

International
Handbook of
Teacher Education
Training and Re-training
Systems in Modern World



Konstantinos G. KARRAS
Charl C. WOLHUTER

EDITORS



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Charl C. Wolhuter

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International Handbook
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Preface
Robert Cowen

Konstantinos G. Karras
Charl C. Wolhuter
(Editors)

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Preface

Prof. Robert COWEN

At almost any given moment in the history of any educational system, teachers are a problem. The question, of course, is: a problem to whom? Socrates was a problem to some of the citizens of Athens in his time, including probably his wife. By us, he is normally seen to be a hero. Teachers in the early Soviet Union and in Mao's China in the mid-1960s were a problem – they were of the wrong social class and therefore had incorrect forms of revolutionary consciousness and so they clearly were not fit to be in charge of children. Indeed in the immediate aftermath of the Soviet Revolution and at the time of the Cultural Revolution in China (and in Nazi Germany, and in the Cambodia of Pol Pot, in North Korea, in Ho Chi Minh's Vietnam, in Cuba after the revolution, in Argentina after the take-over by the military at the time of Galtieri) working teachers were dealt with harshly, often to the point of being killed, tortured, or 'disappeared'. Or they were forced into exile. Teachers are dangerous, and are in danger, at moments of regime change. Fortunately, this kind of thing never happens in democratic societies.... At least, let us hope it does not, without clear signals from political movements or military cadres that democracy is about to be destroyed (in order to save it, of course).

However, in 'democratic societies' – societies characterised by the rule of law and with a strong civil society tradition, politically independent trades union movements, elected local and national governments that preferably contradict each other from time to time – what does happen is a *de facto* selection of teachers in terms of political belief system, in terms of gender stereotyping, in terms of social class, and in some societies (even 'democratic' ones) selection by race and religion. I was privileged to train as a teacher in Trinity College in Dublin and - after the secularism of the London School of Economics and Political Science - I was mildly startled by my daily exposure to what was Catholic in Ireland and what was Protestant in Ireland (at that time). Patterns of racism in the USA before 1954 and *Brown versus Topeka* were reflected geographically in teacher education institutions, and in teacher career lines. The teaching force in the 'secondary modern school' in which I worked in the East End of London was, generally, of a different social class, nationality, and race background from the group of teachers who had taught me in my 'grammar school' (an academically selective school) in the north of England in which I had been a

pupil. Those patterns were obvious, so what – apart from grumbling about inequalities – needs to be said?

What ‘needs to be said’ is to repeat: those patterns of inequality in English education in the 1960s were invidious educationally. The patterns of teacher selection and teacher education – for the sake of the children in both kinds of schools – needed redress; as did some of the educational assumptions prevalent in a Dublin marked strongly by the fracturing of religion, and in the USA of the 1950s and 1960s, fractured (in part and in parts) by race.

With that said, what now may be added, analytically, is that teachers both reflect the fractures of the past and anticipate and help to construct a less fractured future. Teachers are important: they are not merely competent (or incompetent) transmitters of measurable skills. Yes, they reflect the past in the Durkheimian sense: they act as agents of generational transmission – and often in their embodiment of that past reflect the religious, racial, class, gender, and frequently the political assumptions of that historical moment. Hence those moments of ‘liberation’ when a child is introduced to a teacher whose voice does not repeat the voices of the past or transmit the political assumptions of the moment. At the same time, even in ‘conservative’ educational institutions and social contexts, teachers anticipate and build for the future – sometimes by preparing their children for the wrong future (a perennial problem in universities where there is a tension between the injunction to be original and the reality that the most brilliant of the students may be being asked to be a disciple of their professor). Paradoxically, for university students and for many high school students, thoughtful and articulate rejection of what has been transmitted by formal pedagogy becomes the liberating educational act.

In revolutionary educational institutions and in revolutionary social contexts, the same ironies reoccur. The point about ‘learning from the workers and soldiers and peasants’ included the realities of old farmers in Mao jackets and Mao caps supervising young children planting rice for long hours in humid conditions, with the ‘lesson’ ending when the field was planted. The future which Mao was struggling to define was simultaneously a rejection of a recent past – in his view a past marked by the gradual *embourgeoisement* of China as a consequence of the exact copying of Soviet educational practices – and an older past captured by the word ‘Confucianism’. The future would be defined by the complex psychological, sociological and pedagogic compression of creativity into the concept of ‘red and expert’. Manifestly, China’s current creativities have been defined by all sorts of patterns of exile and return and State sponsored privileges for a new academic elite and powerful old

cultural assumptions about discipline and admiration for ‘teachers’. However, what the last few decades have seen both at institutional and autobiographical level is the rejection of what was transmitted as a revolutionary pedagogy. It was the rejection which became the liberating educational act.

Currently we have the charming additional irony that many senior British politicians who have some responsibility for education are holding up China, and PISA scores in Shanghai, as ‘a lesson to be learned’. Let us hope that the ‘lessons learned’ by young people are not those dreamt of by politicians.

And the teachers dreamt of by those politicians?

