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**Studying Teacher Quality**

**The Re-conceptualization of Teacher Quality in the 21st Century**

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**STUDYING TEACHER QUALITY**

**The conceptualization of teacher quality in the 21st century**

**1 Introduction**

The global world is dynamic, resulting in the need for sophisticated skills to match the new requirements of the 21st – century. This has compelled governments to create policies that ensure that educational institutions equip children with the necessary skills. Kumar & Wiseman (2021) concur by saying to be successful in this rapidly changing world, teacher quality is needed in the classroom as it addresses the educational reform resulting from these changes. Additionally, Carter et al., (2021) write of an integral part that teaching quality takes in educational reform even though its conception is still unclear, especially among the teachers.

Developing countries have recognized that education is the key to their national development andCarter et al., (2021) quoting the World Bank (2011), report on the vital role it plays in the national development agenda as it is seen as the way to the eradication of poverty and a move toward national sustainable development. They add that teaching quality is seen as an integral component in the advancement of student learning. Since education in developing countries like Rwanda is considered an investment toward the country’s national economic growth, teaching quality is of utmost importance.

After dissecting several definitions of teacher quality, this essay will investigate various perceptions of it after which its value and importance will be explored. Assumptions and theories will be outlined while 21st – century competencies about teacher quality analyzed. Finally, the tools and approaches used for assessing teacher quality will be examined, to determine their legitimacy in the role of producing quality teachers.

**2 Definitions**

There is no single definition that encompasses what teacher quality is and research has shown that teacher quality is not limited to competencies of the 21st – century but embraces multitudinous qualities that in addition to being knowledgeable about the content being taught include the character and/or the placement of the teacher. Thomson (2016) concurs by saying that a congruous definition of teacher quality is not in existence despite its recognized importance.

Kumar & Wiseman (2021) write about the complexity of improving teacher quality without a definition of it leading to numerous debates among the stakeholders whom each have their definitions, however, all agree that student performance is a good measurement of teacher quality. They add that teacher quality and teacher effectiveness have been used interchangeably when it was observed in Dallas, Texas that students with ineffective teachers had lower scores than those with effective ones. Quoting Hanushek (2002), they reiterate that there is a correlation between good teachers and high student achievement and similarly bad teachers and poor achievement.

The National Academies of Sciences, Engineering, and Medicine (2001) in its definition of teacher quality taking into consideration the diversity among the students today, addresses the intellectual and rigorous nature that is required of instruction today. The teacher’s character traits and technological knowledge come second to their being able to incorporate activities that cultivate student learning through student engagement. In contrast, Ambussaidi & Yang (2019) argue that the teachers’ characteristics, including their measure of ability, teaching experience, teaching knowledge, and certification status, strongly influence their facilitation of student learning.

From research, teacher quality is a convoluted anomaly with no clear-cut, agreeable, and comprehensive definition, however, researchers and policymakers agree that teacher characteristics, professional preparation, and teacher licensing in conjunction with classroom effectiveness, measured student performance on standardized tests, contribute to the definition of teacher quality (Ambussaidi & Yang, 2019). Estaji & Kiani (2022) sum this up by saying that the definitions of teacher quality are varied but entail the quality of teachers, teacher educators, school managers, and most of all student achievement as well as the practicality of the learning programs.

A quality teacher must have good communication skills, deep knowledge of the subject matter, and the characteristics of creativity and imagination. If the teachers can make learning more relatable by using their experiences as well as the students’ experiences and guiding students in their learning as opposed to just imparting knowledge, this would be considered a quality teacher (Qualities that 21st-century teachers must have! 2018).

**3 Perceptions of teacher quality**

Regarding the perceptions of teacher quality, Kasiisa & Tamale (2013) purport that quality teachers stand by the standards of the profession and ensure student learning occurs, in other words, are effective teachers. Quoting Ehrenberg and Brewer (1995), they add that academically strong skilled teachers encourage more student learning and that the more qualified a teacher is, the better the learning experience is for the child.

