

## **STRENGTHENING EDUCATION TO GENERATE EDUCATIONAL GRADUATES (TEACHER PREPARATION AND CERTIFICATION IN AUSTRALIA)**

**Ranbir Singh Malik**  
Edith Cowan University

### **ABSTRACT**

Considering that education has become the engine room for modern economies and the backbone for prosperity of any nation, there is a massive drive on a global scale to upgrade the quality of education a nation provides to its citizens. The top performing education systems have demonstrated that the quality of teacher training and raising the social status of teachers is a pre-requisite to improve the quality of education the citizens of a nation receive. This paper focuses on (a) the attributes of quality teacher training and quality teachers, (b) discussion of Australian and Singaporean approach to teacher training, and (c) need for Indonesian teacher training institutes to upgrade their strategies to provide quality training. Since teachers are the most valuable to schools investment in teacher professionalism is vital to ensure that they are equipped with an evidence-based repertoire of pedagogical skills that are demonstrably effective in meeting the developmental and learning needs of *all* students.

**Keywords:** teacher professionalism, education system, teacher training

### **Introduction**

Modern society is in the middle of a number of significant social, cultural, and economic changes. Education is becoming the engine room for modern economies and a key factor for progress. In the 21<sup>st</sup> century, quality education will be the backbone of any nation and quality of human resources will determine its strength. In recent years, there has been an increasing recognition of human capital and its contribution to workforce participation and to foster technological changes. People with better education and training tend to participate in the workforce for longer and are more able to adapt to the changing nature of demands from the workforce. A high quality and responsive education is vital to increasing skills, which in turn, boosts labour force participation and productivity. The Asian Development Bank (1989) found a strong positive relationship between the average number of years of schooling and the average annual change in GNP per capita over the period of 10 ears in 13 Asian developing countries. Keeping this in view, institutions

of higher education in many countries have made it their top priority to produce quality graduates. Institutions of teacher training in many countries have started to modernize their teacher training practices in an effort to provide quality education at the foundation level: primary and secondary schools.

The assumption of high spending on education is that it would lead to an increase in the skilled workforce to improve national productivity and make the workforce better able to perform and compete in global markets (e.g., Japan and South Korea). In many developing countries, the expansion of educational opportunities is one of the most powerful tools governments have got to improve the living conditions of people. In order to develop a nation as a consumer market of global standards, it is imperative that all of its children reap the full benefits of high quality education. Although the quality of education in some developing countries (e.g., China, Malaysia) has improved, World Bank (1980) found that the mean score of students from the developing countries was

equal only to the score of the bottom 5% to 10% of students from the developed countries because the quality of education is much higher in the developed countries. In fact, in many developed countries quality education has become a major industry. For instance, the USA earns \$46 billions per annum from the fee paying overseas students (most of them are from the Southeast Asian countries). The comparative earnings of the UK, Canada and Australia are \$ 27billions, \$17billions, and \$16billions, respectively. In the ASEAN region, all the countries consider human resource development as a key element in developing the whole nation and they have realized that education plays a pivotal role in improving the quality of human resources. Sediman (2004) aptly puts:

We are facing unprecedented challenge, brought by the convergent impacts of globalization, the increasing importance of knowledge as a principal driver of growth and the ICT revolution..... The right to (quality and equity) education imposes an obligation upon countries to ensure that all children and citizens have opportunities to meet their basic learning needs. Promoting quality and equity education is a common policy for countries of Southeast Asia, regardless of their different levels of development (p.1).

### **Profile of High Performing Education systems**

The countries which have demonstrated excellence (e.g.s, Finland, South Korea, Singapore, Japan, Hong Kong) in teaching and learning have ensured to raise the status of teaching as a career and concerted efforts are made to attract quality graduates for teaching training. In Finland for example, teachers are held in high esteem and graduates are selected for teacher training from among the very high achievers. Most of the teachers have a master degree. Barber and Mourshead (2007) studied some of the top performing school systems of different countries. They found that (i) increase in salary, (ii) rigorous

process to select entrants to teacher education, and (iii) control over the numbers of students undertaking teacher education courses can make huge impact on improving the teaching-learning process at primary and secondary level. In Singapore, the Ministry of Education selects and employs prospective teachers before they commence teaching (Masters, 2012). In top performing countries students who are enrolled for teacher training have five main attributes: strong academic achievement, high levels of literacy and numeracy, strong interpersonal and communication skills, openness to ongoing learning, and passion for teaching (Masters, *ibid*). These countries control entry to teacher education to match the balance between demand and supply of teachers. High performing education systems place high priority on ensuring that all teachers receive excellent preparation to teach. Teachers for passion to teach develop high level knowledge of their subjects they teach and use high level pedagogical teaching learning practices.

### **Teacher Training**

The pre-formal phase of learning to teach is the student life for 12000 hours spent in primary and secondary school. During this *apprenticeship phase* students closely observe their teacher's teaching styles. They learn to be critical and appreciative of different teachers' approach to teaching. Therefore, this pre-existing knowledge acts like a filtering device and it can limit the appreciation of new ideas which they are exposed to during their teacher training. It can block their professional development. Teachers who are influenced too much by pre-existing knowledge tend to stick to outdated teaching methods. During teacher training courses they make adjustments to pre-existing knowledge which is essential to learn to be a teacher. If their initial understanding is not engaged, they may fail to grasp the new concepts and information or they may learn for the purpose of a test but revert to preconceptions outside the classroom. To

