PROFESSIONAL DEVELOPMENT GOES EAST:
EXAMINING CHANGES IN TEACHERS’ BELIEFS
IN FOUR INDONESIAN SCHOOLS

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ABSTRACT

Teachers’ pedagogical beliefs have long been noted as one of the influential factors to the way teachers plan and implement their teaching and learning activities. Professional development programmes are often used in order to influence teachers’ instructional practice and pedagogical beliefs. This paper reports upon the Master Teachers and School Leaders programme, a collaboration between Edith Cowan University School of Education (Western Australia) and Sampoerna Foundation Teacher Institute (Indonesia). This one-year programme was aimed at changing Indonesian teacher beliefs and practice to encompass such things as classroom-based action research through reflective practice, the use of peer coaching and leadership support. As the content of the PD and its implementation were very western in their approach, the researchers were interested in examining any teacher beliefs and cultural aspects of the programme. The study found that as a result of the programme, teacher pedagogical beliefs had changed from a very teacher-centred to a more student-centred teaching approach. Also teachers reported that they now reflected upon their teaching practice and were exploring new practices. However the researchers found that cultural factors, such as the hierarchical nature the school and the foundation as institutions influenced the outcomes. The paper concludes with an examination of some recommendations for course designers and those implementing professional development for nations such as Indonesia.

KEYWORDS

Beliefs, Teacher professional development

INTRODUCTION

As a developing country, Indonesia makes improving education quality one of its main development priorities. Improving education means improving the quality of teachers, which the government has tried to achieve by implementing the Education Law 20/2003 act that gives the school and local government more authority in educational policy and the 2007 teacher certification regulation which encourages teachers to attain appropriate academic qualifications and improve their teaching through professional development programs.

Research into teacher professional development programs over the years provide valuable insights to how to make a teacher professional development programs effective, such as that it should be continual, intensive and long term (Borko, 2004; Lim and Chan, 2007; Boyle et al., 2004), constructivist in nature (Fullan, 1999; Rudduck, 1988), collaborative (Argyris et al., 1985; Borko, 2004; Johnston, 1988) and need-based (Borko, 2004). Taking these recommendations in mind, the Master Teachers and School Leaders program was designed to support change in Indonesian teachers’ pedagogical beliefs through the use of action
research, peer coaching and leadership support. By changing teachers’ beliefs, it was expected that the teachers would be more able to work collaboratively with their colleagues and school leaders, as they were regularly involved in the efforts to acquire new knowledge; with the aim to improve their instructional practice.

The purpose of this study was to investigate the impact of the Master Teachers and School Leaders program on the Master teachers’ pedagogical beliefs. By analysing the factors surrounding the Master teachers’ beliefs and how their beliefs system changed, it was expected that the findings would be able to provide an input for teacher professional development programs in Indonesia.

TEACHER PROFESSIONAL DEVELOPMENT PROGRAMS AND PEDAGOGICAL BELIEFS

Research studies have been done to explore the aspects surrounding the formation and transformation of teachers’ beliefs. The findings show that the nature of teachers’ pedagogical beliefs is “relatively stable and resistant to change” (Kagan, 1992, p. 3) and that the beliefs are shaped by the teachers’ previous experience and knowledge (Calderhead and Robson, 1991; Ertmer, 2005; Holt-Reynolds, 1992; Kagan, 1992; Lim and Chan, 2007; Pajares, 1992). Even well-designed teacher education programs often have little effect on would-be teachers’ pre-existing pedagogical beliefs due to the resilient nature of the beliefs system. Pajares mentioned that pre-service teachers bring with them well-established beliefs about teaching and that these beliefs can be unrealistic: “Students become teachers unable, and subconsciously unwilling, to affect a system in need of reform.” (p. 323). In the case of in-service teachers’ pedagogical beliefs, their beliefs would be even more profound due to their years of teaching, and the more experienced they are, the harder it is for them to change (Fullan, 1991). As teaching is a dynamic profession, aspects of teachers’ instructional practice need to undergo regular changes to maintain the effectiveness of the teaching and learning activities.

Studies show that teachers need to change their existing beliefs if their instructional practice is to experience sustainable change (Ertmer, 2005; Lim and Chan, 2007; Pajares, 1992). The influence of teachers’ beliefs on their teaching practice and the persistent nature of beliefs make it important that teacher PD is designed to bring about change in teachers’ pedagogical beliefs. Some of the research findings about PD are:

- Teachers need to have the ownership of change that comes from self-reflection and re-evaluation so that they can understand clearly their learning and goals (Fullan, 1999; Jones, 2008; Rudduck, 1988).
- Long-term PD is more likely to change teachers’ pedagogical belief (Lim and Chan, 2007).
- School leaders’ support and involvement are essential for effective and sustainable teacher PD (Rhodes et al., 2004).
- Site-based and need based PD programs are more likely to be effective as such programs can better relate and be integrated to the condition of individual school (Armourand and Yelling, 2004; Borko, 2004; Jones, 2008; Wayne et al., 2008)
The resilience of beliefs can both be a hindrance and an aid in improving teachers’ practice (Holt-Reynolds, 1992). In the program in which this study was conducted, researchers endeavoured to change teachers’ pedagogical beliefs using teachers’ existing beliefs to give meaning and put new learning into context.

