A Conceptual Framework on Teacher's Effectiveness and Teaching Practice

Md. Abu Aslam Parvez

Professor (Retired)

Department of Physics

Ideal College

Dhanmondi, Dhaka, Bangladesh

ABSTRACT

Education is the back bone of a nation. No nation can prosper without education. It is teachers who have the most impact on a nation's future. Children are mainly influenced by their teachers. However the present study was conducted to assess the teacher's effectiveness and teaching practice and to review related to teacher's effectiveness and teaching practice. The study was documentary analysis type. Information and data were collected from secondary sources such as books, research reports, journals, different annual reports, different government and non government websites and different websites. A literature review was conducted by using the internet search, Google databases on teacher's effectiveness and teaching practice. A hand search was also undertaken to relevant journals identified by the electronic search and additional articles identified from the reference list of the key articles. A number of articles have been found on teacher's effectiveness and teaching practice. From the study it was found that teachers' effectiveness and effective teaching practices are very much important to develop and sustain throughout a student's education career. Highly effective teachers structure the classroom environment so that it decreases the likelihood of inappropriate student behavior, increases desirable student interactions, and sets up students for success. Teachers are critical to the success of an educational system. An individual's imaginations, wisdom, love for humanity, and enlightenment can be developed through the guidance of a good teacher. So, relevant authorities and government of the people republic of Bangladesh should arrange contemporary training programs for the teachers. If it is doing so the teachers of the country will be effective, efficient, skilled and the students of Bangladesh will learn more.

Key words: *Teacher's effectiveness, Teaching Practice, Training, Students' achievement, Evaluation, Learning, Assessment.*

INTRODUCTION

One of the most crucial pillars of the nation is education. Throughout any given civilization, education is used to pass on knowledge and skills from generation to generation. It has the potential to fundamentally alter the way civilization functions. Without a sound educational foundation, no country can grow and develop. Good teachers aren't an exaggeration when they suggest that this form of instruction is impossible without them. Effective teaching helps students to achieve their goals – both personal and academic. We know that effective teachers can be hugely influential figures to many young people, providing them with both certainty and assurance when they need it the most.

Teachers' influence, like a wave on the ocean, begins with one student and spreads through the generations as the student passes it on to other students. He sets the stage for future generations by igniting a plethora of candles. To put it another way, teachers are capable of steering their students' futures in the right direction. In the eyes of the nation, teachers are a mirror and a gauge. In order to make growth, the school needs an effective and visionary teacher. To be able to discover the potentials of others, they are a source of new knowledge and an advocate for expanding knowledge. Innovations and discoveries that can help people lead a better life are brought to life by these people. Imagination and creativity are influenced by them. Their

sway extends to the highest reaches of the cosmos, and there is no end to what they can accomplish. It's the teacher's job to inspire in students the values and traditions of their predecessors; as such, his position is unique and unrivalled. When it comes to the role of teachers in encouraging understanding and tolerance, there has never been a better time than now. In the twenty-first century, it is expected to become even more vital. Teachers have great responsibilities for shaping the minds of young people because of the need to go from limited nationalism to universalism, from ethnic and cultural prejudice to tolerance, understanding, and pluralism, and from autocracy to democracy in its narrow expressions. Having a good teacher can have a positive impact on a student's life. Educational institutions are the backbone of today's complex and dynamic society; teachers who can attract large numbers of students around them and whose glory used to be reflected in terms of student achievement; ability to make effective use of sound personality patterns and professional insight when relating to children in promoting all-round development.

OBJECTIVE OF THE STUDY

The Objective of the study is as follows:

1. To assess the teacher's effectiveness and teaching practice.
2. To review related to teacher's effectiveness and teaching practice.

METHODOLOGY OF THE STUDY

The study was documentary analysis type. Information and data were collected from secondary sources such as books, research reports, journals, different annual reports, different government and non government websites and different websites. A literature review was conducted by using the internet search, Google databases on teacher's effectiveness and teaching practice. A hand search was also undertaken to relevant journals identified by the electronic search and additional articles identified from the reference list of the key articles. A number of articles have been found on teacher's effectiveness and teaching practice.

RESULTS AND DISCUSSION

Teacher's Effectiveness

Teacher's effectiveness is a method used in the school system that uses multiple measures of assessments including classroom observations, student work samples, assessment scores and teacher artifacts, to determine the impact a particular teacher has on student's learning outcomes. While schools have used teacher evaluation practices and policies for many years, the emergence of educator effectiveness policies combines these existing practices with rubrics and test scores to provide more robust perspectives on the work of teachers. Educator effectiveness initiatives often use descriptions of effective teaching practices, such as Charlotte Danielson's "Framework for Teaching", to organize teaching separate domains for assessment. Danielson's domains include: Planning and Preparation, Classroom Environment, Professional Responsibilities, and Instruction.