According to Estaji & Kiani (2022), a quality teacher goes beyond having the knowledge content required to teach but also the knowledge of the real-life experiences of the diverse community that is represented in their classroom thereby being able to engage the students in more meaningful and rigorous instruction. Quoting Hattie (2003), they scribe that a quality teacher should be able to guide students’ learning through collaboration in the classroom and provide constructive feedback, and ultimately positively influence student achievement. Additionally, quoting Hattie (2003), integration of problem-solving skills, as well as adaptability depending on the perceived needs of the children, are attributes that quality teachers possess. Furthermore, model teaching and continuous professional development contribute to the success of quality teachers.

Although many researchers ascribe to the perception of the correlation between student achievement and teacher quality, Azam & Kingdon (2015) contend that the observable characteristics of teachers like teacher education, experience, and professional training, cannot predict the variation in students’ achievement.

Carter et al., (2021) argue that in Sub-Saharan African countries, teachers’ methods of instruction and their interaction with students are often overlooked during deliberations on teacher quality and Thompson (2016) concedes with most researchers regarding the inconsistency of the definition of teacher quality. He, however, quoting Strong (2011) alludes to perceptions of teacher quality as being influenced by teacher qualification, pedagogical skills, and effectiveness. Thompson (2016) explains that in the past, teacher qualifications and credentials which were prerequisites to teacher licensure, were instrumental in the determination of teacher quality, however, at the beginning of the 21st – century, the works of Marzano (2003) and Danielson (2007) and the later No Child Left Behind legislation, backed the perception of student achievement being the determinant of teacher quality. Van der Lans et al., (2021) purport that teacher quality is portrayed by teachers with efficient classroom management, who create a safe and stimulating learning climate, whose teaching is activating and incorporate differentiation in their instructional methods.

Gagnon (2019) lists strong communication, a focus on collaboration, adaptability, and not forgetting teachers who are engaging and value real-life learning, underpinned by lifelong learners as qualities of quality teachers. Regarding lifelong learning, he quotes a studentDucote (2019) as saying that quality teachers are open to learning new things from fellow educators as well as from their students regardless of their education level.

**4 The importance of teacher quality**

According to Kumar & Wiseman (2021), teacher quality is of high importance because as research indicates it plays a fundamental role in the quality of education of a country but more so in the improvement of student achievement. They add that additional research indicates that the value added from quality teachers supersedes that of variables like socioeconomic diversity and class size. Thompson (2016) quotes several researchers who align with this view stating that overall success and student achievement are directly related to the quality of instruction.

In contrast, Kumar & Wiseman (2021), point out how poor teacher quality evidenced by high teacher absenteeism, poor planning, dissatisfied and unqualified teachers, and a rise in the privatization of teacher education have negatively affected the quality of education in some states in India. This has led to a focus on in-service training by the Indian government where teachers have the opportunity to be updated on changes in the curriculum, textbooks, syllabus, teaching instruction, and learning outcomes of the students to improve their quality. As a result of this, there has been a collaboration with some NGOs and some government schools in Delhi to provide the relevant training needed by the teachers. Consequently, the teachers have incorporated innovative teaching strategies as well as teaching from the students’ real-life experiences which are the characteristics of 21st – century quality teachers.

However, Ingersoll (2020) argues that providing improved pre-service and in-service training and teacher licensing standards, though prudent, may not solve the challenge of underqualified teachers as the key causes may not be addressed. Issues like misplacing teachers who may be highly qualified in areas that they are not qualified to handle will make them ineffective and hence unable to improve the desired student achievement. It is critical that efforts of reformation directly address the need in question.

In concurrence with this, Hanushek & Rivkin (2006) write that the importance of teacher quality is highlighted by its focus on a large percentage of education policy discussions that address the role of teachers in various ways. Furthermore, all stakeholders agree on the prominent role that teachers play in the achievement of school quality.

Azam & Kingdon (2015) convey that the importance of teacher quality goes beyond student achievement to societal benefits such as improvement in the quality of the neighborhood let alone reduced pregnancy. Furthermore, in their research, they found that students’ strong family background is not the only determining factor in improved learning outcomes but that teacher quality plays a significant role.

