

ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR) An International Scholarly Open Access, Peer-reviewed, Refereed Journal

# QUALITY INDEX OF A TEACHER AS REFLECTED IN THE NATIONAL EDUCATION POLICY 2020: AN INDIAN PERSPECTIVE

<sup>1</sup>Dipanwita Pal, <sup>2</sup> Dr. Chandan Adhikary, <sup>1</sup>Research Scholar <sup>2</sup>Associate Professor Department of Education The University of Burdwan, Golapbag, ,West Bengal, India

*Abstract:* The quality of a teacher determines the quality of teaching. The dynamicity of teacher's quality constructs the role in shaping the students' personality. A teacher has a major accountability to nurture the life of a student. A teacher is the blazing lamp of the society. He ignites the young minds to move forward towards the light of knowledge overcoming all barriers and superstitions of society. A quality teacher has the characteristics of being practical, skillful, humble and insightful and his task of teaching should cater the pupils' requirement. Every student deserves the high-quality effective teachers. But the criteria of an effective teacher are not defined in pen and paper. So, this article explores some quality parameters along with the indicators of the attributes of effective teachers defined as Total Quality Teacher (TQT) based on National Education Policy (NEP) 2020 in India for assessing the ideal teachers in the present scenario of 21st century. Also, this article specifies a rubric of quality criteria index for teachers based on NEP 2020 for assessing the attributes of Total Quality Teacher as a research-based approach which will be used as a potential tool for selection and up gradation of effective teachers in Indian academia.

## Index Terms - Quality index; Quality Teacher; NEP 2020; Assessment Rubrics.

## Introduction

Education is regarded as the process of human enlightenment and empowerment for achieving the goal of life. The quality of basic education which is provided to our children is largely influenced by the quality of teachers. It is necessary for a nation to build a proper system of quality teacher education, on which depends the quality of teacher and ultimately the nation's education (Kikon, A. E., 2020). Albert Einstein has rightly

g213

said "It is the Supreme art of the teacher to awake joy in creative expression and knowledge" (Einstein, A. 2015). An ideal teacher always inspires his students. A creative and dedicated teacher is our future nation builder. Therefore, a proficient and expert teacher plays a pivotal role in sustainable and effective teaching learning. It is a matter of fact that India ranks 6<sup>th</sup> in grading teachers among world top ten countries. The report, based on the data, gathered by Global Teacher Status Index (GTSI), confirms the link between teacher status and people attainment (The Tribune, 2020). The All India Survey on Higher Education (AISHE) provides a bird's eye view on the current status of higher education in the country. About the higher education the report has mentioned that the growth in terms of student enrolment during last five years is 11.4%. The Gross Enrolment Ratio (GER) in higher education in India has risen to 27. 1% which was a marginal growth from previous year's record of 26. 3 % (All India Survey on Higher Education, 2019-20).

The rich heritage of ancient and eternal Indian knowledge and thought has been reflected on modern education system. The highest human goals in Indian thought and philosophy are the pursuit of knowledge (Jnan), wisdom (Pragyaa), and truth (Satya). The global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for Sustainable Development, adopted by India in 2015, seeks to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" by 2030. Such a great initiative is needed to flourish the education system through achieving all of the critical targets and goals (SDGs) of the 2030 agenda for sustainable development. The National Education Policy 2020 considers that the curriculum and pedagogy of the institutions that develops among the students- "a deep sense of respect towards the fundamental duties and constitutional vas, bonding with one's country, and a conscious awareness of one's roles and responsibilities in a changing world, instilling a deep-rooted pride in being Indian, not only in thought, but also in spirit, intellect, and deeds, as well as to develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development and living, and global well-being, thereby reflecting a truly global citizen." The centralized character of the fundamental reforms in the education system is played by the teacher. Actually a teacher plays the role of a ladder that can be used by every student to prosper in their lives. But the quality of the teacher is not satisfactory. "Recruiting and retaining high-quality teachers are becoming increasingly difficult in many countries" (Ingersoll, Merrill, & Stuckey, 2014). There are many reasons for degradation of effective teaching. The most burning reasons among them are lack of skilled and professional teacher, theory-based approach, not focusing on practical

learning, corruption, political influence on education system, lack of research facilities and technically proficient person at higher level. Quality assurance can be a driver for institutions to achieve excellence in higher education.

Education is a constantly evolving field and in order to ensure its continued growth, it is obvious that teachers will also be upgraded accordingly in line with contemporary scientific explorations, technological advancement and changing face of society. There are several initiatives taken in India for improving the quality assurance of teacher education institutions and the teachers. The University Grant Commission (UGC) of India has initiated proactive efforts to upgrade the knowledge and skill of faculty members in the institution of higher education. UGC has established 66 Academy Staff College, now re-designated as UGC-HRDC (Human Resource Development Centre) helps to upgrade teachers' "specific competencies that help improve their work performance, particularly teaching effectiveness, and become more effective at facilitating student learning; learn about new fields/frontiers of knowledge and apply new instructional delivery models, technologies and pedagogies to promote improved student learning outcomes and enhance teaching effectiveness and excellence in research and engaged scholarship". The National Institutional Ranking Framework (NIRF), a methodology adopted by the Ministry of Education, Government of India, ensures higher educational institutes to strive hard for the quality of education and to improve their ranking. National Assessment and Accreditation Council (NAAC), an autonomous body has been established in 1994 for the purpose of assessment and accreditation of higher educational institutes and providing them social ranking. Quality Council of India (QCI), which has been set up in 1996, has facilitated the accreditation standard for quality school governance for effective management and delivery of the holistic education programme aimed at overall development and life-long learning. The International Network for Quality Assurance Agencies in Higher Education (INQAAHE, 1991) is a world-wide association of three hundred organizations active in the theory and practice of quality assurance in higher education focuses to promote and advance excellence in higher education through the support of an active international community of quality assurance agencies. In order to achieve this goal, the network focuses on the development of the theory and practice of quality assurance, the exchange and understanding of the policies and actions of its members, and the promotion of quality assurance for the benefit of higher education, institutions, students and society at large. Career Advancement Scheme (CAS) under The Indian Council of Agricultural Research (ICAR) or University Grants

