

## Teacher Education Quality Assurance

### Teacher Certification

#### Policy Brief 3

#### Some Key Questions on Teacher Certification

1. Is certification necessary in addition to graduation from an accredited teacher training program?
2. Should certification be for “life,” or renewable, with specified requirements every three to five years?
3. Who should issue a certificate: Ministry of Education; higher education teacher training institutions; the accrediting body for teacher education; or a professional association of teachers?
4. How many types of teaching certificates should exist: e.g. primary and secondary; primary, middle and senior secondary; specialized subject matter and grade specific certificates?
5. Should there be alternate routes to obtaining a teaching certificate or only attendance at a teacher training institution: e.g. a condensed program; supervised on-the-job training; recognition for prior learning; or a written or oral examination?
6. Should certification be tied to induction programs, evidence of teaching performance, or a written or video portfolio?

#### Executive Summary

- Certification is promoted as a measure of teacher qualifications. It generally means that a teacher has been prepared in an approved teacher education program at the appropriate (secondary, tertiary normal/training college or university) level. Additional requirements can sometimes be required including passing an examination, and/or an induction period.
- Opponents suggest that the certification process consists of little more than counting course titles and that it seldom recognizes the possibilities of acquiring knowledge by other means or the professional competence of graduates.
- Many countries require continuous professional development, leading to re-certification every 3-5 years.
- Certificates tend to be offered by either: the Ministry of Education (MOE); the Ministry of Higher Education (MOHE); training institutions; an accreditation agency; or a subject/grade based professional association.
- Certification requirements can consist of any or all of the following items: graduation from a secondary school; passing a basic skills test; grades/marks in the tertiary education program; passing marks/grades in one’s major academic subject or education course work; successful completion of a student teaching practicum experience; passing a national examination, often on pedagogical content in one’s academic major; presentation of a teaching portfolio; evidence of successfully meeting the professional teaching standards; and successful completion of an internship or induction year.
- Alternative certification can consist of a condensed or shortened certification program; supervised on-the-job training; recognition for prior learning; passing a written certification examination; or presenting a teaching portfolio.
- Without specially designed and managed in-service training and mentoring, uncertified teachers often fail to produce desired levels academic achievement among students.

## **Introduction**

This policy brief examines several issues surrounding teacher certification, one of the screening mechanisms often used to determine a certain standard of teacher knowledge and proficiency. The focus is on whether it is a necessary and useful means to improve the quality of teachers. Different practices are described, including alternative certification routes. The questions posed and answered are based on those raised in policy discussions with various education colleagues, especially in South Asia. The purpose of the brief is to provide a concise knowledge resource on policy and implementation considerations, and alternative practices, regionally and internationally. How difficult and how many screening mechanisms should be utilized, depends in great part on how attractive the teaching profession is for reasons of salary, prestige and working conditions.

### **1. What is teacher certification?**

While each country, and often states or provinces within a country, have their own specific requirements, certification generally means that a teacher has been prepared in an approved teacher education program at the appropriate level (secondary, tertiary normal/training college or university). Teacher certification, also known as teacher licensing in many countries, has the purpose of clearly differentiating between those who are “qualified” to teach and those who are not. Certification is promoted as a measure of teacher qualifications, combining the candidate’s knowledge of subject matter, teaching and learning. In general, countries that have a more diversified and decentralized provision of teacher education also have teacher certification policies in place to encourage a common standard.

### **2. Does certification of teachers provide high quality teachers into the profession?**

While most educational authorities and the public prefer to have certified teachers in all classrooms, there are major debates in many countries over whether the certification of teachers attracts and retains higher quality teachers in the profession. Much about the quality of teachers rests with the type of initial training which teachers receive and how closely it is linked to helping teachers deal practically with student learning in a classroom e.g. mastery of subjects to be taught, using appropriate pedagogy and language of instruction to actively engage with students with different learning needs, and knowing how to monitor learning and make changes in the learning environment as needed. *So certification itself is not a guarantor of quality.* However, where an institution meets certification requirements, is accredited or is at least providing very sound training, graduates from this institution are more likely to have the initial skills needed to begin teaching. See Policy Brief Two for further information on institutional accreditation.

In reviewing the pros and cons of certification, opponents would suggest that the certification process consists of little more than counting course titles and that it seldom recognizes the possibilities of acquiring knowledge by other means. The single most important variable in student achievement is the teacher, and yet some certification requirements restrict a school’s ability to employ uncertified, but perhaps more highly competent teachers. There remains a strong debate as to whether highly talented university graduates, who might be employed as teachers, are kept out of the profession by excessive and irrelevant certification requirements.

However, supporters of certification seek to provide evidence of the link between certified teachers and student performance e.g. Darling-Hammond (2002) provides such evidence from a 50-state survey of policies, in addition to examining the ways in which teacher qualifications and other school inputs are related to student achievement across states. She documents in great detail the findings of both the qualitative and quantitative studies that suggest that policy investments in the quality of teachers through certification requirements may be related to improvements in student performance.

### **3. Who issues the teaching certificate?**

In most countries one or more of the following agencies/institutions are involved in the process of issuing teacher certificates:

- **The Ministry of Education (MOE)**, if it is a more unitary system which governs education from pre-school through higher education.
- **The Ministry of Higher Education (MOHE)** in countries where higher education is administered separately from the pre-school through secondary system. It often has joint responsibility with the MOE.
- **Training institutions**, whether secondary or post-secondary institutions, or departments or programs in education within a university setting, can provide the degree and certificate, with approval from the appropriate Ministry and often an accreditation agency.
- **An accreditation agency**, while not actually issuing the certificate, it may be used in many developed countries to control quality in teacher education programs. Depending on its regulatory framework, it seeks to permit only graduates of accredited institutions to enter the profession.
- **Professional associations** will often set requirements for teachers to be certified in their field of teaching. Unless these are codified into specific governmental rules and regulations, however, they usually do not have the power of law.

Important educational policy issues in the table which follows are highlighted and underlined.

**Table 1: Examples of Certification Organizations**

Country	Who issues the certificate?	Comments
<i>South Asia</i>		
India	<p>The initial division of jurisdiction for <b><u>certification of teachers for teaching at the elementary stage is given to the State Departments of Education</u></b> and that for teaching at the secondary stage given to the universities. This certification is done in association with the <b><u>National Council for Teacher Education (NCTE)</u></b></p> <p>The <b><u>Certificate for teaching</u></b> at the elementary stage has been given different names by states. Some of them are BTC (Basic Teaching Certificate), D.Ed. (Diploma in Education), TTC (Teachers' Training Certificate) and there are many others. But all of them are considered equivalent for the purpose of teaching in primary and upper-primary schools. The course that prepares <b><u>teachers for teaching in secondary schools is called B.Ed.</u></b> and equivalent degrees are given by as many as 200 universities.</p>	<p>India through an Act set up in 1995 the National Council for Teacher Education <b><u>(NCTE) and gave it statutory powers for framing regulations and norms for maintaining standards of teacher education in the country,</u></b> which direct bearing on teacher certification. The NCTE performs functions that are regulatory and also concerned with academic development of teacher education. Its functions are wide ranging and include:</p> <ol style="list-style-type: none"> <li>To undertake surveys and studies relating to various aspects of teacher education and publish the results thereof;</li> <li>To make recommendations to the Central and State Governments, Universities, and recognized institutions in the matter of preparation of suitable plans and programs in the field of teacher education;</li> <li>To <b><u>co-ordinate and monitor teacher education</u></b> and its development in the country;</li> <li>To lay down guidelines in respect of <b><u>minimum qualifications for a person to be employed as a teacher</u></b> in schools or in recognized institutions;</li> <li>To lay down norms for any specified category of courses of training in teacher education, including the minimum eligibility <b><u>criteria for</u></b></li> </ol>