RESEARCH CONTEXT

Indonesia Education Policy Background

Indonesia is an archipelagic country with 17,508 islands (CIA - The World Factbook, 2009). As a polyglot nation, Indonesia has around 300 ethnic groups with different languages and cultures (Global Education, 2009). The diversity of Indonesia makes it difficult for the government to build proper educational infrastructure that every citizen can benefit from. In 2001, Indonesian government implemented a new policy of regional autonomy that gave the 33 provinces of the nation more authority in many sectors with aim to increase local government services and accountability (Usman, 2002). This new policy changed the previously centralised education system to a decentralised one which gave local (provincial) education authorities the role as the decision makers. The disparity between regions that had been an obstacle for the central government in providing equitable education for all Indonesians can be better addressed as every province can now make judgement of the most appropriate system to develop education based on the needs of the area.

Even though education system in every province can be different, there is still a common expectation of students all over the country to pass the national exam in year 6, year 9, and year 12. From the beginning of every school level the students are prepared to sit the national exam, to an extent in which the national exam seems to matter more than the learning process itself.

Master Teachers and School Leaders Program

Under a mutual objective which was to build a sustainable and scalable teacher PD in Indonesia (APCETEI, n.d.), ECU School of Education and Sampoerna Foundation Teacher Institute designed a scaffolded one-year PD program for Indonesian teachers called Master Teachers and School Leaders Program under the Asia-Pacific Centre of Excellence for Teacher Education and Innovation.

Three major components of Master Teachers and School Leaders program were: action research, peer-coaching and leadership support as an integrated compound that was considered to be conducive for in-service teachers’ beliefs transformation that would, in turn, transform their instructional practice. The PD was built upon the teachers’ existing practices and ongoing inquiry, reinforced with the concept of reflection as an instrument to evaluate their practices (Giovannelli, 2003; Lin and Schwartz, 2003; Romano, 2006). Peer coaching provided the teachers with a supportive learning environment in which they support each other through a learning community (Joyce and Showers, 1996). Leadership support from the school leaders was integrated in the program as an important component to ensure the sustainability of the program (Hargreaves and Fink, 2005; Joyce and Showers, 1996). The program was expected to build the teachers’ knowledge and skills to recognise different issues that might arise in the future and address the issues appropriately.
METHODOLOGY

In parallel with the implementation, data were collected in order to determine changes in teacher beliefs through exposure to the PD. To gain insight to the impact of the Master Teachers and School Leaders Program on the master teachers’ pedagogical belief and the nature of said change, this study employed a mixed research method of quantitative and qualitative data collection using semi-structured interviews, adapted Educational Belief Inventory (EBI) questionnaire (Northcote, 2005), and field observation. EBI questionnaire was given at the beginning and end of the program while both the interview and observation were conducted at the end of the program in which the Master teachers presented their action research plan and disseminated the program to other teachers in their provinces.

Twelve Master teachers from four schools in two provinces in Indonesia, two schools in every province, participated in this study. The teachers came from different demographic background, such as age groups, educational background, subject groups, and teaching experience, but the issues emerging from the interview appeared to spread across the background.

![Data analysis framework](image)

Figure 1. Data analysis framework

FINDINGS

Interview data indicated that most teachers found the program to be able to change their views about teaching and learning and thus compelled them to make changes in their instructional practice. They reported that they became more motivated to explore aspects of teaching and that their classroom became more constructivist as opposed to teacher-centred and subject-oriented that was their traditional teaching approach. As their teaching approach changed, the teachers found that their students showed positive response in terms of they became more engaged and interested. This motivated the teachers to keep on trying to improve their teaching. However, data from EBI questionnaire showed conflicting results with data from the interviews.
Despite the master teachers’ unanimous admission during the interview that they inclined their teaching practice more towards constructivism after they were involved in the program, the score from EBI questionnaire did not illustrate such change. From 12 master teachers, only three showed slightly positive score of change, which indicated minor shift of beliefs towards constructivism. One teacher did not show any changes while eight actually showed changes towards instructivism instead of constructivism.

Data from interview and EBI questionnaire indicated that even though the Master teachers were interested in the new approach and believed that they shifted their teaching from instructivism to constructivism, the lack of understanding of and the incompatibility of the new beliefs with the exam-driven curriculum appeared to be a barrier to such change. However, the master teachers seemed to have developed an awareness of the importance of putting the students’ learning as a priority and an open-minded attitude towards changes.

During the interviews the master teachers further explicated the components of the program that they found were significant in their beliefs shift and the obstacles they encountered that might hinder it. The program components were action research (AR), peer coaching (PC) and school leader (SL) support. Observing the lecturers during the lectures was also mentioned by some master teachers as an important factor that changed their beliefs.