Commission (UGC) Regulation works for career advancement as well as quality improvement of teaching employees. In order to assess the performance of the teacher in higher education institutions the National Council for Teacher Education has now with a brand-new method of ranking Institution across India. The primary objective of the Council is to build a regulatory framework promoting academic excellence. Thus, teachers can enhance their professional knowledge, understanding and competency.

Teacher plays a pivotal role in the ranking and accreditation of the institution. In this context it is also necessary to assess the quality of teachers and grading them with the aid of some specified criteria. For this purpose, a potential tool is inevitable. This article seeks to develop a quality index of teachers which may be applied in higher educational arena for assessing and grading the quality of the teachers.

#### Methodology

The following methodology has been adopted for this present study-(i) Interpretation of quality parameters of 21<sup>st</sup> century teachers as laid down in NEP 2020, (ii) Construction of rubrics for evaluation of quality index of teacher in three domains and in three dimensions- criteria, rating scale and indicators, (iii) Validation of rubrics in the light of the 21<sup>st</sup> century skills and expert opinion, (iv) Calculation of quality index of teachers and assigning their social ranks.

#### **Quality parameters of teachers**

In 2015 The UN General Assembly fixed The Sustainable Development Goals, with the aim of achieving them by 2030. For sustainable development of a nation the quality education aims to provide holistic and lifelong learning to the students to make them good citizen, responsible human being who recognizes their own potential and abilities and to promote human rights, gender equality, a culture of peace and nonviolence, global citizenship, appreciation of cultural diversity. Therefore, the teacher has a great responsibility to mould the students in such a way that they can accept any challenging situation becoming good moral human beings. According to World Health Organization (WHO), "Life skills are defined as the abilities for adaptive and positive behaviour that enable humans to deal effectively with the demands and challenges of everyday life, (WHO, 1993). The ten life skills include awareness on self, Empathy, Critical thinking, Creative thinking, Decision making, Problem Solving, Effective communication, Interpersonal relationship, coping with stress and coping with emotions."

Lighting on sustainable developmental goals,Sushma.2022has extracted some 21st century skills such as Learning Skills, Life Skills, and Literacy Skills (LLLs) as stated in her documents entitled "21st century skills: need for sustainable development "which entails the following: (i) Learning an innovation skills ('the 4Cs') – Critical Thinking, Creativity & Innovation, Collaboration, and Communication, (ii)Literacy Skills (IMT) – information literacy, media literacy and technology literacy or information and communication technologies (ICT) literacy skills. These skills, also known as digital literacy skills, aid in the generation of new knowledge through media, communication, and internet resources and (iii) Life Skills (FLIPS) – Flexibility and Adaptability, Leadership and Commitment, Initiating and Guiding Yourself, Producing and Responding to Social and Cultural Interaction Skills. This is also called work skills and soft skills necessary for successful daily living.

A sincere attempt has been made to develop diverse range life skill framework by the researches worldwide after the specification of UNICEF about the life skill education. The conceptual framework of life skills (Figure 1) of the 21st century covers a broad spectrum of dimensions which is best described by Vinay et.al, (2021).

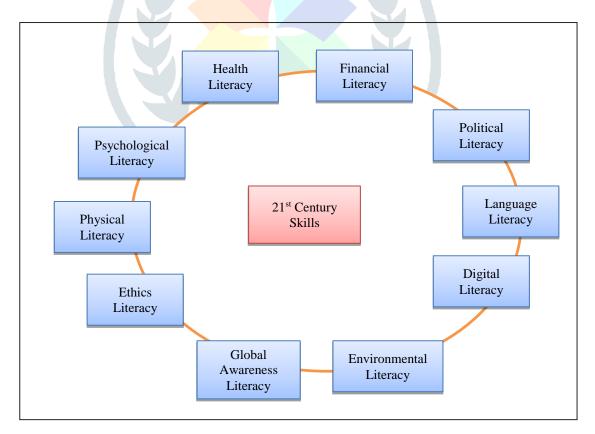


figure 1. conceptual framework of 21st century life skills

The role of a teacher in the all-round development of students is really a challenging one. Indian teacher

education aims to build the21st century learners with healthy personalities and sustainable life skills byJETIR2406628Journal of Emerging Technologies and Innovative Research (JETIR) www.jetir.orgg216

arousing their curiosity, unique skills, teach-savvy mind, connect them globally and digitally, knowledgeable and make them good and moral human being. A civically engaged, critically thinking, globally aware and digitally literate person must be an effective communicator. This role of the learners as stated by (Das, S. 2021) is explained in Figure 2.