According to Ajani (2020), the quality of an education system in a country is to a great extent determined by the quality of the teacher. Being cognizant of this, many developed countries have invested heavily in providing professional development for their teachers to keep upgrading them to effectively meet the needs of the children of the 21st- century generation. Unfortunately, this has not been the case in developing countries. This has been my experience among the local schools in my country, where after receiving a teaching certificate, teachers are not required to attend professional development training to retain or upgrade this certificate. Furthermore, as Sekiwu et al., (2020) report, the government of Uganda introduced Universal Primary Education (UPE) to increase education quality and equity. However, this resulted in the majority of the education funds going to ensure the success of the implementation of this policy and left other requirements like improving teacher quality, on the sideline. In support of the importance of teacher quality, Ajani (2020), further argues that teachers cannot remain with their pre-service qualifications but must be supported with in-service training to keep them abreast with 21st-century skills. They add that seeing that education is the key to a country’s development, the teachers who are central to its quality must maintain their quality for the promotion of a country’s development.

Unfortunately, in many cases, as Hanushek & Rivkin (2006) argue, a decline in teacher remuneration has significantly contributed to a fall in teacher quality as it affects new entrants into the profession and at the same time encourages attrition to other professions that reward more for other skills. This calls for governments to take a closer look at how teachers are being compensated in line with the critical role they play in the development of the country’s economy through their service of quality education.

**5 Assumptions of teacher quality**

According to Ingersoll (2020), it is assumed that the most important element in developing the learning of students, is the quality of teachers and the teaching content. What is still unclear is where the challenges of teacher quality originate, what are the agreeable solutions and what teacher quality is composed of. He purports that some assume that poor teacher quality results from poor pre-service training due to the low certification standards required in some states and therefore improving the pre-service training and raising the certification standards would be a solution in this case. In contrast, he adds, others assume quite the opposite that entrance into the teaching profession is highly restricted by bureaucratic barriers which in many cases are unnecessary and restrictive and discourage many would-be teachers with high-quality skills from entering the profession. The solution, in this case, they relay, is removing these barriers and encouraging suitable candidates to join. Furthermore, proponents of this view believe that instructional skills come second to the teacher being knowledgeable about the subject matter to be taught. Ingersoll (2020) points out other restrictions that have to do with minority backgrounds citing their inability to cope with challenges faced due to underprivileged experiences. As a result of these challenges, teachers who are equipped with suitable skills are left out highly reducing the pool of high-quality teachers. He intimates that it is short-sighted to think that the hurdles of required credentials, specific certifications, and completed exams are what will yield the highest quality teachers as research has shown that there are individuals that even though are highly successful in overcoming them, still cannot teach effectively.

Hanushek & Rivkin (2006) in agreement with this, allude to high teacher credentials not necessarily leading to high teacher quality. They explain that unfortunately, the system rewards the accumulation of degrees by teachers and a full certification requirement to weed out poor quality teachers, however, these inadvertently eliminate others who would be more effective in the classroom without these qualifications. Their recommendation for this predicament is for leader educators to have the skill and objectivity to look for qualities that make a teacher effective as they select the teaching personnel for their institutions.

Wiswall (2013) raises a highly controversial assumption that the quality of a teacher stagnates or does not improve after 3 years. Other researchers cap it at 5 years. The argument is that teacher quality is mostly constant over a teacher’s career after the first few years of teaching and policy debates have been centering on teachers not being compensated for their years of experience but rather on their innate ability to be effective in the classroom or what we refer to as being a quality teacher.

**6 Theories of teacher quality**

In looking at theories of teacher quality Leider et al., (2021) corroborate with other researchers that strong content and pedagogical foundations are essential elements of quality teachers. Mastering the core content and developing pedagogical skills is a requirement for one’s indoctrination into the teaching profession. They add that when a teacher can cater to the life experiences of the students they teach they are bound to be more effective in the classroom, hence providing pre-service teachers with field experiences is critical.

According to Ajani (2020), the main objective of a teacher should be the promotion of effective classroom practices. Practices like problem-solving experiences for the students, and concrete and real-life experiences are what constitute the attributes of a quality teacher. He adds that teachers should be motivated to attend in-service training to improve the quality of the academic performance of the children they teach. Ajani (2020) further points out that incorporating the experiential theory into the teacher’s professional development goes a long way in improving the quality of a teacher.

