

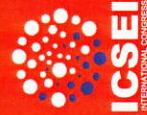
27th ICSEI Congress

Proceedings

*Redefining Education, Learning and Teaching
in the 21st Century:
the Past, Present and Future of
Sustainable School Effectiveness*

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THE IMPACTS OF TEACHER PATHWAYS ON TEACHER DEVELOPMENT AND PUBLIC SCHOOL IMPROVEMENT

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Abstract

The importance of teachers in public schooling has been well documented in education research. Two efforts emerge in the discussion of improving teacher quality: how they are recruited and then developed. Indonesian primary and secondary public education covers a large scale system of human resources management. This sheer size of education staff has certainly a great impact on the condition of schooling when teachers' quality across different pathways is barely known.

This study seeks to understand the perceptions of school leaders and teachers concerning: (1) how teacher recruitment pathways impact on teachers' practice and development? (2) How teacher recruitment pathways impact on how schools induct and develop effective teachers? (3) How the teacher recruitment pathways impact on school quality?

Employing a multiple-case design, this study explored four public schools from different levels: primary, secondary, high and vocational school. This sub-group sampling is aimed to avoid drawing conclusions from a small section of a larger phenomenon. Sixty teachers from four different pathways participated in group interviews while four principals, sixteen deputies or senior teachers, eight school supervisors and the head of teacher and staff development division give their voice in semi structured individual interviews.

A shared impact of pathways on teachers' unprepared practices in varied forms emerged in the findings. However, the teachers' potential to develop differed relevant to their previous professional trainings. The convergent schools' main academic priorities in the National Examinations (NE) made a generic pattern of teaching assignment. This pattern endorsed the extent to which professional development opportunities can be accessed by teachers from different pathways. The basis on proximity to the NE also segregated the teachers' possible contribution to the school improvement.

Teacher preparedness in the profession is not merely the school's responsibility, thus it requires collaboration with teacher training institutions and the local authorities. The absence of measurable school-based induction program proved to be a hindrance in teachers' effective learning. More importantly, the impact of NE as a high-stakes test on teacher development pattern is evident in the teachers' limited curricular learning opportunities. In response to the limited opportunities, literature and

Keywords: *pathways, school-based induction, professional development, segregation*



A. Rationale

In the current views of education development, the quality of a public education system has been linked to the economic and social success of the society. School success is seen from a variety of outcome variables such as gross domestic production (GDP) per capita, labour productivity, employment, and even crime rate as well as research output (Kielstra, 2012). Therefore, for the sake of their children's education and future, parents and community members constantly want the best teacher possible in every classroom. Research has also confirmed that the most important factor contributing to a student's achievement in school is the quality of teaching. Although parents may be unfamiliar with the research, they share the desire to ensure great teaching is available for their children at schools.

In relation to the provision of quality education, there are two main things proposed by wide-reaching research (OECD, 2005). They are recruiting quality teacher candidates into the profession and then developing them into effective professionals. A sensible effort involving the education stakeholders should be made address the issues so that a comprehensive understanding can lead to constructive actions in getting quality teachers rather than qualified teacher in the profession. It would be interesting to link the two main issues of teacher recruitment and professional development in the Indonesian public schools.

Indonesian primary and secondary education covers a large scale system of human resources management. The World Bank (2007) reports approximately 1.44 million primary teachers, 680,000 junior secondary teachers and 475,000 senior secondary teachers employed throughout Indonesia. Around 95% of primary and 79% of secondary teachers are civil servants, the balance being contract or honorary teachers employed directly by the school. 270,000 contract and assistant teachers have been promoted to become civil servants by the end of 2007. This sheer size of education staff has certainly a great impact on the condition of schooling when teachers' quality is barely known.

Government teachers in Indonesia enter the profession through different pathways (Basikin, 2007). Some teachers get in the profession after serving as contract (NPTs) and assistant (EATs) teachers, others come into teaching from scholarship bonds (SBTs) while most of them pass a generic government pen and paper test to become government teachers (GTs). These different paths possibly have different impacts on teachers' practices and their professional learning.