Table 1. Issues identified from the interview data

<table>
<thead>
<tr>
<th>Facilitating Factors</th>
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<td>MGMP</td>
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| Barriers              | Time Constraints | √ | √ | √ | √ | - | - | √ | - | √ | √ | √ | √ |
|                      | Lack of Information | - | √ | √ | √ | - | - | - | - | √ | √ | √ | √ |
|                      | Skill Constraints | - | √ | - | - | - | - | √ | - | - | √ | - | - |
|                      | Clarity of Content | √ | √ | - | - | - | - | √ | - | - | √ | - | - |
|                      | Culture | - | - | √ | √ | - | - | √ | - | - | √ | - | - |

As the table indicates, action research was among the least popular components with only five teachers admitted it to be important in changing their beliefs. Even though most Master teachers showed apprehension towards action research, some of them appeared to be willing to try it and most of them found that engaging in reflective thinking as a component of action research helped them overcome the problems they encountered in their daily classroom activities. As for most of the Master teachers it was the first time they learned about action
research, the reaction is understandable and their acceptance of a part of action research process could indicate a promising start for future interest in doing action research.

Ten of the teachers considered peer coaching to be influential in their professional learning. As they began to open their classrooms to their peer and learn from their colleagues input, the Master teachers reported that they gained benefit from the activity as peer coaching transformed their teaching from a solitary activity to a collaborative one. The relationship between senior teachers and junior teachers were reported to have improved and that teachers in their schools became more engaged in their professional practice.

Data from EBI questionnaire and interviews of teachers from supportive and non-supportive schools did not show any difference in the teachers’ beliefs system but there was a difference in the teachers’ attitude towards the program. Master teachers from schools with supportive school leaders showed more interest and enthusiasm, both during the interviews and in the implementation of the program.

Four of the master teachers considered observing the lecturers to have great influence on their beliefs shift. The master teachers admitted that they were not used to do some parts of the program and they learned many things from observing and interacting with the lecturers. This finding is aligned to what Woolley et al. (2004) deducted.

During the program implementation, the master teachers reported that they encountered many problems. Time constraint was the most prevalent problem mentioned, including the difficulties to put the program requirements in their daily professional duties as well as the difficulties to coordinate their schedules with master teachers from other schools. Other problems that were reported by the master teachers were the lack of information about the program, the lack of communication and the facilities needed to communicate with other stakeholders and to implement the program. A few Master teachers also mentioned their insufficient pedagogical knowledge and English proficiency as hindering their progress in the program.

Interestingly, despite some comments about how they gained benefit from observing the facilitators model constructivist approach, eight Master teachers also remarked upon the lack of clarity of the program content. The interview indicated that the way the facilitators conducted the workshop was considered to be vague and that the Master teachers preferred that the workshops to be more prescriptive. It appeared that the lack of exposure towards constructivist approach made the Master teachers feel the need to experience it but at the same time they also feel the need to learn new things the way they were used to.

Beside internal factors from the program, the master teachers’ change in beliefs and instructional practice were also influenced by factors from outside the program. Indonesian culture in general and the school culture in specific was admitted to be a hindrance for the master teachers, especially in their effort to facilitate peer coaching in their schools and conduct dissemination in their schools. MGMP (Musyawarah Guru Mata Pelajaran = Subject Teacher Workgroup) as an inter-school professional learning community for teachers who teach the same subject was mentioned as a support group and also a place where the master teachers can share and discuss their newly gained knowledge and experience.
CONCLUSIONS

Data from the study indicated that the Master teachers’ demographic background had little or no effect on how they responded to the program. The findings seemed to be constant across demographic background. All teachers reported that they experienced changes in their belief system, and with them, changes in their instructional practice, as a result of the program regardless of their gender, qualification, and teaching experience.

Change of teaching philosophy from instructivism towards constructivism was the predominant impact of the programme that the teachers reported, even though their description about the changes did not actually described constructivism. The changes that the teachers explicated showed changes towards student-centred teaching approach and how they became more interested in exploring new practices. The lack of the Master teachers’ experience and understanding of constructivism and the educational climate which is exam-driven might prohibit such change but the newfound enthusiasm and openness towards new knowledge that they showed might provide a positive start towards improvement.

The conflict among the variables of the program such as the exam-driven curriculum, the Master teachers’ pre-existing beliefs and learning style, the methods of how the workshops were conducted, the hierarchical nature of school social environment appeared to prohibit changes, both in the teachers’ pedagogical beliefs and in their teaching practice.

While the current study was limited in terms of sample size and other factors, it would seem to indicate that designers of teacher PD programs in an Indonesian context need to be aware of the following if the programme is to be successful:

- PD needs to be collaborative.
- PD programs need to be job-embedded, site-based, and need-based.
- PD design should take into account the background situation of the schools and teachers involved. The model of the programme needs to consider teachers’ learning style.
- Ongoing support from school leaders, providers of PD and local educational authorities are essential for the sustainability of change.
- Long-term and intensive programmes are more likely to support change.
REFERENCES


