

Science and Mathematics Education Centre

Developing Reflective Practice through Reflective Actions

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Doctor of Philosophy
of
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Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Human Ethics (For projects involving human participants/tissue, etc) The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2007) – updated March 2014. The proposed research study received human research ethics approval from the Curtin University Human Research Ethics Committee (EC00262), Approval Number SMEC-56-13.

Signature: 

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Abstract

The overall objective of this research was to understand Indonesian teachers' applications of reflection in their daily practice by examining their reflective actions in relation to the Teacher Competency Standards. This study was designed to improve the education quality in Indonesia. This qualitative case study included two phases. The first phase involved three purposefully selected experienced teachers to gauge the range of teacher understandings of reflective practice. The second phase, involving eight experienced teachers, was designed to investigate their understandings and develop a model of reflection suitable for Indonesian teachers.

Findings from the first phase of the study showed that these teachers applied reflection but did not engage with it regularly and systematically. The research showed that teachers' understandings of reflection were limited to reflection before closing the lesson and teachers emphasized students' reflection on the lesson rather than their own reflection on their teaching practice. Intuitively, teachers did reflect on their practice but they did so informally by thinking back on their teaching methods and strategies based on students' test results. Further, teachers' understanding on the Teacher Competency Standards was limited, especially on dimensions that focused on the meaning of reflection. Their understanding mostly was on how to prepare, deliver and evaluate certain lessons.

Based on the main study findings, by engaging in conversations about their experiences, the teachers began to understand how to do reflection and realised that reflection is not only about students' understanding but also involves teachers analysing their own practice to solve learning problems that occurred. The most powerful action was reflective conversations during which teachers shared experiences of their teaching practice. Teachers were encouraged or motivated to explain their own experiences to others and could reflect on those following exploration and interrogation by the researcher. The second powerful action was videotaping of lessons where teachers were able to reflect on their own recordings and identify their own weaknesses. A third powerful action was writing journals though this was not a favourable action due to the tight teaching schedule; nevertheless, these teachers

admitted that writing their own experiences was fun and made them consider their ideas and expressions. The most important aspect of each of these actions was that they engaged the teachers in dialogue such that they expressed their feelings and gained benefit from their reflections on their experiences to improve their teaching practice.

The model of reflective practice by Zwozdiak-Myers was evaluated in Phase 1 with three teachers. Based on the research findings in Phase 1, six dimensions were chosen as being most useful. Based on this research, it is evident that systematically organised reflective actions can develop teachers' awareness, understanding and habit of engagement in reflective practice. The reflective actions then become a model of reflective practice for Indonesian teachers. This model was supported by the framework of reflective practice which provides six dimensions to question teachers about their reflection in daily practice. This model supports teachers' systematic reflection that helps them improve their practice.

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Chapter 1

Introduction

1.1 Overview of Chapter and Introduction to Study

This chapter provides the background to the development and implementation of this study. The rationale of the study is presented in Section 1.2, followed by the research objectives and questions in Section 1.3, the research design in 1.4, the limitations of the study in Section 1.5, and the significance of the study in Section 1.6. The chapter concludes with the research overview in Section 1.7.

1.2 Rationale

This study investigated Indonesian teachers' understandings of reflection in relation to the teacher competency standards in Indonesia. It also described teachers' reflection as applied in their daily practices and how they enacted it. Overall, this research explored teachers' reflective practice by introducing the term and then examining teachers' understandings and perspectives of reflection in their daily practices.

Most nations have determined that education is an important priority which, it is assumed, will become a tool of economic growth for the nation and for its individual citizens who participate in it (Morris, 1996). Quality is a major driver for better education. Education quality is a significant issue in Indonesia and teachers are considered to be the most important factor for improving the quality besides facilities and students' characteristics. Teacher education, therefore, has become a very important basic resource for training teachers to improve the quality of education in Indonesia.

Based on the reasons above, Indonesian teachers should understand deeply the teacher competency standards. The teacher competency standards could be guidelines for teachers to enable them to review their daily practice. In pedagogical skills of the standard, there are focus areas asking teachers to note that reflection they should use in their teaching practice, that teacher reflection could improve the teaching and learning process, and that classroom action research is a realization of their reflection.

In the professional practice domain of the standards, there are also suggestions that reflection is a strategy for continuously improving teachers' performance, and that teachers' professionalism would benefit from reflection and classroom action research (Department of National Education, 2007). This means that reflection as described in the teacher standards is more like reflective practice which enables teachers to review their teaching experiences, question their attitudes, theories-in-practice, values, assumptions, preconception and habitual actions, and then apply those reflections to change their strategies and improve their skills in their work that can then lead to enriching education quality (Bolton, 2014; Schön, 1983).

Since Indonesian teachers do not understand the teacher competency standards deeply, they do not recognize that reflection can be applied in their daily teaching practice. There are no guidelines from the government or other institutions to assist them to utilize reflection for developing and improving their daily teaching practice although the government provided resources to facilitate teachers in improving their teaching quality through several programmes (around 2010–2013) which encouraged educators to do reflection, such as Better Education through Reforms and Management, Universal Teacher Upgrading (*BERMUTU*) and School Self-Evaluation (*Evaluasi Diri Sekolah*). These programmes, which were implicitly models of reflective practice, are were expected to be continuously undertaken by teachers within the distributed teacher workgroups, and with the support of headmasters and school supervisor workgroups (e.g., *Musyawarah Guru Mata Pelajaran [MGMP]*, *Kelompok Kerja Guru [KKG]*, *Musyawarah Kerja Kepala Sekolah [MKKS]*, *Kelompok Kerja Kepala Sekolah [KKKS]*, *Musyawarah Kerja Pengawas Sekolah [MKPS]* and *Kelompok Kerja Pengawas Sekolah [KKPS]*) especially in the *BERMUTU* programme. Unfortunately, some of these programmes had gradually stopped when the grants from the government were no longer made to those such as *MGMP*, *KKG*, *MKKS*, *KKKS*, *MKPS* and *KKPS* (Ministry of National Education , 2010).

These are only some of the issues underlying the reasons for conducting this study. There are also more complex matters in the educational development in Indonesia that are related to curriculum, teacher education, policies, teacher training, certification and performance.

1.3 Research objectives

The overall objective of this research was to assist a group of teachers to understand and apply reflective practice based on certain patterns using dimensions of reflective practice (Zwozdiak-Myers, 2012) and reflective conversation as the first approach. From the research results, a model of reflection for teachers suitable for Indonesia was developed. In particular, the research objectives were:

1. To develop teachers' understanding of reflective practice through reflective actions in terms of personal improvement, self-evaluation, and knowledge of learners and their characteristics.
2. To investigate teachers' self-efficacy towards reflective practice utilising reflective actions in terms of teaching and create a positive school climate.
3. To improve teachers' teaching practice through reflective actions in terms of trying out new strategies and ideas and maximising the learning potential of students.
4. To develop an effective model of reflective practice for teachers using reflective actions.

These objectives give rise to four related research questions:

1. What is teachers' understanding of reflection/reflective practice?
2. To what extent is teachers' self-efficacy towards reflective practice utilising reflective actions in terms of teaching self-efficacy and efficacy to create a positive school climate?
3. How does reflective practice improve teachers' practice to have meaningful learning using reflective actions in terms of trying out new strategies and ideas and maximising learning potential of students?
4. What is a suitable model of reflection for teachers in Indonesia?

1.4 Research design

The research was designed as a qualitative case study, wherein the phenomenon of teachers' conditions and understandings towards reflective practice was the main focus (Merriam, 1988; Swanborn, 2012). As interpretive research, its research

approach enabled the researcher to construct insightful understandings of the participants' meaning perspectives, such as their ideas, beliefs and values (Taylor, 2014). Furthermore, with the small number of research participants, this case study was intensive research in which the researcher observed teachers' perceptions in depth and their reflection behaviours in certain schools (Swanborn, 2012).

The research was carried out in two phases. Phase 1 was a pilot study to gain a general picture of teachers' reflective practice in their daily teaching practice (Yin, 1984). The information gained in phase one was used to understand teachers' initial perceptions of reflection in Indonesia. Phase 2 was the main study. In the main study, several activities, such as reflective actions, were used to enable the teachers to understand reflective practice through the experience of these activities. They were supported with reflective conversations (interviews), videotaped (observations) and assistance in writing their own journals by the researcher.

1.5 Limitations of the study

Due to the intensive nature of the study, only three participants in Bandung City were selected for Phase 1 study and eight teachers in Cimahi City for the Phase 2 study. Because the study aimed to develop a model of reflective practice, the researcher assisted the teachers in using reflective practice through reflective actions.

Based on research ethics, the participating teachers were voluntarily involved in the study. The researcher followed the participants' normal teaching schedules so that they felt more comfortable with the interviews and classroom observations and other reflective actions (Alwasilah, 2015; Johnson & Christensen, 2000; Sarantakos, 1998). The shared discussions (in-service meetings) were not as many as the researcher expected because it was very hard to gather all the participants at the same time. Mostly, only three to five teachers could attend the meetings because they had excuses for doing their administrative work, attending teacher workgroups, giving private lessons and attending to their personal matters. There was also a barrier in teachers' teaching schedules due to their workload and teaching and learning processes in the second semester, not to mention the sudden visitations from guests or sudden school trips which influenced the research schedule. Another limitation is the use of the framework of reflective practice used in this study. There are no prior studies which

utilized these reflective practice dimensions as a framework for analysis, especially in an Indonesian context.

1.6 Significance of the study

The aim of the research in general was to improve the education quality in Indonesia, especially in West Java Province. This was seen to be a useful vehicle for change because it is close to their everyday practices such as their experiences in teaching. It was designed to help teachers to develop their own reflection about their teaching practice in relation to the teacher competencies or standards they have to grasp and apply in their daily practice. The expectation is that once teachers understand and know how to use reflection through reflective actions, they will be able to enhance and evaluate their actions continuously to improve their own teaching practice, which will contribute to their professional development. Another expectation is that teachers understand the Teacher Competency Standards (Department of National Education, 2005) and relate them to reflective practice. By using reflective practice, teachers can review their competence to meet the Teacher Competency Standards. Thus, this research also aimed to develop a model of reflection for teachers' continuous development guidance that can be used to facilitate and assist teachers to develop better teaching practice and to enhance the quality of education in Indonesia in general. In this study, the teachers had the experience of applying reflective practice with different outcomes as opportunities to develop their professional development (Scales et al., 2011). The benefit of this was expected in two ways. First, teachers can deliver their subjects better by improving their teaching skills, and second, it would open opportunities for their professional development. In short, this study was designed to develop teachers' understanding of reflective practice, investigate teachers' beliefs about reflective practice, improve their teaching practice skills and develop an effective model of reflective practice using reflective actions.

1.7 Research Overview

This research focus was to develop teachers' reflective practice through reflective actions. The actions became the model of reflective practice and to be used by other teachers in other schools in the future. The reflective conversations guidelines can also

be used as a dimension of reflective practice (Zwozdiak-Myers, 2012) and integrated with the Teacher Competency Standards in Indonesia. The videos were analysed by the teachers using a Teacher Performance Assessment form.

This thesis is divided into eight chapters. Each chapter is presented in relation to the whole study and explained within the Indonesia context where the research was conducted and its findings will be applied. Chapter 1 presents an overview and the rationale of the study. Chapter 2 describes the context of the study where issues, problems and regulations are related to education in Indonesia. Chapter 3 explores the researcher's understanding of the study in the terms of the theoretical perspectives. Chapter 4 describes the methods used and design of the study regarding participant selection and the procedures of data collection. Chapters 5 and 6 present the data and the results of analysis in relation to the research context. Chapter 7 discusses the results and findings of the main study. Finally, Chapter 8 discusses the findings of this study, concludes with its implications including the proposal of a model of reflective practice for Indonesian teachers.

Chapter 2

Research Context

2.1 Introduction

This chapter provides the history of teacher education in Indonesia. It describes in general the complexity of education in Indonesia focusing on teacher education development in terms of policies, certification, competencies or standards, performance and the new curriculum. This research context explains the way in which this study was framed by dimensions of reflective practice (Zwozdiak-Myers, 2012) and linked to teacher competencies or standards (Department of National Education, 2007) in the Indonesian context and how they relate, especially in the practice of reflection.

The chapter is divided into seven sections beginning with the history of teacher education (Section 2.2), issues and problems of reflective practice (Section 2.3), teacher standards (Section 2.4), teacher performance assessment (Section 2.5) and the history of national curricula (Section 2.6). This chapter concludes with a summary (Section 2.7) that describes the issues of education in the last period in the history (from 2013 up to now) under the new Education Minister.

2.2 History of teacher education in Indonesia

Teacher education in Indonesia has a long history and is closely related to the history of Indonesia itself. It began during colonial period under the Dutch when the demand for teachers was high (van der Kroef, 1957) because educated workers were needed for improving the plantation industry. The government established teacher education schools (*Normaalschool* and *Kweekschool*) in several places to produce teachers for local (*pribumi*) Indonesian primary schools (Lee, 1995; van der Veur, 1969). Student teachers could enrol in these school after completing their five years of elementary education either in European or local schools and then studied for four years. Later, these schools changed into *Sekolah Guru Bawah (SGB)* (van der Kroef, 1957). The

Kweekschools added two more years to finish because it used Dutch as the language of instruction and student teachers could continue to advanced studies of teacher education, *Hogere Kweekschool*, for another three years (Poerbakawatja, 1970). After finishing their study in Normaalschool, the teachers could teach at elementary schools for locals while graduate students from Kweekschool, who were of a better quality, taught in the European and eastern foreigner elementary schools teaching *Bahasa Indonesia* or even mathematics and geography in the Dutch language. Meanwhile, secondary school teachers were mostly Dutch people who had graduated in Holland and a few Indonesians recruits. The colonial government strictly controlled the number of students in teacher education institutions, resulting in some Indonesians establishing their own schools for teacher education, namely, *Taman Siswa* and *Muhammadiyah* (Raihani & Sumitono, 2010). These provided primary education for locals, and teacher education as well for Indonesian teachers. The higher the level of education, the lesser the proportion for Indonesian teachers and students (Djajadiningrat in Raihani & Sumintono, 2010).

There was interruption in this development of teacher education by the Japanese occupation from the middle of 1942 until August 1945, during which the Japanese closed all schools which contained Dutch teachers, books, students using the Dutch language (Zainu'ddin, 1970; Poerbakawatja, 1970). Indonesian teachers were forced to teach higher level classes because most Dutch teachers escaped or became prisoners. Both Dutch and Japanese colonial governments centralised the education system as one of their intentions was to take as many benefits as possible from Indonesia during their invasion.

After the Dutch recognition of Indonesia's independence in 1949, the number of students and schools rose dramatically leading the government to open short courses in many districts for in-service teacher training (Poerbakawatja, 1970). At that time, students could commence teacher training after their junior secondary schooling for elementary teachers in a four-year programme (SGB) or a three-year teacher training school in *Sekolah Guru Atas* (SGA) for secondary school teachers (van der Kroef, 1957). The SGB certificate was a qualification for teaching in the elementary schools, whereas the SGA certificate was for teaching in junior secondary schools and for selection to enter certain universities. Later, teacher training colleges which were

opened in Java, Sumatra and Sulawesi were providing training for teachers in the senior secondary and some vocational schools (van der Kroef as cited in van der Kroef, 1957).

Then, the teacher colleges changed in 1963 to institutes of teacher education called *Institut Keguruan dan Ilmu Pendidikan* (IKIP) (Poerbakawatja, 1970). Applicants who wanted to enter these institutes needed to be top students in their secondary education. The government provided scholarships and accommodation to student teachers and guaranteed that they would become government teachers after graduation. Later on, studying to become teachers no longer became so attractive for high achievers and this influenced the quality of those applying because there were other jobs considered to be more prestigious than teachers and having a better salary (Raihani & Sumintono, 2010).

Teacher education changed sharply in 1974 when the government launched a programme called *Instruksi Presiden/Inpres* (Presidential Instruction) to establish one primary school in every village (Raihani & Sumintono, 2010). This change resulted from the transfer of presidency in 1965 from President Sukarno, the first President of Indonesia (1945-1965), to President Suharto who included education as one of the most important planks of investment in human skills in the government's Five Year Plan (Zainu'ddin, 1970). The rapidly expanding primary student population required teacher education at the upper high school level in schools called *Sekolah Pendidikan Guru* (SPG) to educate more pre-service teachers. During 1974-1978, 61,000 primary schools were built based on the programme (Duflo, 2004). Later in 1989, SPGs were closed by the government because the Education Act No. 2/1989 demanded teachers to take a Diploma 2 programme at IKIP. This also provided opportunities for private teacher training schools to spread because the government started to recruit hundreds of new teachers to meet the demand (Nielsen, 2003). To fulfil the teacher demand, in the early 1980s, the government also developed a programme for producing science and mathematics teachers for high schools at the diploma level that required three years in public universities which did not have education faculties instead of increasing the IKIP capacity to graduate more pre-service science and mathematics teachers. The diploma programme provided a scholarship, living allowance and a guarantee for pre-service teachers to become government teachers without any test. In

the late 1990s, when this programme was closed, the graduate pre-service teachers no longer received a scholarship, living allowance and guarantees of employment. Instead of improving teachers' quality in teaching learning process, the IKIP started to open *Universitas Terbuka* (Open University) to upgrade teachers' qualifications. Open University still exists now and has become an alternative way for primary teachers to upgrade their qualifications. Around 1999, IKIPs also changed to become universities, for example, *Universitas Negeri Jakarta* (UNJ), *Universitas Pendidikan Indonesia* (UPI), *Universitas Negeri Yogyakarta* (UNY), and so on; this change was marked by the President Decree 93/1999 (*Pembaruan*, 2003) and was intended to improve the quality of those students enrolled in tertiary teacher training institutions and enable them to develop into better quality teachers (Raihani & Sumintono, 2010).

In 2005, the government issued the Teacher Act of Teacher Qualification and Standards, 14/2005. This led to the upgrading of teachers' academic backgrounds, teacher quality and also their incentives for professional progression as proposed by the *Persatuan Guru Republik Indonesia* (PGRI or Indonesian Teacher Union) years before. This was followed by another act in 2007, 18/2007, which stated explicitly that teachers could be appraised or given incentives by passing a certification programme where they should present their portfolios showing their teaching experiences, teaching workload, and subject-matching qualifications including professional development (Jalal et al., 2009; Ministry of National Education, 2009). The government linked these criteria to new teaching competencies or teacher standards, namely, pedagogy skills, having good personalities, having good social awareness and professional practice (Department of National Education, 2007).

The certification programme is a government strategy designed to improve teachers' quality by providing incentives as long as teachers pass certain criteria based on dimensions of teacher competencies or standards (Jalal et al., 2009). The incentive is a supplement to the basic salary of teachers, and added to their salary every month. This certification programme applies to teachers and lecturers but each has different procedures (14/2005, Department of National Education, 2006). Although the certification programme encourages teachers to apply teacher competencies or standards which are expected to improve teachers' quality, it has been criticized for its ambiguous concepts and implementation (Raihani, 2007b). The ambiguity lies in

the objectives of the policy, that is, whether it is intended to improve the quality of teachers or just increase their salaries because there has been criticism that teachers have lower salaries compared to other professionals such as doctors, lawyers, and so on. One fact is that *Akta IV* (Certificate Four) for teachers who have graduated from the Education University is not considered as suitable for the certification programme; and this has called into question in the programme implementation. Moreover, an alarming problem of data falsification was found in many teachers' portfolios (*Tim Independen Konsorsium Sertifikasi Guru*, 2008; Sukarta as cited in Suwardi, 2009). The independent team found 87% of data falsification such as signatures, identity, certificates of professional development and other documents. There could be several reasons behind this problem. First, the teachers were not ready, especially those in the first group, because there was limited time between the programme being released and the preparation of their portfolios the teachers needed to do. Second, some teachers had no documentation or professional development certificates because they had not expected there would be a need for them. Third, the teachers rarely participated in such activities or training, so they falsified the documents in order to gain the incentives. A concern arising from this is the responsibility of teachers as educators and the way in which this reflects their shaping of students' attitudes and behaviours (Raihani & Sumintono, 2010).

In 2016, this certification program was reviewed and the incentives evaluated based on teachers' performance (Surapranata, 2015). According to Surapranata, Director of *Pembinaan Pendidik dan Tenaga Kependidikan Kementerian Pendidikan dan Kebudayaan* (Teacher and Educators Development Bureau, Ministry of Education and Culture), the incentives are not targeted properly as teachers who have less teaching skills gain bigger incentives just because they have had longer periods of teaching. Regulation No. 16/2009 (Ministry of Agency Empowerment and Bureaucracy Reformation) is still used as the basic reference and regulation.