Interestingly Yeh (2017) disputes the theory that the quality of teachers greatly influences students’ performance and contends that it is more so the degree to which they believe they are proficient.

Rohman et al., (2020) agree with the theory that the quality of teachers determines the success of the education system. It is the responsibility of educational institutions to prepare teachers to meet the demands of 21st-century students by providing innovative educational programs that incorporate the technological changes characteristic of the global world today. Additionally, the theory that mastery of technology is crucial, especially in providing limitless access to the global world makes it imperative that quality teachers possess the knowledge and skill to effectively teach using technology as they continually provide their students with opportunities to acquire these technological skills.

Rohman et al., (2020) also believe that the integration of technology in science teaching will improve the quality of the science teacher as it opens avenues to innovation which further improves the quality of the science education needed for our digital literate generation. Quoting Smentana & Bell (2012) they assert that knowledgeable and capable teachers must incorporate technology in their teaching today hence they must master the Technological Pedagogical Content Knowledge (TPACK) which promotes the competence of the 21st -century teacher at the same time providing the highest quality science teachers.

**7 21st – century competencies and teacher quality**

Forghani-Arani (2019) writes that a quality teacher embraces 21st-century competencies of engaging effectively with students from diverse backgrounds. Furthermore, if they are aware of their assumptions and biases but can still empathize with these students from diverse backgrounds and use this as an asset to their teaching, they will be more effective and hence exemplify who a quality teacher is. Forghani-Arani, (2019) encourages that even though a teacher may not possess these qualities, they should not be written off but through processes of reflection, anticipation, and action, they can learn the 21st-century competence of diversity. He adds that reflection allows the teachers to look at scenarios from different angles and move from what was presumed to what works for a specific situation, resulting in improved practices that are effective and relevant. This allows the teachers to develop professionally as they continuously make responsible pedagogical judgments that are prescriptive for this generation and meet the challenges of the diverse world of the 21st – century.

In support of this, Gümüş (2022) records the view of the Organisation for Economic Co-operation and Development (OECD) that to ensure employability in this new economic era, adopting the 21st – century skills is critical, making reform studies inevitable in education as a response to the current social and economic demands of society. He adds that teachers being in a position to influence the economy by equipping students with the appropriate tools, must adopt these 21st – century skills as part of their personal and professional characteristics and become the quality teachers needed today.

Gümüş (2022) rightly conveys that in conjunction with academic subject knowledge, a quality teacher must have practical vocational education. A 21st – century quality teacher must add competencies of thinking and problem-solving skills, an innovative attitude, and a relationship with knowledge. This will enable them to develop strategies that address the real-life situations of the students they are teaching and create an environment for effective, meaningful learning to take place. Another 21st – century competency needed would be adaptability whenever the need arose to fulfill the specific learning need of the students.

It is impossible to ignore the global effect that technology has had, which makes its incorporation into teaching strategies imperative. Gümüş (2022) asserts that the use of information technologies communication is fundamental in accessing accurate and appropriate information needed to thrive in the global world. Additional competencies that Gümüş (2022) highlights are communication skills which lead to collaboration, and teamwork which is instrumental in building up a teacher professionally hence improving their quality. Through continuous professional development, teachers can improve their performance and effectiveness which adds to an improvement in their identities as teachers and job satisfaction, ultimately increasing the retention of quality teachers. All these competencies, he reports are underpinned by the lifelong learning competency that motivates teachers to continue to develop the competencies mentioned above. Gümüş (2022) reports that the European Commission in agreement with this acknowledges that all these required skills cannot be acquired during pre-service training and that acquiring a professional lifelong learning habit is essential for the attainment of these added qualifications.

According to Kim et al., (2019), preparing 21st – century learners requires a re-conceptualization of how 21st – century teachers are trained. They recognize the need for the teaching of quality 21st-century skills that go beyond literacy and numeracy that must be taught by these quality teachers. This is also a result of the growing global interest in how student learning outcomes and psychosocial development are affected by teaching practices and classroom processes.