Suddenly the whole thing gets serious again. ‘Training’ teachers to be competent in the schools was a nineteenth and early twentieth century model, whether in a mass system of instruction - making older pupils into ‘multipliers’ in the transmission of information to large groups of younger pupils; or in the American ‘cult of efficiency’ in the 1920s and 1930s. A more (but not much more) contemporary model is to create ‘teacher-proof’ curricula, in which curricula are created by experts and all that teachers have to do is to transmit the curriculum competently, armed with new teaching and learning theories devised by experts. The increased separation of teacher education from the universities (as in England) is of course, in management-speak, a ‘way forward’. Or backwards, depending on how you define the word ‘education’ and the phrase ‘teacher education’.

Teachers and their education thus – oddly – become the litmus paper of an educational system: they tell you much about a society, such as its political style, its hopes for the young, the intended future for the complete society or maybe just some parts of it. Teachers are dangerous – even if they do nothing much except teach – as indicators of what you really really want: complex societies in a *reductio ad absurdum* become into knowledge economies and, by extension, a definition of a ‘good teacher’ follows. God gets compressed into specific religions and the teacher into a transmitter of one of those religions. Healthy bodies become fetishistic and teachers transmit muscular Christianity or ‘socialist health’ is reduced to gender stereotyping and future Olympic medals. High PISA scores begin, in an act of cultural barbarism, to define a good education system and to tell you what a good teacher is.

The intersection of the ebb and flow of political struggle, the grand narratives of religion, the memories of national identity, and the convictions of the latest and most fashionable forms of education-science (eugenics, IQ tests, PISA scores) confront teacher education systems with history and – always - there are practical problems.

These problems must seem to politicians interminable (even, once upon a time for Finland too): the kinds of institutions in which teachers should be trained; how to finance teacher educational systems; how to recruit enough young people to be teachers; what kinds of degrees teachers need; teacher unions and ‘professionalism’; what should be the balance of the ‘academic’ and ‘educational’ studies; how to assure teacher quality; how to provide in-service training. The practical policy questions never go away, but they are probably the second set of questions to concentrate on.

Always, within this powerful mixture of history with the practical, there is a prior question which can act as a powerful compass for us as people and for us as educators: what kind of teacher do I want to teach my own child? And when I know that I can start – above the noise of policy babble – to think about whether the teacher education *system* of my own country is any good.

Personally? Personally, I would have been happy for my children and grandchildren to be taught by Paulo Freire, Socrates, and Bertrand Russell. I take for granted they would have asked my children about their existing forms of understanding and would have led them on to ask what it is to be human. I would settle for my children and grandchildren being taught by ‘Cosh’ Graham, the man who taught me economics in my secondary school, by Martin Wight who taught me international politics at LSE, and by Joseph Lauwerys who introduced me to comparative education. They made me curious, they would not accept the answers I gave them to their questions, and they left me the space to think for myself – having showed me a number of ways to think. These thankful memories – and memories of brilliant individual teachers I have seen in classrooms in China and England, in the USA and the USSR – are however small consolation.

It may be that we have lost our way, in the last thirty years, in how we think about ‘education’. We may have narrowed the concept too much; we may have measured it too much; we may have taken the magic out of it. And so what exactly, now, do we want our teachers to do – put the magic back in? If so, in an excess of technocratic reason, we have become unreasonable. It will take a while to rescue them (and ourselves) from the banalities of competence which have been offered to them by politicians and experts in so many places for so long.

The present volume is going to enrich the above field, including education and international educational worldwide.

R.C.

13. INDONESIA

Teacher In-Service Training and Re-training in Indonesia

Bambang SUMINTONO
Nanang Bagus SUBEKTI

Abstract

The history and development of teacher in-service training and re-training in Indonesia is unique. It started with emergency re-training in the Old Order era mostly for primary school teachers which was also a program to improve their qualifications. The next era featured massive and varied training programs provided by the government. The results in both eras were not encouraging.

Introduction

From the beginning of the 21st century, teacher in-service training has entered a new era in which educators are more independent than in the previous eras when education was mostly centralized. Another important development in today's Indonesian education system is the enactment of the Teacher Law 14/2005 which aims to address the quality of education in Indonesia through reforming the quality of teachers. This Law clearly states that teaching is a profession and therefore, teachers who meet the professional qualifications stipulated by the Law are entitled to a professional allowance from the Indonesian government. Teachers who fail to meet the qualifications are required to undertake further training or education as stipulated by the Law.

1. A brief history of the development of Indonesian education & in-service training and re-training of teachers

1.1. Indonesia and education in the Colonial period

Indonesia is a new country in the Southeast Asian region having gained independence in 1945. The history of Indonesia can be divided into three periods, the Old Order under the leadership of Soekarno (1945-1965), the New Order when Soeharto was the president (1966-1998) and the Reform Era (from 1998 to present).