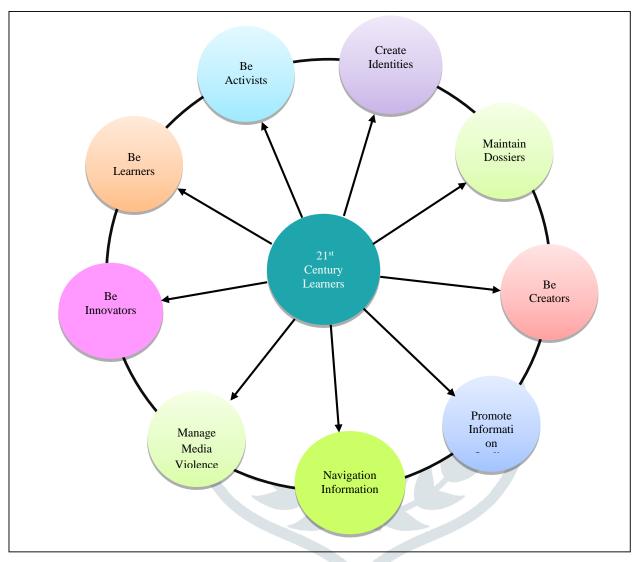
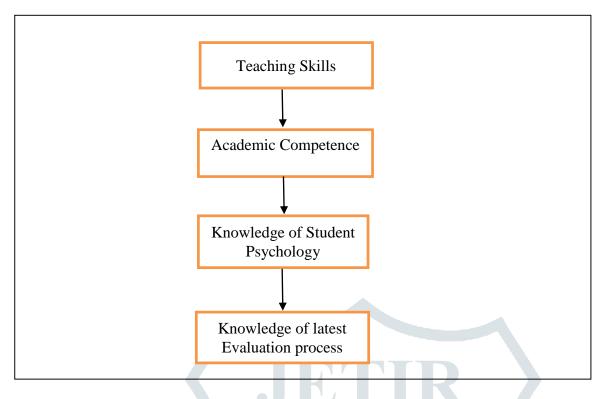


figure 2. qualities of 21st century learner

A teacher must have the basic qualities required for the profession. These qualities are academic competency, teaching skills, knowledge of student psychology, knowledge of the latest evaluation procedures, professional commitment and international outlook. (Remmiya Rajan P, 2017). It is shown below in Figure 3



## figure3. basic qualities of a teacher

Keeping in view these above four competencies additional two competencies may be incorporated in order to understand a deeper insight about the total quality of a teacher (TQT). These two competencies are technological competency which is an essential attribute of a teacher in a digitally smart learning era and contextual competency which helps the teacher to take right strategy at right time to tackle the educational hazards and problems. Accordingly, six competencies of a total quality teacher may be represented in the following Figure 4.

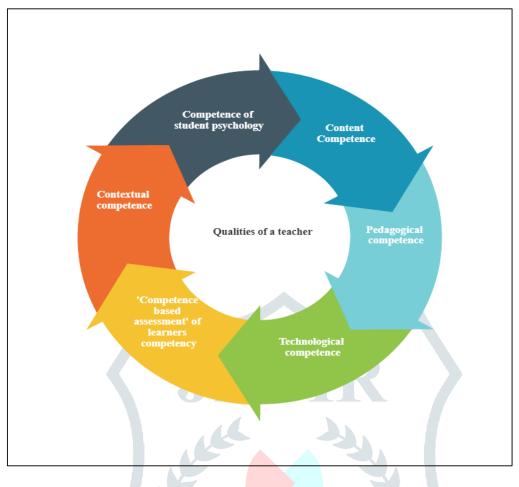


figure 4. qualities of a teacher.

## Quality parameters of teachers and NEP 2020

National education policy 2020 has pointed out some qualitative characteristics of a teacher where teachers should be professionally humane, digitally smart, creative, contributing, dedicated, innovative, inspirational, meritorious, decent and flexible person. A well-trained and proficient teacher plays a vital role in qualitative, sustainable and effective learning of the youths. While choosing teaching profession a teacher should acquire some characteristics like- potentiality, flexibility, joyfulness, responsibility and awareness of his work. A teacher must be proficient in local and regional language. NEP 2020 describes that, for the achievement of full human development as well as the nation's education is essential where teachers should be professionally humane and digitally smart. But the quality of teacher and teacher education, recruitment, service condition and empowerment of teachers is not in its position and the quality of teachers does not fulfill the desired standard.

Teachers will be given continuous opportunity for self-improvement. Each teacher will be expected to participate in at least 50 hours of Continuous professional Development (CPD) every year for their own professional development. School principals on School Complex leaders should also be expected to

participate in 50 hours of CPD. Teachers doing outstanding work must be promoted and given salary raised. A system of multiple parameters to recognize outstanding teachers will be developed by the state or union territory based on-peer review, attendance, commitment, hours of CPD etc. It will also be ensured that career growth in terms of promotion, tenure etc. is available to teachers during their service period. This is the fact that all stages of school education will require high quality teacher. Through NEP 2020 some parameters may be developed to assess a quality teacher. The Quality Index of Teachers Protocol (QIT) integrates research on some good criteria index for the selection of an efficient and effective teacher. After logical analysis all of the criteria of the qualities were chosen domain wise like Affective domain, Behavioral domain and Cognitive domain. The QIT protocol is designed and defined to offer a systematic application to judge the qualities of effective teachers. The term quality teacher is used to identify the qualities which constituted a good quality teacher.