Teacher's effectiveness programs vary from country to country. Typically, an educator effectiveness program describes a cycle of observations and assessments that apply to different groups of teachers during an academic year. New teachers are evaluated more frequently, and veteran teachers are evaluated across multiple year cycles. Evaluated teachers have multiple scheduled classroom observations and conferences with the evaluator in addition to unannounced classroom observations. A controversial aspect of the purpose of evaluations is to help educators determine what is effective in their practices and provides them a medium to reflect upon and change their practice to help teachers become more effective.

Teacher's effectiveness is an education policy initiative that measures the quality of an educator performance in terms of improving student learning. It describes a variety of methods, such as observations, student assessments, student work samples and examples of teacher work that education leaders use to determine the effectiveness of an educator. The literature on teacher effectiveness is extensive and diverse. This is reflected in the number of definitions which seem to depend on a host of variables, such as who is defining the term, who the learners are, the subject matter, and the methods of investigation. Despite these differences, most researchers agree that the critical criterion for determining teacher effectiveness is student learning outcomes (Barry, 2010; Reynolds, 1995). However, the effects of teaching on student learning are diverse and can be differentiated into three broad domains: affective, psychomotor, and cognitive outcomes (Guskey, 2013; Sammons, DeLaMatre & Mujtaba, 2002; Seidel & Shavelson, 2007).

Effective outcomes (Krathwohl, Bloom & Masia, 1964) refer to the social, emotional and attitudinal aspects of learning. Psychomotor outcomes (Simpson, 1966) refer to specific skills or behaviors in certain technical fields (e.g., physical education). Cognitive or academic outcomes (Bloom, Englehart, Furst, Hill & Krathwohl, 1956) refer to gains in academic achievement measured either by standardized tests or teacher developed specific tests (Guskey, 2013; Hunt, 2009). Cognitive outcomes provide the foundation of a school's academic curriculum, and may vary across subject areas and span a broad range of sub domains in each subject area (Guskey, 2013). Most studies of teacher effectiveness have focused on academic outcomes (Guskey, 2013; Sammons et al., 2002; Seidel & Shavelson, 2007). Adopting a cognitive perspective, Little and colleagues (2009) defined teacher effectiveness as the ability of the teacher to develop student learning gains measured by standardized achievement tests. However, the author cautioned that though the definition covers one of the most important aspects of teacher ability, it is not to be considered a comprehensive view of teacher effectiveness (Little et al., 2009). Given the definition, teacher effectiveness is defined in this study as teacher's contribution to produce gains in students' standardized test scores.

Purposes of Teacher's Effectiveness
Teacher evaluations have changed over time and have had different standards across the world. Evaluation systems often have been comprised an administrator observing a teacher a couple times per year. In some locations, teacher observations were only done on a three-year or longer cycle. In the past, a Widget Effect, as described by The New Teacher Project has been established that has developed a culture where all teachers feel as though they deserve the highest marks on evaluations. Schools used to see their job as filling positions and thought that any teacher who was given a license was high quality, and thus scored them according to that thought process. Therefore, all teachers were getting scores that were good or great and no variation was able to be determined between any two teachers.

Today, policies have encouraged school systems to design more comprehensive evaluation systems that rely on multiple measures of how a teacher performs by looking at items such as student performance gains, classroom observations, teacher reflections, content specific knowledge and student reflections. Some policy makers and researchers encourage the design of systems to identify and sort good and bad teachers; others are designed to provide meaningful feedback and professional development to teachers in order to enhance their skills. Overall, the purpose of educator effectiveness is to build the capacity for teachers to enhance their skills. The effective teachers have an effect on student's ability to have a higher level of conceptual understanding of a topic and have displayed the ability to think more abstractly than peers taught by less effective teachers. Quality teaching also has been identified as a key influence for positive learning outcomes for the diverse body of students in the classroom.

Qualities of an Effective Teacher
Children's success in the classroom is mostly determined by the quality of their teachers. Students who are taught by successful teachers perform significantly better than those who are taught by ineffective teachers, according to research.[7] As a result of this disparity, pupils from low-income and minority backgrounds are more likely to be taught by teachers who lack the proper credentials.

Table 1: Summary of characteristics associated with more effective teachers

Cluster	Characteristic	Description
Professionalism	Commitment	Commitment to doing everything possible for each student and enabling all students to be successful.
	Confidence	Belief in one's ability to be effective and take on challenges.
	Trustworthiness	Being consistent and fair; keeping one's word.
	Respect	Belief that all individuals matter and deserve respect;
Thinking/ Reasoning	Analytical thinking	Ability to think logically, break down and recognize cause and effect.
	Conceptual thinking	Ability to identify patterns and connections, even when a great deal of detail is presented.
Expectations	Drive for improvement	Relentless energy for setting and meeting challenging targets, for student and the school.