		<p><b><u>admission</u></b> thereof, and the method of selection of candidates, <b><u>duration of the courses, course contents and mode of curriculum</u></b>;</p> <p>f. To lay down guidelines for compliance by recognized institutions, for <b><u>starting new courses or training and for providing physical and instructional facilities</u></b>, staffing pattern and staff qualifications;</p> <p>g. To lay down <b><u>standards in respect of examinations</u></b> leading to teacher education qualifications, criteria for admission to such examinations and schemes of courses of training;</p> <p>h. To lay down guidelines regarding tuition fees and other fees chargeable by recognized institutions;</p> <p>i. To promote and <b><u>conduct innovation and research</u></b> in various areas of teacher education and disseminate the results thereof;</p> <p>j. To examine and review periodically the implementation of the norms, guidelines and standards laid down by the Council, and to suitably advise the recognized institutions;</p> <p>k. To evolve suitable <b><u>performance appraisal systems, norms and mechanisms</u></b> for enforcing accountability on recognized institutions;</p> <p>l. To formulate schemes for various levels of teacher education and identify recognized institutions and set up new institutions for teacher development programs;</p> <p>m. To take all necessary steps <b><u>to prevent commercialization of teacher education</u></b>, and perform such other functions as may be entrusted to it by the Central Gov't.</p>
<i>Other</i>		
<b>A u s t r a l i a/ S t a t e o f V i c t o r i a</b>	<p>The <b><u>Victorian Institute of Teaching</u></b> is a statutory authority for the <b><u>regulation and promotion of the teaching profession</u></b> in Victoria established by the <i>Victorian Institute of Teaching Act 2001</i>. This Act was repealed with the proclamation of the <i>Education and Training Reform Act 2006</i> on 1 July 2007. The Victorian Institute of Teaching continues in operation under and subject to the <i>Education and</i></p>	<p>The VIT is more than a certifying agency. The Institute is governed by a twenty member Council, the majority of whom are practicing teachers from government, Catholic and independent schools. The Institute:</p> <ul style="list-style-type: none"> <li>• registers all teachers to <b><u>ensure only qualified people are employed in Victorian schools</u></b></li> <li>• promotes the profession of teaching to the wider community</li> <li>• works with teachers to <b><u>develop standards of professional practice</u></b></li> </ul>

	<p><i>Training Reform Act 2006</i> after 1 July.</p> <p>It <b><u>registers/certifies teachers working in Victorian government, Catholic and independent schools</u></b>. Like other professions occupying positions of trust and responsibility, teachers are required to be registered in order to practice their profession. All practicing Victorian school teachers must be registered by the Institute.</p>	<ul style="list-style-type: none"> <li>• supports teachers in their first year of teaching with a <b><u>structured induction program</u></b></li> <li>• <b><u>approves and accredits pre-service teacher education courses</u></b> that prepare teachers</li> <li>• investigates and makes findings on instances of serious misconduct, serious incompetence or lack of fitness to teach.</li> </ul>
<p>U S A/ St at e of Ca lif or ni a</p>	<p><b><u>California Commission for Teacher Credentialing</u></b></p> <p>The California Commission on Teacher Credentialing is an agency in the Executive Branch of California State Government. It was created in 1970 by the Ryan Act and is the oldest of the autonomous state standards boards in the nation. The major purpose of the agency is to <b><u>serve as a state standards board for educator preparation</u></b> for the public schools of California, the <b><u>licensing and credentialing</u></b> of professional educators in the State, the <b><u>enforcement of professional practices</u></b> of educators, and the <b><u>discipline of credential holders</u></b> in the State of California.</p>	<p>The California Commission on Teacher Credentialing consists of nineteen members. The Governor appoints fourteen voting Commissioners and the State Superintendent of Public Instruction or his/her designee serves as the fifteenth voting Member. The four ex-officio Members are selected one each by the major elements of the California higher education constituency: Association of Independent California Colleges and Universities; Regents of the University of California; California Postsecondary Education Commission; and the California State University. The Governor-appointed Commissioners consist of six classroom teachers, one school administrator, one school board member, one school counselor or services credential holder, one higher education faculty member from an institution for teacher education, and four public members. Governor appointed Commissioners are typically appointed to four-year terms, and serve as volunteers in unpaid positions. (See annex 1 for further related information)</p>

4. **How many types of teaching certificates should exist?**

Critics of the certification process point to other professions, such as medicine, in which all medical doctors receive the same license or certification. Most go on into specializations, often with a National Board certification, but they may practice medicine without such advanced certification. In teaching, however, there can be many separate certificates, specializations or endorsements, each with their own specific set of requirements. The broad categories bolded in the example from the USA are typical in many countries.

**Table 2: Examples of Types of Teaching Certificates**

Country	Types of Teaching Certificates	Comments
<i>South Asia</i>		

Af gh an ist an	The <b><u>teacher registration and assessment</u></b> efforts that are being conducted by the Ministry will lay the foundations for developing a teacher credentialing system that will in turn establish teacher pay and grading levels.	This was to have been put into place in 2007 ( <i>need to check current status</i> )
Ba ng la de sh	<b><u>One year provisional /probationary period. Licensure Renewal/Sustaining:</u></b> Interested persons who would like to be a teacher take the national examination for registration.	
Bh ut an	Primary school teachers take a two-year Certificate course that leads to a Primary Teacher's Certificate. The training of secondary school teachers is through the National Institute of Education. A Postgraduate Certificate in Education is then awarded.	The primary course is <b><u>assessed by course work (50 percent) and examination</u></b> (50 percent). At the secondary level the NIE offers a three year Bachelor of Education course.
In di a	<b><u>Certificates</u></b> appear to be offered concurrently with the <b><u>completion of required course work from accredited institutions.</u></b>	The <b><u>professional skills of teachers</u></b> in all categories of educational institutions are determined by the regulations of the State Education Departments and examining bodies. The level of professional skill required is fixed in terms of academic and professional qualifications.
Ne pa l	A <b><u>teaching license</u></b> is a mandatory requirement for teacher deployment and promotion. The <b><u>National Centre for Education Development in collaboration with the National Teacher Union</u></b> will prepare and enforce guidelines for updating the teaching license. The continuing licensure program will be linked to <b><u>continuous professional development</u></b> of teachers and to the promotion process.	<b><u>Teacher-qualification, work experience, training achievement, research and innovative works and student achievement</u></b> will be considered as a basis for role assignment, promotion and other incentives.
Sr i La nk a	<b><u>Licensure Renewal/Sustaining: One hundred Teacher Centers</u></b> provide short-term, nonresidential continuing teacher education in order to upgrade teacher skills at least once in every seven years.	
Ot he r		
U S A (fo un d in m ost sta tes	The following broad categories are used, many of which include overlapping grades. Within these categories, there can be many more specializations: <ul style="list-style-type: none"> <li>• <b>Early Childhood</b> Teaching Certificate- Ages 2-5 (Early Childhood Development Major)</li> <li>• <b>Elementary Teaching</b>-Grades Kindergarten and Grades 1-8 (Interdisciplinary or Elementary Ed. Major)</li> </ul>	See Annex 1 for further information