B. Review of Related Literature

1. Teacher Quality Identification



Studies in teacher recruitment have largely focused on the supply, demand, attrition and retention of teachers in the profession. For instance, Turner (1991) and Chen (2009) explored how teacher supply and demand are related, Müller, Alliaata, & Benninghoff (2009) investigated how to attract candidates into the profession, Goldhaber, Destler, & Player (2010) sought the effect of remuneration on teacher entry, and Watt & Richardson (2007) researched motivational factors in the profession. They provide a significant comparative methodological and analytical lens to explore the issue. Yet, how the recruitment and development occurs in public schools and how the relevant parties involved in a specific educational context make sense of it has not been fully addressed.

Research in effective teachers' impact on education and their recruitment unfortunately has largely been conducted in developed countries while much less research has been undertaken in developing countries. Reviewing empirical research in teacher recruitment in the United States, Guarino et al. (2006) found differences in gender proportion, academic ability, altruistic desire, salary, commitment and attrition, as well as issues of mentoring, support, and induction programs in new teacher management. Hirsch's (2001) report identified similar challenges in teacher recruitment, namely: a mismatch of teacher supply and demand, an abundance of out-of-field teachers; and low salaries or poor incentives. The findings may not fit entirely to the current teacher recruitment conditions in Indonesia due to differences in the socio-cultural background. Yet, they can be significant comparative points for locating this study among the existing research in the area of teacher recruitment.

Teacher recruitment in Indonesia has generally implemented a traditional and generic system with a pen-and-paper test (Azriansyah, 2006). Hobby et. al. (2004) claims that such system is unlikely to yield the best mix of potentially effective candidates. Chen (2009) highlights the necessity of getting the right people in the profession and confirms the urgency of attaining a quality and committed teaching force as recommended by Watt and Richardson (2008) and Barber and Mourshed (2007). Economically, improving recruitment is also considered less expensive than developing in-service teachers (Hanushek, 2009). The need for more research in teacher recruitment and development for the sake of improving the teacher quality has been a major suggestion in the aforementioned educational research.

With the limited source of teacher recruitment research literature in Indonesian schooling context, this article attempts to lead the way in researching teacher recruitment and its impact on teacher development in Indonesian public schools. As an initial step, asking those who are dealing with teachers' work daily as well as teachers who come through different pathways is a reasonable attempt.



2. Teacher Effectiveness

As schooling involves a large number of interests and stakeholders, the public has an interest in knowing how effective the provision of education is and how it can be measured. A lack of evidence about teacher effectiveness will create The Widget Effect (Weisberg et al., 2009) in which school districts tend to assume classroom effectiveness is the same from teacher to teacher. As a result, most education policy settings are mainly dominated by indifference toward teaching quality; mediocre or below average teachers are treated in the same way as the effective ones. Research has adopted the term effectiveness as a proxy of quality to examine schooling inputs, processes and outcomes for students, teacher attributes and the wider community (Marzano, 2003; Rice, 2010; Rockoff, 2004). Yet, Kyriakides et. al. (2002) note that the limited conception of teaching and disconnection from professional development make it difficult to conceptualize problems of teacher effectiveness in the research literature. In fact teachers' positive effects on students' experiences of schooling, including their attitudes, behaviours and achievement outcomes have profound implications (Rowe, 2002), therefore researchers and policy makers also agree that teacher quality is a central policy issue in education reform. Since there has been no agreement on how to define and rationalize teacher quality in education, research uses different forms of proxies to measure teacher quality.

Murnane and Steele (2007) define effective teachers as those who can raise the achievement levels of their students while Anderson (1991) states that an effective teacher consistently achieves goals which focus on the learning of their students. The definitions denote two different lenses for examining teacher effectiveness: students' achievement and teacher characteristics. Focusing on students' achievement only is often regarded as narrowing the meaning of education and insufficient to clarify the complexities of both teachers' mental lives and their practices in classrooms. The characteristics are also uncertain when different research settings and socio-cultural backgrounds come into consideration.

With the limitations of the process-product approach and biometric data as a measure of teacher effectiveness, more contextualized research is necessary to know what teachers and school leaders are trying to achieve and how they do it. Since school leaders know how teachers deal with teaching and students' learning, it is crucial to understand and to give voice to their concerns and to contextualize and make sense of their claims and perspectives on what constitutes sound teaching practices (Larkin, Watts, & Clifton, 2006). According to Smith (2004), such a voice allows research, such as this study, to produce a theoretical framework which may go beyond the participants' own terminology and conception.