In concordance with Gümüş (2022), they assert that the 21st – century skills include critical thinking, problem-solving, creativity, communication digital literacy, and global awareness, not forgetting cultural diversity, which skills are most important in developing countries where the improvement of the quality of teaching is critical. This has been challenged by a lack of understanding of appropriate ways to support teachers in their professional development let alone the appropriate content of teaching practices that are needed to improve the 21st – century teachers’ skills to adequately equip 21st – century learners (Kim et al., 2019).

Kim et al., (2019) highlight a reconceptualized view of teachers of the 21st – century as being facilitators of students’ learning experience as opposed to imparters of knowledge. As mentioned earlier, the focus is more on the processes and practices in the classroom that lead to the acquisition of knowledge than the subject matter being taught. The 21st – century skills that are being evaluated include teaching methods, school climate, and school rules that are conducive to the development of students today. They add that the classroom should be a place where the modeling of these skills is observed so that the upcoming teachers can practice them as learning the 21st - century skills are meaningless if they cannot be practiced.

To crown all this, a 21st – century quality teacher must adopt the skill of reflection leading to continuous improvement. Through observation, constructive feedback, and reflection, the teacher can adopt 21st – century skills and improve in their teaching profession. This will go a long way in the enhancement of the 21st - century learning of students in developing countries (Kim et al., 2019).

**8 The practice of teacher quality**

Practicing teacher quality has led to policies that set standards for teachers to adhere to. In the U. S, Adnot et al., (2017) report that this has led to the implementation of rigorous teacher evaluation policies that eliminate ineffective teachers. Unfortunately, no research indicates the influence this has had on student achievement as a result of consequential teacher attrition.

Adnot et al., (2017) write that improving school quality in culturally diverse schools has become one of the most important goals of education policy. They add that research has shown that effective teachers improve student short and long-term outcomes and that there have been inequalities in the access to quality teachers which policies have the power to change by either equalizing the access to quality teachers among all types of schools or improving the effectiveness of the existing teachers. In their view, if a district ensures the retention of its quality teachers, removes the poorly performing ones, and works at recruiting the most effective teachers, it will improve the overall quality of its teachers.

To improve the practice of teacher quality and effectiveness, policies like the No Child Left Behind (NCLB) Act and performance assessment systems, were put in place in some districts. Teachers were evaluated on various measures of performance that were clearly laid out and were also presented with high-powered incentives of dismissal if standards were not met or increased remuneration for high performers. Added to this, feedback with the opportunity for improvement and support was provided to improve the teachers’ practice (Adnot et al., 2017).

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Day (2017) in acknowledging the influence that policies have on educational institutions and teachers’ lives reports on how China’s policies were created to support the school system’s need for students to excel in their national examinations to increase their opportunities for placement in the best universities. This, she reports, is not the case in Europe, however, technological advancement has allowed for comparisons of student achievement and teaching practices to be made as well as a further comparison between countries and replication of some educational policies to improve the quality of teaching practices.

Day (2017) does not hesitate to point out that acquiring teacher qualifications like graduate degrees and pre-service certification does not necessarily make one a quality teacher because these academic qualifications do not ensure effective teaching in the classroom. She, however, points out that countries like Finland and Japan, which are internationally known for producing high-performing students, have teachers with high qualifications. Additionally, there is a high professional collaboration among the teachers in these schools. Furthermore, indicators like classroom management and the ability to inspire a love for learning underpinned by a strong sense of vocation are observed as characteristics that these quality teachers possess.

Practicing teacher quality requires a higher level of intellectual and emotional energy for the 21st – century teacher which Day (2017) quoting Andy Hargreaves and Michael Fullan refers to as professional capital. In concurrence with other researchers, equipping students with critical thinking and problem-solving skills as well as training them to aptly apply knowledge, is an essential practice of a quality teacher.

Skourdoumbis (2017) relays that in pursuit of the practice of teacher quality a teacher must not only be knowledgeable of the subject matter they are to teach but have the instructional skills to teach the students. Incorporation of technology and addressing the culturally diverse needs of the students while assisting students to acquire 21st – century competencies are practices of a quality teacher.