)	<ul style="list-style-type: none"> <li>• <b>Middle School</b>-Grades 5-9 (Major and minor academic subjects with up to 20 endorsement areas)</li> <li>• <b>Senior Secondary</b> Grades 6-12 (Major and minor academic subjects with up to 20 endorsement areas)</li> <li>• <b>Additional Certificates</b> or endorsements in special education, Teaching English as Foreign Language, bilingual education, vocational or technical education, and numerous other “specialities.”</li> </ul>	
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5. **Are there other requirements used in addition to graduation from an accredited program?**

In many countries, if a teacher candidate completes an approved program in a training college or university, then s/he is automatically certified by the state or nation. Other countries, in seeking to improve the quality of teachers, have a government administered examination or other pre-requisites. In about half of OECD countries, completing a teacher education program is not sufficient to teach. Teachers are required to pass an examination and/or successfully complete a period of mandatory teaching experience.

Some of the examples of possible requirements before, during and after a teacher training program that are internationally used in a variety of countries include:

- **Graduation** from the upper half of one’s secondary school graduating class;
- **Passing a basic skills test** in basic mathematics and the national language above a certain cutoff score;
- **Grades/marks in tertiary education** in the upper half of one’s class;
- **Passing marks/grades in one’s major academic subject;**
- **Passing marks/grades in all education course work;**
- **Successful practicum experiences** in the schools, rated by cooperating teachers;
- **Successful completion of a student teaching clinical experience**, as rated by cooperating teacher(s) and university supervisors;
- **Passing a national examination, often on pedagogical content; in one’s academic major** or in an interdisciplinary major for elementary teachers;
- **Presentation of a teaching portfolio** in notebook or on-line format;
- **Evidence of successfully meeting the professional teaching standards** set by the country;
- **Successful completion of an internship year**, as rated by principal, supervisor, and teaching colleague.

**Table 3: Other Certification Requirements**

Country	Other Requirements	Comments
<b>Finland</b>	Some countries, such as Finland, impose no requirements on prospective teachers beyond completion of a teacher education program.	Finland can afford such a simple approach because its teacher education programs are standardized, the demand for teaching education opportunities is high, and connections between training institutions and the education profession are close. About half the OECD countries, however, have additional requirements in the form of competitive examinations and mandatory teaching experience or both, as criteria

		for entrance to the teaching profession. <sup>47</sup>
<b>France, Germany, Greece, Italy, Japan, Korea, Mexico (in some states), and Spain</b>	<p>Competitive examinations</p> <p>Both Italy and Spain also require one year of teaching.</p> <p>Only one in three OECD countries, including the United States, requires teaching experience in order to receive a regular teaching license. Further, the typical U.S. three-year teaching requirement is longer than that in all other countries. Several other countries, though, call for a probationary period before a teacher can get tenure in the form of a permanent teaching post.<sup>48</sup></p>	In some cases the exam scores determine whether one gets a teaching license; in others, scores determine who gets positions in particular schools.
<b>Peru</b>	Introduced in the 1990s a selection process through a national competitive exam scored by staff from the Ministry of Education	
<b>Chile, Guatemala, Venezuela</b>	Use qualification commissions established under specific regulations that guide member composition to evaluate candidates credentials upon announcement of vacancies	
<b>US A/State of New York</b>	<p>The New York State Teacher Certification Examinations™ (NYSTCE) address New York Education Law and Commissioner’s Regulations, which require prospective New York State educators to pass designated tests as a requirement for receiving state certification.</p> <p>The NYSTCE are criterion-referenced, objective-based tests designed to measure a candidate’s knowledge and skills in relation to an established standard rather than in relation to the performance of other candidates. The explicit purpose of these tests is to help identify for certification those candidates who have demonstrated the appropriate level of knowledge and skills that are important for performing the responsibilities of an educator in New York State public schools.</p>	<p>Test questions were developed using textbooks, New York State learning standards and curriculum guides, teacher education curricula, and certification standards. The tests were developed in consultation with committees of New York State teachers, teacher educators, and other content and assessment specialists.</p> <p>(see Annex 2 for further details)</p>

## 6. Is initial teacher certification sufficient or is there a need to re-certify?

Teacher professional development must be an ongoing continuum of learning if teaching quality is to be improved and kept abreast with changes to the curriculum, and changing classroom learning techniques etc.

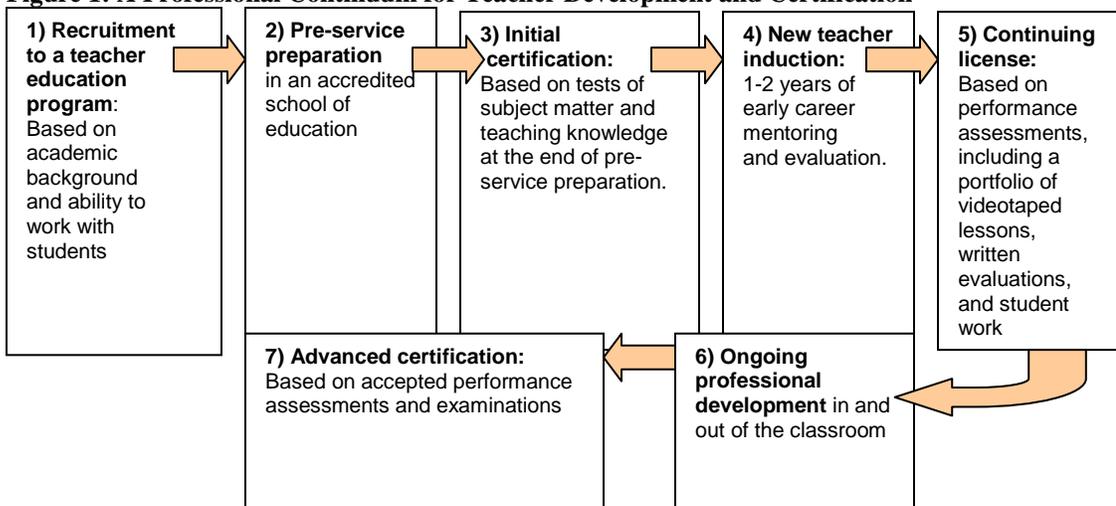
Initial teacher certification usually reflects specific competencies in knowledge, attitudes and skills acquired in pre-service training. These standards must be measurable. Pre-service teacher education must be structured to balance classroom learning of subject-matter information and principles, pedagogical methods and professional attitudes toward nurturing students and engaging with key stakeholders including parents, community and self-improvement over time. Mentored practice in school settings is a necessary component in preparing teacher trainees for certification and entrance into the profession.

Several factors have emerged to support a spreading movement for periodic teacher re-certification.

- First of all, the contents of some subjects, such as science, technology and geography, have evolved over the years, reflecting new discoveries and new research findings. Increasingly, as knowledge becomes dated, teachers need to seek opportunities for updating their skills and knowledge in order to remain effective in the classroom.
- Secondly, there is widespread skepticism about the quality of much pre-service training for teachers, particularly in countries where many teacher education institutions are not accredited. The feeling is that if initial certification reflects dubious standards in pre-service teacher education, it is necessary to encourage subsequent professional growth and re-certification.