## Quality parameters of teachers as proposed by National Curriculum Framework for Teacher Education (NCFTE 2009)

National Curriculum Framework for Teacher Education (NCFTE 2009) is an attempt to improve teacher education in India, and to prepare ideal, innovative, humane and affectionate teachers. Based on National Curriculum Framework (NCF 2005) and to improvise the curriculum framework, NCFTE was initiated with special mention of teachers' competencies. The quality parameters of teachers' competence can be defined through the following Figure 5.



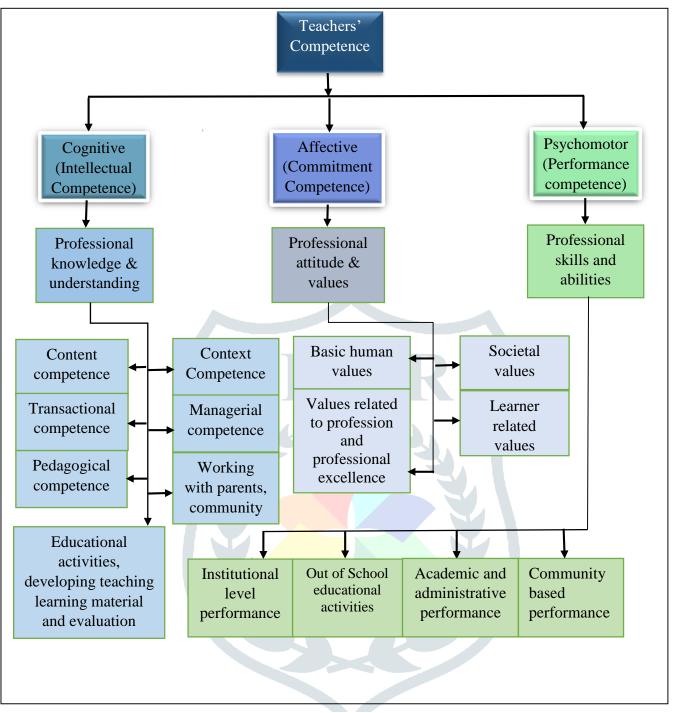


figure 5. CAP (cognitive, affective and psychomotor) model of teachers' competence

Zhu, C. et al.,2013 stated that there are four core competencies for teachers' innovative teaching these are learning competency, educational competency, social competency and technological competency.

## Domain specific quality parameters of teachers as per NEP 2020

The quality parameters of teachers as reflected in NEP 2020 may be summarized under three domain specific areas which are collated in Table 1.

Domain	Criteria
Attitude	Accessibility, Accountability, Compassionate, Confident, Dedicated,
	Devoted, Empathy, Enthusiastic, Ethical, Inspirational, Joyful, Motivator and
	Overarching.
Behavior	Committed, Competent, Collaborative, Democratic outlook, Determined,
	Digitally Empowered, Dynamic, Effectiveness, Efficient, Flexible, Gender
	equality, Holistic, Ideal, Inclusive, Integrated, Interdisciplinary outlook,
	Multidisciplinary nature, Pedagogical Leadership, Proficient, Promoting
	National Integration, Patience, Professional, Rational, Skilled and Supportive.
Cognitive	Constructive, Creative, Critical thinking, Innovative, Intellectual,
	Knowledgeable, Logical thinking, Mentoring, Policy making, Problem
	solving, Reflective thinking and transforming.

## table 1. domain specific quality parameters of teachers as per nep 2020

table 2. definition of domain specific quality parameters of teachers as per nep 2020

Domain	Criteria	Definitions
Attitude		Accessibility is defined as the teachers' quality of being easy to
	Accessibility	approach, reach, speak with, sharing ideas and co-construct
		knowledge.
	Accountability	Accountable teacher is completely responsible for what they do
		and must be able to give a satisfactory reason for it.
	Compassionate	A compassionate teacher who feels the difficulties of the students
		and help them free from the obstacles in their way of learning.

Confident	A teacher molds the young minds by his confidence in knowledge				
	lays positive impact on his or her students' achievement, attitude,				
	affective and even socio-emotional growth.				
Dedicated	The teacher who is wholly committed to something, to an ideal,				
	political cause, and personal goal.				
Devoted	A dedicated teacher is one who has a passion for their job, loves to				
	teach and consistently works to make their classroom a better place				
	for all.				
Empathy	Empathy is an important trait of a teacher to understand students?				
	emotions, feelings and hidden thought and guide them				
	accordingly.				
Enthusiastic	Enthusiastic teacher is inspiring, lively and possess motivating				
Linnusiustie					
	teaching style useful for joyful learning.				
Ethical	Teacher's action in accordance with the accepted principles of				
	right and wrong that govern the conduct of a profession.				
Inspirational	Inspirational teachers reinvent the process of the curriculum				
	transaction and keep students on their toes and create				
	unforgettable lessons that have a positive lasting impact.				
Joyful	It refers to the feeling, expressing, or causing great pleasure and				
	happiness of a teacher in his task of delivering the lesson.				
Motivator	A motivating teacher is an igniter of skills, dreams, visions,				
	aspirations and potentials provide stimulation and encouragement				
	to increase students' interest and motivation.				
Overarching	An overreaching teacher creates, articulate, and differentiate				
	messages that can engage diverse groups of people and advance				
	systemic changes.				