Indonesia is now the world's fourth most populous country (235 million people in the 2010 census) and the third largest democracy, whose people speak one national language, *Bahasa Indonesia* (a modified form of Malay). Most Indonesian people are Muslims (88%) but there are also other religions, such as Christianity (5%), Catholicism (3%), Hinduism (2%), Buddhism (1%) and others (1%). The majority of Indonesian people live in Java (64%) where there are two major ethnic groups: the Javanese (over 70 million people) who live mainly in Central and East Java, and the Sundanese (more than 40 million) who live in West Java (Bray & Thomas, 1998). Additionally, there are also more than 580 other ethnic groups who speak local languages and exhibit a diverse range of cultures. The members of these groups range from several hundreds to millions.

Indonesia is the world's largest archipelago with more than 17,500 islands bridging two continents, Asia and Australia. The geographical location of Indonesia is on the equator extending from the Indian to the Pacific Ocean, with a length of 5,110 kilometers (3,997 miles). The total area of Indonesia is nearly 2 million square kilometers, of which 81% is sea and the rest land. It has a diverse geography, ranging from swamp, tropical rain forest, to high mountain tops covered with ice. For the purposes of administration, Indonesia is divided into 33 provinces and more than 400 districts. There are more than fifty million students from primary school to university. There are more than 2.7 million primary and secondary school teachers of whom 25% are private school teachers (Tim Independen, 2008).

Formal schooling in Indonesia started in the Dutch colonial period in the 1800s with a complicated and segregated education system for local people (*pribumi*), eastern foreigners and descendants of Europeans controlled by the colonial government (Lee, 1995; Boentarsono, 2000). The new century marked a new development when in 1901 the Netherlands government started implementing an ethical policy (*ethische politiek*) which articulated a sense of responsibility to improve the social and economic situation of the marginalized indigenous population (van der Veur, 1969). Public schools in this era provided good quality education fully supported by the colonial government, while most *pribumi* could only attend three year village primary schools funded mainly by native princes (Bray & Thomas, 1998). At the higher level most of the teachers were Dutch nationals and selected others but the number of *pribumi* students was lower than other students (Djajadiningrat, n.d.).

The high demand for teachers at this time, especially for schools for *pribumi* compelled the government to create a teacher school at the secondary level called with *Normaal school* and *Kweekschool* that produced teachers for the public school

system (Poerbakawatja, 1970). Meanwhile *Tamansiswa* (Garden of Pupils) and Muhammadiyah (an Islamic organization) created their own teacher school to supply teachers to their own schools network (Lee, 1995). All teacher candidates completed primary education and attended teacher school for four years. There is limited information about in-service training and re-training of teachers during this era. The total population in the education system by 1940 was more than 2 million students (98% primary school students) and 42000 teachers (95% at the primary school level) (Poerbakawatja, 1970).

During the Japanese occupation (1942-1945), the Dutch segregated education system was abolished to give an opportunity to *pribumi* people, who, Japan believed, would support them during the Pacific War. Undoubtedly, compared to the previous regime that virtually excluded *pribumi*, school enrolments at the primary and secondary levels increased though not significantly (Thomas & Surachmad, 1962). This situation caused difficulties because of the lack of teachers, as the Dutch teachers were imprisoned or fled the country. Because of this, primary school teachers suddenly became secondary school teachers, and students at primary schools were taught by people who could only read and write, a vertical shift (Poerbakawatja, 1970).

1.2. The Old Order Era

On 17 August 1945 Indonesia's independence was proclaimed, but until 1949 the nation had to fight sporadically against the Dutch who intended to re-colonize the biggest island nation in the world. In the 1945 Constitution the goals of the establishment of independent Indonesia were articulated, among which were that every person in Indonesia deserves to receive a good education and that the Indonesian government has an obligation to provide a compulsory basic education to the Indonesian people.

Starting from 1950, the new nation had to face huge challenges when student enrollments rose astronomically. According to Thomas and Surachmad (1962), enrollments at the elementary level reached 5 million students in 1951, a 150% increase on ten years earlier; in 1960 the number become 8 million. This expansion compelled the central government to create emergency short courses to produce teachers with the qualifications equal to 10 years schooling. To illustrate the problem, in 1951 of the 80 thousand primary school teachers, only 38% met this criterion (Poerbakawatja, 1970).

Sarumpaet (1963) reported, "An emergency course under the rather lengthy name of Training Course for Junior Secondary School Teachers was introduced in the early 1950s and attached to several academic senior secondary schools." In the first year, the teachers had to attend classes located in cities close to their placement, and the next year they returned to their school for teaching. In this second year, while teaching, they regularly received learning materials written by education experts and were supervised by experienced teachers in the region (Poerbakawatja, 1970). Such activities were the earliest examples of teacher in-service training and re-training in Indonesia. All activities were funded and managed by the central government and involved more than ten thousand teachers across the country with the training provided by senior teachers.