2.3 Reflective practice in Indonesia: Issues and problems

Teacher standards have not been embedded clearly in the pre-service teacher curriculum in universities. For instance, at *Universitas Pendidikan Indonesia* (UPI),

units for pre-service teacher are divided in general into three domains: basic, basic for subject teachers, and teaching practice (Universitas Pendidikan Indonesia [UPI]). The basic domain has seven internal units: educational foundations, child development, guidance and counselling, teacher personal development, communication in education, curriculum and teaching learning processes and management in education, whereas the basic domain for subject teachers has six internal units: teaching and learning subject, evaluation, lesson plans, media, micro teaching and research methods. There is no clear indication that teacher standards should be part of any of the units although half of the focus areas in the Teacher Competency Standards, especially pedagogy skills, are discussed in the basic domain of the units.

When the Ministry of Education in Indonesia released Regulation No. 16 in 2007 on teachers' standards requirements, teachers noticed that the government demanded pedagogical skills, professional practice, good personality and social awareness. Generally, these standards required teachers to be of good character as a teacher, aware of others such as parents, colleagues and community, and also have good understanding of pedagogical and content knowledge. Based on these standards, teachers should reflect on their teaching practice, utilize reflection documents, and improve their content knowledge (*Kompetensi Guru*, 2007). In addition, teachers should do scientific writing (it is assumed to be classroom action research) to improve the quality of their teaching practice. The standards also infer that teachers should communicate well in the professional community, both verbally and nonverbally, especially in an academic environment. These purposes suggest that better communication skills will assist teachers in improving classroom teaching and learning quality and disseminating learning innovations to others (Department of National Education, 2007). Unfortunately, these demands are not supported by a reflection model for teachers. Although the government has provided teacher trainers in a programme called LPMP (Educational Quality Improvement Program [LPMP], 2005) to assist teachers in this process, the process does not work well because teacher trainers mostly assist teachers with methods of classroom action research as part of teachers' professional development for pursuing teachers' appraisals and career development (Ministry of Agency Empowerment, 16/2009). Teachers submit classroom action research reports, but they are based on restricted professional development activities which do not necessarily develop their understanding of

reflection, where reflection involves a process of recalling, reviewing and analysing one's practice in order to refine and improve it (Churchill et al., 2011).

There are four requirements relating to teachers' appraisal and career development: education (formal education and teacher training), teaching and learning process (everyday practice), continuous professional development (training, publications and innovation) and other supportive activities (gaining awards and involving in organization or tutoring). Action research reports are part of publications but the Ministry provides only a team to assess classroom action research and does not provide assessors for innovation, whereas most art, music and IT teachers develop certain innovative programmes to support their teaching and learning process. This condition has led to another issue because most teachers are focused on publications and research. Indeed, there are several educators who have become paid ghost writers to create classroom action research reports for those who cannot create their own (Mulyani, 2012).

In the past up until around the 1900s, people who wanted to be a teacher could graduate from SPGs or even general high schools depending on the areas that lacked teachers. In 2005, Constitution No. 14 about Teachers and Lecturers was released stating that teachers should have a bachelor degree or D-IV, however, there were still many teachers who had graduated at the lowest level. There are nine levels of teacher career development and four positions beginning with a bachelor degree or S1 (Ministry of Agency Empowerment, 2009). It was reformed with Regulation 84/1993 which began with teachers who had qualifications lower than a bachelor degree (e.g., graduates from SPGs or senior high schools) and it is assumed now that all teachers should have graduated from university (bachelor degree/D-IV).

Table 2.1 Teacher Career Development from 1993 to 2009

No	Rank		Position		
	84/1993	16/2009	84/1993	16/2009	
1	IV/e	IV/e	Lead Teacher	Lead Teacher	
2	IV/d	IV/d	Highly Accomplished Lead Teacher		
3	IV/c	IV/c	Proficient Teacher	Lead	Highly Accomplished
4	IV/b	IV/b	Senior Level 1	Teacher	Teacher
5	IV/a (Scientific writing/CAR)	IV/a	Senior Teacher		
6	III/d	III/d	Experienced Teacher level 1	Proficient Teacher	
7	III/c	III/c	Experienced Teacher		
8	III/b	III/b (scientific writing)	Highly Accomplished Teacher Level 1	Graduate Teacher	
9	III/a	III/a	Highly Accomplished Teacher		
10	II/d	-	Proficient Level 1	Teacher	-
11	II/c	-	Proficient	Teacher	-
12	II/b	-	Graduate Level 1	Teacher	-
13	II/a	-	Graduate	Teacher	-

Source: Teacher Performance Appraisal Socialization Presentation (Ministry of National Education [MoNE], 2011)

The issue about teacher rank, position and teaching workload has restricted teachers in reflecting on their daily practice (Jalal et al., 2009). Teachers are too distracted to think about their students, to understand and recognise their needs, while they need to deal with all their administrative matters to fulfil the requirements for gaining a higher level, rank and incentives.

As a quality assurance institution, the LPMP in West Java Province developed several programmes to survey and observe teachers' reflective practice (Yanuarti, 2009). The Education Quality Mapping Programme (*Program Pemetaan Mutu Pendidikan* [PPMP]) (LPMP, 2007) found in 2007 that the teachers did not reflect on their own skills and abilities through individual evaluation or professional development which

had influenced their competency. In 2008, the Teacher Self-Evaluation Programme (LPMP, 2008) focused on three aspects of teachers' behaviour: thinking, attitudes and actions. Teachers should develop several ways of thinking, attitudes towards students and actions in teaching and learning processes. Reflection was not applied properly even after the lesson. Teachers did not understand the students' characteristics that affected lesson delivery.

Reflection as required in teacher standards does not go along with its practice in daily teaching. Although teachers reflect on their teaching practice, as they said in the interviews during this research, there was little evidence that teachers were really doing it. As Dewey (1933) believed, every teacher will always think about their practice, because it is the nature of thinking that everyone will have several thoughts inside his or her head. This is one of the reasons that prompted this study.

2.4 Teacher Competency Standards

Teacher quality is the main focus of education in Indonesia. In the last ten years, the government has issued two regulations (in 2005 and 2007) and conducted several programmes (e.g., induction for new teachers, teacher upgrading in teacher workgroups and teacher training for certification) focusing on teacher quality. This focus on issues of teacher quality has been influenced by several factors such as the quality of pre-service education, teacher recruitment and selection, and the state bureaucratic environment (Nielsen, 2003; Poerbakawatja, 1970). Moreover, teachers' distribution is uneven (Jalal & Hendarman, 2009) because most teachers choose to teach in large urban areas where they have their own social networks and the likelihood of increased remuneration. Consequently, in remote areas, there is a lack of teachers. There has also been an expansion of private teacher education institutions since the 1980s that has resulted in the uncontrolled quality of pre-service teachers (Sutjipto et al., 2001). These events underlie the problems of teacher standards being achieved. The problem is that most teachers do not understand and apply the standards to their teaching, in this case, about reflection on their teaching.

There are several reasons why teachers do not recognise teacher competency standards (Louden, 2000), such as long lists of duties (four dimensions with seventy focus areas), opaque language (formal language need interpretation), generic skills (almost the same for primary, secondary and senior high schools), decontextualized performances (the performance to which the standard refers is separated from the contexts in which it occurs), expanded duties (clash between teachers' conception of their work and system expectations), and weak assessments (the guide to assess the achievement of standards).

2.4.1 Pedagogical skills

Teachers should have the ability to organize students' learning by recognizing their characteristics, creating and delivering the lesson, evaluating their work, and developing students' potential. Teachers should determine relevant topics and materials to support the learning objectives and engage students in their learning processes. This is the cycle of teaching preparation, delivery, and evaluation. Teachers need to interpret the curriculum to develop lessons in the classroom and improve students' potential (Department of National Education, 2007; Fajar, 2012; Mulyasa, 2008). Furthermore, teachers' pedagogical skills can be elaborated in the Teacher Performance Assessment instrument while observing the learning process in the classroom. The instrument includes teachers' teaching strategies, interaction with students and other several points (Ministry of National Education, 2010).

2.4.2 Good personality

Teachers should have a good personality which is stable, mature, wise, prestigious/charismatic and good morals so that they can be a role model for students. Teachers should act professionally by attending professional development programmes and assess their own performance to fulfil the education goals (Department of National Education, 2007; Fajar, 2012; Mulyasa, 2008).

2.4.3 Social awareness

Teachers can communicate and interact well with students, colleagues, parents and the community around their school. Teachers should contribute to the development of education in their school and society locally, regionally and even nationally. They can use resources as communication self-development tools. They are expected to be good communicators, innovators and emancipators (Department of National Education, 2007; Fajar, 2012; Mulyasa, 2008).

2.4.4 Professional practice

Teachers should master in-depth knowledge of the subject they are teaching so that they can guide students to achieve the curriculum content standards which are determined by the Education National Standard. They should have mastery of subjects, and should be able to develop lesson plans, organize the classroom, use media and other resources, evaluate students' work, diagnose students' learning abilities and undertake teachers' administration (Department of National Education, 2007; Fajar, 2012; Mulyasa, 2008).

Table 2.2 Teacher Competency Standards in Indonesia

No.	Domain	Standard	Focus area
1	Pedagogy skills	Teacher should understand children characteristics (physical, moral, social and cultural background, emotional and intellectual	1.1 Understand students' characteristics which are related to physical, intellectual, social-emotional, moral, spiritual, and social-culture aspects. 1.2 Identify students' potential 1.3 Identify students' prior knowledge 1.4 Identify children potential and their learning difficulties
2		Teacher should master learning theories and principles	2.1 Understand learning theories relating to subject matter 2.2 Apply various approaches, methods, strategies and techniques which are creative and educative
3		Teacher should develop curriculum	3.1 Understand curriculum development principles 3.2 Determine learning objectives 3.3 Determine learning experiences to achieve learning objectives 3.4 Determine the topics relating to learning experiences and objectives 3.5 Organize topics based on chosen approach and students' characteristics 3.6 Develop indicators for assessment

No.	Domain	Standard	Focus area
4		Teacher should create learning environment	4.1 Understand how to create good lesson plan 4.2 develop the component of lesson plan 4.3 Organize complete lesson plan for indoor and outdoor and also in laboratory 4.4 Organize learning environment in the classroom, laboratory and field taking into account safety standards 4.5 Use learning media and resource which are relevant to students' characteristics and subject to achieve learning objective maximally 4.6 Able to take transactional decisions based on relevance of situation to learning
5		Teacher can access technology for teaching and learning activities	5.1 Utilise technology for teaching and learning activities
6		Teacher can facilitate children's development	6.1 Provide various learning activities to support children to gain optimal achievement 6.2 Provide various learning activity to actualize students' potential and creativity
7		Teacher can communicate effectively in proper way	7.1 Understand how to communicate well in emphatic and proper way both verbal and non-verbal or in any other ways 7.2 Communicate effectively based on children's condition and response in teaching and learning processes actively: (a) preparing and persuading children to get involved in learning process; (b) ask children to take part; (c) students' response; (d) teacher reaction towards students' response.
8		Teacher can assess and evaluate children's learning results	8.1 Understand the nature of assessment and evaluation in subjects 8.2 Determine the important aspects of learning results of assessment and evaluation 8.3 Determine assessment and evaluation procedures 8.4 Develop instruments of assessment and evaluation 8.5 Record the learning process and results continuously using various instruments 8.6 Analyse the learning process and results for teaching and learning objectives 8.7 Conduct evaluation process
9		Teacher can utilize and evaluate learning results	9.1 Use the evaluation to determine learning achievement 9.2 Use the results to develop and create remedial and enrichment programmes 9.3 Share the results with related parties 9.4 Use the results to improve learning qualities
10		Teachers should do reflective practice to improve teaching learning quality	10.1 Reflect on teaching learning practice 10.2 Utilize the results of reflection to improve and develop teaching and learning processes 10.3 Conduct classroom action research to improve teaching and learning quality
11	Having good personalities	Teacher should perform/act based on religion, law, social and culture of Indonesia	11.1 Appreciate students without discriminating according to their faith, race, customs, origin and gender 11.2 Act based on religion norms of own, social law in society and national culture of Indonesia
12		Teacher should be an honest person and good role model to children and community	12.1 Be honest, discipline, and humanly 12.2 Pious based on religion and norms 12.3 Be a good model to children and community
13		Teacher should be a wise, charismatic, and stable person	13.1 Be stable 13.2 Be charismatic and wise person
14		Teacher should show high performance and responsibility, proud to be a teacher, and confident	14.1 Show high performance and responsibility 14.2 Proud to be a teacher and have self-confident 14.3 Work independently and professional

No.	Domain	Standard	Focus area
15		Teachers should respect their professional ethic codes	15.1 Understand teacher professional ethic codes 15.2 Apply teacher professional ethic code 15.3 Act based on the professional ethic code
16	Having good social awareness	Teacher should act inclusively, objectively and not discriminate based on gender, religion, race, physical, social status background	16.1 Act inclusively and objectively towards children, colleagues and surroundings in teaching learning process 16.2 Not discriminate towards children, colleagues, parents and others based on gender, religion, race or social background
17		Teacher should communicate effectively and show empathy to colleagues, parents and community	17.1 Communicate well with colleagues and other scientific communities 17.2 Communicate well with parents and communities 17.3 Involve parents and community in solving learning difficulties and improving learning qualities
18		Teacher can adapt and socialize well in every part of Indonesia which has various societies and cultures	18.1 Adapt to working environment to improve education quality 18.2 Apply teaching learning program in assigned areas to improve education quality
19		Teacher should communicate with their own professionals and other professionals both verbal and non-verbal or other ways	19.1 Communicate with their colleagues, scientists, and other science communities through various media in order to improve teaching learning quality 19.2 Communicate their teaching and learning innovation to other professional communities both verbally and non-verbally
20	Professional practice	Teachers should master concepts and topics/materials of one's major/education background	20.1 Interpret, analyse, describe, understand and apply knowledge of one's major (e.g., maths, physics, social science, etc.)
21		Teachers should master/understand curriculum	21.1 Understand the standards competencies for the subject 21.1 Understand the basic competencies for the subject 21.3 Understand the objectives of subjects (standard achievement for each level of students)
22		Teacher can develop topics/materials/lessons creatively	22.1 Determine topics and create learning activities based on students' characteristics/levels
23		Teacher should develop continuing professional development through reflective practice	23.1 Apply reflective practice towards owns' performance continuously 23.2 Utilize reflection to improve teachers' professionalism 23.3 Do classroom action research to improve professionalism 23.4 Update the knowledge by learning through various resources
24		Teacher should use/utilize technology to develop/update his/her own knowledge	24.1 Utilize technology and information to communicate 24.2 Use technology to improve one's knowledge

Source: Department of National Education, 2007

2.5 Teacher Performance Appraisal

The government (Ministry of Agency Empowerment and Bureaucracy Reformation) in 2009 released Regulation No. 16/2009, *Penilaian Kinerja Guru (PKG)* (Teacher Performance Appraisal). In general, it is intended to improve teachers' competencies and professionalism leading to more professional teachers and demonstrate that the

teaching profession has certain standards (Human Resources Development and Education Quality Assurance Body–Ministry of National Education, 2011). Furthermore, this regulation is to support teachers' roles in everyday practice to become a professional teacher and it is expected to influence teachers' quality, creativity and performance improvement.

The basic adjustment from previous regulations, as shown in Table 2.1, is in the rank and the position which is simplified and assessed every year. This change is expected to shift the administration to being practical, and quantitatively and qualitatively-oriented in supporting teachers to improve their performance and professionalism (Educators Profession Development Centre–MoNE, 2011). Moreover, Continuous Professional Development (CPD) has become compulsory for all teachers. It should be done earlier at level III/a as self-development and at level III/b when teachers should publish a scientifically written article or describe an innovation. This requirement pushes teachers to start writing; many teachers were stuck in rank IV/a in the previous regulation (MoNE, 2010) because they could not publish scientific writing. The data in 2010 showed that only 0.87% of teachers were in rank IV/b, 0.007% in rank IV/c and 0.002% in rank IV/d. In November 2009, there were 569,611 teachers (21.84%) stuck in rank IV/a (MoNE, 2010). This regulation became effective from 1 January 2013 to allow teachers to prepare and understand the new system of appraisal.

It is expected from the results of PKG that teacher self-evaluation will improve their potential and careers. In schools, PKG is a base for the *Pengembangan Keprofesian Berkelanjutan* (PKB) or Continuous Professional Development (CPD) to appraise teachers' work performance in developing their career based on Regulation No. 16/2009 (MoNE, 2011).

2.5.1 Continuous Professional Development

The activity of CPD is based on teachers' performance profiles as the result of teacher performance assessment and supported by self-evaluation (Ministry of Education and Culture [MoEC], 2012). If the result is below the standard, then the teachers should

undertake CPD which is oriented to the Teacher Competency Standards achievement. For those teachers who have achieved the standards, CPD is meant to improve their competences to provide teaching and learning quality and their career development. The activity is expected to create professional teachers who have good knowledge and personalities that enable them to develop students' interests and potential, knowledge, skills and attitudes based on students' competency (MoEC, 2012).

Table 2.3 Teacher Performance Assessment Conversion

Teacher performance assessment	Standard	Credit Percentage
91 – 100	Excellent	125%
76 – 90	Good	100%
61 – 75	Fair	75%
51 – 60	Average	50%
≤ 50	Poor	25%

Source: PKG Guidelines, MoEC (2012)

2.5.2 The Instruments

There are two types of instruments used for PKG, namely, the guidelines and assessment instruments. The guidelines give the procedures for assessment including the assessment for assessors and teachers and other aspects within PKG. The assessment instrument is a rubric with indicators and is divided into six forms to review the lesson plans, teaching practice, ability to open and close the lesson, teaching and learning variation, questioning and ability of strengthening the lesson (MoEC, 2012).

2.6 Historical Context of Indonesian National Curriculum

The National Education Curriculum in Indonesia has changed over several decades, generally once every ten years since it began in 1947 after independence. These changes are the consequences of system changes, especially in politics, society, culture, economy and technology (Alhamuddin, 2016; Grundy, 1987) and if there is a

new Education Minister, there will generally be a change in the curriculum as well. The change of the curriculum represents the interests of stakeholders who influence the government during different periods (Alhamuddin, 2016; Habermas, 1972). However, the curriculum is an important aspect of education in Indonesia's education and has played a major role in reconstructing its society (Schubert, 1986) because it contains values, ideologies and other objectives. In short, curriculum developments in Indonesia from 1947 up to 1977 were closely linked to social and political factors in reaffirming the ideologies and beliefs, and the development of science and technology was given less emphasis. In the period that followed, before 2004, curriculum development attempted to reduce the heavy content and to soften the objectives and the very examination-oriented curriculum. A nine-year compulsory basic education was implemented and the importance of developing human beings as an economic asset was also emphasized.

2.6.1 The 1947 Teaching Plan

The first education plan was issued in 1947 and revised in 1950. Developing patriotism was the priority since Indonesia had been colonialized for 350 years by The Netherlands. Students could gradually assume responsibility for their own health, happiness, and national life on the basis of only one God and a civilized humanity, and have a stronger commitment to their own physical and mental development on the basis of cultural prosperity (Jasin as cited in Sofendi, 1993. p. 3). However, in the 1947 Teaching Plan, there were no statements about the basic objectives or principles of education. The users of the teaching programme only received learning materials that had to be taught, together with some brief directions on how to teach them to the students (Wardiman, 1997).

2.6.2 The 1964 Educational Plan and Curriculum 1968—Curriculum 1994

A comparison of the 1964 and 1969 curriculum shows that, apart from minor additions and deletions, the latter curriculum mainly reshuffled and renamed the old items. The curriculum of 1968 lacked practicality and relevance to local conditions and some efforts to make it relevant focused on the teaching of vocational and specialized skills. It was also realized that the prevalent teaching and learning methods were not equipping students with problem-solving skills and independent learning, because classroom activities were mostly teacher-based lectures without involving active student participation. To solve this problem, the Curriculum 1975 was issued (Tangyong et al., 1989). It was considered to be better planned than the previous one and was based on the behavioural objectives model (Tangyong et al., 1989). A consultation process was carried out by a professional team in methodology and experts in subject content, and it was then reviewed in its draft form through workshops attended by a Chairman of the Education Department, provincial officers and higher education professionals. However, teachers and head teachers were not represented and did not take part in the setting up of the curricula apart from being resource persons (Beeby, 1979). Detailed guidance on the content and the topics to be taught and the time allocations were provided. However, this curriculum came to be considered too demanding and too examination-oriented, underpinned by an instructional design paradigm that merely relied on objectives, instruction and evaluation.

A new curriculum was issued in 1984, which provided more flexibility within the units of study, allowed for local content to be included, and encouraged teachers to use the environment as a learning resource (Tangyong et al., 1989). It is also based on the need of national battle as a history subject, and the extensive development of knowledge and technology among the community, which is supported by several research projects and studies (Soedirdjo et al. 2010).

The Curriculum of 1994 was based on the Educational Act No. 2/1989. As with the earlier curricula, education continued to be perceived as a tool for nation building and an instrument to develop people as human beings, but now more emphasis was placed

on local needs and on the relevance for the learners. This change was clearly defined in Article 38 of the Act that education “shall be based on the national curriculum and the curriculum which is adjusted to the situation and the need of the environment and the special characteristic of the education unit concerned” (p. 13). A local curriculum element as an independent subject was included with more than 20% of the time available for teaching it. All this clearly showed the government’s desire to decentralize the education system and to encourage local curriculum building.