3. Teacher Development in Indonesia

Nielsen (1998) revealed that more teacher education and professional development by educational authorities in Indonesia did not lead to better teacher performance. He found excessive political control based on the concern for national security and a specific national ideology and reliance on external resources, all of which are inconsistent with quality improvement. In conjunction to the national education policy, Tilaar (1999) noted that the policies for schools issued by the Indonesian government have been heavily based on macro educational analysis. Very little qualitative research based on the experience of teachers and school leaders have been conducted in Indonesian context (Bjork, 2003; Tilaar, 1999), nor are there mechanisms for differentiating between schools. As a result, all schools have received generic treatment and diverse needs of schools according to their contexts have not been addressed.

The fall of Suharto's government in 1998 marked the shift towards democratization in Indonesia. Through Act No.22/1999 of Regional Autonomy, a major decentralization of the country's policies and management has started followed by the enactment of Local Governance Act no 32/2004. These acts created a greater autonomy for regencies and municipalities in Indonesia with political and fiscal shifts of power from central to local governments. The Teachers and Lecturers Act no 14/2005 shifted government teachers' employment status from that of being centrally employed to being locally employed officers but the responsibility for developing teachers' professional practice is still held by central government. Despite the decentralization of authority in teacher management to local government, generative contextual teacher development study is still a rare terms in Indonesian education. It is necessary to explore how schools, under new wave of devolution, make sense of their conditions, challenges and potentials to develop teachers into effective professionals.

To understand the issue, I constructed the following research questions: what are the perceptions of school leaders and teachers concerning: (1) How teacher recruitment pathways impact on teachers' practice and development? (2) How teacher recruitment pathways impact on how schools induct and develop effective teachers? (3) How the teacher recruitment pathways impact on school quality?

C. Methodology

The exploration of teacher pathways' impact on practices and development can be obtained through rigorously analysing within and across the cases which leads further to answering the research questions. In this way, the dilemma of understanding cases and the bigger phenomena (Stake, 2006) can be addressed while at the same time enhancing the thick description of the phenomena. Within this set of assumptions and qualitative approach, the study utilizes multiple-case study which



is an intensive study of several units for the purpose of understanding a larger class of units (Gerring, 2004).

This study explored four public schools from different levels: primary school, secondary school, high school and vocational school. This sub-group sampling (Onwuegbuzie & Leech, 2007) considered the uniqueness and complexity of each unit and avoided problems with internal generalization (Maxwell, 1996), which is a tendency in research to draw conclusions from a small section of a larger phenomenon.

In total, sixty teachers, four principals, sixteen deputies or senior teachers and eight school supervisors participated in this study in semi structured individual and group interviews. The district also contributed their voice in the study through the head of teacher and staff development division. This way, according to Patton (2002), could well capture maximum variation of information from the participants for a thick description of the phenomena while at the same time binding the case.

D. Summary of the findings

A number of findings emerged from the data of this study. First, the different pathways to teaching in the schools have their own privileges and disadvantages. For example, the GTs may yield knowledgeable teachers with relevant professional trainings and technological skills. EATs can possess more experience due to the lengthy process of recruitment and promotion. However, in relation to teacher practices, all pathways are perceived to be unprepared to provide effective instructions for students. From the participants' standpoints, the unpreparedness was in the forms of mental readiness to cope with different situations in classrooms (GTs), academic knowledge (SBTs), instructional skills and preparations (NPTs) as well as curricular adaptation (EATs). These are due to the different weights of previous professional trainings undertaken by teachers from different pathways.

“As I observe, the recently recruited (GTs) are academically knowledgeable. Yeah, though, in front of the class, they are not like long-experienced teachers.”
(Marsha, Neverland)

“I thought my pathway to teaching (SBT) was too easy. As a result, I felt unprepared and nervous to teach on the first assignments until I attended what's so called PKG (Strengthening the Work of Teachers, a program endorsed by The World Bank in 1980s).” (Drew, Wilshire)

The different weights of previous professional trainings experienced by teachers from the four pathways also result in their potential development. With their advanced content knowledge and



technological skills, GTs are believed to be able to develop in the profession more rapidly than the other pathways. On the contrary, due to their lack of professional trainings and pathway status, the participants view NPTs have too much shortcoming to progress.