Besides improving teachers' qualifications, in the 1950s the Ministry of Education also conducted in-service training programs for teachers called the B-I and B-II courses (Moorey, 1962; Sarumpaet, 1963). Both courses provided training toward certification for teaching for junior secondary (B-I) and senior secondary (B-II) teachers. Moorey (1962: p. 138) describes the courses:

The B-I Course which represents two years of study beyond the senior high school and includes instruction in professional education, languages, science and mathematics, social studies, economics and the fine arts enrolled 995 students in 1950 in centers situated in various locations throughout Indonesia. Approximately 5,000 students were enrolled in the B-I Course in 1961. The B-II Course comprises two years of work beyond the B-I Course and includes instruction in professional education, history, geography, mathematics, physical education and chemistry. There were no students enrolled in the B-II Courses in 1950; however, approximately two hundred students were enrolled in this course in 1961.

This shows that in-service training in B-I and B-II courses were subject-focused programs unlike the primary school teacher program, and were sponsored and operated centrally. The other difference was that the courses were not given by teachers but by lecturers from Higher Institutes of Teacher Training (*Perguruan Tinggi Pendidikan Guru*) (Sarumpaet, 1963). Thomas and Surachmad (1962) stated that these two courses were used by primary school teachers to upgrade their posting to higher level schools.

The difficulties faced during this era were the job division between the ministry which were responsible for teachers' education and training and the provincial government which managed the rest (teachers' salary, teaching materials, school maintenance etc.) (Poerbakawatja, 1970). As a result, many national plans did not work well because the different priorities and interests of the two agencies, especially at the primary school level. The provincial governments were always struggling financially to support the schools, which obliged school principals to rely on donations from parents for maintenance and teachers' allowances (Lee, 1995).

A unique challenge for this new nation, according to Moorey (1962), was the capability to produce textbooks and teaching aids for teacher education and continuing training. The ministry decided that it was time for Indonesia to progress its nation-building program through book publication. "The Department of Education ruled against the use of such books [from the Dutch colonial period] and began a campaign designed to encourage the production of textbooks adapted to Indonesia which would instill a healthy nationalism in its citizens" (Moorey, 1962: 139). As a result many Indonesians began to acquire experience writing textbooks for professional education curricula, but nearly all the manuscripts (around 500) that became textbooks were printed abroad. These activities for in-service training and re-training of teachers depended on the ministry's resources.

1.3. The New Order Era

The New Order regime gained momentum in 1974 when the price of crude oil rose significantly. During the second five year plan, the education budget rose twelve times (from Rp 36.6 billion to Rp 436 billion) to become 9% of the total budget compared to 3.4% in the previous era. As Beeby (1979) notes, "the improvement in the finances of the Education Department was even more dramatic than the rise in the price of oil." This situation provided the central government with the opportunity to implement the ambitious targets of establishing one school in every village (Duflo, 2004), recruiting one hundred thousand new teachers into the system in ten years (Raihani & Sumintono, 2010), and implementing an in-service training program across the country (Soedijarto et al., 1980; Thair & Treagust, 2003). In short, the era was a busy time of expansion in the Indonesian education system.

The introduction of a new curriculum in 1975 became the turning point for accelerating an in-service program that differed significantly from the previous era. Soedijarto et al., (1980) state that in 1976 alone more than 90,000 primary school teachers were upgraded with three-week workshops introducing new textbooks. The

workshops were run by 12,000 specialists training staff in 120 provincial mobile teams supported with four-wheel-drive vans transporting audiovisual aids. In addition, “a major endeavor has been a system of radio broadcast beamed to 100,000 teachers in Central Java and nine remote outer-island provinces four times a week, 20 minutes a day” (Soedijarto et al., 1980: p. 90). These activities illustrate the government’s efforts at fulfilling the target for the program to reach even teachers in remote difficult to access areas, who had never been involved in any training during their years of service.

For secondary school teachers, in-service training was conducted in teacher-education colleges (similar to the B-II courses in previous system), and also by a new approach in new institutions called In-service Teacher Professional Development Centers (*Pusat Pengembangan Pendidikan Guru* or PPPG). In 1979, two of the new centers were already in operation, another five were in construction and eight others were being planned (Soedijarto et al., 1980). These new centers were purposely located with the teacher-education colleges in order to utilize their staff to provide training, and each center covered a specific subject area (Thair & Treagust, 2003), such as science education in Bandung, language education in Jakarta, and mathematics education in Yogyakarta. Teachers would attend six weeks in-service training in the centre which could cater for 150 trainees in each batch; a total of 18,000 teachers yearly could join when all PPGs were already in operation (Soedijarto et al., 1980).

Another function of PPPGs was to help create regional professional development programs (*Balai Pendidikan Guru—BPG*). Each BPG was located in a provincial capital, with a total of 14 BPGs already in operation in 1989 while another 13 were under construction at that time (Thair & Treagust, 2003). Unlike the PPPGs, the BPGs provided a greater variety of training and involved teachers from all levels of schooling. Both PPPGs and BPGs took teachers out of their schools for their in-service training, which created the dilemma for the school principals of having to decide whether to support the teachers’ essential professional development since the students would be left in the classroom without them (Thair & Treagust, 2003). The problem was exacerbated in subject areas where teacher specialist qualifications were poorest, such as science and mathematics education, since many teachers who were most in need of professional development taught in several schools (Beeby, 1979).

