sphere. So for effective teaching learning process every teacher should know the new and updated teaching skills for our new generation learners. The study will be useful to provide guidance to the teachers of new classroom. This paper will be also play a significant role for enhancing the teaching learning process of 21<sup>st</sup> century.

**Objectives of the study**

1. To identify the require skills of the teachers for the 21<sup>st</sup> century classroom.
2. To analyse the teaching skills of the teachers of 21<sup>st</sup> century.

**National Education Policy 2020 and 21<sup>st</sup> century Teachers**

The future of the nation actually hands on the teacher. National Education Policy 2020 announced that Teachers and faculty as the heart of the learning process. National Education Policy considered to put the teacher at the centre of the fundamental reforms in the education system in India. It is a well-established fact that education is a lifelong process, and the teacher is one of the most crucial factors in each citizen's learning journey. NEP 2020 para 5.20 recommended for establishment of National Professional Standard for Teachers with the purpose to ensure that all teachers at all levels of school education are passionate, motivated, highly qualified, professionally trained, well-equipped and well-supported for growth in their careers. With the recent technological advances in education and the ease of access to information, the role of a 21<sup>st</sup>-century teacher has evolved. Today, education is not a mechanical activity of information transmission and teachers are not information dispensers (NCFTE2009). A teacher is also responsible for guiding the students and creating an enabling environment to help them develop higher-order thinking skills such as problem solving, creativity and critical thinking (NPST Draft 2021). Today's education system is facing major challenges to provide knowledge and skills to the students with competencies needed for their future with this respect the proficiency, strong inspiration and empowerment of teachers is required to ensure the best possible future for our children and our nation.

**Teaching Skills of Teachers for the 21<sup>st</sup> Century Generation**

21<sup>st</sup> century teachers need a variety of professional skills along with knowledge of their subject matter, pedagogy and understanding in order to be an effective and quality teacher. Currently we living in society where continuous developments in technology integrate into

our day-to-day lives, they affect the way of living style as well as students learning methods and teachers teaching methods. Today's modern teachers need to be competent in not only basic skills but new and updated pedagogical skill sets also.

- **Competent with STEM teaching method:** STEM has grown to represent a unique approach to teaching and learning in 21<sup>st</sup> classroom. STEM represent the subjects of Science, Technology, Engineering and Mathematics (STEM) where main focuses on teaching integrated and interdisciplinary themes and helping students to apply interdisciplinary knowledge of the subjects to solve practical problems. Currently the status of STEM subjects has created a demand for teachers to reform the content and teaching methods of their classes teaching learning process (Le ThiXinh, Bui Van Hong 2021). As a sound and dedicated teacher should understand the way of STEM teaching in the classroom as well as proper implementation outside of the classroom. Successful of STEM education requires a balance of theory and practice, need of continuous research and hand on experience, in order to maximize pupils' creativity and help pupils to enhancement critical thinking skills and self-determining learning skills that consent them to apply their learning to good result. Therefore, in the context of the current advancement and modernization of world, it is necessary to all the school teachers perform with this STEM teaching competency for betterment of the new generation learners.
- **Skill of Technological Pedagogical and Content knowledge (TPACK):** TPACK is a framework that "attempts to identify the nature of knowledge required by teachers for technology integration in their teaching, while addressing the complex, multifaceted and situated nature of teacher knowledge" (<http://tpack.org/>). Today's Teachers not only have to be mastery in subject, but they also require knowing the pedagogy of teaching as highlighted by Shulman (1986) in his Pedagogical Content Knowledge (PCK) framework. So for transaction of effective curriculum 21<sup>st</sup> century teacher should be able to implement of TPACK knowledge in classroom. Modern classroom demands a competent teacher who can comfortable with the primary components of TPACK namely Content knowledge, Pedagogical knowledge, and Technological knowledge and also competent with four other kinds of knowledge that interconnected with the three primary components of TPACK namely Technological Pedagogical Content Knowledge, Pedagogical Content Knowledge, Technological Content Knowledge and lastly Technological Pedagogical Knowledge. Teaching in 21st century is no longer the same, as the place of teaching has shifting continuously

and as a professional teacher always need to understand and absorb within updated pedagogical practice.

- **To know the way of creating joyful learning environment:** Education will be more meaningful when students and teachers enjoy it. Today's education system is somehow suffering the lack of enjoyable and this the biggest challenge in our Indian education system, as a 21<sup>st</sup> century teacher need to know the art of teaching where learner can learn with joyfully because a joyful learning experience can creates new neural pathways in the brain and enhances the acceptance of content (Peter G. Waterworth 2020). Learners learn more quickly and more deeply when their emotions are touched and the learning experience is accompanied by the positive feelings and reactions of their teacher and with other friends. A teacher must use the variety of techniques and methods of teaching for creating joyful learning environment so that students can attract with his/her class. Teachers need to have a maximum range of skills in their physical, mental and emotional personalities where all students can express their ideas, opinions without fear and hesitation or they can change their ideas and opinions as they express themselves. Flexible learning environment where all ideas are acceptable and that will be generate better thought and clear expression in the students.
- **Proficient with techniques to learn 'how to learn':** Now in an era where more important skill is to know 'how to learn' rather than 'what to learn'. With the fast-changing employment landscape and global ecosystem it is gradually critical that children not only learn, but more importantly learn how to learn (NEP 2020). There is a limit skills attitudes that can learn through formal school so preparing for the twenty first century requires teaching them how to learn on their world. Teacher is the main tool who can able to teach his/her students the way of learn, unlearn and relearn. So as a 21<sup>st</sup> century teacher need to know the way of transform the classroom towards how to learn.
- **Competency with the emerging technology:** The world in 21st century is progressing very rapidly due to the expansion of the Information and Communication Technology (ICT) and the advancement of technology in the Fourth Industrial Revolution (4IR). Current pandemic situation has tech us that we cannot imagine a single minute without the support of technology. Education field also influenced by technology. Today's technological era has introduced various advanced technology such as artificial intelligence, Internet of things, robotics and virtual reality that