2.6.3 Curriculum 1999–2004

The Curriculum 1994 was revised in 1999 based on the criticism that Curriculum 1994 was having overloaded contents and lack of match of materials to the development levels of students. Moreover, the Curriculum 1994 needed national development and advancement of science and technology and neglected various students’ potentials and the aspirations and involvements of society (MoEC, 1999). Further, this curriculum required teachers to be able to develop *democratic learning conditions*, and to act as facilitators, and it encouraged students to become more active learners (MoEC, 1999).

2.6.4 Competency-Based Curriculum 2004 and School Level Curriculum 2006

The Curriculum 2004 was known as *Kurikulum Berbasis Kompetensi* (KBK) or Competency Based Curriculum which emphasized the development of students’ skills in performing standardized competencies and to raise the students’ responsibility and participation in order to gain meaningful learning and various experiences according to their needs (Curriculum Centre, 2002; Mulyasa, 2005). Furthermore, it had certain characteristics that supported students’ achievement of their competencies of both individuals and groups and learning outcomes- and diversity-oriented, using various approaches and methods in delivering lessons, utilizing various learning resources (not only from teachers) and emphasizing evaluation based on process and learning outcomes (National Education Department, 2002). Mulyasa (2005) identified six characteristics in KBK: module-based learning, holistic learning resources, field

experiences, individual learning strategies, learning simplicity and mastery learning. These six characteristics were underpinned by three principles for their implementation (Department of National Education, 2003): classroom-based assessment, teaching and learning processes and school-based curriculum organization

Classroom-based assessment was an activity to gain information on students' learning process and results and was done by teachers and students to improve the interaction and involvement of students in their learning. Teachers were expected to recognize students' capability and give a fair, valid, meaningful and comprehensive result of assessment. It covered students' portfolios, products, projects, performances and paper and pencil tests. Teaching and learning was an active process for both students and teachers to develop students' potential so that they would recognize that it was their knowledge along with their capability that resulted in meaningful learning. The principles were to encourage student-centred learning, to develop students' creativity and to create joyful and challenging learning.

School-based curriculum organization was expected to empower provincial officials and schools in planning, implementing and organizing lessons based on their aspirations. It led to the involvement of the local institutions such as schools and local administration regions to have responsibility for improving the quality of education.

In 2006, KBK was revised into an operational curriculum which was known as School Level Curriculum (*Kurikulum Tingkat Satuan Pendidikan* [KTSP]) in order to create an independent education based on a school's characteristics in each area (Education National Standard, 2005; Muslich, 2007). The School Level Curriculum was expected to create effective and productive schools with several components: school objectives, school curriculum structure and content, an education calendar and a syllabus. KTSP gave schools the authority to organize their learning activities, their involvement of community and parents, and their professional and democratic leadership with a solid and transparent team. It was expected to implement the creativity of joyful learning, using suitable approaches, improving students' competencies by using certain criteria and developing learning organization and management.

2.6.5 Curriculum 2013 / National Curriculum

The Curriculum 2013 was developed to solve several problems which occurred in KTSP. In this new curriculum, the syllabus is provided by the Education Ministry except for certain subjects that are developed by schools (Harianto, 2013). Although the syllabus is provided, teachers should understand and create lesson plans to organize their lessons for students. There is a reduction in the number of subjects as well, for example in primary school, the ten subjects requirement has been reduced to six. There are integrated science and social science units and certain areas have become included in every lesson (e.g., information technology).

Although there has been some criticism of this new curriculum, there are several positive influences such as students' character building, creativity and innovation, which are the focus of this curriculum, and teachers are given opportunities to improve their skills and professionalism to support their lessons. The focus of the critics of the curriculum were on several aspects: the implementation where teachers were not involved in the process of Curriculum 2013 development, the capacity of teachers and students who are assumed to be the same across Indonesia, the assessment that has led to a process where the national tests in science and the social sciences integrated into a subject that has a different root (Harianto, 2013).

This curriculum is still under evaluation by the government and will be renamed the National Curriculum in 2018 (Baswedan, 2015).

2.7 Summary

In the development of the education curriculum in Indonesia, curriculum is understood to be a set of education planning to organize lessons' objectives, content and resources and a guideline for achieving national education goals (Mulyasa, 2005), that is, to develop faith and devotion and enrich the life of the nation through science and technology and education supported by religious values and the unity of the Indonesia nation (Constitution 1945). Since independence in 1945, there has been many varied

changes and sometimes there were significant differences among them but mostly they have had the same orientation to lifelong learning and better education quality in Indonesia (Harianto, 2013). The latest curriculum still needs a long review and socialization in the schools and educators regarding its implementation as stated by the Education Minister in response to the criticisms that have been made of it (Baswedan, 2015).

Due to these issues, teachers face curriculum changes every ten years and the support from government has been just mostly about technical aspects on how teachers understand the new curriculum and implement it in their everyday practice. There is hardly any support on how teachers should understand their professionalism as teachers that they should have competency as stated in Article 8 (Constitution No. 14/2005, p. 6). This research was focused on teachers' understanding of the reflection part of the Teacher Competency Standards (Pedagogy and Practical Practice domains) that is considered to be crucial for teachers but government has not provided any assistance or guidelines in understanding reflective practice and how to implement it. Providing professional support for teachers—to assist them not only in technical aspects but also for their comprehension of teachers' professionalism—is valuable to education improvement in Indonesia.

Chapter 3

Theoretical Perspectives

3.1 Theoretical Orientation

This chapter provides the theoretical perspectives of reflective teaching from the epistemology to the practice based on the Indonesia context. It describes this study's approaches and shapes the development of a reflective practice model in Indonesia. The chapter is divided into four broad sections which focus on reflection (Section 3.2), dimensions of the reflection process (Section 3.3), the activities that support reflection (Section 3.4), various models of reflective practice (Section 3.5), the structures to promote reflection (Section 3.6) and the summary of the general reflective practice in Indonesia (Section 3.7).

3.2 Reflective Practice in Indonesian Teacher Competence Standards

Reflective practice is part of the Indonesian Teacher Competence Standards (TCS) which are assumed to be necessary for improving education and that it is important that teachers understand the term. Reflection is mentioned in two dimensions of the TCS: pedagogical skills and professional practice. In pedagogical skills, the tenth competence of doing reflective action is to improve the learning quality by reflecting on the practice of the learning process, utilizing the reflection to improve and develop learning based on the teacher's subject matter qualifications and doing classroom action research to improve the learning quality based on the teacher's subject matter qualifications (Ministry of Education 16/2007, p. 20). In professional practice, the 23rd competence about reflection is focused on developing continuous professional development. Teachers should engage in reflective action by doing continuous reflection towards his/her performance, utilising the reflection for professional development and doing classroom action research to develop professionalism (Ministry of Education 16/2007, p. 23). It is clearly stated in the TCS that teachers are required to use reflection as a tool for evaluation and professional growth. Although

evaluation is mentioned in the eighth and ninth competences, those are focused on students' paper-and-pencil tests on the learning process, how the administration conducts evaluation and how teachers utilize the results to improve students' learning quality (Ministry of Education 16/2007, p. 20).

Although the statement of reflection appears to be clear in the TCS, the wording itself gives little indication about how teachers are to accomplish the directives of the standards. The meaning of reflection is abstract and must be translated into practice in order to be useful to the teaching practitioner. Louden (2000) stated that formal language needs interpretation for the teachers and the institutions in which they practise in order to understand the reflection itself and how it may improve their teaching practice. The term *reflection* or *reflective learning* (*pembelajaran reflektif*) in the TCS is hard to define. Dewey (1933) proposed that reflective thinking involves the process inquiry such as observation, discovery relationship, examination, intellectual freedom and mental organization, which are consistent with the meaning of *reflection* in the TCS. Bronfenbrenner (1979) developed an ecological theory of human development relating to the influence of context and environment on an individual's learning and development. If this theory is connected to the context of this study, reflection would be based on the environmental influences on an event or situation. O'Connor and Diggins (2002) explained more about this theory which provides four levels of reflection to consider the context of the situation or event to support teachers' use of reflection required by the TCS.

According to Bronfenbrenner (as cited in O'Connor and Diggins, 2002), level one of reflection deals with reflective skills which are related to teachers' personal context such as values, beliefs and assumptions and the origin of these elements. Teachers need to identify their own feelings as an important part of the process of recognizing their values, beliefs and assumptions. By identifying their feelings, teachers understand their affections for certain events which are either positive or negative to maintain the future actions, to repeat or modify these actions (p. 21). Recognising their own values and beliefs engages teachers as educators in determining their importance to their students, their position in certain situations and their roles in changing a situation or conflict (p. 23-24). This recognition leads to teachers' self-awareness in developing their self-understanding to be a better person and in practising these values

and beliefs through their experiences. Based on their experiences and self-awareness, teachers are expected to gather theoretical knowledge to improve and modify their practice (p. 27). This stage needs reflective conversation for teachers to discuss a situation, their feelings, beliefs and assumptions with a colleague or tutor/lecturer (p. 28). This discussion with another person will encourage teachers to explore the events and theories that affect their practice. Usually the person with whom they share their ideas has a close connection that makes teachers feel comfortable in sharing their thoughts and feelings. They can ask their colleagues to observe their teaching practice and ask for feedback to seek valuable information. These actions will help teachers understand themselves, change and modify their practice for improvement.

Level two reflects on the immediate learning environment such as the classroom, other adults, families and the local community (p. 44). Teachers should consider not only their ideas towards the situation but also others' perspectives who are directly and indirectly part of the environment. These factors influence teachers' practice and form an important process as part of the reflective process. Other adults like their colleagues may have an impact on certain situations regarding their values, beliefs and assumptions through their observations and reflective conversations. The involvement of family or local community can be included in the reflection and counted as children responding to different situations based on their culture in experiencing certain events. Level three is reflection based on certain requirements such as the philosophy of the setting, statutory requirements (objectives and practice) and regulations of the TCS (p. 45). Teachers reflect on what they are required to do as demanded in the TCS and also consider the influence of policies and regulations to which they must adhere. These aspects will determine what teachers should do as educators based on their context. The theory would influence the setting and can affect to their practice as well.

Level four is reflection on the nation's values and beliefs of education that are in the National Education Goal of the Republic of Indonesia. The general view is that the government's purposes of national education are to develop students' potential to become pious and have good health, knowledge, creativity, independent and democratic and be responsible citizens (Department of National Education, 2003). The TCS are expected to support this national education aim and to standardize teachers' competences to develop students based on the national aim. Further, this aim is related

to the teacher culture (Churchill et al., 2011) where shared attitudes, values, goals and practice characterise how teachers typically think about issues related to their work (p. 509). The culture may lead teachers to the habit of reflection through reflective conversations with their colleagues.

3.3 Reflection: experts' perspectives

Reflection was one of modes of thought articulated by Dewey (1933) which has not been understood properly in part of teacher education programmes especially in Indonesia. Rodgers (2002) has refined Dewey's concept of reflection into a meaning-making process from one experience into another one, a systematic way of thinking, an interaction with others and attitudes requirement towards the personal value and intellectual growth. Furthermore, Schön (1983) suggested the importance of its relationship to theory in practice to its application by professional practice. Schön viewed practice as an expression of an important form of knowledge (Munby & Russel, 2015, p. 72) and not just merely a theoretical form of that knowledge. Schön offered new perspectives in seeing problems of everyday practice.

3.3.1 Dewey

Dewey's (1933) work *How We Think* has inspired researchers, educators and practitioner whose intentions are on how reflection can be turned into practice to improve professional practice. He implied that the process of reflection for teachers actually begins with experiencing a difficult, troublesome event, or an experience that cannot be immediately resolved. He put reflection as an aim or conclusion of doing professional development activities, leading to a better application of thought and also reaching the goals. One of Dewey's suggestions was reflective thinking which involves several processes of inquiry. The first process is observation of experiences which is important for teachers to have as clear and distinct a recognition as possible of the nature of the situation (p. 102) which synchronizes with the reflection towards teachers' performance. Teachers can focus on certain conditions they experienced and observe the problem as the basis of reflective thinking; this process requires an effort

until the habit of thinking is well formed. If teachers are to become thoughtful about their own practice, first they have to reflect on their own instructional practice. Freire (1996) recommended to have mutually respectful dialogue to help learners and instructors (can be among teachers, student-teacher, or teacher-teacher trainer/lecturer) to reveal and accept the problems through critical thinking about the teachers' reality and to understand it. For Freire, the resolution to the perplexing situation can be accomplished through mutually respectful dialogue within communities of learners and without the communication there can be no true education (p. 69–74).

In Dewey's (1933) point of view, clear and accurate observation is only the beginning of reflective thought. As the observing person begins to notice the condition of his or her experience, two types of thinking: accept the condition and move on, or move back and forth that leads to new observations. The first type is not the thinking of a thinker according to Dewey because he or she does not think deeply and accept the first suggestion of the condition and does not have an intention to change or analyse deeply in detailed observation. The second type is the thinking of the teacher who engages in reflective thought because he or she does not accept the observation at first but moves on to new observations to obtain detailed information. This process of observation and inference leads to discovery of relationships between experiences of the problem. In the Teacher Competence Standards, this discovery of relationships is about observing and inferring from a situation or condition during the learning process to improve and develop learning quality.

In examining outcomes, Dewey (1933) found two different outcomes resulting from scientific investigations and practical deliberation. The scientific investigation led to the development of human knowledge, whereas the practical deliberation is not to generate new knowledge but to produce decisions about matters of human activities concerning the morality of behaviour. As teachers learn to name a problem based on accurate observations, they are beginning to undertake the work of reflective thinking. When they learn to see the results of their decisions, it may be said that they are stepping into the world of reflective practice and responsible for their own professional development. These distinctions are relevant to reflection in the Teacher Competence Standards that require teachers to do reflection as a reflective thinker, to

look back at their practice, and engage in reflection as professional development through classroom action research.

About intellectual freedom, Dewey (1938), in his work *Experience and Education*, suggested a conception that teachers who are able to grow professionally need to develop in order to observe clearly of their own practice, link their observations to their own professional knowledge of practice, hypothesize alternatives to improve their instructional performance, plan and apply strategies for their professional development and students' learning improvement. Intellectual freedom is a necessary ingredient for intellectual growth that is a freedom of thinking "to frame purposes, judge wisely, evaluate desires by the consequences which will result from acting upon them; [the] power to select and order means to carry chosen ends into operation" (p. 64). Thus, Dewey's (1938) conception of intellectual freedom will bring teachers to reflective thinking as a base of reflection required in the Teacher Competence Standards.

Based on Dewey's perspective (1933), to develop teachers' practice of reflection, there should be a place to grow the teachers' intellectual freedom. They can learn how to analyse and synthesize their experiences with colleagues through discussions or conversations leading to mental analysis. The process of analysis and synthesis can be called mental organization which is relevant to the Teacher Competence Standards which require teachers to communicate or share their experiences of their practice with colleagues.

Dewey (1938) emphasized the importance of experience in accomplishing the best education of an individual learner and society. The education system must look back at "intellectual and moral standards of a pre-scientific age or forward to greater utilization of the scientific method in the development of growing knowledge by expanding experience" (p. 89). Teacher workgroups in Indonesia can facilitate sharing and discussing experiences and problems in teaching practice (Bell & Gilbert, 1994; Thair & Treagust, 2003). Moreover, experiences influence not only the teachers but also the school environment through interactions between them (Bartlett, 1993; Dewey, 1938; Thair & Treagust, 2003). After interaction, continuity is another important element to connect one experience to another and construct knowledge

based on previous series of events for a better future teaching and learning process. Hence, another reason for this research is for teachers to develop their awareness of interaction and continuity, to learn from their experiences and to improve the education quality in Indonesia.

3.3.2 Schön

Dewey's thinking was extended by Schön (1983) who focused on professional practice, especially its epistemology and knowledge inherent in practice (Munby & Russel, 1989). Schön's writings have attracted much interest in teacher education where the concept of reflection tends to be more critical. Grimmet (1998) used Schön's contribution to describe reflective practice as "an essential concern that educators can make sense of the phenomena of experience that puzzle or perplex them" (p. 11). Schön (1987) elaborated that two processes happen while reflecting on certain activities, which may be after the fact ("reflection-on-action") or in the midst of action ("reflection-in-action") (p. 26).

The term *reflection-in-action* refers to the development of knowledge of a practitioner that uses and views reflection as new expressions or techniques besides using scientific theories and techniques. *Knowing-in-action* is knowledge which is unspoken to guide the actions to reframe or see differently a problem that occurs during the practice. Furthermore, reflection-in-action is central to professional practice so that if he or she is faced with a unique and surprising situation, applying theory or past experience directly would not be a choice but he or she would reframe the condition from a series of examples of his/her previous knowledge and find a new solution (Griffiths, 2000). The response of a professional in handling the situation called an intuitive response which is spontaneous and tactful. Research by John (as cited in Griffiths, 2000) who conducted research to explore the nature of student teachers' thinking during their lessons and used their intuitive responses in the classroom. The results of John's research provided five models of intuition: problem avoidance, teacher interpretation, opportunity creation, improvisation and mood assessment. In problem avoidance, teachers respond to reaction of students towards the lessons and anticipate future problems by choosing alternative course of action. Teachers may

draw their interpretation of the students' signals from their interaction with the students. Based on students' responses on the lessons, teachers have the opportunity to create and extend students' learning. If the lesson is not running well, then teachers will improvise by changing their strategies or adapt the lesson to meet the lesson objectives. Teachers should have the ability to read students' expressions and body language to adopt a certain strategy suitable to the mood of the class at the beginning or during the lesson. John's research revealed that student teachers had the awareness or intuition of students' immediate responses to the environment in their lessons. Their intuition could be improved by analysing key moments often and repeating suitable models for reacting towards certain circumstances in their lessons.

Another way of reflection-in-action is "deliberative responses", which is "contemporaneous reflection in situation (which) allows for a 'stop and think' kind of action" (Van Manen, 1995, p. 34). It is closer to reflection-on-action that is conducted after the lesson as a review and evaluation (Griffiths, 2000). If only one teacher who faces a specific situation during the lesson, he/she usually takes an action instantly to form or reframe the problem and instantly makes a decision to solve it. However, if the lesson is conducted by team teaching, there would be a plan to reflect on the situation and make a decision and discuss the situation later after the lesson. That is why deliberative response of reflection is considered in between reflection in and on action. Still this type of process involves high level of skills and self-confidence for student teachers and needs more practice (Lucas, 1996).

Dewey's reflection or deliberation (1933) referred to the action of reviewing actions in the past to evaluate and fit the experiences to knowledge and develop it. This called reflection-on-action (Schön, 1983), reflection on or after action, which is most common among professionals. According to Van Manen (1995), there are three types of reflection that occur regularly in teaching practice: anticipatory, contemporaneous and retrospective. A teacher would think about the plan in delivering the lesson covering the strategy and anticipating problems that may happen. During the lesson, the teacher would think about the teaching while carrying out the plan of teaching in the classroom and observing the potential problem likewise to adapt the plan to fulfil students' needs and abilities. After the lesson, the teacher could evaluate the lesson, the students' learning process and things that could be improved for future practice.

The important part is how teachers can learn and benefit from their experiences to develop their knowledge and skills for better teaching and learning.

Furlong and Mynard (1995) who worked with pre-service teachers identified five main stages of pre-service teachers' development based on their confidence and experiences: early idealism, personal survivor, dealing with difficulties, hitting the plateau and moving on.

Furlong and Mynard referred to Schön's (1983, 1987) concept of *framing* a situation that happened around pre-service teachers, interpreted the events or behaviours which were meaningful or not, and knew what to expect (p. 71). They expected to gain knowledge from their reflection on practice by experiencing their own practice in order to progress further or work by trial and error (Schön, 1987). Schön (1983) argued that to learn from mistakes required maps as the compass and he called theory-in-use that was developed from their practice as "a conversation with situation" (p. 76). This theory-in-use, alongside with the espoused theories, is used to equip teachers in their everyday teaching practice that is tactical, and developed by "habitual patterns and ways of being" (Bolton, 2014, p. 3). Theory-in-use is knowledge that teachers develop during their practice, whereas the espoused theories are knowledge teachers gained during their pre-service teachers' period or during a course. Reflective practice is bridging theory and practice and is considered as a key to learning from experiences connecting home and work, society and culture, social and cultural structures. Reflective practice can increase teachers' confidence, reflexive critique of personal values/ethics and professional environments and workplaces, awareness of diversity, analysis of skills and knowledge gaps, development of observation and communication abilities. Furthermore, reflective practice can increase teachers' constructive awareness of mutual relationships, identification of learning needs, and can also allow them to share experience and expertise with a wide range of colleagues.

3.4 Reflective practice models suggested by experts

Experts have suggested several models that may encourage teachers to apply reflection. It can be planned, as Loughran (1996) suggested, to demonstrate reflection by modelling to their students to give them such experience of action of reflection.

The models applied will affect teachers' practice differently depending on the circumstances of teachers themselves and their students. The models can be considered as guidelines for teachers to engage in reflective practice.