develop competence in an area of inquiry that allows them to 'enact' what they know, teachers must have a deep foundation of factual and theoretical knowledge, understand facts and ideas in the context of conceptual framework, and organize knowledge in ways that facilitate retrieval and action. Thus, to successfully prepare effective teachers, teacher training should lay the foundation for life-long learning. Given short period for preparing teachers and the fact that not everything can be taught, decisions must be made about the content and strategies are most likely to prepare new entrants to be able to learn from their own practice, as well as the insights of other teachers and researchers. Carter (1990) notes that how one frames the learning-to-teach question depends a great deal on how that learning might take place. This is consistent with Wiggin's and McTigh's (1998) argument that the domain of effective learning opportunities needs to begin with a clear idea of what we want people to know and be able to do. Expertise along with efficiency dimension involves greater abilities to perform particular tasks without having to develop too many attentional resources to achieve them. Expert teachers are able to perform a variety of activities without having to stop and think about how to do them. Effective teaching needs to be highly interactive and should vary depending on the needs of each learner.

Despite the growing consensus that teachers do make difference in student academic performance the role of teacher education in teachers' effectiveness is a matter of debate. American research indicates that over the 20<sup>th</sup> century there have been many excellent examples of well-proven teaching practices but even the best of them was rarely adopted by more than 20% of teachers. Highlighting the importance of teacher training Evertson, Hawly and Zlotnik (1985) from a review of research on teacher training concluded:

The available research suggests that among students who become teachers,

those enrolled in formal pre-service preparation programs are more likely to be effective than those who do not have such training. Moreover, almost all well planned and executed efforts within teacher preparation programs to teach students specific knowledge or skills seem to succeed at least in the short run (p.8).

### **Teacher Training in Australia**

Although Australian education system is rated as one of the well performing systems in the world, currently, sweeping changes have taken place to improve it further. Concerns relating to quality and public accountability in education have given rise to a range of national reports that identify key competencies as guidelines for ensuring the standardization of quality and efficiency. In 1989, the Hobart Declaration on schooling (Australia Education Council, 1989) heralded agreement on education matters across Australia. Since then, there has been the development through national curriculum statements and profiles, of standard approach to the teaching and reporting relationships between schools, teachers and parents. National Curricula-a topic of considerable debate within the educational community- underpins much of what is taught in schools today. Consistent with the pressure for the professional needs of teachers have been subject to investigation through national programs.

In July 2001, Teacher Quality and Educational Leadership Taskforce was established to report on: (i) teacher preparation and ongoing development aimed at improving the quality and standard of teaching and learning; (ii) professional standards for teachers and principals, both for entry to the profession and to meet the ongoing needs of students over time.

The National Goals for Schooling in the 21<sup>st</sup> Century (The Adelaide Declaration, 2002) identified the following goals to be followed at national scale:

- a. Strengthening schools as learning communities where teachers, students, and their families work in partnership with business, industry and the wider community.
- b. Enhancing the status and quality of the teaching profession.
- c. Continuing to develop curriculum and related systems of assessment, accreditation, and credentialing that promote quality and are nationally recognized and valued.
- d. Increasing public confidence in school education through explicit and defensible standards that guide improvement in students' levels of educational achievement and through which the effectiveness, efficacy and equity of schooling can be measured and evaluated.

In Australia, teacher education has undergone big changes in recent years. Current paradigm based on competency ideology is moving towards the subordination of the social to the economic, the cultural to the vocational and broad-based education to the narrow confines of competency-based vocational education. There is a strong move in Australia (as in the UK and the USA) to develop a national set of competencies for teacher education through National Project for quality teaching and learning. "The current reforms lead to a mode of policy-making attempts to comply with existing world and national economic trends" (Bartlett, 1992, p. 61). These reforms in teacher education are themselves part of a meta-reform agenda driven by a framework of economic rationalism in globalized context. Teacher education in Australia is currently shaped by a number of contentious educational issues such as competencies and national standards, government allocation of funds and resources, the decentralization of schooling, and significant changes in the nature of teachers' work that result from shifts in educational policies and provision.

A big change in the education system

of Australia was initiated in 2008. In an election rally Prime Minister Kevin Rudd announced: "More than anything else, it is strong productivity growth and high levels of workforce participation that will make Australia competitive in the first decades of the 21<sup>st</sup> century. But no policy is more important than Australia's involvement in human capital-education, skills and training of the workforce. With new education policies, Australia's future workers will be able to work smarter, not just harder. That will allow us to build business that can compete in global markets and win.....Australia needs nothing less than a revolution in education in a substantial and sustained increase in the quantity of our investment and quality of education...More educated economies are wealthier economies. A healthy, skilled, an motivated population is critical to workforce participation and productivity and hence Australia's future living standard" (Kevin Rudd, Prime Minister of Australia, 2008).

Many universities have a school of education where teacher training is undertaken along with providing opportunities for post graduate studies. Currently, more rigorous standards for teacher training courses to improve the quality of teachers graduating from universities have been undertaken. Aspiring teachers will be required to pass a literacy and numeracy test so that they have the skills to be effective teachers and positive role models. The aim is to raise the quality of teaching at every stage of a teacher's career and to ensure that the best and bright teachers enter into the classrooms to provide best education to students. Teachers with high literacy and numeracy and dedication for teaching, presumably, will help raise teaching and learning to a new high level. With such a dedicated teaching force principals have confidence in the abilities of their staff and parents have confidence that every teacher has gone through a rigorous selection and training process.

Mr. Bowen the Minister of Education

of Australia (June, 2013) outlined the four major elements to strengthen teacher training programs.