	Information seeking	Drive to find out more and get to the heart of the things, intellectual curious.
	Initiative	Drive to act now to anticipate and pre-empt events.
Leadership	Flexibility	Ability and willingness to adapt to the needs of a situation and change tactics.
	Accountability	Drive and ability to set clear expectations and parameters and hold other for accountable performance.
	Passion for learning	Drive and ability to support students in their learning and to help them become confident and independents learners.

Table 2: Ten traits of highly effective teachers

Personal traits	Teaching traits	Intellectual traits
• Mission driven and passionate • Positive and real • A teacher leader	• With it-ness • Style • Motivational Expertise • Instructional effectiveness	• Book Leaning • Street smarts • Mental life

Criticisms of Teachers' Effectiveness

Many argue that it is difficult to measure the effect that teachers have on student learning. Many teachers who are in the K-12 system, teach subjects that are not assessed on state mandated testing. In order to effectively implement an educator effectiveness system, some argue that states need to create different evaluation systems for the teachers who teach students in non-tested areas such as submitted portfolios of student work, lesson logs, video clips of them teaching and reflective commentaries on lessons. Others argue about the methodology as some districts are using value added models to determine the effectiveness to teachers. They state that it is an unreliable measurement tool because the makeup of classes differs greatly from teacher to teacher and from year to year. Some say that it ends up penalizing teachers who traditionally do not score well on standardized assessments such as students who receive free and reduce lunch and students with disabilities. They state that this may cause the highly effective teachers to work at schools with a low disability rate and middle to high socioeconomic status. There are different ways to calculate the value-added effect of teachers that changes depending on how they define value-added and what they use to calculate it. It typically does not account for the expectations put on students who go into a classroom reading below grade level and are expected to have a much higher growth rate than their peers. Through many research studies, it has shown that the estimates of teacher effectiveness were not through the same throughout different years or content areas such as reading and math and may be difficult to compare gains from tests from year to year when they don't measure the same content. Some have commented that evaluators in the countries with teacher evaluation systems do not have through enough training. Furthermore, these evaluators often do not have to prove themselves as effective teachers themselves. Furthermore, often the same evaluator is observing students every time. In order to have high quality teacher feedback, some would argue that multiple perspectives by highly effective educators would create the dialogue and feedback that would help teachers to grow.

History of Teacher's Effectiveness

As of 2013, United States of America (USA) schools United States had very little cohesiveness in their teacher effectiveness requirements and implementations. In 2013, in the USA 25 states required that student achievement is a big or the biggest part of teacher evaluations. Twenty-seven states required teacher evaluations be based on a variety of student assessments and work samples and 44 states required classroom observations to be put into teacher evaluations. Overall, 11 states require a statewide teacher evaluation system; 10 states gave a statewide evaluation model that districts can either do or decide to do a similar model. To date only a small handful of states have adopted policies connecting the performance of students to their teachers and the colleges where the teachers were trained. Many countries have national policies that decide what teacher evaluation systems that schools will have to follow. Some countries such as Denmark, Finland, Iceland, Norway and Sweden provide annual feedback on teaching practices. Other countries, such as Norway and Iceland, leave the decision about how the teacher evaluations systems will be done to be determined at a local level. The quality of teaching in these countries is compared to the curriculum they follow and with the school instructional plan. Finland does not use any standardized testing as a measure of

teacher effectiveness. Singapore is another country that does not use test scores but rather focuses on how teachers work together as a main part of their evaluation system. Singapore also focuses heavily on professional development around evaluation, coaching, mentoring and collaborating with other educators with an overall goal of getting a high-quality teaching staff.

There is significant debate in the U.S. about how to reward teachers for performance as measured by educator effectiveness policies. Some schools rewards teachers by paying them more based upon their student's test scores, which is linked to the Race to the Top funding in the United States. However, other reward systems are being created based on the idea that improving a teacher's capacity to learn and improve upon their practice will have a direct impact on student achievement. These schools increase pay for teachers who have a National Board Certification using National Board for Professional Teaching Standards, advanced degrees, engaging in professional development, mentor new colleagues and paying more for these qualified teachers in hard to staff schools. The connection of teacher effectiveness and merit pay varies in different countries. In Finland and Canada, they do not to use merit-pay approaches but encourage conversations between the evaluator and teacher about student progress and success. In contrast, Chinese and Singaporean teachers, get financial bonuses and promotions for high performance. High-performing countries have a strong system of professional and school-level accountability but look at success on things such as school improvement goals, professional contributions, and indicators of student well-being.