3.4.1 Five phases

Dewey (1933) proposed five phases of reflective thought as the model of doing reflection that was used by Loughran (1996) as a reflective cycle in his research. These phases would help teachers to look into the future, a forecast, an anticipation, or prediction and develop the reflective thinking habit. Dewey (as cited in Boydston, 2008) explained further that the phases of reflection would not be in a fixed order considering the situation one is facing as follows:

- The first phase is “(1) *suggestions*, in which the mind leaps forward to a possible solution;”
- The second is “(2) an intellectualization where the difficulty or perplexity that has been felt (directly experienced) into the *problem* to be solved,…”
- The third is hypothesis, that is, “the use of one suggestion after another as a leading idea, or hypothesis, to initiate and guide observation and other operations in a collection of factual material;”
- The fourth is reasoning, “the mental elaboration of the idea or supposition (*reasoning*, in the sense in which reasoning is a part, not the whole of inference)”
- The last one is “testing the hypothesis by overt or imaginative action” (p. 200).

3.4.2 Three forms of modelling

Schön (1987) proposed three forms of modelling as ways that students learn from their supervisor's practice—*Hall of Mirrors*, *Joint Experimentation* and *Follow Me*. The model starts from Follow Me where experienced practitioners demonstrate and describe their pedagogical knowledge to teachers. Teachers then can imitate the use of pedagogical knowledge doing in the similar ways as their practice. It is very important that teachers can learn from their practice setting by discussing their actions

with the experienced practitioners and reflecting from their perspectives (Loughran, 1996).

The Joint Experimentation model encourages teachers to take the lead in reflective inquiry. The experienced practitioners then follow teachers' line inquiry, commenting, advising and offering alternatives when teachers question the problems that occur in their setting.

The Hall of Mirrors model focuses on the practices of experienced practitioners and teachers as an example of what teachers are attempting to understand and develop their own practice. The important issue is that teachers can experience what it means to be a learner in a practice situation. It is anticipated that teachers can reflect their position later in their practices.

3.4.3 Three periods of reflection

Baird (1990) recognised three periods of reflection of teachers. The first period, anticipatory reflection (pre-teaching), happens before the teaching process where the teacher considers how to execute a lesson and approach to pedagogy. The second period, contemporaneous reflection, happens during the teaching and the teachers can learn from and about their practice in action (Loughran, 1996). It is when the process of learning becomes complex and dynamic then teachers can immediately respond to the situation. It is not an easy process but this is where teachers can reflect on what they have planned. Retrospective reflection (post teaching) that happens after the teaching process mediates teachers to learn the effort of using strategies, methods or approaches used in a lesson. It is important to connect post-teaching reflection to activities during the teaching to gain opportunity to look back and improve teaching in the next lesson in the future.

3.4.4 Critical model of reflection

Brookfield (1995) encouraged teachers to look at their practices from four different perspectives or lenses, namely, autobiographies as learners and teachers, students'

eyes, colleagues' experiences and theoretical literature. O'Connor and Diggins (2002) described more about Brookfield model as follows:

- Through autobiographies as learners and teachers, it is expected that teachers can reference their own education and experiences to develop their skills in daily practices. Without realizing that teachers' own experiences in their education life influence their values and assumptions about teaching, they will shape their beliefs, values and characteristic in their teaching styles. By reflecting on their experiences as learners, teachers can help themselves to uncover certain aspects of their practice especially the *feel* of joyful learning to their students' based on their own experiences as learners and develop the strategies and methods of their practice.
- The second lens focuses on how teachers can collect students' perspectives towards their lessons or activities or incidents. By recording students' comments and reaction to certain activities, teachers can gain perspectives of certain topics or strategies they have developed and reflected on them. Teachers can position themselves as learners in viewing their experiences.
- The third lens offers perspectives from colleagues' experiences for comparison with teachers' reflective practice. A reflective conversation with colleagues can expose the teachers to the similar situation experienced by others. Discussing the experiences will provide solutions to overcome a perplex situation in teachers' practice.
- The theoretical literature lens will help teachers to look at some points from experts in guiding them to explain a certain situation. It is a good perspective based on experts to reflect and gain answers in solving some problems that occur in their practice.

3.4.5 Spiral model

O'Connor and Diggins (2002) proposed a never-ending reflection model called *spiral model*. It is expected that teachers reflect constantly on their practice to continue to develop and grow in their profession. The spiral model contains the stages of *act – select – name – reflect – research – plan – act – monitor*. Teachers practise, select an action, describe the action, reflect using the description of the action, refer to theory

to support the reflection, develop a plan based on reflection, implement the plan and return to the beginning of the spiral and the process may continue.

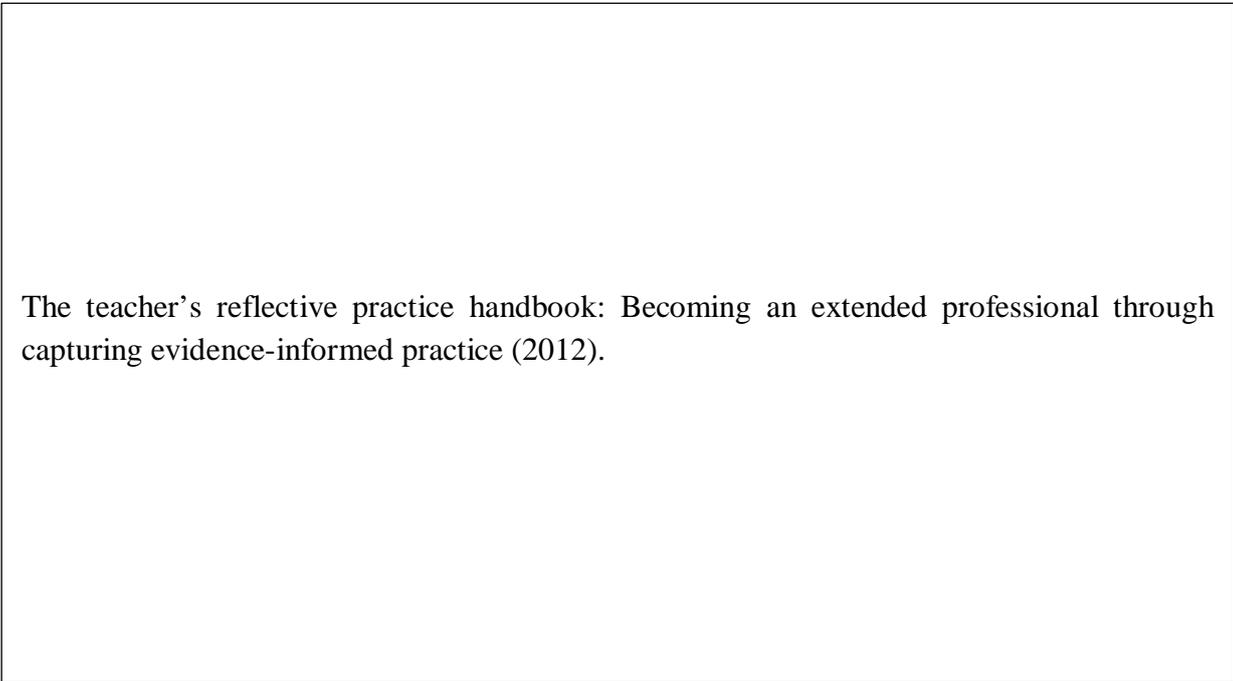
3.4.6 Typology of reflection

McKenna (1999) agreed that any practitioner called “reflective” would be able to focus on some dimensions of their pedagogy that come from a variety of perspectives using techniques of reframing and reflective listening. The reflective practitioners engage in dialogue with their peers in order to illuminate the boundaries and frames of thought which limit their current perspective with the goal. They are also able to take actions based on a thorough and reflective understanding of events, alternatives and ethics. These criteria reflect and form the basis of the typology described below:

- Descriptive reflection involves “describing a matter such as a classroom concern, a recognized bias, an interesting theory or a feeling” (Jay & Johnson, 2000, p. 78). Basically, this type involves answering the question, “What’s happening?” However, it does not just report facts but it implicates the finding’s significance to remove and study the causes and consequences, recontextualize them and visualise a change in the future.
- Comparative reflection involves embedding other frames on a situation to collect new and better perspectives and understandings which is called “frame experiment” (Schön, 1983). This process requires open-mindedness and wholeheartedness (Dewey, 1933) and seeks to understand others’ points of view.
- Critical reflection describes “the result of carefully considering a problem that has been set in light of multiple perspectives” (Jay & Johnson, 2000, p. 79). Brookfield (1998) suggested using multiple lenses in reflecting on one’s own practices such as self-autobiography as a learner practice, learners’ perception, colleagues’ experiences and examining the theoretical literature. These could advise teachers to stand outside their practices and see what they do from a wider perspective.

3.5 Reflective practice framework: The Nine Dimensions of Reflection Process

The Teacher Competence Standards were issued to raise the education quality in Indonesia. Teachers should do reflective actions to improve learning quality and develop professionalism continuously through reflective actions. Reflective practice is concerned with teacher professional development in order to raise educational standards through teachers' commitment and capacity in evaluating and analysing their experiences to improve the quality of their teaching. Zwodiak-Myers (2012) developed a framework of reflective practice that contains nine dimensions of reflection process: (1) study your own teaching for personal improvement; (2) systematically evaluate your own teaching through classroom research procedures; (3) link theory with your own practice; (4) question your own personal theories and beliefs; (5) consider alternative perspectives and possibilities; (6) try out new strategies and ideas; (7) maximise the learning potential of all your students; (8) enhance the quality of your own teaching; and (9) continue to improve your own teaching.



The teacher's reflective practice handbook: Becoming an extended professional through capturing evidence-informed practice (2012).

Source: Zwozdiak-Myers, 2012

Figure 3.1 Dimensions of reflective practice

Zwodiak-Myers' framework provides this study with the dimensions of reflective practice in which teachers can demonstrate their commitment in teaching practice by exposing their experiences then improve their own teaching. These key features guide teachers to define reflective practice as "a disposition to enquiry incorporating the process through which students, early career and experienced teachers structure or restructure actions, beliefs, knowledge and theories that inform teaching for the purpose of professional development" (p. 5). A disposition to inquiry is based on the reflective attitudes described by Dewey (1933), namely, open-mindedness, responsibility and wholeheartedness, which are considered as requirements and essential to reflective actions. Open-mindedness—the teachers' willingness to view several perspectives of a certain argument through other lenses (Brookfield, 1995)—may open teachers' minds and lead to activating their ability to engage in inquiry. Responsibility is the teachers' willingness to accept the consequences of their actions based on perspectives they choose in solving the problems. Wholeheartedness is teachers' enthusiasm to review their assumptions, beliefs and the consequences of their regular actions with new perceptions in learning the situations (Dewey, 1933; Zeichner & Liston, 1996).

3.5.1 Dimension 1: Study your own teaching for personal improvement

In this study, the researcher focused on how teachers reflected on their practice. The key is that teachers should be aware of reflection and how they do it. Reflection is a guide to personal improvement and could be planned as part of professional development programme (Zwozdiak-Myers, 2012; MoEC, 2012). Teachers can reflect on the learning outcomes, content and pedagogical approach, students' engagement during the lessons and what students have learned. Dewey (1933) identified five phases or states of thinking related to giving consideration to and thought about a certain problem: problem, suggestions, reasoning, hypothesis and testing.

The *problem* phase is when teachers recognise and understand a certain situation as a big picture to see it as a whole, not a small part of it, so that teachers can realize how things have influenced the problem. *Suggestions* are more like considering possibilities and ideas that come to the teachers' mind when facing the problems.

Teachers should deliberate about each possibility and idea in an appropriate way to encourage the development of questions or enquiries regarding the circumstances. *Reasoning* relates to how teachers link information, ideas and previous experiences to enrich their knowledge regarding the situation or problem. Reasoning would help teachers form the ideas to solve the problem into suitable possibilities (Dewey, 1933). The *hypothesis* phase is when teachers review a suggestion or possibility or idea to be applied to solve the problem. This suggestion should persist the test and probably need more information and observation. The last phase, *testing*, is when the hypothesis is tested and it will be affirmed or disaffirmed when executed. The failure of the action could be enlightening for further reflection and teachers can provide other suggestions to handle the situation.

These five phases form a process of reflective thinking which involves a state of “doubt, hesitation, perplexity, mental difficulty, in which thinking originates, and an act of searching, hunting, inquiring, to find material that will resolve the doubt, settle and dispose of the perplexity” (Boydston, 2008, pp. 120-121). Rodgers (2002, p. 845) noted that four components which were extended from Dewey’s reflective thinking framework (1993) were associated with teacher education. The first is the meaning-making process that leads teachers to make sense of their previous experiences towards the next step of future experiences with deeper understanding and interconnection to other situations and ideas. The second component is a systematic and disciplinary way of thinking as scientific enquiry that develops teachers’ ability in doing reflection. The third component is interaction with others. Reflection could be shared with colleagues or community members to get support and help teachers in understanding certain circumstances. It is important as well to find out that reflection correlates with the ideas of the community, especially those between students and teachers. The last component is about attitudes that relate to how teachers open their minds to new perspectives, are able to take the suggestions and have responsibility to carry out those to be applied in their practice. The attitudes are open-mindedness, whole-heartedness and responsibility which are explained more in Section 3.6. These four components were revealed through the researcher’s conversations with teachers in this study.

Another way to personal improvement is by reflection in and on action (Schön, 1983) which relate to the teachers' repertoire of experiences and ways of becoming familiar with the situation. With exemplars, images and metaphors teachers can interpret the situation and develop several possible ways to solve problems as explained in Section 3.3.2. Experienced teachers can react and understand immediately when faced with certain situations (Griffith, 2000).

3.5.2 Dimension 2: Systematically evaluate your own teaching through classroom research procedures

There are several ways for teachers to evaluate their own teaching practices. In this study, the researcher emphasized teachers' action research, learning outcomes and others data from surveys and peer observations. Action research is considered as the formal reflection in Indonesian context because it relates to teachers' career system (Ministry of Education 16/2007) with procedural steps that can be used to investigate teachers' practices involving certain experiences that should be analysed to gain a possibility to solve perplexing problems. Carr and Kemmis (1986) defined action research as a "self-reflective spiral of cycles of planning, acting, observing, reflecting then re-planning, further actions, further observation and further reflection" (p. 162).

According to Zwozdiak-Myers (2012), action research has two distinctive roles in reflection. The first role is to structure the planned action base which focuses on reflection for the purpose of observing an event or situation to plan an action. The second role is to evaluate the effects of the action which focuses on reflection for the purpose of observing its effects. Conducting action research through observation, reflection and evaluation is expected to help teachers to identify issues and certain problems that occur in the learning process of their students.

One data source for teachers' reflection is students' work or test results (Churchill et al. 2011) which are common in Indonesia and considered the easiest source available. As stated in the Teacher Competence Standards, students' results should be beneficial for improving learning quality and reflection or they could enrich subject teaching.

Killen (2005) stated that the reasons that teachers use students' works are "to determine what things need to be revised or retaught and identify ways of improving teaching and students' learning" (p. 102). Marsh (2004) suggested that students' work or results can be valuable for teachers as diagnostic information. Teachers could diagnose their teaching practice in terms of content or processes that may become barriers to their students' learning. The way teachers present the material should be in a way that is understood by students so that it is not too difficult or too easy for a particular class.

Involving students is one way of getting their feedback or reflecting on their learning process (Churchill et al., 2011). Teachers can ask direct questions about their students' impressions, use a student survey or questionnaire or ask students to write their diaries after the lessons. Diaries contain "stories of happenings, hopes and fears, memories, thoughts, ideas, and all attendant feelings" (Bolton, 2014, p. 158).

3.5.3 Dimension 3: Link theory with your own practice

There are three perspectives of theories related to learning. Two perspectives explained in Section 3.3.2 are *espoused theories* to guide actions and encompass the formal philosophy of the profession (e.g., propositional or explicit knowledge); and *theories-in-use* which incorporate those patterns of behaviour, learned and developed in the day-to-day work of the professional (e.g., procedural knowledge and tacit knowing). The third perspective is a cultural knowledge that "shared assumptions and beliefs that are used to perceive and explain classroom reality and assign value and significance to new information and ideas" (Wilson, 2009, p. 4). To link theory to practice is an important part of teachers' reflection process because it concerns students' understanding of the context of the lesson and links it to their everyday life and experiences. It also relates teachers' application of their knowledge—they have gained in their college/university—to the real practice of teaching.

Shulman (1986) proposed seven categories of teachers' knowledge that should be carried out and demonstrated by teachers: content of knowledge, general pedagogical knowledge, curriculum knowledge, pedagogical content knowledge, knowledge of

learners and their characteristics, knowledge of educational ends and knowledge of educational contexts. In this study, especially in the main study, the researcher focused on only one knowledge base for teaching which are the knowledge of learners and their characteristics with the consideration that understanding of students' cognitive development is related to their ages in receiving information. Teachers should observe how students are able to work in groups, paying attention to their emotional, physical, psychological and social development. It is to enable teachers to understand factors that influence students, such as their behaviour, self-esteem, communication skills and interpersonal relationship. These categories are considered important to reflective practice because the researcher can observe how teachers adjust their strategies and material in delivering the lesson based on their reflection. These categories are also covered in the Teacher Competence Standards, mostly in the pedagogy skills domain.

3.5.4 Dimension 4: Question your personal theories and beliefs

Reflection is a way to help teachers identify their personal theories and beliefs. Bandura (1997) suggested that self-reflection connects knowledge with actions and teachers can reflect on the process and experiences in their teaching practice. Palmer (1998) wrote that teaching and learning are driven partly by fear. Fear of facing students, nervousness, not mastering the subject, not having good pedagogical strategies, and many other things that may make one fail to teach well. As teachers learn more about their teaching practice, the fear will not be such a big part of the driver for teaching and learning, although it will not necessarily disappear. Self-examination is another term for reflection, according to Plummer who argued that the *failing* of teaching practice will transform into a deeper understanding of good teaching and a reduction of fear. Furthermore, Hamilton (1993) showed that beliefs have a greater impact than does the teaching culture. Her work involved the exploration of cultural models that provide a way to understand teachers' decision-making processes and the motives behind certain beliefs and choices which lead teachers to be aware of what affects their thoughts and actions that facilitate deeper reflection about personal beliefs and practices. This idea, supported by Dewey (1933) and Churchill et al. (2011), is that reflection is a habit of thinking or habit of mind, meaning that culture or habit of teaching based on reflection will improve teachers'

beliefs, especially knowledge beliefs. This improvement in teachers' decisions applies to contexts and behaviours for their next teaching practice. A reflective and positive attitude mainly for personal development is essential to help renew teachers' beliefs to make a difference and develop a notion of self-efficacy (Scales et al., 2011).

Bandura (2006) provided a questionnaire on how teachers would think and develop challenges and reflection in their activities. The questionnaire items developed based on the phrase *can do* which is recognised in teachers' capabilities and affected teachers' behaviour in an optimistic way. Researcher used the questions to interrogate teachers' performance especially those which have impact on aspirations, expectations and opportunities in the social environment (Bandura, 1995). Efficacy beliefs may influence teachers to think strategically and optimistically or vice versa, and effect their actions in taking challenges, commitment and effort of facing the obstacles (Bandura, 2006). In this study, especially in Phase 2, the researcher focused on certain questions that may develop teachers' awareness of self-efficacy in Indonesian context especially in teaching students' self-efficacy and how teachers create a positive school climate.

3.5.5 Dimension 5: Consider alternative perspectives and possibilities

Considering alternatives possibilities and perspectives is connected with how teachers construct their understanding from the interpretation of their personal experiences. Teachers should be able to build multiple perspectives on a certain learning condition and review it from different points of view. Zwozdiak-Myers (2012) suggested two strategies for teachers to attempt this goal. The first strategy is to become involved in a professional learning community to discuss and share, even collaborate, with other teachers outside their working place. By sharing and communicating their experiences, alternative ideas may arise and enrich teachers' views of the problems. Arguments with evidence can provide possibilities to interpret and create new ideas.