1. More rigorous and targeted admissions into university courses for graduates enrolling in teaching courses. Potential candidates would be interviewed, required to demonstrate values and aptitude for teaching, and give a written statement.
2. Students will have to pass a new literacy and numeracy test, building on National Plan for School Improvement, before they graduate.
3. A national approach to teacher practicum to ensure new teachers have the skills, personal capacity and practical experience they need to do well.
4. A review of all teaching courses by the Tertiary Education Quality and Standards Agency.

The government is committed to ensure that teaching quality and qualifications are clear and uniform across Australia. \$550 million have been allocated to Teacher Quality National Partnership to attract the best graduates into teaching and to provide ongoing training and development. A new Science of Learning Research Centre has been established to bring together educational professionals and researchers in areas ranging from neuroscience and cognitive development to pedagogy and educational technology to explore how advance techniques in learning research can be used to support more effective teaching practices. Other initiatives undertaken to support more effective teaching practices are the introduction of Master of Teaching program at the University of Melbourne, graduate level research-based courses in teaching of reading, the teaching of mathematic and assessment of student learning at the Australian Council for Educational Research.

A number of schemes have been introduced to keep high quality teachers in classrooms. Advanced Skills Teachers, Lead teachers, Classroom First Strategy, Stage

One and Stage Two Teachers (promotion based on performance) have been introduced. Incentives are offered for expert teachers to stay at classroom teaching instead of moving to administrative jobs with more experience in teaching. Increasing number of the schools are given the status of an Independent Public School where principal is given more autonomy to make decisions on the running of school.

### **National Standards for Teachers**

School effectiveness research (Rutter et al., 1979) has demonstrated that effective schools are characterized by an ethos or culture-orientation towards learning, expressed in terms of high achievement standards, and expectations of students, an emphasis on basic skills, high level of involvement in decision-making, professionalism among teachers, cohesiveness in clear policies on matters such as homework, and student behaviour. Effective schools are characterized by outstanding educational leadership, particularly as implemented by the principal and directed towards establishing agreed goals, increasing competence and involvement of staff, and clarifying roles and expectations. Teachers are essential players in promoting quality education. Well-trained, highly motivated, dedicated, and professionally competent teachers are essential for the development of human resources. The United States Department of Education (2002, p. 19) has identified five dimensions of excellent teachers.

First, they can identify essential representations of their subjects and have deep understanding of their subject and process of teaching and learning. They combine new subject matter of content knowledge with prior knowledge and relate current lesson content to the other subjects in the curriculum.

Second, they adopt problem-solving stance to their work. They are opportunistic and flexible in their teaching and take advantage of new information to integrate in

the current lesson.

Third, they anticipate, plan and improve as required by the situation. They are more likely to monitor their ongoing solution attempts checking for accuracy and upgrading representations as new constraints emerge. They seek feedback as providing information about children, their home background.

Fourth, they are good decision-makers and skilful in keeping the lesson on track, keeping the students interested and accomplish their objectives while allowing students' questions and comments as springboards for discussions. They keep balance between student-centred and teacher-centred instruction.

Fifth, they monitor student learning, give positive feedback and improve student outcomes.

In 2008, a team of academics in collaboration with Australian Council of Education and Research (ACER) completed report for Business Council of Australia entitled: *Teacher Talent-the Best Teachers for Australian Classrooms*. The Federal Government of Australia has announced a national certification of teachers. This initiative goes to the heart of improving the quality of teaching in Australian schools. A new integrated national approach involving national teaching standards and levels of voluntary certification, above the common and mandatory registration level with commensurate financial rewards has been introduced. All teachers (300, 000) in Australia are going through the process of assessment and certification monitored by the Registration Board of Teachers. National standards for teachers are underlined in the National Framework for Professional Standards for Teaching:

A strong and effective school education system is integral to individual success, social cohesion, progress, and national prosperity. It is clear that teachers have to be more and more successful with a wide range of learners to prepare future citizens

with the sophisticated skills needed to participate in a knowledge-based society. The sort of pedagogy needed to help students develop the ability to think critically, create, solve complex problems and master complex subject matter, is much more demanding than that needed to impact and develop routine skills. Thus, teachers have to be both knowledgeable in their content areas and extremely skilful in a wide range of teaching approaches to cater for the diverse learning needs of every student (2003, p.3).

The types of graduates who enter for teacher training have been a major concern in Australia. Masters argues:

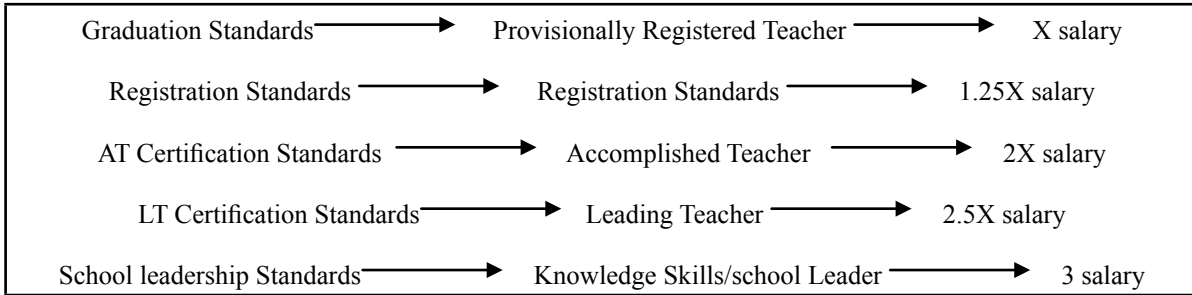
If Australia aspires to be among the world's highest –performing nations in school education, it will need to learn from world's highest-performing nations in school education. It will need to learn from world's best practice in the selection of its teachers. This will mean developing clarity about the attributes sought in future teachers and testing for those as part of initial teacher education selection processes (2012, p. 2).