Methods of Evaluating Teachers

Most educator effectiveness programs are two kinds of data: observations of teaching practices and student outcomes data. There are four main sources of observational data collected by schools:

1. Classroom observations happen when someone comes into a teacher's classroom to observe their teaching practice, typically done by a school administrator. The methods of commenting on teaching practice within classroom observations vary from district created to purchase evaluation forms.
2. Some schools use Self-Evaluation as a reflective tool for teachers to look at their current practice and change what they are doing to have a greater educational impact on students. Teachers often use a variety of tools to reflect and change their practice including self-monitoring, recording their own practice, and student's feedback through survey's and questionnaires.
3. Teacher Portfolios are used to compile a variety of evidence of teacher practices for the purpose of showing development of teaching over time. It is often used in conjunction with self-reflection or peer-reviewing of teaching practices.
4. Peer-Review of Teaching is a method for teaching to discuss their practice with another teacher or group of teachers that gives feedback about teaching and learning. Often an evaluation of the teaching materials is done with the purpose of providing feedback to change teaching practices.

The new part of educator effectiveness policies is the integration of outcome data into the evaluation process. The biggest component of the outcome data is growth of student learning as measured by standardized tests. Most educator effectiveness programs rely on some form of value-added measures to determine student growth. Value-added measure use longitudinal measures of student achievement to estimate the growth in student learning that can be attributed to individual teachers. If the students of a specific teacher demonstrate growth in learning better than predicated on standardized tests, the teacher is said to be effective; if the students score below the predicted scores, the teacher is said to be ineffective. Parent and student surveys are another method of collecting data on teachers and their educational practices.

Teaching Practice

Teaching practice is the ways in which faculty understand and implement instruction. Teaching practices generally reflect beliefs and ethics about the teaching and learning process.

In other word teaching practice is a part of an education degree in which students perform supervised teaching at a school.

Teaching practice is the instruction of a subject that takes place in a real classroom environment.

Teaching practice is a period that a student teacher spends teaching at a school, college or a university as part of his or her training.

Teaching practice is a supervised instructional experience; usually the culminating course in a university or college undergraduate education or graduate school program leading to teacher education and certification. Student teaching is part of pre-service teacher education programs such as Early Childhood (Birth-Grade 3), Middle Childhood (Grades 4-9), and Adolescence to Young Adult (Grades 7-12). It is required by those earning a Bachelor of Education or Master of Education degree, as well as liberal arts Bachelor of Science or Bachelor of Arts degrees with a major in education.

Student teaching is required for students who are not yet certified to teach. It is different from a practicum, which is required when a student already holds certification to teach, yet wants a certificate extension to teach another area of specialization; they are both college-supervised field-based experiences.

The student teaching experience lasts about the length of a school term, semester or quarter; long enough to fulfill the college's assigned tasks. It is an unpaid internship. This experience gives the prospective teaching professional an opportunity to teach under the supervision of a permanently certified teacher.

The student teacher is usually placed in a neighboring or participating school. The student teacher is monitored by the cooperating teacher from the school, as well as a supervisor through the college. The supervisor acts as a liaison between the cooperating teacher and the head of the college's student teaching department.

The student teacher normally initially shadows the cooperating teacher, eventually gaining more responsibility in teaching the class as the days and weeks progress. Eventually, the student teacher will assume most of the teaching responsibilities for the class including class management, lesson planning, assessment, and grading. Thus, the student teacher is able to more fully experience the role of the teacher as the classroom teacher takes on the observation role in the class. There is sometimes a "phasing out" week when the student teacher returns the teaching role back to the regular teacher.

The supervisor, as well as cooperating teacher, monitor the progress of the student teacher throughout the experience, ensuring satisfactory work. A grade of Pass or Fail in student teaching, as well as satisfactory completion of a school's education program, is an indication as to whether the college recommends the student for certification to teach.

Teaching practice is an important component of becoming a teacher. It grants student teachers experience in the actual teaching and learning environment (Ngidi & Sibaya, 2003:18; Marais & Meier, 2004:220; Perry, 2004:2). During teaching practice, a student teacher is given the opportunity to try the art of teaching before actually getting into the real world of the teaching profession (Kasanda, 1995). Student teachers also know the value of teaching practice and as remarked by Menter (1989:461), they perceive it as 'the crux of their preparation for the teaching profession' since it provides for the 'real interface' between student hood and membership of the profession. As a result, teaching practice creates a mixture of anticipation, anxiety, excitement and apprehension in the student teachers as they commence their teaching practice (Manion, Keith, Morrison & Cohen, 2003; Perry, 2004:4).

Marais & Meier (2004:221) assert that the term *teaching practice* represents the range of experiences to which student teachers are exposed when they work in classrooms and schools. Marais and Meier (2004:221) further argue that teaching practice is a challenging but important part of teacher training, especially in developing countries such as South Africa, where the effectiveness of the teaching practice can be diminished or eroded by a range of challenges, such as geographical distance, low and uneven levels of teacher expertise, a wide-ranging lack of resources as well as a lack of discipline among a wide cross-section of learners and educators. These challenges, if not addressed, may affect student teachers' performance during teaching practice and may in the long run affect their perception of the teaching profession (Quick & Sieborger, 2005).