With increased pressure on teachers to be accountable for student learning, and pressures on governments to improve not just the pre-service programs, but in-service training also, many countries now see certification as a professional lifelong process. Continuous professional development and re-certification often become linked. The figure which follows outlines a continuum now found in several countries,

**Figure 1: A Professional Continuum for Teacher Development and Certification**



Some guidelines based on this cycle:

- **Recruitment:** School systems and teacher training programs should be proactive in recruiting trainees with good academic backgrounds and an affinity for working with children and young people.
- **Pre-service training:** Only accredited schools of education should be allowed to train teachers. A balance of academic subjects is needed together with teaching methods courses, learning about classroom management, collaborative learning and other methods. Pre-service training should also include practice teaching and tutoring.

- ***Initial intern license or probationary certification:*** Successful completion of course work and practica in supervised teaching/mentoring could lead to licensing as an intern for 1 or 2 years.
- ***Continuing certification/license:*** Meeting standards of good teaching practice and effective student learning (based on a variety of assessment methods) will enable teachers to obtain this level of licensing.
- ***On-going professional development:*** Teachers will be encouraged to take advantage of learning from mentors and peers on the job, from special workshops, professional associations and in-class or distance learning to improve their skills and learn about new developments in their fields.
- ***Advanced certification:*** Further assessments and examinations (as well as monitoring of student achievement) will lead to advanced certification.

**Table 4: Examples of Certification and Recertification Process**

Country	Intervention	Comments
Canada (British Columbia)	<p>Managing the Certification and Recertification Process: In the Canadian Province of British Columbia, the Teacher Qualification Service (TQS) is a non-profit society funded jointly by the British Columbia Teachers' Federation and the British Columbia School Trustees Association. Prior to this, the British Columbia Department of Education issued certificates to teachers which allowed them to teach in provincial public schools and assisted school districts in determining their placement on district salary grids. The Department of Education decided that the determination of teacher salaries should be separated from the function of certification. The TQS was launched in 1969 to advise teachers and school boards regarding teachers' qualifications. It began issuing to teachers a "TQS" card indicating a category which reflected the teacher's level of training. The TQS category replaced the teaching certificate issued by the Department of Education as one of the main factors determining placement on a district's salary grid. Today, the TQS continues its role of evaluating British Columbia public school teachers' professional and academic qualifications and assigns categories based on these qualifications.</p>	<p>In many countries, ministries of education, including teacher service commissions, are responsible for teacher certification. In decentralized and federal states, certification is handled by state or provincial education authorities</p>

**7. What are the implications of hiring uncertified teachers?**

Meeting the demand for qualified teachers is a challenge. Uncertified teachers are permitted employment in many communities due to reasons including:

- *The rapid expansion of school systems*, producing teacher shortages;
- *Individuals from other professions* seek to become teachers, during economic hard times;
- *Unrealistic or excessive requirements* to enter teaching from other professions;
- *The generally low salaries of teachers* makes it difficult to attract candidates to the profession;
- *The tendency of certified teachers to migrate* to locations with better pay or conditions of service;
- *High rates of attrition*, as large numbers of teachers abandon the profession altogether, after a few years of service; and
- *Lack of certification enforcement*, which often leads to teacher appointments being made for political reasons.

A major attraction of hiring uncertified teachers is their ease of recruitment and lower cost compared with certified teachers. In some cases, uncertified staff are hired, and the internal organizational mechanisms are such that teachers are monitored and supported in their teaching tasks to ensure a level of quality (see case of Bangladesh/BRAC below). These are not necessarily linked to any type of certification program.

Without specially-designed and managed in-service training and mentoring, uncertified teachers often fail to produce desired levels academic achievement among students. It is therefore desirable to provide programs to assist individuals to become fully certified. In some countries, alternative routes to certification have been devised to assist uncertified personnel to become certified after phases of in-service training.



**Table 5: Examples of the Use of Uncertified Teachers**

Country	Use of Uncertified Teachers	Comments
<b>South Asia</b>		
<b>Afghanistan</b>	<p>Since certification is a recent phenomenon in Afghanistan, a large percentage of teachers are still in the process of completing the necessary course work to receive a teaching certificate.</p>	<p>The quantitative and qualitative challenges associated with teachers and teacher education were anticipated from the very first days of the Transitional Government. The number of basic education teachers in service rose dramatically from 21,000 in 2001 to 128,000 in 2005. During these years, two-year Teacher Training Colleges (TTCs) throughout the country trained only 1,646 teachers out of 128,000. (Ministry of Education 2006) The majority of the teaching workforce is either untrained or trained under a system with totally different goals and policy orientations. Yet the introduction of a new curriculum is likely to encounter great difficulties without teachers able to implement it effectively in the classroom. Ono et.al. (2007)</p>
<b>Bangladesh</b>	<p>Use-of para-professionals in BRAC (Bangladesh Rural Advancement Committee) non-formal schools: The aim was to develop a school model for poor rural children, especially girls, to equip them in basic reading, writing and numeracy along with life skills. Teachers are typically married adults, 60-70% of whom are women, who have completed 9 or more years of education and live within easy walking distance of the school. These teachers are hired on a temporary, part-time basis and are paid modest wages.</p> <p>The one teacher school is operated by the same teacher for the same cohort of children (about 30 students) for the entire period of four years and delivers lessons in all subjects. The teacher is prepared through a fifteen day induction at a residential BRAC training center and then one or two day in-service refresher training sessions each month by BRAC</p>	<p>This program illustrates how careful decision-making, combined with reinforced training, can lead to positive outcomes. This is a very successful example of using staff who have limited teaching experience and to quickly equip them with skills for the task. While this is a non-formal education program, the success factors have application for formal education. Some key factors include the practical classroom teacher training in the first 15 days, coupled with regular (often weekly) visits from BRAC field workers to monitor and provide pedagogical support.</p> <p>The program was launched in 1985 with 22 one room primary schools. By 2003, the program had expanded to more than 30,000 primary schools providing the full primary education in four years. The school timings are flexible and are fixed according to needs. Children do not have to pay any fees and there are no long holidays or homework. Following the national curriculum, BRAC</p>