Behavior	Committed	Committed teachers are concerned with the development of their
		students and they cultivate students' curiosity and interest in
		learning.
	Competent	Competencies are the knowledge, skills and expertise in a wide-
		ranging array of competencies that enable a teacher to maximize
		student learning.
	Collaborative	Collaborative teacher is able to apply such teaching strategy for
		achieving the shared goals and allowing other expert inputs in
		teaching and learning.
	Democratic	The democratic teacher uses methods to encourage creative and
	outlook	critical thinking, ask questions and provided better experience.
	Determined	A determined teacher firmly set in decision or course of action,
		and achieves the goals with firm conviction.
	Digitally	It is the ability of a teacher to confidently incorporate the digital
	Empowered	gadgets in education and maximizing personal potential
		through digital technology.
	Dynamic	Dynamic teacher is characterized by energy or effective action and
		vigorously active in his work of delivering the lesson.
	Effectiveness	Effectiveness is the capability of producing a desired result or the
		ability to produce desired output in teaching.
	Efficient	Achieving maximum productivity with minimum wasted effort or
		expense in executing the teaching task.
	Flexible	This includes teachers' ability to make changes or deal with a
		changing situation, and the ability to change teaching techniques
		to meet the needs of the learners.
	Gender equality	The state of equal ease of access to resources and opportunities
		regardless of gender, including economic participation and

	decision-making; and the state of teachers' valuing different
	behaviors, aspirations and needs equally, regardless of gender in
	and outside the class.
Holistic	Teachers' ability in interconnecting the task of teaching to the
	world outside along with its dynamic components.
Ideal	An ideal teacher who helps the students almost in every walks of
	life to achieve their goals.
Inclusive	Teachers' ability in including and integrating all students in the
	teaching process irrespective of gender, caste, language and
	culture with an aim to include all and zero rejection.
Integrated	Combining or coordinating separate elements of education in
	teaching so as to provide a harmonious, interrelated whole.
Interdisciplinary	Teachers' ability in engaging students and helping them to develop
outlook	knowledge, insights, problem solving skills, self-confidence, self-
	efficacy, and a passion for learning among various disciplines.
Multidisciplinary	Ability of teacher in combining or involving several academic
Nature	disciplines or professional specializations in an approach to a topic
	or problem.
Pedagogical	Teachers are pedagogical leaders who plan well-designed
Leadership	curricular content, effective instructional strategies, and authentic
	assessments for fulfilling the objectives.
Proficient	Proficiency of teachers includes accreditation at the level of
	professional competency under the professional teaching
	standards.
Promoting	The awareness of teacher to make a common identity amongst the
National	citizens of a country irrespective of different communities, castes,
Integration	religions, cultures and regions and languages,
1	

	I	
	Patience	The capacity of a teacher to accept or tolerate problems and
		tackling the classroom situation without becoming annoyed or
		anxious.
	Professional	Teachers' adherence to the codes of conduct and ethical standards
		in performing an activity that requires a certain level of education,
		skill, or training with required competency, knowledge.
	Rational	Teachers' role in exercising reason, sound judgment, or good sense
		while taking decision.
	Skilled	Skilled teacher is able in competent teaching, simplification of
		complex concepts to suit the retention and comprehension levels
		of the students, as well as the able to make the class interesting.
	Supportive	Supportive teacher can provide sympathy or encouragement to the
		students and holding students accountable while providing the
		support they need to succeed.
Cognitive	Constructive	Constructivist teacher involved the learners actively in a process
		of meaning and knowledge construction rather than passively
		receiving information and knowledge aiming to critical and
		reflective thinking.
	Creative	Creative teacher is characterized by originality of thought, having
		imagination and having problem-solving ability.
	Critical thinking	Teacher having critical thinking can describe forms of learning,
		thought, and analysis that go beyond the memorization and recall
		of information and facts.
	Innovative	An innovative teacher can evolve and create many different ways
		of transferring knowledge from oneself to others and find new
		ways to do things.

Intellectual	Intellectual Teachers are playful, enthusiastic, and open-minde
	They think short-term about what might or might not happe
	anticipating and improvising to solve and fix new problems.
Knowledgeable	Knowledgeable teachers possess information, understanding an
	skill that come from experience resulting to the effective teaching
	learning.
Logical thinking	A teacher who thinks logically possess the ability to use various
	concepts with their meanings and to make inferences by making
	suggestions and to make reasoning by focusing on proble
	solving.
Mentoring	Good mentor teachers provide a sort of cognitive apprenticesh
	to teacher mentees and nurture the inborn capacities of teach
	mentees through scaffolding of learning experiences.
Policy making	The teachers are also included in assisting decision-making an
	education officials develop evidence-informed national teach
	policies as integrated components of teacher quality.
Problem solving	Problem solving is a process of applying a method to an unknow
	and specific set of condition using predefined hypotheses
	suppositions.
Reflective	Reflective thinking conceptualizes teaching as a complex an
thinking,	highly skilled activity that requires classroom teachers to evalua
	their teaching practice.
Transforming	Transformational teachers construct experiences in the
	classrooms, collaborating the art and science of any subject an

## Assessment of quality index of teachers as per NEP 2020 based on rubrics.

The need of assessment is a felt need in the improvement of school and development of teachers. Reflection and introspection in method of teaching and application of the multiple actions in the classroom on the part of the teacher is necessary in maintaining the quality teaching. Assessment of teachers will be helpful in identifying the strengths and weaknesses and "help to achieve the objectives, such as schools' improvement and accountability of teachers" (Teacher's Self-Assessment, 2019). Quality assessment refers to the act of assembling, analyzing and using both quantitative and qualitative evidence of teaching and learning outcomes, in order to examine their congruence with stated purposes and educational objectives and to provide meaningful feedback that will stimulate improvement of specific results of a Teacher Education Institution in order to demonstrate its institutional effectiveness (Remmiya Rajan P., 2017).