Menter (1989:460) notes that there has been a shift in the literature from the concept of teaching practice (associated with an apprenticeship model) to the concept of field/school experience (associated with an experiential model). Lave & Wenger (1991) point out that however way it may be envisaged, the notion of

teaching practice is entrenched in experience-based learning initiated by Dewey (1938), Vygotsky's (1978) social cognitive theory, and founded in the premise of situated learning. Consequently as suggested by the South African Norms & Standards for Educators (Republic of South Africa, 2000:12), teaching practice is meant to provide for the authentic context within which student teachers are exposed to experience the complexities and richness of the reality of being a teacher. This process allows the student teacher an opportunity to establish whether the right career choice has been made or not.

However, despite its importance, Killen & Steyn (2001) note that teaching practice sometimes becomes a demoralizing and sometimes very frightening experience. Several studies have been conducted on student teacher's experience and anxieties during teaching practice (Ngidi & Sibaya, 2003; Marais & Meier, 2004) to mention but two. However a review of the literature indicates that there are limited studies that have been conducted regarding ways in which students' experiences during teaching practice influence their perception of and attitudes towards the teaching profession.

Teaching Practice: A Teacher-Training Requirement

Teaching practice is a form of work-integrated learning that is described as a period of time when students are working in the relevant industry to receive specific in-service training in order to apply theory in practice. Researchers such as Marais and Meier (2004:220), Perry (2004:2) and Maphosa, Shumba & Shumba (2007:296) describe teaching practice as an integral component of teacher training. In order to achieve the standards required for qualified teacher status, a student teacher is required to do teaching practice in at least two schools.

According to Perry (2004:2), teaching practice can be conducted in a number of forms depending on the institution. Some institutions send student teachers to go for teaching practice once a day each week; others do this over a semester; while others send student teachers in a two- to six weeks' block. Participants in Quick & Sieborger's (2005:4) study suggested that the traditional PGCE can accommodate a third of the time (11 or 12 weeks) for teaching practice, and that this practice period should be divided into at least two, possibly three, school experience sessions. It should be pointed out that, in whatever form it is done, teaching practice is aimed at inducting student teachers more fully into the professional work of teachers (Perry 2004:2). To this effect the student teacher is expected to fulfill all the responsibilities of a teacher, which according to Perry (2004:2) is exciting but challenging.

Perry (2004:2) also points out that, on the one hand, student teachers should experience the excitement of being a part of a real classroom setting, of getting to know learners, of planning and organizing the classroom tasks. On the other hand, student teachers could have doubts about their ability to cope with unfamiliar situations, controlling and managing learners or establishing a working relationship with the mentor or supervisor. It is such mixed feelings that can contribute to the making or breaking of a student teacher.

General Education System and Learning Assessment in Bangladesh

The general education system in Bangladesh consists of primary education (five years), secondary education (seven years), and tertiary education. A student aged 6-10 years is enrolled in five years of compulsory primary education at either a government registered non-government or a fully independent primary institute (or school). At the end of primary school (or grade 5), learning achievement is assessed at a national public examination known as the Primary School Certificate (PSC) examination. A student who successfully passes the PSC is eligible to continue her/his education at the secondary level and after successfully passes the SSC is eligible to continue her/his education at the higher secondary level.

Secondary education includes two stages, the secondary stage (or grades 6-10) and higher secondary stage (or grades 11-12). The secondary stage is further divided into the junior secondary (or grades 6-8) and senior secondary (or grades 9-10). At the end of the junior secondary stage (or grade 8), the learning achievement of a student is assessed at a public examination, known as the Junior School Certificate (JSC). A student who passes the JSC may proceed to the senior secondary stage (grades 9-10) and be enrolled in a secondary school. At the end of the senior secondary stage (or grade 10) learning achievement is assessed at the public examination, known as the Secondary School Certificate (SSC). All public examinations of the secondary education in general stream are conducted by eight education boards. Students who succeed in passing the SSC examination may continue to the higher secondary stage. At the completion of two years of higher secondary education, student learning achievement is assessed at the Higher Secondary Certificate

(HSC) examination, and if successful, a student may proceed to tertiary education attending a higher education institute, a public or private university.

Measures of Evaluating Teacher Effectiveness and Value-added Model
A number of different strategies have been used to identify effective teachers. The measures that identify effective teachers based on their classroom activities include classroom observation, principal evaluations, student ratings of teacher performance, teacher self-reports (e.g., surveys, teaching logs and interviews) and analyses of classroom products such as student assignments and test scores (Goe et al., 2008). Another prominent method that evaluates teachers based on their contribution to student achievement, particularly on their test scores, is commonly termed as the 'value-added model' (Aaronson, Barrow & Sander, 2007; Kane & Staiger, 2008; Rivkin, Hanushek & Kain 2005).