	<p>staff at a BRAC office near the teacher's school. Special courses are organized at the beginning of each grade on core subjects such as Maths, English, Bangla, Science and Social Studies. Weekly visits from BRAC field workers provide teachers with regular feedback.</p> <p>Poor teacher salaries are generally associated with high turnover rates. Yet the attrition rate for community para-teachers in Bangladesh is estimated at 8 per cent per year, which is very low compared to other countries. This can be attributed to the fact that most BRAC teachers are married women from the community, who are likely to remain there. This profile facilitates retention in the schools. The BRAC program does not link its teaching program to certification as a public school teacher</p>	<p>develops textbooks and other materials for up to Grade III and government textbooks are being used in Grades IV and V. As of December, 32,000 primary schools with 32,937 teachers were in operation to cater to the needs of 984,440 children where 65% were girls. Among these, 5,500 schools with 164,835 students (72% girls) were operated by other NGOs with our support. Additionally, 1,415 BRAC primary schools were operated in urban areas with 47,539 students and 2,250 ethnic schools with 57,645 learners were operated in remote areas. BRAC has also been operating 36 clusters schools principally in Dhaka on an experimental basis to accommodate children from the slums and those who are working. A high level graduation and transfer rate has been maintained in BRAC primary schools. To date 3.80 million children have graduated from the primary schools with a course completion rate of 93%. Of these, 3.54 million children (66% girls) made the transition to formal schools. (BRAC website, 2009)</p>
<b>India</b>	<p>Use-of para-professionals Because of the enormous size of India's primary school-aged population, the recruitment of para-professionals has become the norm in many states, such as Madhya Pradesh and Chhattisgarh, where they accounted for 52% and 41% of primary instructors in 2003. Based primarily in rural areas, para-teachers are not subject to any mandatory training, aside from an induction course which is supposed to run for 20 to 40 days but has been found to last for just one week.</p>	<p>Surprisingly, many para-teachers have similar, if not better academic qualification than other teachers. This may be due to substantial unemployment among tertiary graduates. Nevertheless, most para-teachers have probably not completed the official two-year teacher-training program, which provides the pedagogical background needed to be effective in the classroom. Indian para-teachers receive lower salaries and have less job stability than their certified counterparts. This is problematic from a quality perspective since many para-teachers will be obliged to take second shifts or other jobs outside of the education sector to earn more income, which can lead to absenteeism, poor performance in the classroom and low morale (Kumar, Priyam and Saxena (2001). Part of the solution may be to provide para-teachers with</p>

		in-service training to reinforce their overall professional development. (Kumar, 2001)
<b>Other Countries</b>		
<b>USA</b>	Non-certified teachers from prestigious universities In some urban and a few rural school districts, graduates of prestigious universities and colleges have been hired directly as teachers. For example, the Teach for America, or “TFA” program, recruits recent college Bachelor’s degree graduates who commit to teaching for two years, under the assumption that their subject matter expertise is the essence of what they need to teach. About 5,000 TFA teachers are working in American classrooms.	Because evaluations of student learning outcomes tended to indicate that this is not always a productive policy, corps members must pass subject-area tests before teaching and take ongoing coursework during the school year. Teach For America works with school districts, states, and schools of education to ensure that corps members have access to coursework, test information, and preparation tools to meet these requirements. In many regions we have established partnerships with graduate schools that enable corps members to work towards obtaining a masters’ degree in education.

**8. Are alternative certification programs a viable solution to meet increasing demands for qualified teachers?**

Alternative certification programs have been developed which give individuals opportunities to earn their teaching certificates typically in one of the following ways:

- ***A condensed or shortened certification program*** may be completed during weekends and vacations at an accredited teacher training college or university, while candidates work full-time.
- A widely used mechanism is to obtain certification through some form of ***distance learning***, often using multi-media radio, television, internet and texts.
- ***A supervised on-the-job training*** under a “master” teacher or supervisor, is often combined with course work in person or through distance learning.
- ***Recognition for Prior Learning (RPL)*** may be used when masses of teachers need to be upgraded, either for a teacher training college or university degree, and to be certified. This is often combined with an examination and a portfolio of professional work (see example below from Indonesia).
- ***Passing a written certification examination***, with or without some performance measure, with no additional course work, portfolio or RPL is used in some countries, but is highly dependent upon the examination being able to discriminate well on the quality of the candidate.

Proponents of alternative teacher certification routes tend to argue that alternative routes are viable based on reasons including the following:

- Good alternative teacher certification programs are market-driven. The programs are designed specifically to meet the demand for teachers in geographic areas and in subject areas where the demand for teachers is greatest. Prospective teachers are recruited to meet those specific demands.
- They eliminate artificial and unnecessary licensing requirements, and are not overly onerous for candidates to manage while they are in employment.
- The matching teacher preparation programs are tailor-made. Programs are specifically designed to meet the preparation needs of individuals who already have at least a bachelor’s degree and, in many cases, experience in other occupations, to teach in specific areas and in specific subjects.

- The alternative certification programs are job-specific. Rather than train people to teach who may or may not ever go into teaching, alternative route programs recruit individuals for specific teaching positions and place prospective teachers in those jobs early in their training programs.
- The teacher preparation program is usually field-based, so teachers get much needed practical experience.
- Prospective teachers tend to work with mentor teachers while teaching.
- Candidates usually go through their program in cohorts, not as isolated individuals.
- Most of these programs are collaborative efforts among state departments of education whose responsibility it is to license teachers, colleges and universities that historically have had the responsibility for educating and training teachers, and school districts that actually hire teachers.

**Table 6: Examples of Alternative Approaches to Certification**

<b>Cou ntry</b>	<b>Intervention</b>	<b>Comment</b>
<b>OE CD coun tries</b>	Of twenty-five OECD countries for which information is available, seventeen make it possible for side entrants— that is, people who have pursued nonteaching careers—to enter the teaching profession. These programs last from one to three years and vary in form. The most common form, used in twelve countries, provides special programs in traditional teacher training institutions, but some offer adult education or distance learning programs. In most countries, side entrants are permitted to start teaching before they are fully qualified.	Not much information is available on the extent to which these programs are used in various countries or on how successful they are at attracting and retaining teachers. In general, the side entrant programs appear to be more a response to the need for teachers than a general movement toward greater flexibility in the teaching profession.
<b>Engl and</b>	An interesting program which resembles the Teach for America Program in the United States, is England’s Teach First program, which specifically addresses teacher shortages in London. A two-year program for graduates who had intended to pursue business careers, it provides intensive employment- based teacher training during the summer after graduation and additional support and training during the first year of teaching, culminating with a teaching qualification.	
<b>Indo nesi a</b>	Recognition of Prior Learning for Certification and Upgrading in Indonesia: Faced with having to upgrade hundreds of thousands of teachers and certify over 2 million teachers, Indonesia developed new models for the process. The first model developed in 2006 included three elements: (a) a teacher portfolio	In this case it applies not just to teachers, but to individuals seeking credit for previous experience to enter any occupation. Stevenson and Kraft (2008)

	<p>providing details of the teacher’s training and experience; (b) a formal classroom performance assessment by a trained assessor; and, (c) an examination based on the subject material and pedagogy of their subject or phase of teaching. By December 2006, with the Regulation unsigned, with 1000 assessors trained and the districts briefed and allotted their teacher quota, the process was postponed for reconsideration.</p> <p>By mid-2007, a second model consisting of the submission of a portfolio to be compiled by each teacher to the certifying university was in place. The new portfolio incorporated a provision for sample lesson plans and a classroom assessment for completion by both the teacher’s principal and the local school supervisor. This model was used with the first batch of teachers certified in November 2007. The process required the certifying university to mark the portfolios, award successful teachers their Educator Certificate, and advise the Ministry in order to commence payment of the professional allowance. Those failing the process have been required to attend a university-designed nine-day (90-hour) training course and pass a test on this work before being considered again for the award of their teaching certification. The formal classroom observation of teachers by a trained external assessor was removed from the latterly designed certification process.</p>	
<p><b>Australia /State of Victoria</b></p>	<p>Qualifications one needs to register and practice as a teacher in Victoria. The Institute will grant registration to an applicant who possesses:</p> <ul style="list-style-type: none"> <li>• Four years of approved tertiary study, including an approved course of primary or secondary teacher education. OR</li> <li>• An approved Certificate of Proficiency/Completion in a trade together with: <ul style="list-style-type: none"> <li>- relevant industrial experience such that the period of apprenticeship and the industrial experience totals not less than eight years; and</li> <li>- an approved trade technician course or an approved equivalent program of post-apprenticeship studies; and</li> <li>- an approved course of teacher education.</li> </ul> </li> <li>OR</li> <li>• An approved Certificate of Technology, together with a minimum of six years of approved industrial experience and an approved course of secondary teacher education.</li> </ul>	<p>These requirements include traditional routes including study at a regular college/university, along with others which recognize prior learning/experience.</p> <p>Under the terms of the <i>Mutual Recognition (Victoria) Act 1998</i> and the <i>Trans Tasman Mutual Recognition Act 1997</i>, the Institute is also required to register a person who is registered to practice as a teacher in any other participating State or Territory of Australia or in the country of New Zealand.</p>