Australia is showcased at having teachers take a literacy and numeracy test to assess their qualities as teachers and increase the confidence of their employers in the skills of the teachers they are taking on. Globally, teacher quality has become an important element in education policymaking to create guidelines that ensure the practice of teacher quality is maintained (Skourdoumbis, 2017).

**9 Tools and approaches for assessing teacher quality**

To attain or maintain teacher quality, policies have been put in place that require pre- and ongoing teacher assessments. As Estaji & Kiani (2022) report, from being considered authorities in the classroom with unchanging didactic behaviors and ideas, teachers are now assessed through regular observations where their performances are judged through feedback, and participation in pre-service and in-service training is required for their improvement in skills, knowledge, and practice to attain the desired teacher qualities.

Kumar & Wiseman (2021) assert that the fundamental role that an educated population and good education play in economic development for developing countries cannot be denied. Quoting the United Nations, they report that education has been declared a basic human right and the World Bank agrees on education’s importance to global development. Governments have followed this universal agreement by creating policies needed to guarantee the quality of education of a nation. They however point out that universal policies are not what is needed as each country has its specialized challenges that need specific policies to address them. They further report that India has responded positively by taking steps to ensure educational quality as it seeks to improve its economic status through the creation of national educational policies that are revised on regular cycles.

Hanushek and Rivkin (2012) write about an outcome-based approach for assessing teacher quality where a quality teacher is regarded as one who consistently produces high achievement scores from students. This approach has been referred to as value-added analysis.

Regarding tools used for assessing teacher quality, Hanushek & Rivkin (2006) write that schools can use two basic tools: one that evaluates a teacher’s overall effectiveness and another that estimates the value a teacher adds. Much as administrators rely more on evaluation, they report that research has found a correlation between the regular evaluation done by the principals and the value added by teachers even though the principals did not have the test and value-added information.

In recognition of the determining role that teacher quality plays in student achievement, Azam & Kingdon (2015) address the relevance of policymakers exploring ideas of rewarding the teachers individually for their performance about their ability to improve the students’ test results. They further portray the complexity of identifying teacher quality by observing characteristics of teachers like their education, experience, and training and recommend that a reconceptualization of how quality teachers can be identified and consequentially rewarded be done. They, however, point out that even though teacher quality may not be related to teacher credentials, a credential-related policy may be used to facilitate equality in the distribution of quality teachers as well as increase the overall quality of teachers.

Concerning Africa, Ajani (2020) reports on regulatory bodies that Nigeria and South Africa employ as tools that assess and ensure teacher quality. The Teachers’ Registration Council of Nigeria (TRCN) and South African Council of Educators (SACE) structure the specifications for the professional development activities to be carried out in schools. The goal is to motivate teachers by having them earn professional points for attendance and participation in the recommended professional development training, hence, improving their quality. Unfortunately, the implementation of these structures has not been effective unlike in developed western countries where routine professional development to improve classroom instruction practices and increase content knowledge is mandatory.

Additionally, Ajani (2020) writes about evaluation based on the teachers’ ability to apply the knowledge or experience garnered from the in-service professional development as being a tool for assessing teachers’ quality. However, he advises that if the teachers’ classroom practices or students’ academic performances do not improve after these in-service sessions, then the professional development should be reworked to be more effective.

In India, Kumar & Wiseman (2021) report on testing used as a tool for assessing teacher quality. The challenges they face are that private school teachers may not meet the standards of qualification or certification of the government school teachers. This has led to the state government requiring Teacher Eligibility Tests (TET) for every teacher and depending on the level to be taught, a diploma, or bachelor’s degree in Education is required. Despite these mandatory checks, they report that it is unclear whether government schools adhere to them due to poor communication within the states in India. Kumar & Wiseman (2021) purport that teacher quality is measurable and that though there is no universal qualification for teachers, the common indicator has been the positive correlation between student achievement and teacher qualification.