Though the most widely used model has been classroom observation (Little et al., 2009), there has been a growing interest in value-added models to estimate the effects that teachers have on student learning (Chetty, Fredman & Rockoff, 2011; Little et al., 2009; Murphy, 2012). For example, In the Unites States, several school districts (e.g. Dallas, Los Angeles and Washington D.C.) have been using VA measures to evaluate their teachers and taking appropriate action to enhance their effectiveness (Chetty et al, 2011; Goe, 2008). Scholars (e.g. Drury & Doran, 2003; Goe, 2008; Hershberg et al., 2004; Little et al., 2008; McCaffrey, Lockwood, Koretz & Hamilton, 2003) have discussed reasons for the increasing popularity of using value-added models to estimate the teacher and college effects on student learning. For example, Goe (2008) noted that a value-added model provides a relatively objective and inexpensive technique to estimate the proportion of variability in student learning attributable to teachers, and is useful in determining which teacher characteristics matter for student learning. Other reasons include: it can portray clearer pictures of student learning as a growth-based system, compared with attainment based accountability systems of adequate yearly progress provisions (Braun, 2005; Murphy, 2012); and the method is superior to the traditional measures (e.g. principal evaluation) of teacher effectiveness that are based on subjective evaluation (Weisberg et al., 2009).

Moreover, empirical evidence (e.g. Chetty et al, 2011; Staiger, Gordon & Kane, 2006; Hanushek, 2009) suggests that teachers identified as effective based on value-added model can increase student achievement. For example, Chetty and colleagues (2011) found teachers with high value-added scores who were transferred to new college increased achievement at their new colleges in accordance with predictions. Students assigned to high value-added scored teachers in their elementary or middle college years are more likely to improve long term student outcomes, for example, attending higher-ranked colleges. The study also revealed that replacing a teacher having a lower value-added score with an average value-added teacher would result in a significant increase in a students' lifetime income (Chetty et al., 2011). However, there exist fundamental concerns and views that may bedevil using a value added model to measure of teacher effectiveness.

For example,
- such measures provide limited insight into what teaching practices matter for student learning which is needed to guide instructional development (Goe, 2008).
- random assigning of students to teachers for measuring teacher effectiveness is rarely feasible (or ethical) and effectiveness of the college and teacher is estimated under less than ideal conditions (Braun, 2005; Goldhaber & Anthony, 2004; Rothstein, 2009).
- a plausible risk of correct model specification in value-added models due to little consensus within the field about which model specifications produce the most accurate value-added model (Murphy, 2012).

Several value-added models have been developed, including the Dallas Value-added Accountability System (DVAAS), the Rate of Expected Academic Change (REACH), and the Education Value-added Assessment System (EVAAS) (McCaffrey et al., 2003). The EVAAS is the best known and most widely used approach (Ballou, Sanders & Wright, 2004; Braun, 2005). The EVAAS is highly parsimonious and uses all the test information available for a given cohort of students, and the identities of the colleges and teachers (Ballou et al., 2004; Braun, 2005). The basic model of EVAAS is an equation that includes the history of student test scores to estimate the effectiveness of the teacher (Ballou et al., 2004; Braun, 2005). However, the EVAAS has been criticized for not controlling for socioeconomic status (SES) and other background factors such as

ethnicity and gender (Kupermintz, 2003; Linn, 2001). However, research evidence (e.g., Ballou et al., 2004) has not supported these contentions.

Teacher Quality Assessment

Teacher quality assessment commonly includes reviews of qualifications, tests of teacher knowledge, observations of practice, and measurements of student learning gains. Assessments of teacher quality are currently used for policymaking, employment and tenure decisions, teacher evaluations, merit pay awards, and as data to inform the professional growth of teachers.

Qualifications, Credentials, and Teacher Characteristics

Teacher qualifications include a range of variables affecting teacher quality, including type of teaching certification, undergraduate major or minor, undergraduate institution, advanced degrees or certifications (such as certification through the National Board for Professional Teaching Standards and Centre for Teacher Accreditation (CENTA), type of preparation program (traditional or alternate route), test scores (various subject matter, licensure, or verbal skills tests), and years of teaching experience. In many countries, teaching credentials represent the main measure of teacher quality. In the United States, one goal of the No Child Left Behind law is to ensure that all teachers meet state-defined standards of highly qualified teachers. Demographic characteristics such as a teacher's gender, race, ethnicity, or socioeconomic background may also be characterized as elements of teacher quality as variables impacting student outcomes.

Teacher Practice

Assessments of teacher quality may also draw upon evidence collected from observations of teachers' work that lead to the empowering of effective teachers. This evidence may be collected from in-person or video-recorded observations of teaching, pre- and post-observation conferences with teachers, and samples of teachers' work with students. Assessments of teacher practice may examine teacher quality for a single lesson or over an entire school year. Such assessments may be holistic or narrative in form, but in rubric-based systems of teacher assessment like the Framework for Teaching, and Classroom Assessment Scoring System (CLASS) have become increasingly more common in the United States in order to align with state and federal accountability requirements. Many school districts have developed their own rubrics for this purpose, such as the IMPACT system used in the District of Columbia public schools. Other practice-based assessments of teacher quality require teachers themselves to assemble evidence and self-assess their own indicators of teacher quality according to rubrics as part of the process.