In the early 1980s, a big change occurred in teacher in-service training and retraining in Indonesia. Supported by a multi-million-dollar loan from the World

Bank, it began in 1978 with a survey of 40 teacher-educators who visited teacher training centers abroad for six months (Soedijarto et al., 1980; Tilaar, 1992). One of the recommendations was that the brief 2-3 weeks in-service training was useless (van den Berg, 1993), or, in the words of a Department of Education official “In-service education presentations had often been irrelevant to teacher’s need” (Soedijarto et al., 1980: 91). For instance, in science education, according to Thair and Treagust (2003: 203), it was found that, “in spite of the focus on practical laboratory activities in these programs, the majority of school laboratories remained under-utilised.” This was because the traditional approach of a ‘cascade’ model where teachers who had completed in-service training trained colleagues in their region did not really work. The new approach led to a new ambitious program with in- and on-service training. It was a combination where teachers not only completed training at PPPGs or BPGs, but were also guided and looked after by more experienced teachers in their schools.

The major purpose of in/on-service training, according to van den Berg (1993: 19) was “to change the classroom learning from passive listening and writing to active experimenting and thinking.” The program was called *Pemantapan Kerja Guru* (PKG) (strengthening the work of teachers) and operated from the 1980s to the early 1990s as “the single largest teacher professional development program in the world...by any measure, the PKG project was an extremely ambitious undertaking, establishing an extensive network of teacher-trainers and overcoming the logistical obstacles associated with operating in a developing country that is so geographically and culturally diverse” (Thair & Treagust, 2003: 202). The project started with science in 1980, a year later with mathematics, then it was extended to English in 1985, Bahasa Indonesia in 1988 and geography in 1990 (Thair & Treagust, 1997). This illustrates the magnitude of the program aiming to improve the quality of the whole system.

The PKG program started with the selection of outstanding teachers nominated in each province who were then trained to become in-service instructors. The training to create ‘master teachers’ for science education was held in the Regional Centre for Science and Mathematics Education (RECSAM) in Penang, Malaysia, for three months (Thair & Treagust, 2003). The teachers were provided with training in subject content, laboratory work, classroom methodology, and teacher training methodology; they then visited schools in Thailand and Australia to identify elements that could be implemented in Indonesian classrooms and laboratories. Once they returned, one of their main tasks was to increase the confidence of

teachers who had weak backgrounds and zero laboratory experience. When the system was established, a new batch of instructors was selected to study at the Master degree level in the UK and Australia (Thair & Treagust, 2003). The exact number of teachers trained in this PKG system is unavailable, but it is noted that there were a total of 7,000 instructors and trainers spread over all provinces with 82 completing a Master degree at overseas universities as of 1996 (Thair & Treagust, 1997; 2003).

On return to their hometowns the instructors prepared worksheets based on the existing textbooks that followed the syllabi and the national curricula. In science education, “the worksheet was simply to teach the textbook concepts through active experimentation by students, hoping that along the way they would pick up process skills” (van den Berg, 1993: 19). The 16 week cycle of the PKG program (Thair & Treagust, 1999) started in the first two weeks of the semester, when the instructors trained other teachers (*in-service*) how to use the worksheet alongside with the occasional help from the subject matter consultant. Located in the provincial capitals, the teachers “thoroughly planned, by a content analysis of each topic, a trial of practical activities and the revision of student worksheets for experiments” (Thair & Treagust, 1997: 585). The teachers then returned to their schools to try out the planned worksheets and activities in their classroom for the next six weeks (*on-service*), and the instructors themselves travelled to observe their training-teachers in their classrooms; each week they met regularly to discuss their teaching experiences. After six weeks, they met again for two weeks (*in-service*) in mid-semester to try out the worksheets that they would use for another six weeks guided by the instructors.

Because of the expensive nature of the PKG program, the government decided to establish a limited version called with *Sanggar Pemantapan Kerja Guru* (SPKG) at the district level (van den Berg, 1993) across the country, increasing to 200 SPKGs in 1987 (Thair & Treagust, 2003). The SPKG program was led by key teachers (*guru inti*) who had ‘graduated’ from the PKG program. Unlike the PKG that had a complete cycle with an ‘in-on’ system, the SPKG had minimal intensity, relying on an on-service cycle followed with a teachers’ meeting (Thair & Treagust, 2003).

The legacy of the PKG program in the education system was the significant impact of its network of teachers from the central government down to the district and region. The purpose of the PKG program was not merely the training of teachers to use the worksheets, but also to disseminate information from the Department of Education and its provincial offices. In 1993, when the government was unable to

obtain an international loan to support the PKG program, it used the network to organize teachers to meet regularly on a voluntary basis as the *Kelompok Kerja Guru* (KKG or teachers' working group) for primary school teachers, consisting of subject matter and classroom teacher groups, and the *Musyawarah Guru Mata Pelajaran* (MGMP, subject teachers' consultative group) for secondary school level teachers. Both the KKG and MGMP constituted the post-project sustainability phase in response to the lack of funding (Thair & Treagust, 2003).