Now the state governments are making whole-hearted effort to lure top 30% of school leavers in teacher training programs. The Federal Government of Australia has announced a national certification of teachers. This initiative goes to the heart of improving the quality of teaching in Australian schools. A new integrated national approach involving national teaching standards and levels of voluntary certification, above the common and mandatory registration level with commensurate financial rewards has been introduced.

#### A Standard based Career Structure

The main features of this career structure are:

- a. Common national standards for graduates of teacher education courses with courses accredited against these standards.
- b. Required national certification of Provisionally Registered teachers in the first year of teaching.
- c. The ability of Registered Teachers to



practice anywhere in Australia and earn salary approximately 1.25 times that of a beginning teacher rising to 2.

- d. Registered teachers would retain registration for a period of say 5 years during which time they would need to demonstrate professional learning against the national standards and meet employers' requirements for appraisal and salary progression.
- e. Optional certification of both the Accomplished Leading Teacher levels, with candidates meeting national standards for each designation. An Accomplished Teacher could earn up to 2.5 that of a beginner teacher while Leading Teachers earning beyond that. Currently, an accomplished Teacher receives a salary bonus of A\$80,000 per annum. Promotion towards Head of Department or Assistant Principal would be granted on the basis of high level of teaching experience and strong involvement in working with other teachers through professional learning, monitoring and curriculum development.

This report also recommended:

- f. Graduates for teacher training program must be drawn from the top quartile of secondary school graduates.
- g. Beginning teachers to receive high quality support and guidance to prepare them for national certification/registration.
- h. Nationally accredited professional development for teachers and school leaders to support a national curriculum and testing regime.
- i. Salary and career structures to be

structured along the lines above through individual employing authority industrial awards agreed between employers and teacher unions to drive and reward higher levels of teacher accomplishment against national awards.

A new national body, the Australian Institute for Teaching and School Leadership (AITSL) is given the responsibility for establishing 'rigorous' national professional standards fostering high quality professional development for teachers and school leaders and working collaboratively with key professional bodies. The biggest issue in Australian primary and secondary education is not the lack of computers, new buildings or equipment. It is the need for each student to have quality teachers and quality teaching in schools supported by effective leadership and professional learning in mutually respectful community centres. AITSL is responsible for (a) rigorous professional standards, (b) fostering and driving high quality professional development for teachers and school leaders, and (c) working collaboratively across jurisdictions and engaging with key professional bodies. It provides national leadership for Commonwealth, State Governments in promoting excellence in professional teaching and school leadership.

AITSL 360 degree Tool is a type of quality assurance in teaching and to enhance professional practice of teachers and principals. It is a device to gauge reflection of leadership quality, monitor progress in innovative strategies in teaching and plan professional learning and development opportunities.

### **Better School Plan**

While Australia has good schools its performance has declined by international standards and the gap between the highest and the lowest performing students has widened. In recent years Australia has fallen from the 2<sup>nd</sup> place to 7<sup>th</sup> in reading, and 5<sup>th</sup> to 13<sup>th</sup> in maths. Also, there is a larger achievement gap than other similar nations with low SES and Indigenous students clustered towards the bottom (Australian education is characterized by high quality, low equity and high social segregation). Educational leaders have taken the task of improving educational standards as a matter of urgency. "There is nothing more important to the future of our nation than what is happening in our schools today....the education our children receive will define our future economy, it will determine our strength as a nation...." (Minister of Education, June 2013).

Better School Plan which starts in 2014 is a plan to improve results of all schools and students by introducing educational reforms that evidence shows improve results. The plan is based on reforms in five core areas: (a) quality teaching, (b) quality learning, (c) empowered school leadership, (d) meeting student needs, and (e) greater transparency and accountability.

The Better School Plan aims to take Australian schools into the top 5 in the world by 2025.

In the National Plan for school improvement \$15 billion have been allocated (\$10 billion by Commonwealth and \$5 billion by States) over the next six years (2013-19). This money will be used on the things like:

- a. Better ways of teaching like working with literacy/numeracy specialists, tracking students' needs.
- b. Specialist programs such as reading or maths extension activities.
- c. More teachers, teacher aides, specialist support staff.
- d. Better resources and equipment, smart boards, computers, i-pads, tablets.

- e. New strategies to tackle bullying and help teachers for behaviour management. More involvement of parents and school boards.

### **New National Curriculum**

Curriculum refers to the knowledge that a society selects from the total available reservoir of knowledge deemed valued and essential for students to learn in schools. Schools continue to be key institutions for determining who acquires what types of knowledge. A relevant curriculum which addresses the need of students and community should be provided. Mismatching between what students learn at school and what the community or world of work demands is the issue the new curriculum addresses. Irrelevant curriculum and outdated teaching strategies contribute to the widening gap between education institutions and world of work which, in turn, leads to increasing unemployment. The concept of national curriculum in Australia has been afloat since the 1970s. In 2006, Howard government was put under pressure to prescribe a core curriculum for Australian schools. It was argued that there was a need about the valued or essential knowledge that all Australian students needed to learn for full participation in society. Lack of curriculum consistency across states was also confusing for parents and students in a highly mobile society like Australia where each year about 2.5% people move between states.

After Kevin Rudd became the Prime Minister in 2007 he announced the formation of a Board to develop national curriculum for Australian schools. This Board, headed by a distinguished professor Barry McGaw, was established in 2009. National Curriculum, part of Australian Education Revolution, was implemented in 2011.