Examples include the Performance Assessment for California Teachers (PACT) and its national successor the edTPA, the Oregon-based Teacher Work Sample and the collection of assessments required by teachers seeking certification from the National Board for Professional Teaching Standards.

Teacher Experience

The way that most current teacher compensation systems are set up is to reward teachers with salary increases for every year of additional experience they gain. The research literature on the predictive power of teacher experience for student achievement gains, however, reveals modest effects of experience limited to the first few years of a teacher's career. Research by Hanushek, Kain, O'Brien, and Rivkin (2005), Kane et al. (2006), and Rockoff (2004) suggests that teacher effectiveness grows in the initial four or five years in the classroom and then begins to level off.

Teacher Evaluation Approaches

Teacher evaluation is a process used to measure teacher effectiveness based on students learning and success. Evaluations of teachers over the years have changed. In earlier years, teacher evaluations were based on personal characteristics of the teacher; however, starting in the early 1950s until the 1980s, teacher evaluations took a shift and started to focus on teachers' teaching, observed through students' outcomes. After the 1980s, teacher evaluations were measured based on increased professional development, accountability, and school improvement.

Teacher evaluation has taken numerous approaches that observed teacher practices. Measures of Effective Teaching (MET), Danielson's Framework Model, Classroom Assessment Scoring System (CLASS), and the Value added Model (VAM) are all evaluation tools that aim to measure student achievement using teacher

evaluation. MET evaluates teacher effectiveness through five measures: students' gains in standardized testing, recorded classroom sessions and teacher reflections afterwards, teachers' knowledge in the pedagogical content, students views of the classroom and instruction of the teacher, and the teachers own views on their working conditions and the support of the school.

While the MET approach uses five measures to evaluate teacher effectiveness, the Danielson Framework for teaching model evaluates teachers using four domains: planning and preparation, classroom environment, instruction, and professional responsibilities. In this framework of evaluation, teachers are evaluated through a rubric that contains these four domains. They can either be ranked or measured as unsatisfactory, basic, proficient, or distinguished. In this rubric, teachers are being evaluated through critical attributes and examples when being observed. Teacher responses to this evaluation system have been positive because the evaluation system presented clear and specific standards. Administrators generally perceive the Danielson Framework as positive because of the rigorous and specific statement of standards. One concern that administrators have about using the Danielson Framework as the sole evaluation model is that teachers may alter their behavior only around observable classroom behaviors, limiting how representative the evaluations truly are. Many schools use Danielson's framework for teaching to assess teachers.

The CLASS approach, by Robert Pianta, evaluates teachers based on their interaction with students. To do this, the CLASS model evaluates teachers' interactions using three domains: emotional support, classroom organization, and instructional support. This approach is much more flexible, as the domains used within the approach vary based on students' grade levels. On the other hand, the VAM approach uses students' test score gains to reflect teachers' effectiveness. Unlike the other approaches that evaluate particular characteristics or style of teaching for teacher evaluations, VAM does not directly evaluate the teacher. Although many of the approaches for teacher evaluations are debated, VAM is said to be inconsistent in its approach due to variation in classes, years, or test since its effectiveness measures are not based on teachers. However, it said that VAM measures are retroactively effective due to teacher practices that influence learning of students.

Finally, an organization in India called Centre for Teacher Accreditation (CENTA) uses two main steps in teacher certification and evaluation. The first step is an Objective Test which is based on the subject chosen, classroom practice, logical ability, communication etc. The second step is a Practical assessment which consists of an e-portfolio submission and a proctored assessment + interview. This evaluation and certification is based on CENTA standards that have been developed after several years of research and feedback.

Student Achievement

Student achievement is the measurement of the amount of academic content a student learns in a given time frame. Each instruction level has specific standards or goals that educators must teach to their students. Achievement is usually assessed through frequent progress and comprehension checks and examinations; however, there is no consensus on how it is best evaluated or which elements of it are most important. Student achievement refers to the extent to which a learner has attained their short or long-term educational goals. Individual differences in academic performance are strongly correlated with differences in personality and intelligence. As well, students' levels of self-efficacy, self-control and motivation also impact levels of achievement.

Student Achievement Measures

Teacher quality with regard to student achievement also known as "teacher effectiveness" is measured in terms of student achievement gains. Most extant research on teacher quality pertains to observable attributes, preparation, and credentials (Goldhaber, 2002; McCaffrey et al., 2003; Neild and Ripple, 2008). Probably the most widely studied attributes are experience and education levels, in part because the data can be readily obtained because of their use in salary placement (Goldhaber, 2002). There is mixed evidence, however, that experience and education levels are associated with student learning (Goldhaber, 2002; Goldhaber and Brewer, 1997, 2000; Hanushek, 1997; Wenglinsky, 2002). Student achievement is measured through the use of standardized tests to determine the academic growth of students over time. Recently, a type of analysis of this growth termed "value-added modeling," following the 1971 approach of Eric Hanushek has sought to isolate the fraction of student achievement gains attributable to individual teachers, or in some cases groups of teachers. However, it has been argued that student achievement measures do not

necessarily correlate entirely with teacher quality, given that there are various factors that influence a student's performance which is not under the control of a teacher.