The current system has yielded good teachers (GTs). They can work fast in any aspect of the job. It's difficult to follow sometimes. (Dams, Berkshire on the GTs' potential)

Each pathway's potential development becomes more intense with the schools' policy in teacher assignment. Endorsed by the district's regulation, civil service teachers (GTs, EATs, and SBTs) always earn the privilege in the teaching assignment. For instance, they hold the positions of homeroom teachers while NPTs must accept less weighty responsibilities such as subject specialist or extracurricular teachers. The pattern of assignment becomes more segmented as it is employed to succeed in the National Examinations (NE) as the schools' top academic priorities. The schools' focus and efforts go to the certain examined subjects in the final years of each school level. Consequently, teachers of these subjects and grades earn more teaching hours and developmental opportunities. These positions normally belong to experienced GTs and the some other positions are shared among other GTs, EATs and SBTs. The NPTs had to accept minor roles when the other teachers have got their shares.

Opportunities are available but the chosen staff (GT) is the same person from time to time. We (others) tend to have problems with the (principal) permit. (Marty/EAT/Majuro on development opportunities)

Practicum I am involved in the school's subject teacher discussion group but it's only discussing small matters. But ... when there are external activities, it's always Mr. Vito (GT). (Debbie/NPT/Wilshire, on development opportunities)

Experienced GTs holding the main responsibilities are perceived to have high direct contribution due to their roles' proximity to the schools' priority in the NE. Other teachers (SBTs and EATs) may have medium to high indirect contribution as a result of the segmentation. Eventually, the NPTs can only contribute in low indirect impacts when the proximity to NE achievement becomes the parameter.

"To be honest, in the curriculum structure, I (my subject) belong to local load, so I can't dream about that (the professional & career development)." (Erma/GT/Majuro on segregation by subjects)



“It’s on information. We (NPTs) must move alone to know what happens in the district. I mean we (as the school’s teachers) need to know any information up there to match the other colleagues. (Bandy/NPT/Wilshire on structural gap)

“It’s true, the end result is the score, but how we educate the children of this nation forward as children who have a noble character is currently being discussed at the higher level. That’s it and I agree. Start from the smallest things, familiarize the children to discipline!” (Izzy/NPT/Neverland/on indirect contribution)

The line of segregation can be seen from the pathway’s impact on practices; it grows stronger in the access to developmental opportunities and the intensity multiplies in the form of contribution. In other words, it reflects the working of Mathew effect in teacher development across the public schools.

E. Discussion

1. Impact on teachers’ practices and development

Most teachers from any pathways are perceived to yield ‘unprepared’ candidates to conduct professional practices in the schools. It indicates that beginning teachers who have experienced different teacher education programs or pathways into teaching feel differently about their preparation as also found in Darling-Hammond et al. (2002, p. 294). The sense of preparedness perceived by GTs and several EATs as teacher education graduates is consistent with the findings of other studies of teacher education. Howey, et al. (1994) and Lewis et al. (1999) find that teacher education graduates, similar to the GTs and some EATs in the current study, perceived themselves as well prepared through their previous professional training programs.

It is imperative to provide them with the best learning experiences in the school setting. Learning from practice becomes a fundamental challenge for the teaching profession that tries to link the gap between general, abstract bodies of professional knowledge and the situated and contextualised expertise (Cochran-Smith & Lytle, 1999; Schön, 1990; Shulman, 2004). Such form of leaning will provide an opportunity to reflect on and influence the development of teachers that could learn from practice. The challenge is how to make it a collaborative, effective and continuous form of learning for teachers to improve their instructional practices.

.There is substantial development in studies on the nature and development of teaching capability through mentoring. Munby et al. (2001) and Tsui (2003) provide broad reviews of



mentoring using different forms of analysis, theoretical approaches, and empirical data. Bullough, (2005) and Moor et al., (2005) report evidence of mentors' increased confidence and at the same time mentees' increased morale and job satisfaction. Such activities, according to Appleton (2003), helped the development of their PCK through experiences with the students. In the current study, most NPTs admitted to imitate and improvise their colleagues' strategies as forms of compensation of limited PCK. The leaders and teachers from other pathways also noticed the benefit of working with highly rated GTs.