The purpose of national curriculum is to provide curriculum essentials (the content and achievement standards) that all young Australians should have access to. The national curriculum provides parents and



teachers with a clear understanding of what needs to be covered in each subject at each year level. It aims to equip young Australians with the skills, knowledge and capabilities to enable them to effectively engage with and prosper in society, compete in a globalised world and thrive in the information-rich work places of the future.

New National Curriculum has been developed by the Australian Curriculum Assessment and Reporting Authority (ACARA) in collaboration with a wide range of stakeholders, including teachers, principals, government state and territory education authorities, professional education associations, business/industry, community groups and the public. The development of Australia's national curriculum spans K-12, starting with the learning areas of English, maths, science and history which were implemented in 2011. As a second phase of work, national curriculum has been implemented in all areas of school curriculum.

ACARA is a 13-member Board, made up of experts nominated by each of the state and territory governments as well as the Catholic and Independent schools and the Commonwealth. It reports to federal, state and territory education ministers through the Ministerial Council on all matters related to K-12 education in Australia. ACARA is responsible for

1. A national curriculum for K-12 in specified learning areas and to provide information, resources, support and guidance to the teaching profession;
2. A national assessment program aligned to the national curriculum that measures students' progress and comparative school performance;
3. A national data collection and reporting program that supports analysis, evaluation, research, and resource allocation, and accountability and reporting on schools and broader national achievement.
4. Publish information relating to school education, including information relating

to comparative school performance.

5. Facilitating information sharing arrangements between Australian government bodies in relation to the collection, management and analysis of school data.

To improve the quality of teaching following steps have been taken:

- a. A national quality project has been undertaken to disseminate information about best practice in teacher professional development.
- b. Teacher accountability and the public reporting of educational outcomes is embraced nationwide.
- c. Curriculum and assessment practices have been revised and ICT has been incorporated to meet skills shortage and vocational and Home Economics Training sector has been expanded.
- d. Effective programs to support beginning teachers have been identified and disseminated.
- e. Effective teaching practices for Indigenous students are being given special attention.
- f. To enhance professional standards in areas such as science, English, maths the role of teacher association has been recognized.
- g. Australian College of Education is supported in its efforts to stimulate discussion about professional standards for school teachers.
- h. Principal and aspiring leaders are encouraged to implement innovative approaches to whole school management through the Australian Principals Association Professional Development Council.
- i. Government lends full support to activities of peak principals association to develop national framework which defines the common elements necessary for excellence in school leadership.
- j. Principals are supported to improve education outcomes of Indigenous students..

### **My School Website**

On 28 January 2010 My School Website ([www.myschool.edu.au](http://www.myschool.edu.au)) was launched. My School website has been developed in close consultation with schools and school jurisdictions right across Australia. Its role is to provide high quality and nationally comparable data on Australia's 10,000 schools. Data published in My School website will benefit parents, schools, governments and the wider community to better understand school performance. On this site information can be searched by name, location and sector. This information enables to (a) access consistent information about all schools; (b) compare the average performance of students in a school on national literacy and numeracy tests (NAPLAN) in Years 3, 5, 7, 9 with the average performance of students in statistically similar schools across Australia; (c) search for schools within a particular area.

My School Website represents the state, territory and national governments' vision for greater transparency and accountability in students' performance within schools. This step was considered necessary to ensure that every child in Australia received the highest quality education and the best opportunity to achieve through participation in employment and society. The information includes national testing results and school attainment rates, indicators relevant to the needs of the students and the school's capacity. For the first time, the community will be able to view profiles and data on students' performance within all Australian schools in one location.

In 2008, the National Assessment Program in Literacy and Numeracy (NAPLAN) commenced in Australian schools. Every year, all students in years 3, 5, 7, 9 are assessed on Reading, writing, Language Conventions (spelling, grammar) and Numeracy. This program allows to compare student achievements against national standards and teachers are becoming more adept at using achievement data diagnostically. League of Tables gives the performance of all students

Australia wide and parents can see how their child is performing against other children. Each school's performance can be seen on the League of Tables.

Fair and meaningful comparisons have been made possible by making use of the Index of Community Socio-Educational Advantage (ICSEA) to group schools together that are statistically similar in terms of their student intakes. The website displays each school's (ICSEA) value. An index of 1000 is the average. Nearly 70% of schools have values between 900 and 1000. The lowest ICSEA values are 500 and the highest above 1300. A low number indicates that the students at the school generally have a less educationally advantaged background than students at schools with a higher ICSEA value. For each school the spread in student background is indicated. The website also displays performance on each of the NAPLAN tests. Professor McGaw explains, "Overall, there are about 45% of schools with literacy and numeracy test results that are close to those of other statistically similar schools, and there are 9% that are either substantially above or substantially below their other statistically similar schools. The spread of performance on literacy and numeracy tests increases progressively from Year 3 to Year 9 and there are fewer differences between schools that are substantial" (2011).

### **Singapore-Another Example of a High Performing Education System**

High performing education systems understand the importance of keeping excellent teachers in the classroom, continually building teachers' pedagogical knowledge and skills, and recognizing and rewarding expert practice. Poor in natural resources but rich in human resources the city state of Singapore has recorded phenomenal prosperity through the ladder of its quality education and training its manpower to face the challenges of modern era. With a focus on knowledge-based economy an efficient

education system has been developed to create world class man power to feed its service industrial sector which is the backbone to maintain the high living standards. Thinking Schools and Learning Society (1989) meant a sea change in the education system from top to bottom. Founding Prime Minister Lee Kuan Yew attributes Singapore's prosperity to Confucian Ethic which is doing to Singapore as Protestant Ethic did for the development of early Western Civilization. With basic cultural values, tightly-knit Asian family system has "given Singaporean roots to hold him steady as his life travels the path of English language, American technology, Swiss expertise and Japanese business acumen" Strait Times, December 10, 2005).