The uses of teacher's self-assessment the role of rubrics as stated by NCERT in their guidelines and tool for assessing the teacher's performance at the elementary level called as Performance Indicators for Elementary School Teachers (PINDICS) which helps in self-assessment of teachers to (i) assess and address the strengths and challenges of teachers , (ii) enhance the proficiency of teachers in organizing classroom teaching-learning activities and other school related activities, (iii) provide support and mentoring to the teachers, (iv) provide opportunities for continuing growth through multiple experiences, (v) enhance the self-confidence of teachers improve the teaching-learning process and the performance of students

Rubri c is typically an evaluation tool or set of guidelines used to promote the consistent application of learning expectations, learning goals, or learning standards in the classroom, or to measure their attainment against a consistent set of criteria. Rubrics have been used in teacher education programs to "improve teaching, provide feedback to students, contribute to sound assessment," (Wolf & Stevens, 2007, p. 3) and aid in program improvement (Bryant et al., 2016). Rubrics are typically used to score teachers' performance on defined criteria and levels of quality. It is an evaluation tool that rates the quality criteria on a range from very good to very poor. Here, teachers' rubrics are used as a scoring guide to assess performance or quality of a teacher in three dimensions. On the left side, the criteria are placed which described the key elements of quality of the teachers. At the top, the rating scale identifies levels of performance. Under each section of the rating scale, the indicators provide concrete descriptors or examples for each level of performance. The example of teachers' rubrics has been mentioned in Table 3.

Rating sc	ale for performance level $\longrightarrow$	Very Good	Good	Average	Poor	Very poor
Criteria	Indicators for each	5	4	3	2	1
₽	performance level					
Criterion	1					
Criterion	2					
Criterion 3	3					
Criterion 1	n			_		

## Table 3. Teachers' rubrics for assessing quality.

A tentative rubric encompassing criteria based on domain specific qualities for assessing the teachers' quality

index is presented in Table 4.

## Domain Criteria Very good Good Average Poor Very poor 5 4 3 2 1 Affective Accessibility Accountability Compassionate Confident Dedicated Devoted Empathy Enthusiastic Ethical Inspirational

## table 4. rubrics defining criteria under three domains for assessing quality of teachers

	Joyful			
	Motivator			
	Overarching			
Total	<u> </u>			
Behavioral	Committed			
	Competent			
	Collaborative			
	Democratic			
	outlook			
	Determined		TD	
	Digitally			
	empowered	Ĺ		
	Dynamic		A.	
	Effectiveness			
	Efficient			
	Flexible			
	Gender equality			
	Holistic			
	Ideal			
	Inclusive			
	Integrated			
	Interdisciplinary			
	outlook			
	Multidisciplinary			
	nature			
	Pedagogical			
	leadership			

	Proficient				
	Promoting				
	national				
	integration				
	Patience				
	Professional				
	Rational				
	Skilled				
	Supportive	2			
Total				TD	
Cognitive	Constructive				
	Creative		5		
	Critical Thinking			71	
	Innovative				
	Intellectual				
	Knowledgeable				
	Logical thinking				
	Mentoring				
	Policy making				
	Problem solving				
	Reflective				
	thinking				
	Transforming				
Total					
Grand total					

From a cursory look at the Table 4 it is evident that the teachers must possess some criteria which define the teachers' professional qualities. The essential criteria under attitude, behavior and cognitive domain are presented in the following bar diagram, Figure 6A and the percentage of the criteria in Figure 6B.

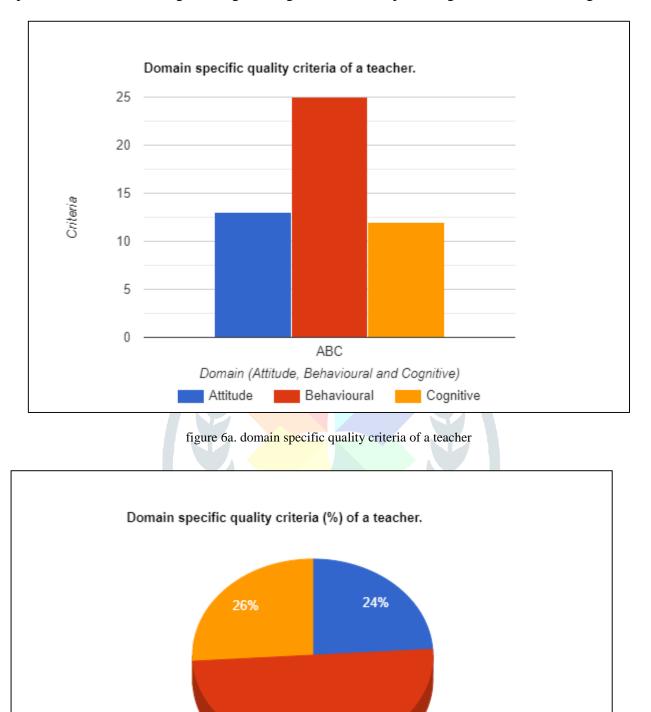


figure 6b. domain specific quality criteria (%) of a teacher

Behavioural

Cognitive

50%

## Calculation of quality index of teachers as per designed rubrics

Attitude

## Definition of quality index

Quality Index of a teacher is the function of a number of criteria/ parameters related to the total quality parameters. It is the ratio between the role performances of a particular teacher with reference to the basic criteria of total quality parameters. The equation of the quality index of a teacher (QLIT) may be described as:

$$QLIT = \frac{\text{Summated rating score made by a teacher against all criteria after evaluating qualities}}{\text{Sum total of maximum rating score on all criteria of 5 point scale}} \times 100....(1)$$
  
i.e., 
$$\frac{\text{Summated rating score made by a teacher against each domain covering all criteria}}{\text{Sum total of maximum rating score on all criteria of 5 point scale}} \times 100....(2)$$
  
i.e., 
$$\frac{\Sigma(\Sigma rating score under affective + \Sigma rating score under behavioural + \Sigma rating score under cognitive domain)}{\text{Sum total of maximum rating score on all criteria of 5 point scale}} \times 100....(2)$$

100.....(3)

## Calculation of quality index of a teacher and assigning ranking

## Calculation of QLIT

Each quality criteria of a teacher has to be judged in terms of five (5) point rating scale after evaluating all the parameters through the quality parameter index in details. From Table 4, it is evident that qualities under affective, behavioral and cognitive domain of a teacher comprises of thirteen, twenty five and twelve criteria respectively.

Hence, maximum rating will be  $(13 \times 5) + (25 \times 5) + (12 \times 5) = 250$ 

Now, from the equation (3) calculated  $QLIT_{\text{max}} = \frac{250}{250} \times 100 = 100\%$ 

Similarly, 
$$QLIT_{min} = \frac{(13 \times 1) + (25 \times 1) + (12 \times 1)}{250} \times 100 = 20\%$$

Quality index of a teacher will help to assess the attributes of a teacher as well as to assign a social ranking.

The social ranking of a teacher may be determined from (QLIT) with the help of Table 5.

SI. No.	Index Quality	Percentage Range
1.	Very Good	80%-100%
2.	Good	79%-60%
3.	Average	59%-40%
4.	Poor	39%-20%

## table 5. range of quality index of a teacher and assignment of social ranking.

5.	Very Poor	Below 20%

If a teacher scores 70 in affective domain, 30 in behavioral domain and 40 in cognitive domain and the summated scores in three domains is 140. The calculated  $QLIT = \frac{140}{250} \times 100 = 56\%$ . Hence, as per calculation from Table 5, the teacher may be treated as an 'average teacher' in social ranking.

## **Concluding remarks**

The quality index can render 'teacher effectiveness' (Stronge, J.H. & Hindman, J. L., 2006) which is broadly used to identify attributes of what constitutes a good teacher. Teacher effectiveness is a set of experiences, traits, behaviours and dispositions that are typically evident in effective teachers who is an ideal, analytical, dutiful, competent, expert, reflective, satisfying, diversity, responsible and respectful have been used to describe good teachers (Cruickshank & Haefele, 2001).

Teachers' excellence is dependent upon the quality of the institutions. In order to make a strategy for the national accreditation and recognition of teacher education programmes of excellence Koop & Bezzina, 1993 meditates over the fact of quality excellence of teacher as well as the institution – "This accreditation needs to be independent of government manipulation, prized by higher education institutions, valued by the public and an empowering statement of commitment by our profession to excellence and leadership—an example of real quality and meaningful accountability" "In teacher education, predictor of pre service teachers' (PST) commitment evolves following the change of their teaching competency, teaching efficacy, and satisfaction, under the influence of teacher educators, mentors, and other stakeholders' specific work, influenced by the macro education environment(Wang et al., 2021).

The quality assurance is an important word in the sphere of higher education. Among higher education teacher education is placed in central stage due to its being the caretaker of macro educational system. Education of teachers is not only responsible for improvement of school education but also for preparing competent, committed and professionally well qualified teachers who can meet the demands of a system. A teacher's content knowledge, verbal skills or enthusiasm for learning necessarily constitutes high mark for being a high quality teacher (Balani, B.R. 2013). The Quality Index of a Teacher provides research-based and field-tested rubrics to evaluate the qualities of effective teaching. The QLIT gives educational leaders a valuable tool to

assist them in assessing the good quality teachers. There is a need to measure the impact of teachers' quality for the quality teaching and improving the quality of the institution. The assessment of the quality of one's teaching is a difficult task as the landscape of higher education has been facing continuous changes (Henard, F. & Ringuet, S. L., 2008). Choosing reliable and quantifiable indicators to assess the quality of one's teaching and the efficiency of teaching initiatives remains challenging. At the same time it has become an easy task to assess the quality of teachers by using the rubrics specified in the table 4 and the equations-1,2 and 3. The Quality Index of a Teacher provides research-based and field-tested rubrics to evaluate the qualities of effective teaching. Quality Teaching has become an issue of importance and these initiatives are very diverse both in nature and in function. Various indicators and their efficiency are discussed here. It is essential to measure the impact of teachers' quality. Various initiatives should be provided in order to be able to improve these qualities. The choice of indicators to measure teacher's quality is crucial, because it has been shown that assessment drives learning.