	2. If the applicant does not meet the requirements of 1. above, but does have an approved course of primary or secondary teacher education, then in limited and extraordinary circumstances the Institute may register the applicant as a teacher.	
USA	Two kinds of alternative certification programs are proliferating in the USA: those delivered by agencies not affiliated with an institution of higher education (sometimes called NUCPs for Non-University Certification Programs) and pared-down degrees delivered over the Internet by universities and corporations specializing in "for-profit" educational endeavors. It is reported, that in California, approximately one in five new teachers enters the profession through NUCPs; in Texas and New Jersey, one in four new teachers comes from NUCPs.	
USA / State of New Jersey	<p>Characteristics of an Effective Alternative Route Program</p> <p>(i) Reform traditional teacher preparation by eliminating artificial and unnecessary requirements; <i>thereby laying the groundwork for an alternative program that is equivalent and parallel.</i></p> <p>(ii) Balance workability with a firm commitment to meaningful support and training. <i>If the program is cumbersome and bureaucratic, districts will not use it and capable candidates will not tolerate it.</i></p> <p>(iii) Eliminate emergency certification and disallow the employment and reassignment of teachers <i>to teach subjects in which they have little formal education.</i></p> <p>(iv) Educate the public and the profession. <i>Any attempt to reform will generate opposition and rhetoric about "lowering standards."</i></p> <p>(v) Do not make operation of the "alternate route" program legally contingent on college participation.</p> <p>(vi) Recruit, recruit, recruit. <i>Under New Jersey's dual system, a school district with a job opening can hire any graduate of any college, of recent or past years, who has a degree in the subject field, an appropriate mix of personal qualities and experience, and the ability to pass the relevant subject test.</i></p>	(see Annex 3 for further details)
Japan, Korea, and Scotland,	<p>- have no alternative routes into teaching</p> <p>- has side entrant route</p>	These countries all have relatively high teacher salaries. <sup>49</sup> Germany appears to be a counterexample, in that even though it pays high salaries it does have a side entrant program. But the program is quite limited, with only 3 percent of new appointees entering

<b>Germany</b>		through that route in 2003. Moreover, though some side entrants in Germany teach in shortage areas in the general education system, such as physics and mathematics, most work in vocational areas.
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## Annex 1

### **Credential Requirements to become a teacher in USA/State of California**

[www.ctc.ca.gov/](http://www.ctc.ca.gov/)

#### **Become a Teacher in California**

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##### **I want to teach in elementary school.**

Individuals who want to teach in elementary school in California must earn a Multiple Subject Teaching Credential. There are a variety of routes an individual can take to earn the Multiple Subject Teaching Credential.

- [Earn your Multiple Subject Teaching Credential at a college or university](#) [PDF]
- [Earn your Multiple Subject Teaching Credential through a college or university internship program](#) [PDF]
- [Earn your Multiple Subject Teaching Credential through a school district internship program](#) [PDF]
- [Earn your Multiple Subject Teaching Credential with experience from teaching at a private school](#) [PDF]
- [Earn your Multiple Subject Teaching Credential through the Early Completion Internship Option](#) [PDF]
- [Earn your Multiple Subject Teaching Credential with Peace Corps experience](#) [PDF]

##### **I want to teach in high school.**

Individuals who want to teach in high school in California must earn a Single Subject Teaching Credential. There are a variety of routes an individual can take to earn the Single Subject Teaching Credential.

- [Earn your Single Subject Teaching Credential at a college or university](#) [PDF]
- [Earn your Single Subject Teaching Credential through a college or university internship program](#) [PDF]
- [Earn your Single Subject Teaching Credential through a school district internship program](#) [PDF]
- [Earn your Single Subject Teaching Credential with experience from teaching at a private school](#) [PDF]
- [Earn your Single Subject Teaching Credential through the Early Completion Internship Option](#) [PDF]
- [Earn your Single Subject Teaching Credential with Peace Corps experience](#) [PDF]

##### **I want to teach special education students.**

Individuals who want to teach special education students in California must earn an Education Specialist Instruction Credential. There are a variety of routes an individual can take to earn the Education Specialist Instruction Credential.

- [Earn your Education Specialist Instruction Credential through a college or university](#) [PDF]
- [Earn your Education Specialist Instruction Credential through a college or university internship program](#) [PDF]
- [Earn your Education Specialist Instruction Credential through a public school district internship program](#) [PDF]

## **List of possible teaching credentials in the USA/State of California**

[www.ctc.ca.gov/](http://www.ctc.ca.gov/)

- [Adapted Physical Education Specialist](#)
- [Adding Authorizations to Existing Credentials](#)
- [Administrative Services](#)  
Credentials that authorize service as principals, vice principals, superintendents, etc.
- [Adult Education and Career Technical Education Credentials](#)
- [Child Development Permits](#)  
Multiple permit levels authorize a variety of services in child care and development programs
- [Clinical or Rehabilitative Services](#)  
Credentials that authorize service in audiology, and orientation and mobility
- [Elementary Teaching \(Multiple Subject\)](#)  
Credential that authorizes teaching in a self-contained setting in grades K-12 including preschool and adults
- [Emergency Permits](#)  
We offer a variety of emergency permits. Long term emergency permits must be applied for through the employing agency.
- [Internships](#)  
We offer a variety of internships that provide participants with classroom experience while they are completing requirements for the preliminary or professional clear credential
- [Limited Assignment Teaching Permits](#)  
Allows a fully-credentialed teacher to teach outside of their area of certification while working on subject-matter requirements for an added authorization, subject matter authorization, or supplementary authorization
- [Out of State Information](#)
- [Provisional Internship Permits](#)  
We offer a variety of Provisional Internship Permits. They may only be applied for through an employing agency.
- [Pupil Personnel Services](#)  
Credentials that authorize school counseling, school social work, school psychology, and school child welfare and attendance
- [Reading Certificates](#)  
Authorizes the holder to assess student reading and provide instruction in response to those assessments
- [School Nurse](#)  
Credentials that authorize school nurse and other health services
- [Secondary Teaching \(Single Subject\)](#)  
Credential that authorizes teaching in a departmentalized setting in grades K-12 including preschool and adults
- [Short-Term Staff Permits](#)  
We offer a variety of Short-Term Staff Permits. They may only be applied for through an employing agency.
- [Special Education](#) Credential that authorizes teaching in a variety of disability areas.
- [Specialist Instruction](#)
- [Specialist Credential in Reading and Language Arts](#)
- [Speech-Language Pathology Services](#)  
Credentials that authorize service in language, speech and hearing and audiology
- [Supplementary & Subject Matter Authorizations](#)
- [Substitute Teaching](#)  
Permits that authorize substitute teaching
- [Teacher Librarian Services](#)
- [Teaching English Learners](#)  
Documents that authorize instruction to English learners
- Visiting Faculty Permit

## Annex 2

### Test for Teacher Certification in USA/State of New York

The NYSTCE program includes the following tests that measure a candidate’s knowledge and skills in the liberal arts and sciences, in teaching theory and practice, and in the content area of the candidate’s field of certification.