Press release (September 17, 2009) termed teachers as *the heart* of quality education. At the Ministry of Education Work Plan Seminar Minister for Education of Singapore Dr. Ng Eng Hen argued that the aim of primary education is to prepare each child to become confident person, a self-directed learner, an active contributor and concerned citizen. Accepting English as the lingua franca of Singapore there is a heavy commitment to lay a good foundation to improve the communication skills at the primary school level. A New Teacher Development Centre has been established as a focal point for teacher professional development. Ministry of Education is nurturing a teacher-driven culture of professional excellence with the aim to support the development of schools as professional learning communities. Teaching track is being established where educational officers have a choice of three tracks- leadership, senior specialist and teaching. To groom a core group of experts new positions for teachers are created: Principal Master Teacher with responsibility to be a facilitator for teachers in curriculum innovation and driving new pedagogies to uplift teaching practices in schools. Principal Master Teachers and Master Teachers teach *master classes* in schools, lead the professional development for

their colleagues, drive curricula innovation in schools and engage in pedagogical research and innovation. Principal Master Teachers are assisted in post-graduate studies, innovative teaching programs and overseas attachment programs. A New Teaching Framework (2011) to enhance the quality of teaching has been prepared. It aims at (a) strengthening teacher professionalism, (b) developing engagement with teachers, (c) fulfilling teachers' aspirations, (d) enhancing teacher career opportunities, and (e) achieving harmony in work and life. The Academy of Singapore Teachers has been set up to support and foster a teacher-driven culture of professional excellence, innovation and collaboration.

At the school level, a new Lead Teacher position to champion a culture of teaching excellence and collaborated professionalism has been created. Steeped in subject knowledge and pedagogical skills, the Lead Teacher leads Senior Teachers and partner school leaders to build professional capacity within the school in areas of subject content, pedagogy and assessment. Principals are assisted by dedicated Human Resource Partner to provide consultancy service on strategic human resource issue. Monetary awards are given to teachers after completing their master degree.

In Southeast Asia, Singapore has re-defined its mission and vision of education. Its mission is to mould the future of the nation by moulding the people who will determine the future of the nation. Its vision of Thinking Schools and Learning Nation as an overall descriptor of education system is geared to meet the needs of the 21<sup>st</sup> century. Singapore model in short is: A quality teaching force with a strong expertise in curriculum and pedagogy and a culture of continual professional development hold the key to preparing students with the knowledge, skills and attributes required for the 21<sup>st</sup> century workforce. Ministry of Education is endeavouring to build a quality teaching force and grow a world-class education service for students.

### **Is our Teaching Training Effective to Prepare Effective Teachers?**

In recent years, few educational issues have received more attention than the problem of ensuring that elementary and secondary classrooms are all staffed with quality teachers. Good The issue of teacher quality is currently is one of the most pressing concerns identified by educational policy makers and perceived by media, the public at large and by educators themselves. Good teachers have great power to inspire students to strive for success, to make ideas come alive in the classrooms and respond to a wide range of student needs. The relationship between teachers' knowledge and skills and skills prior to or upon certification, and teachers' performance post certification is critical to understanding what separates a quality teacher from those unqualified or uncertified. Many countries around the world are pouring billions of dollars to improve the quality of teachers. In Australia, quality teachers are given extra incentives for teaching in more disadvantaged and remote areas to address the issue of inequity. By contrast, in many developing countries not only the target of universal primary schooling has not been achieved but the quality of education remains abysmally poor. According to the UNESCO Report (2006), 113 million primary school children are not enrolled in school; 90% of them are in the developing countries. In terms of primary school education for *all* Indonesia has done well with over 95% school age children attending school. However, drop-out rate continues to be a source of concern. BBC Report (Feb. 1, 2012) on Indonesia gave the figure on drop-out rate in Indonesian high schools where every eight minute a student is dropping-out and joining hundreds of thousands of street children.

Provision of quality and equity of education is a major problem in Indonesia. The current status of education in Indonesia is that students are not performing well on globally competitive tests such as conducted by TIMSS and PISA. Pearson and the Economist

Intelligence Unit (2012) noted that Indonesia's education system was in dismal shape. The report entitled Index of Cognitive Skills and Education Attainment which provides a snapshot of the relative performance of countries, based on their education outputs, placed Indonesia dead last in all index categories. Many graduates prepared by Indonesian educational institutions lack skills to be absorbed in the workforce. To improve the quality of workforce in Indonesia, foreign companies have to pay compulsory training levy to equip Indonesian employees with necessary skills.

In modern era teachers are expected to prepare virtually all students for high order thinking and performance skills once reserved only for a few. To meet the growing challenges, teachers need a new kind of preparation-one that enables them to go beyond covering the curriculum and teaching to instill passion for student learning. Ensuring that all students have access to highly qualified teachers is of paramount importance. In order to take all students on board, regardless of their socioeconomic status, race and geographical location, schools need to be staffed with the best teachers a nation can supply. Teachers must prepare their young pupils to have the strongest chances of success in the knowledge economy. Hargreaves puts it this way:

Our future prosperity depends on our ingenuity, our capacity to harness and develop our collective intelligence in terms of the central knowledge economy attributes of inventiveness, creativity, problem-solving, cooperation, flexibility, the capacity to develop networks, the ability to cope with change, and commitment to life-long learning..... We live in a time when great vision is called for, when our prosperity and security depend on our capacity to develop pupils and teachers who can understand and be able to engage with the dramatic social changes today's knowledge society represents, along with the human consequences (1998, p. 161).