change the economic, social, and political systems of the world, and it puts such a huge pressure on the leaders and policy-makers of a country to respond to these changes (World Economic Forum & Asian Development Bank, 2017). 21<sup>st</sup> teacher require being conscious about the emerging trends of educational technology and also needing to familiar with the 4Industrial Revaluation demands, hence the need to modify their way of teaching in 21st century classrooms. The approaches of teaching need to shift towards Education 4.0, a term that arises following the 4IR. “Education 4.0 is a response to the needs of IR4.0 where human and technology are associated to enable new possibilities” (HidayuShafie, Faizah Abd Majid, Izaham Shah Ismail 2019).

- **Inculcate values and discipline in teaching:** Education is a process of all round development of an individual-physical, intellectual, emotional, social, moral and spiritual. The teacher is expected to function not only as a facilitator for acquisition of knowledge but also as an inculcator of values and transformer of inner being (Showkeen Bilal Ahmad Gul 2017). In modern-day education systems there is an urgent need to incorporate value education. Peace as a precondition for national development and as a social temper is proposed as a comprehensive value framework that has enormous relevance today in view of the increasing tendency across the world towards intolerance and violence as a way of resolving conflicts (NCF2005). So, if 21<sup>st</sup> century education is to be value based it can never be done without the teachers themselves understanding, escalating and keep the life sustained moral values. The teacher needs to know the way of inculcate values and discipline to their students through curriculum transaction.

- **Competency with the way thinking and way of working:**

**Critical Thinking and Problem Solving skills:** National education policy 2020 addressed that education should be towards the development of critical thinking and problem-solving ability. A strong teacher always thinks critically and tries to analyze anything in objectively. 21<sup>st</sup> century education demands of a teacher who can able to think beyond the classroom and have the skill of problem solving in their daily life so that students can learn the way of think critically from their sound teachers.

**Creativity and Innovation skills:** One of the most important skills of 21<sup>st</sup> century teacher to bring a new concept, unique ideas and innovative methods in teaching learning process. Creativity refers to new way of seeing or doing things and includes four components such as fluency (generating new ideas), flexibility (shifting perspective easily), originality

(conceiving of something new), and elaboration (building on others' ideas). A creative teacher can make a creative classroom and a creative classroom can make a creative and innovative.

**Communication skills:** Communication is the key of classroom because communication skills are playing most vital role for interaction with students. Successful of any effective teaching learning considered knowledge and communication skills. So a teacher should be proficient in all modes of communication verbal and non-verbal namely reading, writing, speaking, listening and also know how to utilise this proficiency in a 21<sup>st</sup> century classroom.

**Collaboration skills:** Collaboration skills are essential for all teachers. Through these skills a teacher can competent to working with team or groups. It is a framework whereby two or more individuals work collectively as different partners to make decisions that will lead the progress towards common goals.

- **Skills of Accountability towards profession:** To preparing the sensitive and accountable 21<sup>st</sup> century citizens a teacher requires being accountability toward his/her teaching profession. The Encyclopedia of education defines accountability as “a process which involves the duty both of individuals and the organizations of which they are part to render periodically accounts for tasks performed, to a body having both, the power and authority, to modify that performance subsequently perhaps, by use of sanction or rewards”. So we need an accountable teacher who always conscious about his/her responsibility, time, duty and contribution towards the country.
- **Knowledge about global approach in teaching:** students learn about other culture peoples and the events of the world from the media. Teacher can create an opportunity for their students to virtually connect with the students of another country so that students can discuss share their opinion about a common topic.
- **Skills being a life-long learner:** The 21<sup>st</sup> century teacher is a lifelong learner. They don't just expect their students to be lifelong learners, but they too stay current and on top of what's new in education. A modern teacher is willing to try new things, from new educational apps to teaching skills and electronic devices. Being innovative means not only trying new things, but questioning your students, making real-world connections, and cultivating a creative mindset. It's getting your students to take risks and learn to collaborate with others.
- **Skills of Adaptability:** A smart teacher should not reject any old things just because it is old and not accept new things just because it is new rather he/ she need to analyze it carefully then adapt it no matter it new or old things. A defining feature of teaching work is that it involves uniqueness, change, and uncertainty on a daily basis. Being

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able to respond effectively to this change is known as adaptability (Rebecca J. Collie & Andrew J. Martin). 21<sup>st</sup> century teacher needs to look at their practice and adapt based on the needs of their students and updated society. In this modern, digital age, teachers require being flexible and able to adapt to whatever is thrown their way, they must also be able to adapt to the curriculum and the requirements and be able to use their imagination to teach in creative ways.

**Conclusion:** Today we are living with click generation where everyone can access all the information just through a single click. 21<sup>st</sup> century education needs to build based on collaboration not competition, we are looking for the transformation not just information. So, today's most challenges task of teachers is information transform into knowledge and knowledge transform into action. World is rapidly changing and with this changing era we need to adapt all the require skills so that we can survive very smoothly and effectively, and the challenges to individuals and societies imposed by globalization and modernization are widely acknowledged. India will again be entitled as "Viswa Guru" with the leadership of our vibrant teachers.

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