The activity of the KKG and MGMP consisted of a weekly teacher meeting in the school. The meeting was not to discuss the worksheets, but could include "discussion about test items, subject matter to be taught, and other problems faced in schools and classrooms" (van den Berg, 1993: 21). Neither the KKG nor MGMP conducted any in-service activity like the PKG activities. Their on-service activity was limited to discussion on topics raised by the teachers in the group meetings (Thair & Treagust, 2003).

During this era, the Indonesian parliament issued a new education system act, Law 2/1989. The law, among other things, stipulated that the minimum levels of teacher education be the two year post-secondary diploma (D-II) for primary school teachers and the bachelor degree for secondary school teachers. Since the program was not exactly a pre-service program for primary school teachers, it was called with D-II 'equivalency' and can be regarded as a re-training program. Nielsen (2003: 396) writes that, "this is one of the most ambitious quality enhancement programs ever mounted anywhere", because more than 800,000 teachers in the system needed to be upgraded to D-II. The yearly intake was about 40,000, where half of the teachers were supported by a government scholarship and studied near the teacher-education colleges, while the rest had to pay a modest tuition fee to enroll in the Indonesian Open University using the special distance learning mode (Nielsen, 2003). Early assessment of this program by Nielsen (2003), found that the curriculum and learning materials were hastily prepared by writers without experience in primary school teaching which made some textbooks irrelevant for incumbent primary school teachers. The success of this program was also questionable, according to recent studies, with around 300,000 practicing teachers completing the D-II diploma education in 2006, which amounts to fewer than half of the targeted teachers (Kraft, 2008).

The 1990s saw another central government initiative for an in-service training program for primary school teachers called the PEQIP (primary education quality improvement project). The results of the 1986 Ministry study of primary school

teachers' performance were shocking, as "only 45 percent of a random sample of SPG-trained [secondary school teacher training] teachers could pass the science test given to the primary school completers" (Nielsen, 2003: 393). In 1990 the government asked for support from the World Bank to initiate the PEQIP. In this program the Ministry instructed that all primary schools be organized into clusters, with each cluster comprising of one core school (*sekolah inti*) and six to nine other schools (called *sekolah imbas*); all teachers were organized into working groups led by experienced teachers (called tutor) in a core school (van der Werf et al., 2000).

The main intervention of this project was the training of tutors and subject-matter specialists; they in turn, would train classroom teachers at *imbas* schools (a typical 'cascade' method). One of the main activities in the PEQIP was teacher development: "each core school had a teacher activity center where seminars, training activities, and workshops took place. The center was also equipped with audiovisual aids, educational materials, and a library. An important objective of the cluster was to encourage the work groups to support professional development" (van der Werf et al., 2000: 330-331). The focus of the training was to provide new strategies for teaching the four subjects of Bahasa Indonesia, mathematics, science and social studies. A total of 440 schools participated in six provinces from east to west Indonesia with each province having around nine clusters (around 72 schools per province).

Some reports indicated that the PEQIP program did not achieve what was intended (van der Werf et al., 2000; Nielsen, 2003). For instance, the training made very little impact on teaching and learning activities, because, "the training was largely theoretical and was largely given at the national level by trainers who had little or no primary classroom experience and little or no experience of modern teaching methods" (PEQIP, 1999 in Nielsen, 2003). A quantitative study by van der Werf et al. (2000) found that generally there was no significant difference between students' achievement in PEQIP's schools compared to regular schools except in science in one province. Similar to previous research, van der Werf et al. (2000: 353) concluded that "the aims of the training may have been unrealistic considering the actual practice in most classrooms."

1.4. The Reform Era

In the Reform Era, from 1998 up to the present, teacher education in relation to in-service training and re-training still continues the previous practices in the form of the KKG and MGMP programs. In every district across the country and in the

clusters of schools in regions (sub-districts), both KKG and MGMP are common practice. However there are some significant developments that reveal new approaches.

The previous institutions which provided in-service training for teachers, the PPPGs and BPGs, in decentralized Indonesia both still belong to the central government (under the Ministry of Education and Culture). Though with slightly different names, their traditional function is maintained: in-service training for teachers planned and directed by the central government.

One significant development of Indonesian teacher is the introduction of the Teacher Law in 2005 (Law 14/2005) by the parliament which recognizes teaching as a profession. The Law, among other things, stipulates that teachers gain at least an undergraduate academic qualification or complete a four year university education program as well as pass the certification process that assesses their four competencies, namely pedagogical, professional, personal and social (Jalal et al., 2009). If they pass the certification assessment, they will receive a professional allowance that is equal to their basic salary as a government employee; besides that, they also get functional allowances of around 30% of the basic salary (Kraft, 2008).

Of the 2.7 million teachers (25% of them non-public servants), only 35% fulfilled the 2005 Teacher Law's requirements for certification based on their academic qualifications (Jalal et al., 2009). The government predicted that it would take ten years to upgrade the qualifications of incumbent teachers in a process similar to the D-II equivalency program of the previous era. Because it is the law and provides an opportunity to double their income, from 2007 teachers began re-training in teachers colleges close to their domicile to obtain the required qualifications (Firman & Tola, 2008).