Teacher Effectiveness Research and its Relationship to Student Achievement
Over the past four decades, as new insights have been gained and successive researchers have endeavoured to overcome the weaknesses of preceding investigative approaches, the concept of teacher effectiveness has become broadened. In the early 1960s, researchers (e.g., Coleman et al., 1966) examined direct links between inputs such as teacher personality, and outputs such as academic achievement, ignoring the process variables (i.e., teaching practices), to explain differences in student performance, but had limited success (Borich, 1998; Muijs, Reynolds & Kyriakides, 2016). Hence, since the late 1960s most researchers (e.g., Brophy & Good, 1986; Emmer, Evertson & Anderson, 1980; Good, Grouws & Ebmeier, 1983; Mortimore, Sammons, Stoll, Lewis & Ecob, 1988) shifted the focus on investigating the relationship between teaching practices and student academic achievement by using an input-process-product framework. In an input-process product framework, the inputs are teacher characteristics, including teacher background characteristics such as teacher qualifications and experience. The processes are classroom teaching practices, whilst student academic achievement (most often measured by student performance on standardized tests) represents the 'output'. Teacher effectiveness research (e.g., Good & Grouws, 1979a; 1979b; Mortimore et al., 1988) based on the input-process product model have investigated the relationships between teacher characteristics, the actions and practices of teachers, and student achievement.

The literature of teacher and College effectiveness research (e.g., Creemers & Kyriakides, 2012; Hattie, 2009) had established firmly that while Colleges are significant and important, the classroom level or the teacher explains a greater proportion of the variance in student learning and performance (Chapman, Muijs, Reynolds, Sammons & Teddlie, 2015; Houtveen, Grift & Creemers, 2004). Hattie (2009) in his meta-analysis noted that among the major sources accounting for student achievement are teacher, student, home, peer, college, and principal, and that the greatest source of variance is teachers (30%), next to the students themselves (50%). Moreover, some studies have attempted to determine the variability in student learning that can be attributed to the impact from a highly effective teacher.

For example, Stronge and Ward (2002), in an urban Virginia school district, revealed that students of the most effective teachers scored at least 30 points higher than the state's standard score in mathematics whilst their peers with less effective teachers scored 24-32 points below the standard. Similar findings by Slater, Davies and Burgess (2009) showed that students of a highly effective teacher had almost a full year's learning growth over peers with less effective teachers. Kane, Taylor, Tyler and Wooten (2011) estimated that a student who began the academic year at the 50th percentile and was assigned to top-quartile teacher had three percentile points higher in reading and two points higher in mathematics by the end of the academic year, compared with a student who began at the same percentile but was assigned to a bottom-quartile teacher.

CONCLUSION AND RECOMMENNDATIONS
Effective teaching is an important part of ensuring students is able to achieve their goals. It also has a positive impact on their wellbeing and the environment in which they learn. Teachers have an immense impact on their students, helping them to learn and develop into successful members of society. This is why it is so crucial that effective teaching practices are developed and sustained throughout a student's education career. Highly effective teachers structure the classroom environment so that it decreases the likelihood of inappropriate student behavior, increases desirable student interactions, and sets up students for success. Teachers are critical to the success of an educational system. An individual's imaginations, wisdom, love for humanity, and enlightenment can be developed through the guidance of a good teacher. The position of the teacher reflects the socio-cultural ethos of a society' today, teachers have a unique and important role in any culture because of this. To be an excellent teacher is to learn and pass on the relevant aspects of culture and tradition; to develop new knowledge, to stimulate innovation, to critically evaluate past traditions and cultures; and to enhance the social and economic fabric of a society.. The teacher's influence on the students entrusted to his care is the essence of education. Regardless of how well-designed a curriculum or syllabus may be, a lack of effective teachers makes it unsuccessful. The teacher's role is becoming more challenging in today's rapidly changing and dynamic environment. This new knowledge age presents a variety of challenges for instructors in this era of globalization. As their workload increases, their research responsibilities increase, and their skill set improve, they are challenged. Teachers' expectations for students'

performance have risen significantly in recent years. With his classroom duties and personal and family obligations, a teacher has to expend a great deal of energy each and every day. Teachers are subjected to a lot of stress and strain as a result of this tendency. So, relevant authorities and government of the people republic of Bangladesh should arrange contemporary training programs for the teachers. If it is doing so the teachers of the country will be effective, efficient, skilled and the students of Bangladesh will learn more.

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