## **Disclosure statement**

No potential conflict of interest was reported by the authors.

## Data Availability statement

All data that supports the findings of this study are included within the article.

## References

[1] All India Survey on Higher Education. (2020). Department of Education. Ministry of Education.Government of India.

Assessment & accreditation. National Assessment and Accreditation Council. http://naac.gov.in/index.php/en/assessment-accreditation#accreditation.

[2] Bryant, C. L., Maarouf, S., Burcham, J., & Greer, D. (2016). The examination of a teacher candidate assessment rubric: A confirmatory factor analysis. *Teaching and Teacher Education*, 57, 79–96. https://doi.org/10.1016/j.tate.2016.03.012

[3] Balani, B.R. (2013). A study of quality assurance of B. Ed. colleges and to develop a model for quality assurance for the teacher education programme. Yashwantrao Chavan Maharashtra Open University.

Center for teaching and learning. The University of Texas at Austin. https://ctl.utexas.edu/

[4] Cruickshank, D. R., & Haefele, D. (2001, February). Good teachers, plural, educational leadership, 58(5), 26–30.

[5] Das, S. (2021). Characteristics of 21 century learners: role of teacher education in India. 7(8).

[6] Einstein, A. (2015). Bite-Size Einstein: Quotations on Just About Everything from the Greatest Mind of

the Twentieth Century, p.52, St. Martin's Press.

[7]Guidelines.(2019).HumanResourceDevelopmentCentre(HRDC).https://www.ugc.ac.in/pdfnews/0456159\_HRDC-Final.pdf

[8]Guidelines on Assessment. National Council of Educational Research and Training.http://www.ncert.nic.in/announcements/pdf/CCE-Guidelines.pdf

[9] Guidelines and Rubrics: Teacher's Self-Assessment. (2019). Department of Teacher Education. National Council of Educational Research and Training.

[10] Guidelines of Good Practice. The International Network for Quality Assurance Agencies in Higher Education. https://www.inqaahe.org/guidelines-good-practice-ggp

[11] Henard, F. & Ringuet, S. L. (2008). The path to quality teaching in higher education.https://www.oecd.org/education/imhe/44150246.pdf

[12]Ingersoll, R., Merrill, L., & Stuckey, D. (2014). Seven trends: The transformation of the teaching force. Philadelphia: Consortium for Policy Research in Education.

[13]Kikon, A. E. (2020). Quality of teacher education in Nagaland. School of education,North-Eastern Hill University.

[14]National Institutional Ranking Framework. (2017). Methodology for Ranking of Academic Institutions in India.https://www.nirfindia.org/Docs/Ranking\_Methodology\_And\_Metrics\_2017.pdf

[15]National Education Policy. (2020). Ministry of Human Resource Development. Government of India. https://www.education.gov.in/sites/upload\_files/mhrd/files/NEP\_Final\_English\_0.pdf

[16]National Curriculum Framework for Teacher Education (Towards Preparing Professional and Humane Teacher). (2009). National Council for teacher education. <u>https://ncte.gov.in/Website/PDF/NCFTE\_2009.pdf</u>

[17] Accreditation Standard Quality School Governance. National Accreditation Board for Education and

Training, Quality Council of India. https://nabet.qci.org.in/accreditation-scheme/school-accreditation.

Ranking web of universities. <u>https://www.webometrics.info/en/asia/india</u>

[18] https://www.hindustantimes.com/education/india-ranks-6th-most-positive-about-teachers-in-35-

country-global-survey/story-L8TtK42DRSuqZj2Y2sfziL.html

[19]Remmiya Rajan P., (2017). Quality assessment of teacher education in Kerala: a comparison between Aided and un-aided institutions.Mahatma Gandhi University, Kottayam.

[20]Stronge, J.H. & Hindman, J.L. (2006). The teacher quality index: a protocol for teacher selection.

Association for Supervision and Curriculum Development, Alexandria. USA

[21]Sushma, Ms. (2022). 21st century skills: need for sustainable development, (8)4.

[22]The glossary of education reform. https://www.edglossary.org/rubric/

[23]UGC-Regulation 2018. Career Advancement Scheme (CAS). https://cutn.ac.in/wpcontent/uploads/2021/10/3\_UGC\_Regulation\_2018\_22102021.pdf

[24]Wang, G., Strong, M., Zhang, S., & Liu, K. (2021). Preservice teacher professional commitment: A conceptual model and literature review. *Teaching and Teacher Education*, 104, 103373. https://doi.org/10.1016/j.tate.2021.103373

[25]Vinay, A. L. & Kaur, G.I. (2021). Formulating the 21 century life skills conceptual framework: a review.7 (11)

[26]Zhu, C., Wang, D., Cai, Y., &Engels, N. (2013). What core competencies are related to teachers' innovative teaching? *Asia-Pacific Journal of Teacher Education*, 41(1). 9–27. http://dx.doi.org/10.1080/1359866X.2012.753984

[27]Wolf, K., & Stevens, E. (2007). The role of rubrics in advancing and assessing student learning. *The Journal of Effective Teaching*, 7(1), 3-14.

[28]World Health Organization. (1994). Life skills education for children and adolescents in schools, introduction and guidelines to facilitate the development and implementation of life skills programmes, Programme on mental health World health organization. WHO, Geneva. https://apps.who.int/iris/handle/10665/63552