In the first batch of the certification process conducted in the middle of 2007, more than 200,000 incumbent teachers were involved (Tim Independen, 2008). The choice for the certification process is the portfolio method, in which teachers demonstrate their achievement and accomplishments during their career (Jalal et al., 2009). One of the criteria in the portfolio method that grants good points for the teacher is their involvement in professional development activities, which include in-service training, re-training, and seminar and conference attendance. Because of this, many educational institutions, from universities, teachers college, to private colleges offer seminars and short training courses for educators all over Indonesia, to fulfill the high demand from the teachers. The teacher certification program raises teachers' awareness of their need to be involved in teacher professional development

activities which they can plan by themselves, without having to wait for an invitation from their superior officers (education district or provincial office) that was usually limited and unpredictable (Tim Independen, 2008).

Another effect of the certification process on schools is the resulting creation and implementation of in-house training activities for their teachers. These can be held from half day to a week at the school, with invited experts from teacher-educator colleges, officers of educational offices or private institutions. The experts in certain areas give talks and conduct short training sessions about new methods of teachings, educational multimedia, or even provide motivation training (Kosasih, 2012, personal communication).

At the same time, providing educational training professionally for teachers has also become popular in big cities, especially with the government's requirement that company and business entities undertake corporate social responsibility activities. Educational foundations and private education businesses have been established to channel the demand and offer their services to the educational sector. Most activities consist of schools hiring staff from the foundation or educational service company to conduct school improvement programs and teacher training in nearby selected schools. This has really opened up business opportunities that were previously dominated by public institutions such as PPPGs and BPGs. The foundations and education businesses do not stop there; they also hold annual Indonesian teacher conferences in big cities with many participants, where they can offer unique training menus or tailor-made menus for teachers and schools that are not usually provided by traditional institutions (Dharma, 2011, personal communication).

Indonesian teachers in the reform era are also free to express themselves and create their own independent teacher organizations, as has occurred across the country. One of the main activities of such teacher organizations is to conduct regular in-service training for teachers. It is common now that teachers organize their own training by asking support and commitment to fund a whole year's activities to be held in schools or in other public places. This effort raises the teachers' awareness that they can independently plan and implement their professional development by tapping available resources.

The internet and social media also play an important role in teacher professional development. Individuals, groups or organizations use this ubiquitous electronic interaction to help each other through digital training. Teachers use the internet not only inside the country but also with overseas partners who can help them and their students improve their skills and knowledge through distance training. The Ministry

and some companies can provide the necessary infrastructure, but in most case the teachers themselves make all the required decisions (Feyruzi, 2013, personal communication).

2. Discussion

The historical development of teacher in-service training and re-training in Indonesia after independence exhibits a very dynamic trend. Each era faced unique challenges that needed special action. In the first fifty years, the central government through the Ministry of Education managed everything related to the planning, funding and implementation of teacher training programs. In that era the position of teachers was dependent and reactive to the policy, as continued to be the case in the centralized government during the periods of the Old Order and New Order (Thair & Treagust, 2003). It was only in the Reform Era (1998 onward) that many teachers tried to become independent and autonomous and take ownership of their professional development activities.

Regarding training agents who conducted the activities, in the earlier era senior teachers who had better educational backgrounds (at least ten years schooling) were relied on to train incumbent primary school teachers who mostly had only six years schooling or less. Starting from the end of the 1970s, the government established teacher training centers like the PPPGs and BPGs, to provide in-service training and re-training for teachers in many programs such as the 'cascade' program or PKG. However, in the Reform Era, in addition to government agents, other training agents also played a role, becoming big businesses in the private sector and providing many kinds of training services custom-designed to the needs of teachers. The method and content provided by these agents were sometimes more sophisticated and supported with the latest technology compared to the services usually provided by BPGs and PPPGs (now known as P4TKs). The trainers, who were mostly ex-teachers, saw themselves as professionals, actively involving themselves in many advanced training programs conducted by elite private schools or even attending training overseas.

During the Old Order, the training was conducted in an emergency setting, with the materials having to be prepared simultaneously with their use (Moorey, 1962). The availability of funds in the New Order institutions like PPPGs and BPGs meant that the material was prepared in advance for the three week course, for instance; they also supported and producing materials for the eighteen week PKG program, collaborating with instructors and 'master teachers' (van den Berg, 1993; Thair &

Treagust, 2003). The materials were mostly related to specific subject areas (mathematics, science, languages, social sciences and vocational subjects), about which many incumbent teachers were either not knowledgeable enough or completely ignorant, and to teaching methodology. In the Reform Era, training materials are abundant due to the availability of private providers and information technology; the teachers and schools can even request a specific tailor-made training program based on their needs. As regards participation, except for the required training for teachers to upgrade their educational qualifications (such as the re-training course in the Old Order, the D-II program in the New Order and the four years post-secondary education in the Reform Era), all other in-service training for teachers is not compulsory. However, in most cases, for cultural and bureaucratic reasons, Indonesian teachers agree to participate if they are invited to join the training (van den Berg, 1993; Thair & Treagust, 2003).