Although it is widely accepted that teacher quality is a critical component of a successful education, there is little agreement about how to fill nation's classrooms with teachers who can succeed at the more challenging mission of today's schools. Teachers should not only be deliverers but also developers of learning. Those who focus on teaching techniques and curriculum standards and who do not also engage students in the greater social and moral questions of their time, promote a diminishing view of teaching and teacher professionalism that has no place in a sophisticated knowledge society (Hargreaves, *ibid*). In reality though, professional communities are hard to create. They presume and demand quality leadership and levels of teacher capacity that are not always available, especially in schools in poor communities with legacies of failure and hopelessness. The knowledge society belongs to everyone. All children should have an opportunity to reach the highest and most creative levels of it. We cannot afford to risk a future in which teachers have prepared pupils neither for the knowledge economy nor for social and moral challenges.

Learning to teach is an ongoing process involving pre-service teacher preparation, induction, and beginning teaching, and an ongoing professional learning (Coolahan, 2002; Darling-Hammond and Skyes, 1999). "The knowledge-base on which a teaching career is based has deepened and calls for teachers to engage with it on an ongoing basis as life-long learners" (Coolahan, 2002, p.13). A number of quality teaching performing countries have developed new paradigms of teacher education. Current research has demonstrated that teacher quality is the key determinant of student success, more important than class size, spending on instructional material. In their teacher training program, prospective teachers need to be equipped with command of critical ideas, skills, and capacity to reflect on, evaluate and learn from their teaching so that it continually improves. To improve the quality of education

well-trained, highly motivated and dedicated teachers are a pre-requisite to provide quality education to our children. Here is a soul-searching question: *Are our teacher training institutions producing teachers with these attributes? If not, we must look for solution and find an answer.*

Challenges for teacher training institutes and teachers in Indonesia are immense. With its massive size, the Indonesian archipelago represents the third largest education system in Asia (behind China and India). Measured on global competitiveness Indonesian education system is not performing as well as it should do. Some of the stumbling blocks are embedded in the poor quality of teacher training, outdated pedagogy of teaching and learning, lack of teaching resources, large of portion of uncertified teachers, lack of quality control on graduates who enter teacher training courses, lack of rigor in teacher training program and lack of adequate professional development (especially in remote areas). At the top of this, demand for teaching the New Curriculum based on thematic integrated approach is an overwhelming task.

## **Conclusions**

Primary and secondary education is clearly the bedrock on which any subsequent learning is based. Curricula offered to pre-service teachers need to consider the demands of today's society in concert with the growing knowledge base about teaching and learning. Teachers are being asked that all students should be able to acquire skills to handle challenges posed by modern technology. As education becomes more important to life, teachers, and schools must expand the range of students they educate and address their individual needs. Shortage of quality teachers and equity, status quo of traditional teaching styles are some of the major issues for educational policy makers. Traditional schooling is experiencing a credibility crisis as students are dropping out in record numbers and juvenile delinquency is on the

rise. To bring fundamental changes in current practice of education and in the thinking of the practitioners, action is needed at all levels of education. Students who are taught by well-trained, energetic and enthusiastic teachers are fortunate indeed. Teachers who teach in very difficult physical and social situations need impetus and encouragement from principals and supervisors. Professional development and on-job training in the best practices of teaching at primary and secondary levels has to be a coordinated effort by teachers, principals and supervisors. Role of our institutions of higher education should be to continually review the pedagogical practices, and train the pre-service teachers who would ignite the passion and zeal for teaching in order to create intrinsic as well as extrinsic interest in learning. There is quite a lot to be done at tertiary level to produce quality educational administrators, educational leaders and quality teachers. Success of New curriculum in Indonesia depends on the supply of dedicated, well-trained and passionate teachers. Those teachers who are already in the workforce need intensive professional development sessions to familiarise with the thematic integrated approach to teach the new curriculum. Teacher training institutes must adopt a dynamic view of providing necessary tools to incoming graduates. Opportunity is already knocking at the door and time is ticking away. Cost of ignoring will be colossal.

Surely, an Indonesian teacher is under enormous pressure and working physical conditions which are not so conducive for implementing innovative strategies for teaching learning. Low salaries for teachers are one reason for many of them to look for a second job, high rate teacher absenteeism. This paper has highlighted the problems Indonesian education system faces and examples of well performing education systems have been discussed. If we say that cost to improve teaching training program is huge, imagine the cost of ignoring it and benefits to the nation if we address the problem. Action has to be taken

at multi-level fronts if we want to improve the quality of student outcomes. There are some lessons to be learnt from the experiences of high performing education systems. Schools are critical life-line for student success and quality teachers can make a difference.

## References

- Ashton P. (1985). "Motivation and Teachers' Sense of Efficacy." In C. Ames and R. Ames (eds.) *Research on Motivation in Education. Vol.2. The Classroom Milieu*. Orlando, Fla: Academic Press.
- Ashton P. And Crocker, L. (1986). "Does Teacher Certification Make a Difference?" *Florida Journal of Teacher Education*, 3, 73-83.
- Barber, M. and Mourshed, M.(2007). *How the World's best-performing school systems come out on top*. London: McKinsey and Company.
- Berliner, D.C. (2001). Learning about and learning from expert teachers. *International Journal of Educational Research*, 35(5), 463-483.
- Biggs, J.B. (2007). *Teaching for quality learning: what the student does*. McGraw Hill, N.Y.
- Biggs, J. Kember, D. and Leung, D. (2001). The Revised Two Factor Study Process Questionnaire: R-SPQ-2F. *British Journal of Educational Psychology*, 71 (1), 133-149.
- Biggs, J. (1990). Asian students approaches to learning: Implications for teaching overseas students. Paper presented at the *Eighth Australian Learning and Language Conference. Brisbane. QUT Counselling Services*
- Biggs, J. (1987). *Student Approaches to Studying and Learning*. Camberwell: Australian Council for Educational Research.
- Berkowitz, M. and Bier, M. (2006). *What works in character education: A research-driven guide for educators*. Washington, D.C.