Table 3.1 Questionnaire scales on teachers’ personal theories and beliefs used as questions in this research

Teacher self-efficacy	
a	Efficacy to influence decision making
	1. Influence decision that are made in school
	2. Express freely on important school matters
	3. Acquire the teaching materials and equipment needed
b	Teaching self-efficacy
	1. Get through the most challenging students
	2. Keep students on task on difficult assignment
	3. Increase students’ memory on what they have been taught in previous lessons
	4. Motivate students who show low interest in schoolwork
	5. Get students to work well together
	6. Get children to do their homework
c	Disciplinary self-efficacy
	1. Get children to follow classroom rules
	2. Control disruptive behaviour in the classroom
	3. Prevent problem behaviour on the school ground
d	Efficacy to enlist parental involvement
	1. Get parents to become involved in school activities
	2. Assist parents in helping their children do well in school
	3. Make parents feel comfortable coming to school
e	Efficacy to enlist community involvement
	1. Get community groups involved in working with the school
	2. Get business involved in working with the school
	3. Get local colleges and universities involved in working with the school
f	Efficacy to create a positive school climate
	1. Make the school a safe place
	2. Make students enjoy coming to school
	3. Get students to trust teachers
	4. Help other teachers with their teaching skills
	5. Increase collaboration between teachers and the administration to make the school run effectively
	6. Get students to believe they can do well in schoolwork

Adapted from Bandura (2006)

The second strategy is to use authentic contexts in understanding another situation and develop various perspectives. Teachers can use their own or other’s teaching practices to construct opinions or arguments about the way teachers delivered their lessons. They can give arguments that “consider the most useful, meaningful, or relevant to them in particular context” (p. 97). An authentic contextual example would give teachers alternatives views of a certain concept and teachers would learn to reflect and

evaluate prior to developing deliberative reflection (Valli, 1992). This example includes combining different information into firm decision making in solving a problem from alternative perspectives. Brookfield (1995) called this hunting assumption in which teachers are searching for their own assumption to reach a relevant one and make a sensible decision. The following sections describes the four alternative possibilities or perspectives.

Professional learning conversation

In the Teacher Competence Standards, a learning conversation includes communicating with colleagues or within a professional community with various media to improve the quality of learning. Teachers are encouraged to share innovation in their learning in both verbal and written forms to develop the reflexive habit (Brookfield, 2009). The professional learning community is called teacher workgroups (Department of National Education, 2008; Thair & Treagust, 2003) which mediate teachers in gathering and sharing knowledge in Indonesia. There are three components that support professional learning conversations. The first component is to structure learning conversations between teachers and a *dialogical other* in a supportive way (Pendlebury, 1995). Pendlebury proposed a three-stage approach: guide teachers to reflect on the activity, challenge teachers to criticize the activity, and facilitate teachers to construct an improvement of the activity. Teachers then may create new perspectives and develop arguments based on these activities.

The second component is having a critical friend who can encourage teachers to interrogate and explore their interpretations of their internal knowledge and experiences. The third component is coaching reflective practice (Schön, 1987) that provides three models to frame the problems which are explained in Section 3.4. This professional learning conversation can be planned and organised in teacher workgroups and designed to support teachers' practice of reflection.

Mentoring

The six principles of mentoring were adopted from the Centre of the Use of Research and Evidence in Education (CUREE, 2005) of the United Kingdom and are fit with the Indonesian context in this study: a learning conversation, a thoughtful relationship, a learning agreement, a combining support from fellow professional learners and

specialist, a growing self-direction, setting challenging and personal goals and using resources effectively. These principles support teachers to practise their reflection since they mediate teachers to share experiences, commit themselves to the rules of the community, collaborate between colleagues, raise awareness on reflection and face challenges of making certain achievement.

Peer observations

Peer observations are considered as an effective strategy to gain knowledge, new perspectives and alternatives in reflection. A professional learning community can provide this opportunity, like in Indonesia, teacher workgroups provide several programmes that mediate teachers in developing their skills and knowledge that lead to reflective practice (Department of National Education, 2008; Thair & Treagust, 2003). It is important to focus on certain aspects of teaching and learning to map the perspectives needed such as verbal and non-verbal communications, classroom management techniques and strategies or methods (Zwozdiak-Myers, 2012). The General Teaching Council for England (GTCE, 2006) identified the benefits of peer observation. As the observer, teachers may look at the development and complex classroom interactions, the timelines of things happening, investigate the strategies, internalise new approaches and connect knowledge and practice. As the observed, teachers can unpack the complexity in the classroom, look closely into one particular aspect, experiment with the new strategy, focus on what is happening to the learning of a particular students group, discuss it with the observer and connect knowledge and practice (GTCE, 2006).

Peer observation is a collaborative action between teachers or other professionals and is effective for both an observer and observed teachers. It is better if the observed teacher expresses his/her own impression about the lesson, what went well and what did not. The observation should be focused and discussed on whether or not the lesson objectives have been accomplished. This type of activity would encourage teachers to always reflect and make improvements in their practice.

The research project Lesson Study which provides teachers with peer observation activities and practice on reflection (Suryadi & Suratno, 2014) helps teachers to develop their awareness of thinking back and analyse their own practice. Teachers

learn about the connection between theories and application, how to apply certain strategies in different types of classrooms that lead to the recognition of students' characteristics to improve the lessons. With the help of their peers, teachers can create the environment of professional learning by sharing and discussing when certain situations happened.

Pupil voice

Zwozdiak-Myers (2012) suggested several strategies to gather the feedback from students such as the use of questionnaire, discussion, summary of the lesson and questions asking them to write their impressions of the lesson. Zwozdiak-Myers suggested that teachers should respond to students' feedback immediately to reveal their comments and identify certain points about the lesson that the teachers could improve.

3.5.6 Dimension 6: Try out new strategies and ideas

Teachers should be flexible to interpret the curriculum and connect it to the teaching practice to enable them to design the lesson plan that fulfils learning outcomes. Many factors which are contextual and situational also influence the teaching and learning process. The following sections describe five new strategies.

Active engagement techniques

Teachers should recognise a variety of techniques to actively engage students. There are number of principles in creating active engagement such as activating students' prior knowledge, challenge for students, cooperative students' group works and metacognition (Department for Education and Skills [DfES], 2004). Not only should teachers set up the groups or challenges but they should also create the activities that make students get used to think (metacognition), provide modes of representing information and scaffold deep learning. Some students learn easily by looking at diagrams, some with listening and some by physical activities or making models. Dweck (2000) differentiated two major students' orientation of motivation: learning and performance orientation. Performance-oriented students may give up easily if they find tasks difficult or gain low grades. On the other hand, learning-oriented students

are less influenced by grades and showed their creativity, curiosity and positive learning and attitudes.

Modelling

Modelling is considered as an effective strategy for challenging students to do new things because teachers can demonstrate how to do something and students can imitate to demonstrate the same process or understand certain topics that are discussed. Students will not just listen to the lesson but understand through thought and action when teaching is interactive and challenging (Loughran, 1996). Through modelling teachers can think aloud to show the skills, decisions and processes or procedures which are hidden, demonstrate to students and advise them to avoid failure in their learning process.

Questioning

Questions can be challenging as long as teachers ensure that communication with students is flexible and will not make students confused. Wragg and Brown (2001) classified the content of questions into three types: conceptual questions, empirical questions and value questions.

Conceptual questions are related to ideas, definitions and reasoning in relation to the subject matter being studied. Empirical questions require “answers based on facts or experimental findings” (p. 16). Value questions tend to investigate the relation between moral, environmental, worth and merit issues.

Questioning is effective when teachers can use it to engage students with the learning process by seeing their active responses to the lesson. Students’ response may be based on how teachers encourage students to give the right responses or answers. Muijs and Reynolds (2011) identified three approaches to help students answer the questions in an active and quick manner by giving them: verbal prompts, such as clues, reminders and tips; references to previous lessons; part of a sentence students to complete by students; gestural and physical expressions, such as pointing to an object, modelling a behaviour or guiding students through motor skills.

Explaining

Effective explanations encourage students to gain an understanding or visualise the conceptions of their knowledge. Students who understand the concept will process the information and express it with their own words. There are several categories of explanation that support students to understand the lesson (DfES, 2004; Wragg & Brown, 2001). Teachers should explain the purposes and objectives of a lesson, processes or procedures and skills (explaining how), cause and effect (explaining why), relationship (how one factor affects another time), concepts (often abstract), and attitudes and values (involving some personal judgement).

Small group work

The main purpose of small group work is to develop students' social skills (Zwozdiak-Myers, 2012) besides finding solutions to a problem. Small group discussions provide opportunities for students to see others' perspectives, develop empathy and respect for their peers in giving them, and listening to, arguments. There should be positive independence, face-to-face supportive interaction, individual and group accountability, interpersonal and small group skills and group processing skills (Johnson & Johnson, 1999).

It is important as well to group the students into different or heterogeneous groups based on students' ability. It will encourage students to gain explanation and knowledge more than less heterogeneous group work (Askew & William, 1995; Webb, 1991). Teachers still should consider certain factors as ability, behaviour, communication skills, gender, special education needs and disabilities, or social mix.

3.5.7 Dimension 7: Maximise the learning potential of all students

Constitution 1945 stated that Republic of Indonesia should organise education for all, and later in 2003, the Education Constitution was released (No. 20/2003) which is explained and defined more about the National Education System:

Pendidikan adalah usaha sadar dan terencana untuk mewujudkan suasana belajar dan proses pembelajaran agar peserta didik secara aktif

mengembangkan potensi dirinya untuk memiliki kekuatan spiritual keagamaan, pengendalian diri, kepribadian, kecerdasan, akhlak mulia, serta keterampilan yang diperlukan dirinya, masyarakat, bangsa dan negara [Education is a conscious and coordinated effort to create a learning atmosphere and processes that encourage learners to actively develop their self-potency for religiously spiritual strength, self-control, character, intelligence, good moral, and skills that are needed by learners, the society, nation, and country]. (p. 27)

This statement from 1st article of the Constitution No. 20 is supported by European Trade Union Committee of Education (ETUCE, 2008) that all children have an equal opportunity to learn and gain access to education based on “three practices of diversity in group, interactive instruction that appeals to a wide variety of learning styles, and an inclusive curriculum” (p. 58). Black and William (1998) reviewed the evidence of 250 studies on assessment and learning which highlighted the five factors that support learning improvement: providing effective feedback for students, involving students in their own learning, adjusting teaching to take account of the results of assessment, recognising the influence assessment has on students’ motivation and self-esteem, and considering students’ need to be able to assess themselves and how to improve.

Feedback is information that learners would receive about the accuracy of their verbal response and written work (Hattie & Timperley, 2007; Marzano, 2003). Its purpose is to see the gap between what students know and actual knowledge they should gain (Ramaprasad, 1983). It is important for teachers to give feedback to students’ work rather than focusing on marking and grading which only degrade them in improving their potential (Black & William, 1998). Feedback also offers a strategy to involve students in their own learning (Churchill et al. 2011) because it is to inform them of the whole learning process. Students would notice their own weaknesses and they would try to improve their work by learning more. The result of the feedback is also considered as reflection of teachers’ practice, which could guide them to fix or adjust their practice. Students should have their own clear goal to achieve their learning. The well-defined feedback on their work will make them more committed and raise their self-esteem. Teachers can discuss the feedback with students and give them suggestions about how to improve their learning. The techniques of how to give effective feedback is crucial and promote reflection to both teachers and their students.

There are two ways of feedback (Churchill et al. 2011, p. 420): formal written feedback and oral feedback. Written feedback is focused clearly on the important elements of the work including what is done well and what needs improvement. It offers students constructive advice to solve problems in their work, and provides follow-up discussions or questions that can occur if the students so desire. Oral feedback is interactive but needs to be focused, constructive and timely.

By considering all those aspects above, it is expected that students can maximise their potential based on the effective feedback provided by their teachers. Effective feedback should be immediate or given soon after a student's response, specific, provide corrective information for students and have a positive emotional tone (Brophy & Good, 1986; Moreno, 2004).

3.5.8 Dimension 8: Enhance the quality of your own teaching

How teachers transform their knowledge to meaningful learning experiences is very important to their quality teaching. Research conducted by Muijs and Reynold (2001) showed that effective teaching is not a matter of teachers' capacity in doing small numbers of big things but doing large numbers of small things very well. To enhance the teaching quality, teachers should have some perspective that lead to knowledge and skills improvement, such as international perspectives of quality teaching, growing impact of Information and Communication Technology (ICT) and reading various resources.

The international perspectives of quality teaching are the perspectives of practice that are not just about the quality of teaching but also about a good learning environment (Barber & Mourshed, 2007). The environment here means not only school environment provided but how teachers could create and design certain environments that support students' learning. Teachers should provide universal quality teaching that considers different students' abilities, attitudes, family and community backgrounds that are connected to contextual learning.

Today's society depends on ICT that dominates every aspect of everyday life. The Teacher Competence Standards document also states that teachers should utilize ICT both to communicate and to develop their professional skills and knowledge (p. 23). ICT is expected to be used in today's education, especially in the classroom as it is believed to be empowering (Robertson, Webb, & Fluck, 2007) in the learning process for both teachers and students. ICT will help teachers and students to understand concepts by using representations provided by technology, help teachers to teach content in constructive ways, provide teachers with knowledge in explaining certain concepts and help students to gain prior knowledge and theories (Mishra & Kohler, 2006, p. 1029). Reading various resources may connect teachers to ICT as well, since there are many online resources for teachers to support their teaching practices and improve their knowledge. Such reading can also enhance teachers' knowledge whether by hard copies or electronic copies, such as e-books or downloaded written resources.

3.5.9 Dimension 9: Continue to improve your own teaching

Becoming a teacher is a long process of development of knowledge for classroom teaching and transforming aspects of the curriculum. Further knowledge involves the awareness of global issues, living in diversity societies, issues of gender and sexuality, and the opportunity for learning through ICT. Teachers should have the opportunity for continuing professional development, especially to connect their experiences and theories from pre-service teacher education to in-service teacher education. Experienced teachers should keep up-to-date with new information in order to provide up-to-date topics for teaching students.

Rychen and Salganik (2003) proposed the framework of teachers' key to continue improve their teaching. First, teachers can use tools interactively by using the language, symbols and text interactively, using the knowledge and information interactively and using technology interactively. Second, teachers should interact in heterogeneous groups to relate well to others, cooperative, manage and resolve the conflicts. Third, teachers should involve in professional learning community to share visions and values, get team works collaboratively and cooperatively, encourage experimentation and opportunity and engage reflective activities. Fourth, teachers

should engage in continuing professional development within school, school networks, and other external expertise. Fifth, teachers should develop professional development portfolio such as a personal collection and selection of their works, reflection and self-evaluation containing a CV, lesson plans or units of work, professional development plans, feedback from colleagues, and so on.

3.6 Structures to promote reflection: reflective actions

Reflective actions refer to active, persistent and careful consideration of activity that lead to the support of the development of reflection habit (Dewey, 1933). Dewey highlighted the essential differentiation of routine action which is action guided predominantly by tradition especially external authority and circumstances and reflective action (Furlong & Maynard, 1995). Although Dewey did not claim that this is series of steps or procedures, researchers have focused on processes which encouraged teachers to develop better understanding of their teaching practice through their experiences (Loughran, 1996). Thair and Treagust (2003) indicated that the Indonesian government provided teachers with assistance in implementing new ideas or strategies for teaching in their classroom through professional developments. These teachers need to share and discuss ideas on how to solve problems as well when they applied new teaching strategies to their teaching. Teachers need maps or plans to do their reflection. Bartlett (1993) promoted the element of a cycle for the process of reflection adapted from McTaggart and Kemmis (1983) which involved actions or activities of reflection (see Figure 3.2). In mapping, Bartlett elaborated that it could consist of observations and the collection of evidence such as video-taping or tape-recording a lesson, and writing diaries or journals. Some researchers called these activities *guided reflection* which leads to the development in teacher practical knowledge that both mirrors and shapes practices (Korthagen, 2001; Loughran, 2002; Schön, 1987).

Informing refers to revisiting the records or the maps to be discussed or shared with colleagues to make meaning of them (Bartlett, 1993). The opportunity to share can offer possibilities of new perspectives or insights into teachers' minds. It can help teachers to resolve several problems, gain new understanding of concepts or strategies,

and of course, new knowledge. Teachers can learn from their own experiences and they can repeat the record as often as it is needed (Van Es & Sherin, 2002; Wang & Hartley, 2003). The next phase is contesting where the ideas should be embraced by teachers through sharing and discussing with their colleagues to achieve deeper understanding of the theories or concepts gained in mapping and informing phases. The appraisal phase is to link the dimensions of reflection with the teaching practice that is consistent with teachers' understanding. While the acting phase is to apply the reflection from previous phases to the real situation. As Freire (1972) proposed, reflection without action is verbalism.

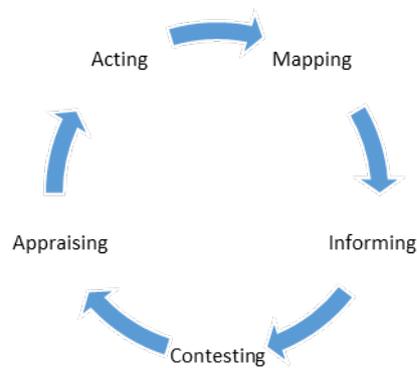


Figure 3.2 The element of a cycle for the process of reflection.

Reflective actions are based on three attitudes towards reflection: open-mindedness, whole-heartedness and responsibility (Dewey, 1933). Teachers should be open-minded to accept the weaknesses from their experiences. This gives alternative possibilities for teachers to improve their teaching practice by learning from the past events. To become open-minded, teachers need to have whole-heartedness that makes them determine to become better teachers and better in teaching practice. It is also important to develop teachers' intellectualization that leads to curiosity to seek new information to support their knowledge by reading or through other resources. The last attitude is responsibility that wraps up the previous attitudes of reflection. Responsibility is more like support for teachers to reach the "desire for new points of views and new ideas and of enthusiasm for and capacity for absorption in subject

matter” (p. 32). Therefore, there should be activities that guide teachers to develop their habit of thinking in a reflective way.

3.6.1 Written reflection/reflective journals

Reflection using written expressions has not been recognised in general among teachers in Indonesia. It is an alternative of developing the habit of reflection through experiences by capturing events, individuals, thoughts, feelings and values (Bolton, 2014). Some established that reflective writing is a key component of reflective practice and one of important aspects of learning through experiences (Jasper, 2005). In this study, the researcher tried to introduce reflective writing and utilize it as one of reflective actions to develop teachers’ reflective practice.

Bolton (2014) suggested that reflective practice is a state of mind, an ongoing attitude to life and work that can enable professionals to learn from experience about themselves, their work, the way they relate to home and work, significant others and wider society and culture, the way social and cultural structures are formed and control us. Bolton promoted writing reflective journals because reflective writing *is* the reflective process. It captures events, individuals, thoughts, feelings and values and also creates closer contact with emotions, thoughts and experiences. Teachers can find solutions to problems by reading their own journals to compare their situation to the same situation that occurs. Bolton suggested to teachers the Five Stages to start writing the reflection. Stage 1 is the six-minute writing when teachers can write whatever in their head without stopping at least for six minutes. Teachers should allow them to write without being critical or paying attention to spellings or proper formats. Stage 2 is writing the incident narrative story which is picked from teachers’ experiences that focus on particular occasions. Stage 3 is to read and respond when teachers reread their reflective writing with attention and open-mindedness involving their senses to add details to the writing. Stage 4 is sharing writing with a peer who responds and supports teachers to reflect on their experiences. It is suggested to seek the right person to share in order to get positive feedback and help teachers to improve their practice. Stage 5 is developing writing by giving the story a title, looking at the story from different perspectives, commenting the story, retelling or even rewriting the story in

different styles. If it is possible, teachers should continue writing the story to develop their skills in reflecting on their experiences.

Notes or written reflection is the simple way to reflect on teachers' everyday practice and it is an immediate record teachers can keep for future reference such as the conclusion of a lesson, students' results or things that happened during the lesson (Churcill et al, 2011). It is important to document what teachers thought about specific situations straightforwardly. Writing a journal is another way to stimulate teachers to continue to reflect on their practice. It is better if teachers write their own reflective journal as diary.

3.6.2 Videotapes

Technology is universal now that it is easy to record and use it for reflection. Using videotapes of actual teaching events and situations is assumed to offer teachers the opportunity to repeatedly observe teaching and learning in action until they get important clues to improve their future learning process (Levis, 1987; McCurry, 2000) and to examine and contrast their own ideas in context and from different perspectives (Putnam & Borko, 2000). Giving reflection after observation is sometimes not as effective as expected. Besides reflective conversations or discussion after observation, recording teachers' activities during the lesson could be an alternative way for teachers to improve their practice. Wang and Hartley (2003) reviewed three studies using video technologies on their effectiveness, effects, and influences on teachers' teaching development. Regarding these, the first researcher recorded the teaching of each of the teachers four times in order to have a sense of the natural style of their teaching practice. It was considered that teachers would be nervous in the first recording and did not teach naturally. At the second recording, teachers adjusted their practices and still considered the researcher's presence. They would get used to the situation in the third and the fourth recordings. Teachers were nervous and excited because it was a new experiences for most participants considering that they had never been recorded before. Using videotapes to reflect on their teaching practice would be their first-time experience as well.

3.6.3 Observations

Conducting classroom observations and giving feedback to teachers is useful (Gün, 2010, p. 127). But it is insufficient if the observers, mostly school supervisors, do not discuss with the teachers the feedback given to them. Although some give teachers a reflection sheet after the observation, still this is of no use to them. Reflective conversation is a good solution to interrogate teachers on their practice (Ghaye & Ghaye, 1998). As Bailey (as cited in Gün, 2010) suggested, reflection is essentially personal, therefore, teachers must reflect for themselves. And the role of the supervisors (or teacher trainers) should be to assist and promote the reflection process by providing input but refraining from taking over (p. 127). To give feedback without reflecting is insufficient as well (Brandt, 2008). Brandt believed that feedback and reflection should be integrated in reflective conversations and the supervisors or facilitators should give assistance to teachers to guide them to do their reflection.