In general, the impact of the in-service training program on Indonesian education quality does not meet expectations. Based on two famous international students' achievement tests, TIMSS and PISA, Indonesian students have poor achievement. Three consecutive TIMSS studies in 1999, 2003 and 2007 showed that the performance of Indonesian eighth-grade students in mathematics and science is really poor (Jalal et al., 2009). A PISA study in 2006 revealed that 15 year old Indonesian students' scores are lower than the international median score in science, reading and mathematics. Jalal et al., (2009) argued that the poor achievements in both international tests are an indicator of the poor quality of teachers. As previously mentioned, the 1986 Ministry study found the primary school teachers' scores poor; according to Jalal et al., surveys of the last ten years by the Ministry of Education revealed the poor performance of teacher quality in terms of the subject teaching performance tests (primary and secondary level).

These results have led to the question of why poor teacher performance still prevails in spite of efforts such as in-service training and re-training, the upgrade of teachers' qualifications, and the generational change in the teaching force. Firstly, according to King and Newman (2001: 86), programs such as in-service training have "not substantially improved teaching, because traditional approaches violate key principles for teacher learning." The key principles not followed are, for example, teachers present materials that are not relevant to their students' learning, and courses have no provision for follow-up and feedback, such as the three week courses in the 1970s. The PKG and SPKG programs in 1980s succeeded in improving teachers' teaching skills, but there was still no impact on students'

performance, mostly because teachers in schools were “under pressure to have students perform well in the national examinations that require factual recall and routine calculations” (Thair & Treagust, 2003: 209). As a result, teachers went back to applying the ‘chalk and talk’ method which was more appropriate to help their students pass the exams. This proved that ignorance of the real situation and the pressures faced by the teachers led to unconnected policy implementation that did not address the actual needs of in-service training.

Secondly, King and Newman (2001) emphasized that to be successful teachers should have influence over the training’s substance and process. Since the very beginning in-service training has been managed top-down in a centralistic manner, and the situation only began changing in the 2000s. Applying the ‘one size fits all’ method to the highly diverse national situation resulted in teachers becoming ‘alienated’ in their workplace and the method not being adaptable to the workplace conditions. For instance, in science education the location of rural schools was not taken into account in the production of the materials which were meant to be useful for the students (van den Berg, 1993). At the same time, the government did not link these professional development activities with the financial incentive that attendance and improved teaching competencies would be part of teachers’ career development (Thair & Treagust, 2003).

Lastly, Nielsen (2003) argued that during the Soeharto era, the *bureaucratic authoritarian state* which emphasized economic stability, growth and efficiency had a tremendous impact on the education sector. Indonesia needed to develop the teacher training infrastructure (such as PPPGs, BPGs, number of trainers etc.) across the country in the late 1970s and 1980s, but quantitative achievement was the main type of achievement sought and reported. Since “the bureaucracy has tended to resort to ‘goal displacement’: substituting goals that can be reached for those that cannot” (p. 403), thousand of teachers participated in in-service training and hundreds of thousands of teachers attended upgrading courses but inevitably these were of poor quality.

Nielsen (2003) pointed out that, as a developing country needing help, Indonesia also relies on external sources such as international loans from donor agencies like the World Bank, the Asian Development Bank and bilateral donors. The PKGs and PEQIPs are examples of programs designed and monitored by these external agencies although executed by the central government bureaucracy. The sustainability of projects is also seriously affected when financial support is no longer available. In the case of the PKG for example, the equivalent program called

the SPKG was not supported like the PKG and had limited success in terms improving teachers' teaching skills (Thair & Treagust, 2003). Even after the project ended "there was never a 'critical mass' of highly trained and influential PKG instructors or 'master teachers' widely established throughout the system who could provide sufficient influence..." (p. 209). It shows that reliance on external funding to run this kind of program has resulted in unexpected outcomes.

Conclusion

This article has demonstrated that the Indonesian government has continuously worked hard to improve the quality of education through developing diverse programs and regulations for teachers. The availability of quality teachers is a vehicle to achieving quality national education as mandated by the 1945 Constitution. The enactment of the Teacher Law No 14 / 2005 aims to implement the education section of the 1954 Constitution which places on the Indonesian government the responsibility for providing quality education across the nation.

The Teacher Law has clarified the roles of teachers and the responsibility of the Indonesian government towards teachers. One of the important elements of the Teacher Law is the formal statement by the Indonesian government that teaching is a profession. Therefore, teachers who meet the qualifications as regulated by the Law are entitled to professional allowances while those who do not meet the qualifications are required to undertake further training or education. Successful implementation of the Teacher Law requires the active participation of policy makers, school practitioners, and stakeholders in developing policy on teacher development appropriate for the Indonesian context which is the key to achieving the provision of quality education through the availability of quality teachers.

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