- Bennet, W.J. (1993). *The Book of Virtues*. N.Y. Simon and Schster.
- Bowden, J. And F. Martin (2000). *The University of Learning: beyond quality and competence*. New York.
- Bransford (2001). *Preparing Teachers for a Changing World: What teachers should learn and be able to do*. San Francisco: Jossey-Bass.
- Cambridge, B. (1999). The scholarship of teaching and learning: Questions and answers from the field. *AAHE Bulletin (December)*.
- Central Board of Statistics. 2001-2009. Survey of National Labour Force Jakarta.
- Darling-Hammond, L. (2006). *Powerful Teacher Education*. Jossey-Bass A Wiley Imprint.
- Darling-Hammond, L. And Bransford (2005) (eds.). *Preparing Teachers for a Changing World*. Jossey-Bass A Wiley Imprint.
- Davidson, m., Lickona, T. Khmelkov, V. (2005). *Smart and good schools: A new Paradigm for High School Character Education*.
- Educational Development in Indonesia 2009/2010. Ministry of National Education Office of Research and Development Centre for Educational Statistics 2010, Jakarta.
- Entwistle, N and Ramsden, P. (1983). *Understanding Student Learning*. London: Croom Helm.
- Garreau, J. (2005). *Radical Evolution: The Promise and Peril of Enhancing Our Minds. Our Bodies-And What It Means to be Human*. N.Y. Doubleday.
- Glassick, C.E., Huber, M.T. and Maeroff, G.I. (1997). *Scholarship Assessed: Evaluation of the Professoriate*. San Francisco, CA: Jossey-Bass Inc., Publishers.
- Gross Ames (1997). *Human Resource Issues in Southeast Asia*. <http://www.pacificbridge.com/publications/human-resources-issues-in-southeast-asia/>
- Hragreaves, A. (1994). *Changing teachers, changing times: Teacher work and culture in the postmodern age*. New York: Teachers College Press.
- Hattie J. (2003). *Teachers Make a Difference: What is the Research Evidence? Australian Council of Educational Research, October*.
- Halsey, A.H. (1994). *The Transformation of Society, an Insight into Education and Training*, National Commission on Education, London, Heinemann.
- Hassan, Said H. (2003). *Religious Education Across Curricula: with special reference to Indonesian education. Proceedings the 4<sup>th</sup> Comparative Education Society of Asia Biennial Conference. Pp 450-466*.
- Indonesia Educational Statistics in Brief (2008-09). Ministry of National Education, Jakarta.
- Kagan (1981). *The moral function of the school*. Daedalus, 110 (3), pp. 151-165.
- Lickona, T. (1991). *Educating for Character*. N.Y. Bantam.
- Lickona, T. and Davidson, M. (2005). *Smart and good high schools: Integrating excellence and ethics for success in school, work and beyond*. Cortland, N.Y.
- Light, G. Cox, R. (2001). *Learning and Teaching in Higher Education: The Reflective Professional*. London: Sage Publication.
- Marton, F. Saljo, R. (1976). On qualitative differences in learning. I-outcome and process. *British Journal of Psychology*, 46, 4-11.
- Masters, G. (October, 2012). *Enhancing the Quality of Teaching and Learning in Australian Schools*. Paper submitted to the Senate Inquiry on Teaching and Learning.
- Mclean, A. (2004). *The motivated School*. Sage Publication, New Delhi, 2004.
- Ministry of Education, The Singapore Education System, *Journal of SEA Education*, Volume 1, Number 1, 2000, pp. 185-201.
- Ministry of National Education. Act of the Republic of Indonesia, Number 20, Year

- 2003 on National Education Systems, Jakarta.
- Press Release, March 7, 2011. New Teaching Framework to enhance the Quality of Teaching Force. Singapore.
- Press Release, September 17, 2009. Teachers the heart of quality education: Singapore.
- SEAMEO Library (2004). Challenges in Education in Southeast Asia. <http://www.seameo.org/vl/library/dlwelcome/publications/paper/india04.htm>
- Schmeck, R.R. ed. (1988). Learning Strategies and learning styles. N.Y. Plenum Press.
- Shulman, L.S. (1998). "Theory, Practice and the Education of Professionals." *Elementary School Journal*, 98(5), 511-526.
- Schulman, M. (1995). Schools and Committees: A framework and guide for school administrators, principals and teachers. N.Y. Anti-defamation League.
- Slavin, R.E. (1990). *Cooperative Learning: Theory, Research and Practice*. Upper Saddle River. N.J.: Prentice-Hall.
- Watkins, D.A. and Biggs, J. (1996). *The Chinese Learner: Cultural, Psychological and Contextual Influences*. Hong Kong: CERC
- Wynne, E. And Walberg, H. (1985). The complementary character development and academic excellence. *Educational Leadership*, 43 (4), 15-18.
- Ranbir Singh Malik** was a professor of Educational Policy at Edith Cowan University, Perth Australia, and is currently a visiting professor at School of Postgraduate Studies, Indonesia University of Education.