Additionally, Kumar and Wiseman (2021) highlight traditional teacher quality measures used in various countries. In Brazil, the National Education Guidelines and Framework Law is a framework used where teachers are required to have higher education degrees to qualify as a teacher. Similarly in Russia, teachers are required to obtain a bachelor’s or master’s degree to qualify as teachers. In India, to teach mathematics a teacher must graduate with a bachelor’s or master’s degree. The non-traditional teacher quality measures they highlight are inclusive of aligning teachers’ subject areas with their training, teacher attitude, teacher absenteeism, and teacher salary and performance pay.

Kasiisa & Tamale (2013) report on the measures used in Uganda that counteract teacher quality as the minimum requirement or admission to teacher training colleges is quite low and is usually seen as a profession one can join after failing to advance to the next school level. This has left the profession to individuals that are unable to teach proficiently as they are not academically equipped to do so resulting in poor student achievement. They agree with many researchers that student achievement is the measurement of teacher quality and effectiveness, hence making it imperative that teacher quality is a center of focus of education reform in Uganda.

Ochwo (2019), still reporting on Uganda, accentuates academic achievement as being the fundamental measurement tool of teacher quality. Higher grades from state exam scores indicate the degree of effectiveness of a teacher attributing excellence to the school. He adds that globally, tools such as observational evaluation rubrics, value-added calculations for student achievement, and portfolios, have been used to measure teacher quality.

In New York State, Greenblatt (2018) reports on the No Child Left Behind Act of 2002, requiring the use of standardized tests by states as a measurement of student performance and teacher accountability. The teacher evaluation system was amended to link teacher accountability to student performance. Annual Professional Performance Reviews (APPR) were created where a larger percentage of teacher evaluations were based on classroom observations and about 25% of the evaluation on the state standardized test scores that measured student growth.

Regardless of the various tools and approaches used to assess teacher quality, one important factor is the improvement of student achievement by ensuring teachers’ quality for effective learning.

**10 Conclusion**

Education drives a country’s economic development. This makes it critical that quality teachers are in place to ensure quality education is delivered. Much as there is no clear definition for teacher quality, most researchers agree that a quality teacher exhibits and incorporates 21st - century characteristics. Additionally, quality teachers are expected to have received the professional preparation needed for their job and teacher licensing, which all contribute to measuring their quality.

There are various perceptions of teacher quality ranging from maintaining standards of professionalism and ensuring learning occurs, to incorporating students’ life experiences in their learning, but one perception that stands out is the correlation between teacher quality and student achievement.

In addition to teacher quality greatly influencing a country’s education quality, hence economic development, high-quality teachers positively influence society, creating strong neighborhoods. This encourages continued development in the society and country at large. There are also several assumptions that the qualifications and content knowledge a teacher has, is what makes one a quality teacher, but research has indicated that in many cases it is related to a teacher’s innate ability or in other cases placing them in the right environment. Proponents of the former view push for bureaucratic measures to ensure the selection of the ‘right’ teachers is made, but these measures have often acted as barriers in the selection of true quality teachers. Theories, however, suggest that strong content and pedagogical foundations are essential elements of quality teachers. In addition to this, quality teachers must promote effective classroom practices to ensure effective learning takes place.

Incorporating 21st – century competencies is essential for a teacher to be effective today, hence a quality teacher. Embracing diversity and learning to teach culturally diverse children cannot be ignored in today’s global world. Through in-service training where processes of reflection, anticipation, and action are taught, teachers can embrace these competencies and be more effective in the classroom.

To implement 21st – century competencies, policies have been put in place to assess teachers before they begin their practice. The outcomes-based approach has also been used where the achievement scores of the students contribute to the assessment of the teachers’ quality, or what is sometimes referred to as value added. Observation of teachers takes a larger percentage of the assessment of the teachers’ qualifications and certifications.

In conclusion, in the past, teacher quality has been conceptualized from the view of attaining essential academic qualifications as well as certifications to maintain one’s teaching license, but it is clear that a re-conceptualization of teacher quality for the 21st – century is needed where an acknowledgment of the change of the role of a teacher in the classroom is made as the teacher equips students to effectively engage in the global world today through the incorporation of the 21st – century competencies. This will greatly improve the education quality of a country, which will then contribute significantly to its economic growth and development.

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