Test	Test Description
Liberal Arts and Sciences Test (LAST)	The LAST consists of multiple-choice questions and a written assignment. Examinees are asked to demonstrate conceptual and analytical skills, critical-thinking and communication skills, and multicultural awareness. The test covers scientific, mathematical, and technological processes; historical and social scientific awareness; artistic expression and the humanities; communication and research skills; and written analysis and expression.
Elementary Assessment of Teaching Skills—Written (ATS–W)	The Elementary ATS–W consists of multiple-choice questions and a written assignment. The Elementary ATS–W measures professional and pedagogical knowledge at the Early Childhood (birth–grade 2) and Childhood (grades 1–6) levels.
Secondary Assessment of Teaching Skills—Written (ATS–W)	The Secondary ATS–W consists of multiple-choice questions and a written assignment. The Secondary ATS–W measures professional and pedagogical knowledge at the Middle Childhood (grades 5–9) and Adolescence (grades 7–12) levels.
Content Specialty Tests (CSTs)	The CSTs (except those for languages other than English) consist of multiple-choice questions and a written assignment. The CSTs for languages other than English include recorded listening and/or speaking components and writing components. CSTs measure knowledge and skills in the content area of the candidate’s field of certification. Refer to “ <a href="#">Test Selection</a> ” for information about specific CSTs.
Bilingual Education Assessments (BEAs)	The BEAs consist of multiple-choice questions and constructed-response assignments. They include recorded listening and speaking components in English and include listening, speaking, reading, and writing components in the target language. The BEAs are required of candidates seeking a bilingual education extension to a certificate. Refer to “ <a href="#">Test Selection</a> ” for information about specific BEAs.
Communication and Quantitative Skills Test (CQST)	The CQST consists of multiple-choice questions. The CQST is one of the requirements for a Transitional A certificate and an initial certificate (nondegree route) in career and technical education subjects.
Assessment of Teaching Skills—Performance (ATS–P) (Video)	The ATS–P (video) requires a candidate to submit a 20- to 30-minute video-recorded sample of his or her teaching performance in a classroom of students who are part of the candidate’s regular teaching assignment. Refer to “ <a href="#">About the Assessment of Teaching Skills—Performance (Video)</a> ” for more information about the ATS–P.

## Annex 3

### Characteristics of an Effective Alternative Route Program

**1. Reform traditional teacher preparation by eliminating artificial and unnecessary requirements; thereby laying the groundwork for an alternative program that is equivalent and parallel. If an "alternate route" program is simply appended to an unchanged traditional system, then opponents can portray the excessive course requirements of the traditional program as "state standards" and the streamlined requirements of the alternative program as a "lowering of standards."**

*While the argument is false, the state will be trapped by its own inattention to basic reform and the "lesser" alternative program will be consigned to use only as a "fallback measure" for hiring "substandard" candidates in "emergencies."*

**2. Balance workability with a firm commitment to meaningful support and training.** *If the program is cumbersome and bureaucratic, districts will not use it and capable candidates will not tolerate it. If merely a "shortcut," it will not have public or professional credibility, and districts' free use of it to attract quality people into teaching will not have support or acceptance.*

**3. Eliminate emergency certification and disallow the employment and reassignment of teachers** *to teach subjects in which they have little formal education. The state's commitment to quality is underscored and the justification for the "alternate route" strengthened if the program is a replacement for "emergency" employment and out-of-field teaching.*

**4. Educate the public and the profession.** *Any attempt to reform will generate opposition and rhetoric about "lowering standards." If state officials lack the courage to make the necessary counterarguments, they will be backed into creating a bobtailed "alternate route" program that is limited or unworkable. Such a program will fail to produce the desired results and is not worth the effort required to put it on the regulatory books.*

**5. Do not make operation of the "alternate route" program legally contingent on college participation.** *New Jersey's non-collegiate regional centers are not only crucial to the program's workability, they also were—ironically—the main stimulus for college involvement. Had college participation been guaranteed in regulation, most colleges would have resisted making the needed changes in practice or refused outright to participate. The threat of being left out, created by the state-run regional centers, accounted in no small measure for colleges' willingness to participate in the "alternate route" program.*

**6. Recruit, recruit, recruit.** *Under New Jersey's dual system, a school district with a job opening can hire any graduate of any college, of recent or past years, who has a degree in the subject field, an appropriate mix of personal qualities and experience, and the ability to pass the relevant subject test. If not unlimited, this national—even international—pool is substantially larger and more diverse than any pool of teacher education graduates. Yet the best candidates are not going to arrive automatically on school doorsteps. Districts need sophisticated recruitment programs, yet few have them. The worst-case scenario is the district that passively selects its new staff from among the student teachers placed in its schools each year by the local college. After properly defining eligibility requirements, the development of effective means of searching out talent from diverse sources is the second most important thing a state can do to move away from worrying about shortages and toward achieving high levels of quality.*

**Source:** Klagholz, Leo (2000)

## Annex 4

### List of New Teacher Standards for Teacher Preparation and Certification:

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#### USA/State of Kentucky

##### **Standard 1: Designs/Plans Instruction**

The teacher designs/plans instruction and learning climates that develop student abilities to use communication skills, apply core concepts, become self-sufficient individuals, become responsible team members, think and solve problems, and integrate knowledge.

**Performance Criteria:** The extent to which the teacher's plan:

- 1.1 Focuses instruction on one or more of Kentucky's student academic expectations.
- 1.2 Develops the student's ability to apply knowledge, skills, and thinking processes.
- 1.3 Integrates skills, thinking processes, and content across disciplines.
- 1.4 Proposes learning experiences that challenge, motivate, and actively involve the learner.
- 1.5 Proposes learning experiences that are developmentally appropriate for learners.
- 1.6 Describes experiences for multiple levels of complexity to accommodate students at different levels of performance.
- 1.7 Incorporates strategies that address physical, social, and cultural diversity and shows sensitivity to differences.
- 1.8 Establishes physical classroom environments to support the type of teaching and learning that is to occur.
- 1.9 Includes creative and appropriate use of technology as a tool to enhance student learning.
- 1.10 Includes appropriate assessment strategies and processes.
- 1.11 Includes comprehensive and appropriate school and community resources that support learning.
- 1.12 Includes learning experiences that encourage students to be adaptable, flexible, resourceful, and creative.

##### **Standard 2: Creates/Maintains Learning Climates**

The teacher creates a learning climate that supports the development of student abilities to use communication skills, apply core concepts, become self-sufficient individuals, become responsible team members, think and solve problems, and integrate knowledge.