3.6.4 Reflective conversations

Ghaye and Ghaye (1998) argued that reflective conversation is a medium or a form of discussion to enable teachers to learn and question their teaching practice from their experiences. Ghaye and Ghaye proposed several points about reflective conversation by elaborating the meaning of conversation and providing a focus on teachers' educational values. Reflective conversation is a special kind of discourse that takes the form of "conversation with self" (p. 20) but these conversations should be shared with others colleagues. It will open teachers' minds and construct their critical perspectives while commenting on others' experiences. Reflective conversations become a powerful agent of understanding 'self' as teachers recount not only what they observe in a given context, but also their emotions, feelings, ideas and thoughts as to future possibilities (Pollard 2002). Teachers share their experiences and discuss several issues that happened during their teaching practice. They reflect on their experiences and take notes to 'repair' or find solution of perplex situation occurred in teaching and learning process.

3.6.5 Professional development group

For being a teacher, there includes consideration as part of teacher practice to improve and refine teaching skills (Churchill, et al., 2011; Graham & Phelps, 2003; Palmer, 1998). Dewey (1933), in the first place, put this as an aim or conclusion of doing professional development activities, leading to a better application of thought and also goals to be reached. In this way, reflective practice becomes an important indicator of professional competence of teachers (Hatton & Smith, 1995; Zeichner & Liston, 1996; Cole & Knowles, 2000) and should be used for in-service education in Indonesia in relation to teacher standards. Teachers should document the ways in which they develop reflective thought to analyse and interpret problems happening in their teaching practice (Dewey, 1933). These documents can be their supporting document for their professional development in the future (Ministry of Agency Empowerment, 2009). Teachers will benefit from their reflection by having better teaching performance, meaningful teaching and learning processes and opportunities to improve their continued professional development (Scales et al., 2011).

Teacher workgroups become alternative for teachers to develop their knowledge and skills by sharing and discussing issues related to teaching and learning practice. As suggested in a guideline to form teacher workgroups (Department of National Education, 2008), there are two kinds of programmes which should be designed: routine and enhancement programmes. In routine programmes, the members may discuss learning problems, design lesson plans, analyse the curriculum or design learning evaluation. In the enhancement programmes, members may be involved in research, in a seminar or workshop, may write a scientific paper, and publish a journal publication, hold a training programme and design a website for the teacher workgroups (KKG/MGMP), take part in lesson studies and other activities that develop teachers' creativity and competitive thinking.

3.7 Summary

Teaching and learning are dynamic and teachers are encouraged to understand this dynamic process by learning and growing their knowledge and skills through reflection. Theories and application of practice have been discussed by experts and research on reflection is conducted as well to define the form of reflective practice which is suitable for teachers. Several models have been developed to interpret the attitudes of pre-service and in-service teachers regarding their understanding of reflection. These models of reflective practice encourage teachers to implement an ongoing cycle of their daily practice to provide more meaningful learning for students.

Reflective actions may become alternatives of doing reflective practice in Indonesia as there is no certain model of reflection provided by the government. Teacher workgroups are one of many alternatives but most teacher workgroups do not fully promote reflection. In promoting reflective actions, observations are the most common in conducting reflection by school supervisors and headmasters (senior teachers) but they hardly give effective feedback to students. Reflective conversation can be a good solution to share and discuss thoughts between school supervisors, headmasters (senior teachers), colleagues and teachers. To conduct reflection, teachers should have commitment which involves not only just thinking about what has been done but also taking an active role of a critic using their own professional knowledge to identify their strengths and needs. Doing the reflection is not easy, it needs courage to find the truth about their own practice, especially to break up the routine and ordinary habits and turn them into new perspectives of seeing things.

Chapter 4

Methodology

4.1 Introduction

This chapter presents the methodologies used in this case study designed to reveal teachers' understanding of their reflective practice and develop a model using reflective action through their experiences during the research. Methodologies are also used to find the relationships between the dimensions of reflective practice, the Teacher Competency Standards and applications among teacher practices. The chapter is divided into four general sections that include the scope of qualitative case study (Section 4.2), the research methods that are further divided into two phases of the study (Section 4.3) and a chapter overview that summarises this chapter (Section 4.4).

4.2 Qualitative case study research

An interpretive paradigm was chosen because the nature of the research fits with the study, enabling the researcher to construct insightful understandings of the participants' meaning perspectives based on their experiences (Taylor, 2014; Treagust, Won, & Duit, 2014). Interpretive research also differentiates the integration of the study within the study environment and supports the exploration of the meaning of events and phenomena from the subjects' perspectives (Merriam, 1988; Morrison, 2002). These understandings underpin teachers' and students' classroom interactions, the context of which was documented to generate practical knowledge of the complexity, context and dynamics of teaching and learning. Furthermore, the interpretive research methodology engages teachers as reflective practitioners in developing their understandings of their students ideally by asking certain questions in order to recognise their potential (Palmer, 1998).

Using a case study in educational research is not a new idea. When research studies only involve a small number of participants, a case study approach is time, energy and expense saving, but also does not reduce the essence of conducting a scholarly piece

of research. Stake (1978) explained that a case study forms a naturalistic generalization by recognizing the similarities of objects and issues in and out of context and by sensing the natural variations of happenings. Merriam (1998) proposed that a case study can provide an intensive and holistic description of the contextual situations of the phenomenon. In any case study, the researcher might conduct a pilot study to provide information about relevant questions for inquiry (Yin, 1994).

As the researcher in this case study is interested in developing a reflective practice model, a case study seeks the process (Johnson & Christensen, 2000) of teacher understanding of reflection in terms of teachers' personal improvement, teachers' knowledge of learners and students' self-efficacy. This study was also to investigate teachers' self-efficacy towards teaching and schools and how reflection would improve meaningful learning. Those procedures of doing reflection could become the research outcome which the researcher would use as a model of reflection for teachers as their professional development.

A qualitative case study depends on qualitative data collected from interviews, observations and documents (Merriam, 1988; Swanborn, 2010; Yin, 1994). The interview is a conversation with a purpose (Webb & Webb, 1975 p. 130) and an essential source of case study information (Yin, 2009 p. 106). It is necessary to reveal teachers' interpretation about things around them, in this case, their reflections on their experiences. Teachers expressed their experiences as the past events that are possible to replicate and unconsciously reflect on their own past teaching practice. Observations mostly focus on human behaviour (Swanborn, 2010). The observer will notice things that have become routine to the participants that may lead to an understanding of the context (Merriam, 1988 p. 88). During an interpretive approach, the research observations can help the researcher to understand the participants in a certain context while the participants recognise their own experiences to be interpreted to others and themselves. Recorded observations give opportunities to participants to repeatedly observe their own teaching and learning in action (McCurry, 2000) and to examine and contrast their own ideas in context and from different perspectives (Putnam & Borko, 2000).

Documents in a case study provide supportive aspects to complete or understand fully the interpretation of the data collected. Here, the researcher in this study collected teachers' lesson plans and diaries (reflective journals) to complete the data corpus, and later, the analysis.

4.3 Methods

In this study, the researcher designed two phases of the research: Phase 1 was an initial or pilot study and Phase 2 was the main study. The pilot study was conducted to gain a general picture of teachers' understanding of reflection and how the reflective practice was applied. The researcher also tried to see the feasibility of Zwozdiak-Myers' (2012) framework of reflective practice being applied to investigate teachers' understanding of reflection. The results from Phase 1 would be applied in conducting Phase 2 as well but in a more in-depth way because the main study focused on certain components of the dimensions of the framework relating to the TCS and would answer the research questions. The experts suggested a variety of methods to promote teachers' reflections, which were documented in several types of research, such as journal writing (Bolton, 2014; Spalding & Wilson, 2002) and analysis of videotaped lessons (Wang & Hartley, 2003). As the researcher developed the model of reflective practice, in Phase 2, the data collection methods, which are considered as reflective actions, were used: interviews/reflective conversations, direct observations/recorded classroom observations and documentation such as lesson plans and reflective journals/diaries (Merriam, 1988; Swanborn, 2010; Yin, 1994). Reflective actions are a way to develop the habit of reflection (Cruickshank et al., 1981) and support teachers' understanding of the nature of reflection that are in-depth reviews of events (Bolton, 2014).

Table 4.1 Data collection methods

Data	Phase 1	Phase 2
1. Interviews/reflective conversations	The framework of RP (the nine Dimensions of RP) (Zwozdiak-Myers, 2012)	Focused dimensions of RP framework (Zwozdiak-Myers, 2012).
2. Classroom observations	Recorded	Recorded and participants were reflected on videotapes using Teacher Performance Assessment forms (Wang & Hartley, 2003).
3. Documentation	Lesson plans and other documents (students' diaries) (Yin, 2009)	Lesson plans and other document (teachers' reflective writing/ journals) (Bolton, 2014; Yin, 2009).

4.3.1 Phase 1: Pilot/Initial study

In this initial study, the researcher tried to capture the general picture of the teachers' application of reflective practice. Three secondary teachers from an urban city in Indonesia were observed. The main criteria for this study were convenience, access and geographic proximity (Yin, 2009, p. 93). Bandung City is the capital city of West Java Province and access to schools and teachers is not as difficult as in other districts. The information collected in the pilot study was used to help the researcher develop an initial perception of reflective teaching practice in Indonesia.

Participants' selection

The participants' selection was based on the purposive sampling method which is to specify the characteristics of a population of interest (Johnson & Christensen, 2000). In Phase 1, the researcher intentionally selected different types of teachers with certain characteristics but at the same level who teach secondary/junior high schools (Years 7–9). The teachers were selected based on their teaching experience, their involvement in teacher workgroups and the subjects they were teaching. The first participating teacher was a mathematics teacher, and researcher used T1 to call this teacher in Phase 1. The researcher selected the school because it is located near the third participant's school which made it easier for her to arrange the time to conduct the interviews with

and make the classroom observations of both the teachers. The researcher did not know either the principal or the teacher. When the principal appointed a certain mathematics teacher to be a participant in the study, the researcher asked for another teacher to participate because she knew that the principal would select a good teacher for observations and interviews. T1 was not actively engaged in any organization at that time but still helped organise the school in the role of a deputy principal. He taught Year 9 at that time and did not use a variety of teaching strategies because his students would be preparing for the *Ujian Nasional* (National Test) so that they needed to do exercises and reviews of mathematics problems.

The second participating teacher was a science teacher, T2, in the school which is a middle level secondary school (there are three levels of schools in Bandung City: favourite, middle and average schools). The researcher knew the principal and she appointed T2 to be observed and interviewed. Teacher 2 was not too actively involved in any organization outside the school but was very engaged with school management as one of the deputies especially in the curriculum area. She liked to try new teaching strategies and discussed those with her colleagues. She was deemed to be a good teacher but had less opportunities to attend professional development events.

The third teacher was an English teacher, T3, who was involved actively in teacher organizations such as teacher workgroups and was up-to-date with many of the new issues concerning teaching and learning strategies. The researcher knew T3 in the first place and asked her to participate in the research. She was a teacher in one of the favourite public schools in Bandung and should have had more opportunities to attend various professional development. She was also known as the speaker in certain events of teacher workgroups and helped organise the school management.

The three participating teachers had in common that they were senior teachers (more than 10 years of experience) and vice-principals in their schools (an Indonesian secondary school has four deputies or vice-principals to help principals in managing their schools). Though it was not arranged, it was a coincidence that the results characterised the participants into three types of teachers who could be classified in terms of the typology of reflective practice (Jay & Johnson, 2002, Larrivee, 2004). The typology divides teachers into three types: descriptive, comparative and critical reflection. These results are discussed later in Chapter 8 (see Section 8.3).

Observations

Observations are designed to obtain information by concentrating on certain events, behaviours or persons (Merriam, 1988). As Wang and Hartley (2003) suggested, teacher observations were to be held four times to get teachers' natural impressions of their practice for achieving their effectiveness, and have an effect and influence on teachers' teaching development. These authors suggested that it is better to avoid the nervousness of teachers that may be evident at the first and second observations and to observe their teaching naturally only at the third and fourth observations with recordings. This is also a tool to match teachers' performance with what they said in the interview about reflection practice.

Interviews

The interview protocol/guideline, taken from the framework of reflective practice by Zwozdiak-Myers (2012), was used to get a general picture of the teachers' reflection of practice. The framework is designed to capture the nine dimensions of reflective practice that can reveal teachers' capacity and commitment in improving their own teaching (p. 4). The nine dimensions became the guidelines of the interview in this study and the researcher led the interviewees to reflective conversations (Ghaye & Ghaye, 1998) as a medium to invite teachers to learn from their teaching experiences (p. 19). The researcher tried to reveal teachers' experiences and those that teachers would recall by informing what they had done in the past teaching and would think about those as learning experiences.

Interview guidelines

1. Do you sometimes study your own teaching for personal improvement? When was the last time you did this? How did you go about doing it?
2. How do you evaluate your own teaching?
3. Do you try to link theories of teaching and learning with your own teaching practice? How?
4. Do you sometimes question your personal theories and beliefs about your teaching practice? In what way?
5. Do you sometimes consider alternative perspectives and possibilities in your teaching practice? In what way?
6. Do you sometimes try out new strategies and ideas? Can you give me an example?
7. Do you try to maximise the learning potential of all your students? In what way? What are the main barriers to doing this?
8. How do you enhance the quality of your own teaching?
9. How do you continue to improve your own teaching?

Source: Zwozdiak-Myer (2012)

Figure 4.1 Interview guidelines in Phase 1

In accordance the interview guidelines, teachers could develop their own answers as the interview in Phase 1 was open-ended and less structured to grasp teachers' unique responses. The purpose of the interview is to access the perspective of teachers about past events that are impossible to replicate (Merriam, 1988, p. 72). Researchers could invite teachers to expose their feelings or the situations and to appraise events that have already happened and combine them with the observations during the research to achieve the suitable findings for the study.

Lesson plans and other documents

Merriam (1988) considered lesson plans and other probes (students' diaries) as documents (p. 104) of written material that can provide supportive data in case study research. Documents include personal documents which refer to the individuals' written text of the whole or part of their reflections on a specific event or topic (Taylor & Bogdan, 1984). Documents also provide the researcher in gaining supporting information to develop an understanding of the teachers' perspectives and discover insights relevant to the situation that happened in their teaching practice. The researcher reads and analyses these documents and finds the relevance between them

and the teachers' practice. Students' or teacher's diaries are also considered as teacher's means to improve their skills in teaching.

4.3.2 Phase 2: Main study

In the main study, eight teachers—from the small urban area from Cimahi which is a developing urban area near the capital city of West Java Province—were involved. Different with Phase 1, the criteria in choosing the school were convenience, access and geographic proximity (Yin, 2009). The information from Phase 1 helped the researcher in focusing on certain areas of the framework of reflective practice. The dimensions chosen from the framework were based on the research objectives and answered the research questions of the study. The research activities in Phase 2 were based on reflective actions (Dewey, 1933, Zeichner & Liston, 1996) to develop a reflective model for Indonesian teachers in the future. The actions are reflective conversations, observations and writing reflective journals.

Participants' selection

The participants' selection was based on the convenience sampling method depending on teachers' willingness to volunteer as participants in the research (Johnson & Christensen, 2000) (see Appendix A). There were eight teachers of secondary school who were involved in the study (see Table 4.2): two civics teachers, one social science teacher, one science teacher, one mathematics teacher, one English teacher, one art teacher and one music teacher. There were no certain characteristics or criteria of the selection except for the practical constraint of the participants being at the same school. Four teachers were newcomers (just moved to the school around 1-2 years from other schools) but they were all experienced teachers who had been teaching for more than 10 years. It was interesting that the participants came from different educational backgrounds; this means that in the end, the results of the study may be generalised into a typology of reflective practice. Different to Phase 1, the results in Phase 2 would be compared to the Teacher Competency Standards to seek the consistency of reflective practice in Indonesia.

Table 4.2 The Participants

No	Teachers & Gender	Subject taught	Teaching Experiences
1	DA/Male	Music	30 years
2	DI/Female	Science	16 years
3	EN/Female	Civics	27 years
4	NE/Female	Social science	16 years
5	NI/Female	Art	27 years
6	NU/Female	Mathematics	18 years
7	PO/Female	English	20 years
8	SI/Female	Civics	17 years

Observations

As in Phase 1, the observations were held four times to gain the teachers' natural impressions of their practice and these observations were video-recorded (Wang & Hartley, 2003). The observation is aimed to provide a tool or media for teachers to use in their reflections on in supporting their reflective practice. In the first and second observations, teachers would be aware of the researcher's presence in the classroom and perhaps had unnatural behaviours in their teaching. The researcher put herself as a non-participant observer that maintained the setting as natural as possible and did not get involved in arranging teaching and learning process (Sarantakos, 1998). In this phase, after the observations the participants were asked to reflect on and evaluate video recordings of their own teaching as part of reflective actions. They were given forms taken from Teacher Performance Assessment/TPA (Ministry of National Education, 2010) as the guidelines for reflecting on their video-recorded classroom observations. Usually these forms are used by assessors every time teachers are supervised and their teaching monitored but there is usually no feedback after the supervision. The checklist covers the suitability of their lesson plans, the teachers' performance, the teachers' activities on opening and closing the lesson, teachers' variations in teaching and learning, teachers' ability in questioning and the teachers' ability in strengthening the lesson. The researcher made adjustments to the forms and included spaces for the teachers' comments or reflections towards their own teaching practices. The observations were held over 90 minutes that is equal to two periods of learning (see Table 4.3).

Table 4.3 Teacher Performance Assessment Form: teacher performance

No	Teacher' performance	Ob1	Ob2	Ob3	Ob4	Comment/ feedback
1.	Ability in opening the lesson a. Attract students' attention b. Give initial motivation c. Give apperception (connect previous topic) d. Share learning objectives e. Give material					
2.	Attitudes/behaviour a. Clear articulation b. Body movements/gestures do not distract students' attention c. Show enthusiastic d. Mobility in giving the lesson					
3.	Mastering the topic a. Lesson plan based b. Topic clearness c. Giving examples d. Have broad knowledge on the topic					
4.	Teaching and learning process a. Use appropriate method with the topic b. Objectives/indicators based c. Ability in responding and answering students' reaction/questions d. Have proper time based					
5.	Teaching and learning media usage a. Use media usage principles b. Use appropriate media with the topic c. Have ability in using media d. Increase students' attention in learning activities					
6.	Evaluation a. Relevant with objectives b. Various evaluation/assessment c. Lesson plan based					
7.	Ability in closing the lesson a. Review the topic b. Give opportunities to students to ask/question and answer c. Give conclusion					
8.	Follow-up a. Give exercise/home work to students both individual or/and group b. Give information of topic for the next meeting/lesson c. Give students motivation to have learning spirit					

Source: *Pedoman Penilaian Kinerja Guru* (2010)

The participant teachers were requested to provide comments on their own practice against the checklist in the form. They could also comment on aspects on the form that they felt were not correct or needed some improvement on the strategies, attitudes or performances in general (Tables 6.1, 6.3, 6.5, 6.7, 6.9, 6.11, 6.13 and 6.15).

Reflective conversations

In Phase 2, the interviews were called reflective conversations and the protocol focused on certain dimensions of the framework and interrogated teachers about their experiences, understanding, thinking and what they felt about certain issues and their expectations related to their reflections. As described above, Zwozdiak-Myers (2012) promoted the framework of key features of reflective practice containing nine dimensions, but this main research only focused on six dimensions that are related to the research questions. As shown in Table 4.4, those dimensions are:

- (1) study your own teaching for personal improvement—this dimension covered self-study, reflection in and on action;
- (2) evaluate your own teaching—this dimension covered action research for improving personal practice and students' test result;
- (3) link theory with your own practice—this dimension covered knowledge of learners and their characteristics;
- (4) question your personal theories and beliefs—this dimension covered teaching self-efficacy, disciplinary self-efficacy and efficacy to create a positive school climate;
- (5) try out new strategies and ideas (Zwozdiak-Myers' Dimension 6)—this dimension covered active engagement technique; and
- (6) maximising the learning potential of all your students (Zwozdiak-Myers' Dimension 7)—this dimension covered giving effective feedback for students, providing the learning, assessment and motivation for students to improve themselves.

Table 4.4 Relationship of research questions, dimensions and Teacher Competency Standards

No.	Research questions	Dimensions	Teacher Competency Standards
1.	What is teachers' understanding of reflection/reflective practice?	1: Study your own teaching for personal improvement	23: Teacher should develop continuing professional development through reflective practice
		2: Evaluate your own teaching	10: Teachers should do reflective practice to improve teaching learning quality
		3: Link theory with your practice	1: Teacher should understand children characteristics (physical, moral, social and cultural background, emotional and intellectual
2.	To what extent is teachers' self-efficacy towards reflective practice utilising reflective actions in terms of teaching self-efficacy and efficacy to create a positive school climate?	4: Questions your personal theories and beliefs	
3.	How does reflective practice improve teachers' teaching practice to have meaningful learning using reflective actions in terms of trying out new strategies and ideas and maximising learning potential of students?	6: try out new strategies and ideas	2: Teacher should master learning theories and principles
		7: Maximise the learning potential of all your students	
4.	What is a suitable model of reflection for teachers in Indonesia?		