2. How do the schools induct and develop the teachers?

In the four schools, informal and unstructured mentoring was a prominent form of strategy to induct and develop the recruited teachers, despite its non-formality and being personally initiated by the mentees. With the absence of job-based school induction, most of the newly recruited teachers informally opted to imitate and learn from their senior colleagues (unofficial mentors) in each school. Jensen et. al (2012) disclose that according to an OECD survey, teacher mentoring is the highest form of learning among novice teachers. Though not formally established by the schools, it is also found to be the most common means by which teachers orientate themselves in the four schools.

The discussion of pathways' impact on how the schools develop the teachers is closely related to the global phenomena of high stakes testing as a reform drive in public education. The findings of similar teaching assignment pattern across school suggest that the NE, which is a form of high stakes test, become the main drive for the teaching assignment pattern in the schools. Teacher developmental opportunities then follow the pattern to create further gaps among teachers from different subjects, grades and pathways.

The focus on NE has positioned certain teachers as more important whereas at the same time deprived other teachers' existence to merely as 'supplementary' teachers. The former group, hence, earn more teaching hours and professional opportunities to achieve the school's prioritized goals. These positions are normally held by mainly GTs, EATs and SBTs. The latter group of teachers must accept their supplementary roles due to the narrowing curriculum concentration. NPTs often hold these roles together with the other GTs, EATs and SBTs. A relatively similar condition were also found in Masters (1999), who reported literacy teachers earned more access to high quality, evidence-based professional development as a result of high-stakes testing. Such conditions in the schools have undeniably segregated teaching staff according to the proximity to the NE. In this proximity, teacher pathways matter as the main segregation consideration



3. Impact on school improvement

Research has indicated that teachers' real involvement in school's decision making occurs through various efforts of collaboration (Hallinger & Heck, 2010). Therefore, the trend leads teachers as members of a school community to work collectively with colleagues and principal. The establishments of Principals' Working Forum (MKKS) and Subject Teacher Discussion Forum (MGMP) at different levels have demonstrated the trend in the participating public schools. However the existing teaching assignment pattern in each school and institutional barriers segregates teachers' roles and accesses to developmental opportunities.

The degree of proximity to the achievement of school's main priorities becomes the distinctive factor in the teachers' contribution. GTs of certain subjects teaching final year students in each school level are perceived to have immediate contribution. They are responsible directly for the students' achievement in the NE. Other GTs, EATs and SBTs who do not have such responsibilities are seen to have an intermediate impact in the final year students' academic achievements. The last portion goes to the NPTs who become subject specialists and sometimes handle extracurricular subjects. Such a role has the least proximity to the school's priority. Therefore, teachers of this pathway are viewed to have the minimum contribution compared to the previous two groups.

F. Conclusion

Reflecting on the initial practices and the development of new recruits from different pathways, there are some policy implications to be considered. In the beginning, combining university and field based experiences as suggested by Putnam and Borko (2000) can lead to better teacher learning. Relying on either setting alone results in the unconvincing initial practices as found in the four schools. The efforts to make teacher learning continuously and familiar with curricular development and school settings begin from the teacher colleges' association with the schools. Such juxtaposition allows both parties to study their own practices and at the same time create new discourse about teaching (Putnam & Borko, 2000). Hence a more formal and structured forms of induction need to be set for new recruits so that they can learn from the new experiences effectively and measurably.

The impact of NE in teacher development is unfavourable because instruction is merely driven by the test not the curriculum. As a result, the schools' teaching assignment is aimed to mainly achieve high scores in the NE. Besides, teachers do not learn the depth and breadth of the curriculum but follow the trends of the test items. In fact, curricular experience is important to help teachers to be more informed and to become more thoughtful professionals with more choices (Ball & Cohen, 1996). More experience in different classroom situations is also important to develop the skills



required for effective teaching (OECD, 2005). Teacher rotation can help the schools to improve the teaching staff's learning potentials and opportunities while at the same time reduces the development gap among the staff. The policy implication is to re-examine the direction of the teacher development to be closer to curriculum learning rather than merely to assessment (NE).

It is, therefore, interesting for further research to discover the impact of the NE on teacher development in a wide-scale study. Such an attempt may cover the methodological limitation of the current study's design in generalizing the findings. However such effort would be a significant step in Indonesia in order to understand the actual impact on teachers, their practices and development.



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