**Performance Criteria:** The extent to which the teacher:

- 2.1 Communicates with and challenges students in a positive and support manner.
- 2.2 Establishes and maintains standards of mutually respectful classroom interaction by establishing the importance of shared expectations during individual and group responsibilities.
- 2.3 Shows consistent sensitivity to individual academic, physical, social, and cultural differences and responds to all students in a caring manner.
- 2.4 Shows flexibility and modifies classroom processes and instructional procedures as the situation demands.
- 2.5 Organizes materials and equipment to create a media-rich environment, including technology.
- 2.6 Motivates, encourages, and supports individual and group inquiry.
- 2.7 Uses classroom management techniques that foster self-control and self-discipline.
- 2.8 Encourages responsibility to self and to others.
- 2.9 Promotes student willingness and desire to receive and accept positive and negative feedback.

##### **Standard 3: Implements/Manages Instruction**

The teacher introduces/implements/manages instruction that develops student abilities to use communication skills, apply core concepts, become self-sufficient individuals, become responsible team members, think and solve problems, and integrate knowledge.

**Performance Criteria:** The extent to which the teacher:

- 3.1 Communicates specific standards and high expectations for learning.
- 3.2 Links learning with students' prior knowledge, experiences, and family and cultural backgrounds.
- 3.3 Models/demonstrates the skills, concepts, attributes, and/or thinking processes to be learned.
- 3.4 Uses multiple teaching/learning strategies that are appropriate to student development level and actively engages students in individual and cooperative learning experiences.
- 3.5 Makes appropriate provisions for learning to address diversity among learners.
- 3.6 Elicits samples of student thinking and stimulates student reflection on their own ideas and those of others.
- 3.7 Uses appropriate questioning strategies to engage students' cognitive processes and stimulate higher-order thinking.
- 3.8 Guides students to express, examine, and explain alternative responses and their associated consequences relative to moral, ethical, or social issues.
- 3.9 Demonstrates interpersonal/team membership skills and responsible caring behavior with students in facilitating instruction.
- 3.10 Uses multiple perspectives and differing viewpoints to facilitate the integration of knowledge and experiences across disciplines.
- 3.11 Makes creative and appropriate use of media and technology.
- 3.12 Makes efficient use of physical and human resources and time. Facilitates equitable engagement of students on productive tasks.
- 3.13 Provides opportunities for students to use and practice what is learned.
- 3.14 Identifies student misconceptions, provides guidance, and offers students continuous feedback on progress toward outcomes and expectations.
- 3.15 Links learning with student aspirations for future roles.

**Standard 4: Assesses and Communicates Learning Results**

The teacher assesses learning and communicates results to students and others with respect to student abilities to use communication skills, apply core concepts, become self-sufficient individuals, become responsible team members, think and solve problems, and integrate knowledge.

**Performance Criteria:**The extent to which the teacher:

- 4.1 Uses multiple assessments and sources of data.
- 4.2 Makes appropriate provisions for assessment processes that address social, cultural, and physical diversity.
- 4.3 Accurately assesses student performance using the established criteria and scoring guides consistent with Kentucky's assessment program and the CATS.
- 4.4 Promotes student self-assessment using established criteria and focuses student attention on what needs to be done to move to the next performance level.
- 4.5 Systematically collects and analyzes assessment data and maintains up-to-date records of student progress.

**Standard 5: Reflects/Evaluates Teaching/Learning**

The teacher reflects on and evaluates specific teaching/learning situations and/or programs.

**Performance Criteria:**The extent to which the teacher:

- 5.1 Accurately assesses, analyzes, and communicates the effectiveness of instruction and makes appropriate changes to improve student learning.
- 5.2 Analyzes and evaluates the effects of learning experiences on individuals and on the class as a whole and makes appropriate changes to improve student learning.

**Standard 6: Collaborates with Colleagues/Parents/Others**

The teacher collaborates with colleagues, parents, and other agencies to design, implement, and support learning programs that develop student abilities to use communication skills, apply core concepts, become self-sufficient individuals, become responsible team members, think and solve problems, and integrate knowledge.

**Performance Criteria:**The extent to which the teacher:

- 6.1 Identifies or recognizes situations when and where collaboration with others will enhance learning for students (e.g., thematic units, individual education plan, and school-based decision making).

- 6.2 Articulates the purpose and scope of the collaborative effort.
- 6.3 Articulates standards of each collaboration event (e.g., summary, next steps, responsibilities, timeline).
- 6.4 Demonstrates productive leadership or team membership skills that facilitate the development of mutually beneficial goals.
- 6.5 Demonstrates tolerance to alternative perspectives and options and encourages contributions from school and community resources.

**Standard 7:Engages in Professional Development**

The teacher evaluates his/her overall performance with respect to modeling and teaching Kentucky's learning goals, refines the skills and processes necessary, and implements a professional development plan.

**Performance Criteria:**The extent to which the teacher:

- 7.1 Provides evidence of performance levels and articulates strengths and priorities for growth.
- 7.2 Articulates a professional development plan to improve his/her own performance and to expand his/her teaching repertoire to facilitate student achievement of the learning goal.
- 7.3 Engages in relevant professional development activities and follows through with plan.
- 7.4 Shows evidence of improvement in performance and evidence of an increased capacity to facilitate student learning.

**Standard 8:Knowledge of Content**

The teacher demonstrates a current and sufficient academic knowledge of certified content areas to develop student knowledge and performance in those areas.

**Performance Criteria:**The extent to which the teacher:

- 8.1 Accurately communicates the skills and core concepts related to certified academic areas.
- 8.2 Effectively applies the methods of inquiry related to the certified academic areas.
- 8.3 Incorporates a multicultural/global perspective in content presentations.
- 8.4 Utilizes technology related to the certified academic areas.
- 8.5 Connects knowledge of the certified academic areas to real life situations.

**Standard 9:Demonstrates Implementation of Technology**

The teacher uses technology to support instruction; access and manipulate data; enhance professional growth and productivity; communicate and collaborate with colleagues, parents, and the community; and conduct research.

**Performance Criteria:**The extent to which the teacher:

- 9.1 Operates a multimedia computer and peripherals to install and use a variety of software.
- 9.2 Uses terminology related to computers and technology appropriately in written and verbal communication.
- 9.3 Demonstrates knowledge of the use of technology in business, industry, and society.
- 9.4 Demonstrates basic knowledge of computer/peripheral parts and attends to simple connections and installations.
- 9.5 Creates multimedia presentations using scanners, digital cameras, and video cameras.
- 9.6 Uses the computer to do word processing, create databases and spreadsheets, access electronic mail and the Internet, make presentations, and uses other emerging technologies to enhance professional productivity and support instruction.
- 9.7 Uses computers and other technologies such as interactive instruction, audio/video conferencing, and other distance learning applications to enhance professional productivity and support instruction.
- 9.8 Requests and uses appropriate assistive and adaptive devices for students with special needs.
- 9.9 Designs lessons that use technology to address diverse student needs and learning styles.
- 9.10 Practices equitable and legal use of computers and technology in professional activities.
- 9.11 Facilitates the lifelong learning of self and others through the use of technology.
- 9.12 Explores, uses, and evaluates technology resources: software, applications, and related documentation.
- 9.13 Applies research-based instructional practices that use computers and other technology.
- 9.14 Uses computers and other technology for individual, small group, and large group learning activities.
- 9.15 Uses technology to support multiple assessments of student learning.
- 9.16 Instructs and supervises students in the ethical and legal use of technology.



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