The researcher considered that these selected dimensions could answer the research questions, with a focus on teachers' reflection in research context which was integrated with the Teacher Competency Standards in Indonesia as the basic of their understanding of reflective practice. The researcher analysed participants' knowledge and their understanding of the Teacher Competency Standards (TCS) especially about

their reflections that were mentioned about pedagogy skills and professional practice. This information about their understanding was valuable in developing the reflective practice model at the end of the study.

As in the Phase 1, the interviews included open-ended questions and revealed teachers' understanding of the TCS and reflection. The interviews were semi-structured allowing flexibility so that the researcher could develop questions to seek information based on participants' conditions and, of course, the research questions (Sarantakos, 1998). The interview also exposed teachers' experiences about their teaching practices so the interview was essentially considered to be a reflective conversation (Ghaye & Ghaye, 1998). The conversation focused on participants' practice and they could recall events that were special and specific and which impressed them resulting in their own feelings about these events. The interviews were held three times for each teacher. The first conversation in the interviews was the initial close contact between the researcher and the participants. The second conversation was held after the recorded observations and that the participants had reviewed their videos. The third conversation was the closing conversation to gain general conclusion of teachers' understanding of the reflective activities and reveal their expectations for the future. The transcripts of the complete conversations can be found in Appendix B.

Reflective Conversation 1

1. How long have you been teaching here?
2. How do you improve your practice?
3. How do you evaluate your practice?
4. What is your understanding about reflection?
5. How do you understand your students' characters?
6. Do you share ideas with other teachers?
7. How do you motivate students to do the work well?
8. Do you apply certain strategies?
9. Do you give feedback to students' works?
10. How do you feel about this conversation?

Reflective Conversation 2

1. Do you think that you have applied teacher standards?
2. How do you analyse your practice?
3. What do you think about your practice?
4. How about your classroom management?
5. How about the strategies?
6. Do you think that you recognise your students' characters?
7. Do you give attention to special students?
8. How do you motivate students who do not have talent?
9. Do you give feedback to students' works?
10. Do you think reflection is important?

Reflective Conversation 3

1. How do you feel about this activity?
2. What do you think about your videos?
3. What are the benefits of these activities to you?
4. How do you understand reflection now?
5. What activities support your reflection?
6. What will you do after this activity?
7. Do you feel more confident?
8. Which part do you think that you need to improve?

Figure 4.2 Reflective conversation guidelines in Phase 2

Reflective journals/writings

A reflective journal is an alternative way to engage teachers with their past experiences. For example, a diary can be a reflective journal which has several purposes such as to record critical incidents (Robson, 2002), personal thoughts, views, perceptions and feelings about specific issues, topics, areas of interest, as well as to reflect upon these issues. Since the writings were intended only for the study, there were no reactive effects (Robson, 2002) from the participants such as commitment, the way they wrote (content and flow of the storyline), and time submission. In this phase, teachers were introduced to write their own story based on their experiences. Reflective journals recorded teachers' experiences, thoughts and feelings about their practices (Bolton, 2014, p. 158). The researcher invited teachers to practise their

writing by using the five stages of writing (explained in Chapter 3, see Section 3.6.1) and they wrote four journals as part of the data collection (see Appendix C). The researcher adopted the method of assessing reflective journal writing by Plack, Driscoll, Blisset, McKenna and Plack (2004) which was combined with Boud and Walker's (1985), Schön's (1987), and Mezirow's (1990) models and theories.

There are two levels of the checklist for reflective journals: element of reflection and level of reflection (see Table 4.5). Element of reflection emphasizes time, content and stage of reflection, whereas the level of reflection focuses on the type of participants which are further divided into 3 sublevels: non-reflector, reflector and critical reflector.

Table 4.5 Checklist for reflective journals

Level 1	Element of reflection	Brief definition
Time	Reflection-in-action	Occurs while in the midst of an action; on the spot decision
	Reflection-on-action	Occurs after the action has been completed
	Reflection-for-action	Occurs before being faced with the situation; begins to plan for the future
Content	Content	Explores the experience from a number of perspectives (beyond description)
	Process	Describes the strategies used or available
	Premise	Recognizes and explores own assumptions, values, beliefs and biases
Stage	Returns to experience	Describes the experience
	Attends of feelings	Acknowledges and begins to work with feelings
	Re-evaluates	Reappraises the situation versus past experience
Level 2	Level of reflection	
Journal	Non-reflection	No evidence of reflection is present
	Reflection	Evidence of reflection is present
	Critical reflection	Evidence of critical reflection is present

Adopted from Plack et al. (2004)

Lesson plan

The lesson plan is one of other documentation that is important to the study. It is a document that includes information of what was planned to occur in the classroom (Frudden, 1984) and a good resource for reflection (see Appendix D). The researcher used it as triangulation to find the consistency of teachers' practice and their plans in classroom activities. The responses of the participants varied when the researcher asked them for their lesson plans; to the researcher's surprise, one of the participants did not submit his lesson plan and offered a weak excuse.

4.4 Quality Standards

Trustworthiness and authenticity

In accordance with the interpretive nature of research, trustworthiness and authenticity are important for evaluating this research to get the truth values of how things really are and really work (Guba & Lincoln, 1989). Trustworthiness helped the researcher understand the meaning-perspectives of teachers as participants in this study (Taylor, 2014). Via reflective conversations, the researcher could gain the teachers' perspectives as to the trustworthiness of the research which is credible (through member checking), transferability (by means of thick description of the transcripts) and dependability (consistency of the data) (Guba & Lincoln, 1989). Authenticity, on the other hand, strengthens researcher's relationship with teachers (Taylor, 2014) in order to get their holistic understandings and perspectives. The relationship also made the participants feel comfortable such that they could express freely both in conversations and observations.

Triangulation

The multiple sources of data or methods were gained to confirm the emerging findings (Merriam, 1988) and triangulation is needed in this research to obtain consistency of teachers' meaning-perspectives (Taylor, 2014). In this study, the researcher used two main sources of data, reflective conversations and observations, and intended to find the consistency of the results (Patton, 2002). Other sources of data were lesson plans and reflective journals that supported the triangulation process.

Table 4.6 Strategies in gaining quality standard

Strategy	Description
Researcher as detective	Researcher created her understanding by comprehend the data and dag the information from participants
Triangulation	Cross-checking information and conclusions through the use of multiple sources.
Data triangulation	Using multiple data sources to help understand the phenomenon
Theory triangulation	Using multiple theories and perspectives to help interpret and explain the data
Participants' feedback	The feedback and discussion of the researcher with the actual participants
Peer review	Discussing researcher's interpretation and conclusion with other, e.g., supervisor and colleagues
Reflexivity	Involving self-awareness and self-reflection which may affect research process and conclusions
Pattern matching	Predicting a series of results that form a pattern and may fit the research result to the predicted pattern.

Adopted from: Johnson and Christensen (2000)

4.5 Summary

This study was designed to investigate a sample of Indonesian teachers' understandings and perspectives of reflection on their teaching. The researcher used representations (Miles & Huberman, 1994) of reflective practice framework to analyse the data and gain the information of teachers' application of reflective practice in Indonesia. Two important sources were reflective conversations and observations and other sources were also used to triangulate the data, including peer reviews and videotapes to get the fit interpretations and conclusions. Feedback from the participants was also collected to get their impression of the research activities and information on how their actions could improve their knowledge and benefit from it. The procedures of collecting data in this research also allowed the researcher to consider reflective actions that at the end of this study the data corpus would be developed into a model for teachers' reflective practice in Indonesia.

Chapter 5

Phase 1 - Initial Study

5.1 Overview

This chapter focuses on the elaboration of teachers' interviews and observations based on the data in relation to the research context in Phase 1. This phase is a pilot study or initial study where the framework of reflective practice was exposed to gain the general application of reflective practice in Indonesian context. The individual case studies are presented to display and portray a holistic perspective of the three teachers in this phase (Sections 5.2.1, 5.2.2 and 5.2.3). The chapter is completed by the results and findings (Section 5.3), and finally, a summary (Section 5.4). This chapter provides responses to research question 1 (see Sections 5.4.1), research questions 2 (5.4.2) and research question 3 (Section 5.4.3).

5.2 Individual Case Studies

The three individual case studies that follow have been constructed from individual interviews, four videotaped lessons, additional documents such as lesson plans and journals and from the researcher's viewpoints. In this phase, teachers were exposed to their reflection experiences especially through interviews by using nine dimensions of reflective practice described by Zwozdiak-Myers (2012). These dimensions helped the researcher to gain a general condition of teachers' reflective practice from secondary teachers. Yin (1994) proposed that "a pilot case can be much broader and less focused than the ultimate data collection plan" (p. 9). Loughran (1996) also proposed a certain format in presenting the individual case study adopted from Malcolm (1994) that inspired the writing of this study but the researcher did not fully take the same format and avoided teachers' names by using T1, T2 and T3. The unique characteristics of each teacher influenced the application of reflection.

5.2.1 Teacher 1: the mathematics teacher

Teacher 1 (T1) had been teaching for 18 years (1995-1998 in a district around 50 km southern from province capital, and then in Bandung, province capital city at the time of this study) and his background was mathematics. He was one of the vice-principals in the school (Indonesian secondary schools commonly have four vice-principals) and the last teacher activity in which he was involved was the Lesson Study programme a couple of years ago. He was one of the facilitators in the programme, but unfortunately, when the programme was completed, there was no continuity of the activities.

Dimension 1: Study their own teaching for personal improvement.

I always evaluate my own teaching by thinking back based on my lesson plan and teacher book. I do this after I give a lesson. I review my teaching procedures from lesson plans and books. (Interview with T1; 22.01.2014)

T1 expressed his self-evaluation by thinking back and looking back at his lesson plan and teacher book/text book. He was doing reflection on action as he expressed that he reflected after the lesson as Zwozdiak-Myers (2012) proposed that "reflection on action involves looking back on an action some time after the event has taken place" (p. 39). He reviewed his teaching procedures and asked himself what had gone wrong during the lesson, and why students did not understand the problems. Naturally, T1 followed the cycle of experiential learning (Kolb, 1984) that he had a concrete experience then reflected on the experience by reviewing his teaching procedures. And he would adjust his teaching in the later lesson based on his reviewed lesson plan. In answering the questions, it can be inferred that he improved his personal skills just by reflecting on his teaching practice. During the observations, he demonstrated reflection in action as it could be seen that he adjusted the lesson based on students' request of certain topics about which they wanted to learn more.

Dimension 2: Systematically evaluate their own teaching through classroom research procedures

I evaluate my own teaching by looking at my students' understanding. If my students can do three problems, I believe that they've already understood and I can deliver the lesson successfully. I sometimes discuss with other teachers especially Year 8 teachers to confirm [the successfulness of] the lesson. (Interview with T1; 22.01.2014)

Zwozdiak-Myers (2012) focused this second dimension on classroom action research which is a difficult activity to do for teachers in Indonesia. T1 had not conducted his classroom action research yet before this study with the excuse of being too time consuming in his daily teaching activities and his responsibility as a vice-principal. He preferred to intensely discuss how to deliver the lesson with his colleagues. This means that he did not conduct any action research, either formally or just for improving his personal practice.

T1 expressed in the interview that he was used to be being observed when he was in the Lesson Study programme a couple of years ago but not in the everyday routine practice. As a vice-principal, he was also used to conducting classroom observations in supervision programmes at school. He also stated that once he used a questionnaire to gain students' impressions on his teaching. This questionnaire was purportedly used to evaluate his teaching practice but there was no evidence of his practice from the results of the questionnaire. Mostly, he just evaluated students' understanding of certain mathematics problems (as he expressed in the interview and commented on his recorded observation) to see the 'successfulness' of his practice. Students' test results were the main data to evaluate his practice and he would modify his lesson plan or strategy based on these results. He would discuss as well with his colleagues, especially Year 8 mathematics teachers, to confirm students' knowledge after their previous lessons he taught in that year.

Dimension 3: Link theory with your own practice

The theory I try to apply is the same wherever I teach. What I feel different or difficult is assessment because sometimes I have to improve students' results (by giving them extra tasks or homework). There is also different treatment when I taught in small

cities, Sumedang, and Bandung. In Sumedang, I investigated students' background about what they had learned in their primary school to find out they really could read, then I could teach them maths. But in Bandung, I have to pay attention to the strategies and methods because I know that they all can read, I just plan my lesson. (Interview with T1; 22.01.2014)

This dimension was based on the knowledge base for teaching that should be applied by the teachers. T1 demonstrated that he could deliver his lesson well on teaching *fractions* and *exponentials*, meaning that he the substantive and syntactic (Schwab as cited in Zwozdiak-Myers, 2012), or the basic, concept and the methods of the subject matter. As he inferred in his answer to the interview question on this dimension, theory of mathematics is just the same and what is different is the students' ability. Unfortunately, he did not show the various learning activities in the observations because he thought that Year 9 students needed only exercises to prepare for the national examination. He rarely used alternative curriculum materials such as alternative texts, multimedia technologies and visual materials to support him in delivering his lesson. He just used traditional strategies, such as explaining and reminding students of certain formulas, asking students to come forward to solve a problem, checking students' work and giving them homework. However, it should be considered that he had knowledge of learners and their characteristics because it seemed that he recognised students' names and their needs, and he also facilitated them to practise as much as they can to improve their skills in solving problems. Again, T1's purpose of teaching was on how to make students pass their tests; and he hardly created any learning environment that involved students in workgroups or developed their other social skills.

Dimension 4: Question your personal theories and beliefs

I sometimes questions about personal theories and beliefs but I never discuss them with others because I have not met the expert yet. When there is training, it is also just a review, so I never ask about it. I just try to apply some learning theories (e.g., Piaget). (Interview with T1; 22.01.2014)

In T1's answer, he inferred that the personal theories and beliefs were about the strategies or procedures of teaching. He just related certain theories with his application of them to his practice and he did not discuss the issue with the expert as well. Whereas Dimension 4 is focused on the efficacy of teacher to influence decision making, discipline students, involve parents, involve community, and create school climate, the researcher observed his disciplinary self-efficacy during his lesson but he did not mention others' efficacy during the interview. The researcher believed that he influenced decision making in the school because he was a vice-principal.

Dimension 5: Consider alternative perspectives and possibilities

I tried to do something different when I taught statistics. I gave students projects to go outside the class/real world to count how many people using bikes, for example. I do that depending on what topic that I should give. Another strategy or new idea is to ask students to bring cards or big dices to teach them probability. (Interview with T1; 22.01.2014)

This dimension is focused on *professional learning conversation, mentoring, peer observation and pupil voice*. T1 inferred that in considering alternative perspectives and possibilities in teaching, he tried to use another strategy such as a project and use cards or dices for teaching certain topics. However, he discussed with his colleagues (as he stated in the interview) which is considered as professional learning conversation even though he did not demonstrate other aspects of Dimension 5.

Dimension 6: Try out new strategies and ideas

Once I sent students to the town council to make a diagram about the town population. They had to discuss and present it and it worked! (Interview with T1; 22.01.2014)

T1 demonstrated the active engagement technique that is to give challenges for students, created cooperative group works and supported modes of representing information (expressed in his interview). He was also modelling with the students on how to solve certain problems before asking them to do the exercise (during the

observations). Unfortunately, he showed less action on supporting students to question issues, did not explain the lesson objectives before starting the lesson and during the lesson he did not group the students.

Dimension 7: Maximise the learning potential of all students

I think that to maximise student's learning potential is not possible because I do not want to force my students. As long as they can do the exercise and understand it, I think it's enough. Time is a main barrier for me because to improve students' potential cannot be done inside the classroom, should be more time to do it. (Interview with T1; 22.01.2014)

In maximising the learning potential of his students, during observation T1 provided feedback (but not to all the students) by checking their works. He actually involved students in their own learning such as the project or something else (as he answered the interview question for the previous dimension) but just once in a while (inconsistent). He mentioned that he adjusted the assessment or modified lesson plan but did not demonstrate nor mention that he created a task or project to motivate and influence students' self-esteem. He mentioned in the interview that he used strategies and methods of teaching and learning to let students improve themselves. He was thinking that it was impossible to force students to do something. For example, just inviting students to solve a problem in front of the whole class made several students lose self-confidence. T1 also thought that to improve students' learning potential is time consuming because this should be done outside the classroom after the school while his students were having tutorials to prepare for the national examination.

Dimension 8: Enhance the quality of your own teaching

I think is hard for me. I always, let me say, enhance my knowledge. I share information with friends, browse the Internet, join teacher workgroups. I joined Lesson Study; I was one of the facilitators. Once a year, I give students questionnaire to find out students' opinion about my teaching practice. Then I know the way I teach them, what they want. (Interview with T1; 22.01.2014)

Dimension 8 is focused on effective teaching research, international perspectives of quality teaching, growing impact of ICT and reading various resources. As the researcher observed, T1 did not conduct the research and compare his teaching with others. During the observations, he did not use certain technology but explained on the whiteboard/blackboard only. He implied that he seldom opened the Internet, browsed and read some books.

Dimension 9: Continue to improve your own teaching

The way I continues improving my own teaching is by sharing with friends, browsing the Internet. (Interview with T1; 22.01.2014)

T1 answer shown above is about Dimension 8, whereas this dimension is focused on the use of tools interactively, teacher interaction in heterogeneous groups and professional learning community, continuity of professional development and the portfolio. T1 was involved in teacher workgroup (professional learning community) but did not explain more about other professional development groups or activities. The important thing is that he would continue sharing with friends and find various resources through the Internet.

5.2.2 Teacher 2: The science teacher

Teacher 2 (T2) had teaching experience for 18 years (3 years as beginner teacher in a district about 247 km south of Bandung, then in Bandung at the time of this study) and her background is was biology. She was one of the vice-principals especially responsible for academic area. She was a young passionate teacher and had good organization experience; that was why she became a vice-principal. When she was attending a training programme for facilitators, she recognised reflection as one of the activities at the end of the day and she thought reflection was important to do when finishing every lesson.

Dimension 1: Study their own teaching for personal improvement.

It is important for me for the next teaching and learning activities to be better understood by my students. Then I modify my strategies for the next classes. I do this at least once a week based on the lesson material. If the material is quite difficult, I will give students pictures/visual representations (e.g., syaraf [nerve system]). I also will share with other science teachers how to deliver the lesson for students to easily understand. (Interview with T2; 24.01.2014)

T2 believed that reflection was important for her future practice. She related it to students' understanding, meaning that science was an important subject for her students. She reviewed and modified her lessons on a regular basis, once a week, and would share and discuss certain topics with her colleagues. The reflection in and on action could be seen when she spontaneously expressed that the question from one of her students was good and she would ask other students the same question in other classrooms.

As for other teachers, T2 naturally demonstrated to them the cycle of experiential learning (Kolb, 1984) that she had a concrete experience, and then she reflected on the experience by reviewing her teaching procedures, and then she would adjust her teaching in the later lesson based on her modified lesson plan. She also used demonstration in explaining the lesson in order to be clear, showed pictures through *PowerPoint* or asked students to find their own understanding before the lesson. From her answers to the interview questions, it can be inferred that she improved her personal skills by deeply reviewing and discussing with her colleagues her strategy, method or contextual learning in her lesson to make students understand.

Dimension 2: Systematically evaluate their own teaching through classroom research procedures

I just told you that's how I evaluate my own teaching. I evaluate my own teaching by reviewing my lesson plan, revise my methods or strategies, and adjust them with students' characteristics in each class. I also think whether I speak too fast or not when I deliver my lesson. (Interview with T2; 24.01.2014)

Action research is not a way to evaluate T2's own teaching practice while this dimension is focused on this. Like T1, T2 had not conducted her classroom action research either, for the same reasons. Nonetheless, she intensely discussed how to deliver the lesson with other science teachers and shared information about her strategy or method on certain topics that did not work. She would also ask her colleagues to share their experiences in teaching the topics.

T2 conveyed in the interview that she asked her colleagues to observe her lessons and take notes to show her weaknesses. She recognised students' characteristics in the classrooms and understood how to handle them as seen in the video recordings. She delivered the materials in an interesting way with language usage that was clear for the students' age group. Like most teachers, she used students' test results as the main data to evaluate her practice.

Dimension 3: Link theory with your own practice

I link them little by little because I also have to review whether I have applied my theory in the right way or not. I like to use demonstration and experiment to improve students' understanding, especially of an abstract subject. I have to think deeply on concepts, not only to apply to practice my knowledge I have gained in my master study. (Interview with T2; 24.01.2014)

When T2 was first appointed as the vice-principal, she had to teach subjects other than science and this made it difficult for her to apply to her practice theory of teaching she had according to her knowledge base of teachers and there was no one she could ask because the school was in a remote area and there was a lack of teachers. T2 admitted that she critically thought about teaching and learning after she had finished her master degree. She began to think deeply and found that her strategy or method was not everything she needed in her teaching but the way she posed questions to students could make them think critically and answer the questions in a proper way. As a science teacher, she understood the basic concepts and the methods to teach the subject matter. She demonstrated various learning activities in the observations, although she only taught Year 9. Although the researcher did not see her use of alternative

curriculum materials such as alternative texts, multimedia technologies and visual materials, she used teaching and learning aids to make the lesson clear and understandable. She related the lesson with real-life situations and the benefits of knowing the matters. She demonstrated strong intention and focused on students' different characteristics. The important thing that was shown by T2 was that she intended to influence students through science lessons and make them change in a positive way, especially their perspectives about the future of their real life.

Dimension 4: Question your personal theories and beliefs

Sometimes, I questioned about my personal theories and beliefs especially the benefit of my knowledge and teaching practice whether students can gain benefits, practical, advantages of my lesson material. And of course my ability, that's why I seldom invite my colleagues to observe my teaching practice in order to judge my ability in teaching. I really want to know how my teaching practice is. I asked them to take pictures of or record it, the part which they think is my weaknesses. I find that I explain too fast. I often invite my colleagues to my class especially if there is a special programme on teachers' collaboration but recently there are no such activities. My own colleagues here do not have time to do that, moreover, they do not like to be observed by other teachers. But I, I'm confident and believe that I can deliver my lesson well to students. (Interview with T2; 24.01.2014)

From T2's answer, it can be inferred that she had understanding that this dimension is about the way she a teacher delivers the lessons and whether they are understandable to students or not. She also tried to involve other science teachers to be in collaboration with her but it was not easy to ask them if there was no specific programme for them. She had intention to create collegial environment to improve teachers' skills. It is obvious for her answer to the first aspects of this dimension that she got involved in school decision because she was a vice-principal. As seen in the observations, she taught self-efficacy to her students because she motivated them, gave them challenge, reminded them about previous lessons and made them to work well together. She also made students' to follow classroom rules and create positive environment by giving enjoyable lessons, making students trust her, and increasing the collaboration between

other teachers and staff. Unfortunately, she did not demonstrate or state that she had enlisted parental and community involvement in school activities.

Dimension 5: Consider alternative perspectives and possibilities

I sometimes consider alternatives based on students' characteristics by changing strategies or methods in delivering my lesson. I found that each class has its own characteristics. So, I cannot apply the same methods or strategies for classes that I teach. Sometimes just in one class I can apply various strategies because of various students' characteristics. (Interview with T2; 24.01.2014)

T2 mentioned one aspect of this dimension that she had mentioned in the previous dimension that she tried to invite her colleagues to make peer observation of her teaching and this became a habit. She also had mentioned before that she often discussed the subject matter with other science teachers in *professional learning conversations*. Unfortunately, the teacher workgroup (MGMP) of the science teachers was inactive in this city so that professional learning conversation in a broader way did not work well. She mentioned a lot about *pupil voice* as her focus in this dimension. She also mentioned that she considered any alternative perspectives and possibilities in teaching for the sake of helping her students to understand the lessons; this was also seen by the researcher in the observations that she used various strategies and methods. Unfortunately, she did not state anything about *mentoring*.

Dimension 6: Try out new strategies and ideas

I like to try new strategies and ideas when I demonstrated about magnets. I came to the class without talking, just asked students to move the nails to a glass without touching the water. One class could easily do what I asked right away with magnet because some students have read the book about the subject. But other classes did not read the lesson before and could not do that. This situation made me confused how to continue the lesson. Also when I tried to demonstrate about heat by asking students to bring propeller and it turned out to 'fail' because the propeller did not move. From my experience, I can tell my colleagues not to try that because it was not a good idea

to use that demonstration. They can use other strategies or methods. (Interview with T2; 24.01.2014)

According to T2's answer, she tried new strategies and ideas several times in order to encourage students' involvement and their critical thinking. Unfortunately the strategies were not always successful and she shared the experience with other science teachers. By using the demonstration, T2 had tried the modelling, questioning and explaining as the aspects of Dimension 6. She always grouped the students to small group work to discuss and solve the problem during her lessons. These were evident as shown in the observations as well meaning that she fulfilled the requirements of Dimension 6.

Dimension 7: Maximise the learning potential of all students

Once I tried to maximise the students' potential by letting students present the lesson with PowerPoint presentation last semester. It was a surprise because I found that students could do good presentations. But there is a barrier; I cannot do this in every lesson and it depends on materials. Students' conditions also varied based on the materials. Sometimes, I ask fast-learner students to help their friends in explaining the materials. My lesson plan also can change while I am teaching certain lessons. It's because of students' conditions that make me change the strategies or methods. It should be a contextual or real life-based lesson that is easy for students to understand. (Interview with T2; 24.01.2014)

As shown in the observations, T2 used to give feedback while students were doing exercises in her lessons. She encouraged her students to think critically by questioning certain issues. She inferred that she tried to let students to present their own understanding of certain lessons using *PowerPoint* as involvement in their own learning and she found that students could make good presentations by using pictures/videos relating to the topics. She used to adjust her teaching based on the results of assessment by modifying her lesson plan (the researcher reviewed her lesson plan) and recognise students' potential or condition by changing the strategies all the time. The above data showed that T2 considered students' needs to be able to assess themselves and how to improve.

Dimension 8: Enhance the quality of your own teaching

I read a lot about strategies and methods, and then I can review my lesson plan for the lesson to be clearly explained. I designed my lesson plan with demonstration or experiment in the first semester because in the second semester students focus on exercises to prepare for the national exam. For myself, I would like if I am assigned to attend seminars or other teacher professional development activities. I can meet other teachers and share experiences, and also gain new knowledge. (Interview with T2; 24.01.2014)

T2 implied that she was reading various resources to enhance her quality of her teaching as the aspect of this dimension. She had not conducted action research yet and had no connection to international perspectives of quality teaching (except her participation in the Lesson Study programme) but she expressed in the interview that sometimes she taught using *PowerPoint* and encouraged her students to use ICT as well (as required in the previous dimension). Her strategies to design as many experiments as she could in the first semester of Year 9 because in the second semester she would focus on exercises to prepare for the national examination. Besides reading various resources, she sometimes attended seminars or other teacher professional development activities assigned by the school principal. She could share and gain knowledge in those events.

Dimension 9: Continue to improve your own teaching

I continued to improve my teaching by exploring my own teaching, by practising first what I will give as experiments in the classrooms, and also by following teacher workgroups to share experiences and solve problems in teaching practice. In the teacher workgroup (MGMP), I am also involved actively but it's not too effective because I meet science teachers from other schools only once a month. And this year, there are no certain activities in MGMP. In this school, actually if there are problems, we can share every day with my colleagues. (Interview with T2; 24.01.2014)

T2 inferred that she would continue to interact with other teachers in the teacher workgroups (MGMP) and share with her colleagues at school but this depended on the condition of the professional organization in the city. By exploring her teaching, the researcher had the sense that she would use tools in various experiments in the future as seen in the observations. She did not state that she would continue her professional development by networking or whether or not she had her own portfolio.

5.2.3 Teacher 3: the English teacher

Teacher 3 (T3) was a senior teacher who had experience of teaching for 26 years (4 years as a beginner teacher in a district about 271 km south of Bandung, then in Bandung at the time of this study) and her background was English. She was one of the school vice-principals and also was involved in education environment and had a role to create a clean environment in her school. She had to make students maintain and love the environment. These were quite tiring activities because she had to train teachers first as models for the students. She had to promote environmental awareness to parents, teachers and students. She thought that it was most difficult for teachers to become models to make environment clean. If the teachers have this awareness, students will follow their teachers. T3 liked teaching very much and tried to have much interaction with her students.

Dimension 1: Study their own teaching for personal improvement.

The last time is when I studied English and technology. I always feel excited, eager to take any kind of training especially to improve my skills in teaching and learning. It is not about English, but ICT too because it will support me as a teacher. (Interview with T3; 20.01.2014)

T3 understood that to study for her own teaching and personal improvement was to improve her skills from reflecting on her own teaching. She believed that it was important to always upgrade her ability of knowledge such as learning English and technology. By learning new things, she would support herself in delivering the lesson. Moreover, as conveyed in the interview, she always asked her students to write a

journal or diary after her lesson. She demonstrated the reflection by reading students' journals and gave comments or feedback on their journals. Automatically, she performed reflection in and on action and naturally demonstrated the cycle of experiential learning (Kolb, 1984); like other teachers, she had a concrete experience, then reflected on her experience by reviewing her teaching procedures through journals, and then would adjust her teaching in the later lessons based on modifying her lesson plan.

Dimension 2: Systematically evaluate their own teaching through classroom research procedures

I evaluate by journals. I ask my students to have journals, to write about their activity in classroom with me, to write their comments, suggestions and impressions. At the first time, some students were surprised/shocked when they met me because they never have met a teacher like me who asked them to do such activities. They thought it is a new activity or new kind of teaching. One or two students have no confidence in writing journals. But, I will know from their expressions if they feel uncomfortable. Then I will ask them why they feel that way. I always motivate my students that English is important. Even though they have low scores, I told them that it doesn't matter because the activity is to prepare their life in the future (high schools even university life) and that English can be very helpful/important in their academic environment. (Interview with T3; 20.01.2014)

T3 evaluated her teaching through students' journals although she conducted classroom action research a couple of times. She believed that using the journals or diaries was the effective way for her to reflect on and evaluate her teaching. She began to ask students to write their journals in 2004 because the headmaster of her school was assigned by the government to take part in a pilot study of the project for competency-based curriculum at that time, which included journals as one of the assessment tools. T3 realised that writing journal was easy for her students and it would train/develop their writing habit and their responsibility. Students have more responsibility because they have to pay attention to their teacher and master the material in order to report it in their journals. Writing journals also disciplines students because they have to write journals after the lesson and submit them. If they do not do

it, they will forget the material. In fact, students who continuously write their journals have several benefits in the future such as participation in debate contests, international activities and even student exchange programmes. T3 admitted that she could gain benefits for herself by using students' journals. It changed her attitudes especially her way of communication with her students and her own children at home. Most students would write honestly about her teaching and attitudes. For example, T3 spoke too fast, students did not understand the lessons and they were afraid if T3 was angry (see Appendix E). Then, T3 changed the way she communicated with her students, controlled her temper in teaching and communicated a lot with English native speakers to improve her speaking skills.

I conducted classroom action research and it was on methods (how to motivate students' confidence in English) and Think Quest (online community for teachers and students to do collaborative learning and also introduce international atmosphere into the classroom). Frankly speaking, my motivation in doing action research was to fulfil one of requirements of the Teacher of the Year at that time. Besides that, I thought that as a teacher assessment or evaluation in this action research is a very important activity to do by all teachers.

I always invite my headmaster to observe my teaching practice. Then, when my headmaster was invited by other schools, he would show my pictures when I was teaching and introduce new methods and strategies to others. Many teachers come to see me to ask about new methods and strategies and how to apply them. This makes me feel more creative to develop other new things in my teaching practice. (Interview with T3; 20.01.2014)

T3 conducted action research formally to upgrade her teacher levelling and to improve her personal practice as well. She thought that conducting action research is very important to improve teachers' analytical skills besides the formal reasons. T3 used to invite her school principal and other teachers (including the previous headmaster) to observe her teaching. As she was actively involved in the teacher workgroup (MGMP), she became one of the English facilitators in Bandung City and shared her experiences in applying new teaching strategies and methods. Like most teachers, she used students' test results as the main data to evaluate her practice.

Dimension 3: Link theory with your own practice

Yes, I link the theory with my own practice such as creative writing. I think some students do not know that they have imagination. I am a member of The British Council's Teaching English network, and I also develop my writing skills such as writing a scientific paper and presented it in an English conference (TEFLIN). Through these activities I found out many theories that can be applied to teaching my students such as creative writing and pair work. I found out that this can enlarge or dig students' imagination. I apply it to teaching in my class and it is quite fun activities because students can express their thinking. It is surprising to me because students have weird thinking and they should express those thinking by writing them out. I also apply pair work. I have two books about pair work and I told my friend (an English lecturer in Universitas Jember) to apply it to teaching his undergraduate students and it works. (Interview with T3; 20.01.2014)

T3 demonstrated that she understood the basic concept and methods of the subject matter. When she gained new knowledge of teaching strategies and methods, she would design her lesson plan and tried to apply the new knowledge. She also demonstrated various learning activities such as pair work or group work, retell or create story, and question and answer, as seen in the observations. She could influenced or inspired her colleagues to use certain methods of teaching. T3 related the lesson to real-life situations or the understanding of the benefits of the lesson and had a strong intention and focus on students' characteristics by reading their journals and gave them assistance in and outside the classroom. The researcher noticed that she prepared strategies, methods, and programmes and projects in teaching and learning activities using her knowledge of educational goals. T3 also used alternative curriculum materials such as alternative texts, multimedia technologies and visual materials because she understood that school settings, such as the curriculum, support for learning, school leadership and management, would improve education. The important thing that was shown by T3 is that she tried to develop students' skills for their future.

Dimension 4: Question your personal theories and beliefs

I always question my personal theories and beliefs. This first came to my thought when I invited Susan (a scholarship student from Hawaii who studied in Sekolah Tinggi Seni Tari [Dance Academy in Bandung] and was actually an English teacher in America) to teach my students in 1998. I sat and observed how Susan taught my students. Many burning questions came up to my mind, such as that teaching has many things to do. It is not only teaching English but also how to encourage and attract students to study and pay attention to the materials, to make the learning situation easy for students. From that time onward, I have always learned the techniques, and methods, then combine them with my own techniques and revise them all the time in my teaching. Students think English is easy although the topic is quite difficult (e.g., relative pronouns). I just want to create the lesson plan that's not difficult for students to understand the topic. I always look up information on the Internet; ask my friends, and read teacher training modules to enrich my methods and strategies. It works and makes me more creative. (Interview with T3; 20.01.2014)

T3's perspectives on this dimension were focused on how she developed her critical thinking on her beliefs of her teaching practice. As a vice-principal and senior teacher, T3 had influence in the school's decision making and could express freely about important matters. She asked students to write journals in order to increase their ability and remember the lesson as an aspect of this dimension. As seen in the observations, T3 motivated students to enjoy doing schoolwork and got students to work together without being choosy. Like most teachers, T3 got children to follow classroom rules such as reminding them about the rubbish inside the classroom and to control disruptive, and prevent problematic, behaviour. T3 conveyed in the interview that she was eager to strengthen her efficacy by questioning and finding the way to improve it. She learned and took students' perspectives while someone took over her classes. T3 found out that teaching is not only about delivering the lesson but also about encouraging, motivating and attracting students to gain curiosity of the lesson. She then made students feel that they did not have any difficulties and enjoy learning in her lessons.

I also invited parents to introduce their jobs to encourage students to have their own dream job and the project called My Dream Projects. I developed a particular lesson plan for this and it had six series of activities: brainstorming (introduce ordinary jobs, but sometimes it comes up with jobs that are still rare, e.g., in 1998, a student came up with a script writer that was still rare at that time), introduce about dreams through 'I have a dream' song (it is listening skills), invite parents (announcer, policeman, teacher, banker, etc. It's quiet hard because parents should talk in English but they all support the project and very proud to be part of it). Some parents would learn English again to deliver and explain their jobs. I have done this project since 1996 after I attended Contextual Teaching and Learning training as part of Modelling. (Interview with T3; 20.01.2014)

T3 demonstrated efficacy to enlist parental involvement by inviting them to support her lesson programme and be part of it. Most parents felt comfortable coming to school and encouraged her to keep the programme. This led her to create a positive school environment where students enjoy coming to school, trust their teachers, and believe that they do well in their schoolwork. T3 also demonstrated good teacher-teacher and teacher-staff relationships. The outstanding activity was that she invited English native speakers to work with her students, invited students from other countries (who were gaining experiences in Indonesia) to communicate in English with her students and got online learning connections with overseas schools (e.g., a school in Adelaide) for her students to gain international perspectives.

Dimension 5: Consider alternative perspectives and possibilities

My school is a big school and located in a big city that creates an intellectual community, especially of people with my students' family background. It is a very big potential to improve students' motivation and invite parents' support of their kids in the teaching and learning process. And I think that good teaching and learning in the future will be beneficial not only for my students but also for me because some of my students today will become teachers or government officers for my grandchildren who will be comfortable in learning and living in the future. In the future, the young generation will be better than us. Moreover, it is now the 21st century when technology is an important tool in every aspect including education. Teachers should

use technology in teaching and learning in the globalization era and government supports teachers to use it. But, of the 50 teachers who were invited to ICT training, I was the only one who had already been using technology in the classroom. So, I work hard to teach other teachers and persuade the local authority government to hold training on ICT in order to involve students to compete for and achieve in international workplace in the future. (Interview with T3; 20.01.2014)

T3 demonstrated the growing self-direction by realizing that her teaching will shape her students in the future. She understood that parents' support together with good teaching and learning would develop better generation in the future and it would impact her children and next of kin to be a better generation as well. There should be a harmonious relationship between fellow professional learners and specialists by using resources effectively. T3 also supported her colleagues in mastering ICT, became their critical friend and without her notice, she was coaching reflective practice in her school. As a teacher who considered alternative perspectives, T3 was determined to become an agent of change. As she mentioned before, she seldom invited her peers to observe her teaching and shared with other teachers about certain subjects and programmes. T3 made use of *pupil voice*, that is, her students' journals or diaries, and she tried to adjust or change several important issues based on their writing.

Dimension 6: Try out new strategies and ideas

... creative writing...

... invite parents to talk about their jobs...

... invite [English] native speakers...

... online learning through Skype with teacher overseas..

... presenting in TEFLIN...

... learn ICT...

... Webinar...

(Interview with T3; 20.01.2014)

T3 conveyed in the interview that she always tried out new strategies and ideas. She demonstrated active engagement technique to activate prior knowledge, gave challenges to students (and herself), created cooperative group work, activated students' and her metacognition, presented various modes of representing information, scaffolded students and conducted activities for deep and surface learning. T3 also constructed modelling about tasks and what students would learn by informing them about learning objectives in the beginning of lessons. Therefore, her students understood what they were learning and they were also encouraged to think about the tasks and enabled to learn from others. T3 demonstrated questioning based on facts and was concerned with ideas and values/moral and environmental issues. She often grouped her students to work cooperatively and understand each other as friends and a team.

Dimension 7: Maximise the learning potential of all students

All my activities in teaching practice are to maximise learning potential for my students. But the barrier is students' motivation because there are many distractors like gadgets, joining club or courses after school and these make it difficult for me to do projects after school hours (or on Sundays) like in 2007. Education system is also a barrier because parents want their children to gain good scores in the national examination that's why they put their children in many courses outside school. Now, I have to choose students who are willing and supported by their parents to involve in a project with Pakistan. This project demands students to work after school. Long time ago, I did not have to choose, all my students were willing to involve in a project. And without my assistance, they would do their work and send it to me. But now I have to supervise them. Instead of doing the work, they will play games, chat or watch movies. It's different now. I realize that communication (speaking, writing, mastering technology/ICT and cross-cultural understanding) is one of 21st century skills so that I always find activities to optimize their potential. (Interview with T3; 20.01.2014)

As T3 explained before about her teaching activities, she expressed that several issues became her barriers in maximising students' potential. Previously, T3 mentioned (and gave proof) that she always gave effective feedback to students both directly and indirectly via journals. T3 gave tasks or projects outside the classroom to involve

students in their own learning and she modified her lesson plan as well to adjust the lesson. By creating the projects for students she was aware that this would influence students' self-esteem and improve themselves. T3 explained further in answering the interview questions on this dimension that the barrier she faced recently was about the education system and technology outside the teaching and learning process, such as gadgets and the Internet. Most parents were likely to send their children to a tutorial class outside school after school hours to drill their children in preparing for the national examination.

Dimension 8: Enhance the quality of your own teaching

I enhance it by attending training and reading. When I said training, I mean it's not only face to face. I do online training (webinar), and hang out with teachers from other countries. (Interview with T3; 20.01.2014)

T3 expressed that she would enhance the quality of her teaching mostly by attending training programmes and also reading various resources. In fulfilling the aspects of this dimension, T3 had mentioned activities or programmes that improved her teaching quality such as conducting action research, inviting English native speakers to teach her students and organizing long distance teaching and learning using *Skype*, networking with other schools overseas to gain international perspectives of quality teaching, using the growing impact of ICT, and reading various resources.

Dimension 9: Continue to improve your own teaching

I read a lot, and join organizations (teacher organizations) to become an agent of change. So that I have to change my attitude, mind and spirit to change my surroundings. I read books and journals. I have to find other communities to increase my motivation to become better. (Interview with T3; 20.01.2014)

T3 inferred that she would continue improving her teaching as she had done recently by using the Internet interactively (*Skype*, online training: *Webinar* and *Oracle*), interacting in heterogeneous groups (MGMP, British Council, and English native speakers), involving in professional learning community (a presenter and member of

TEFLIN), continuing professional development (networking and inviting other experts) and organizing professional development portfolio.

5.3 Results and findings

This chapter explores three teachers’ understanding of reflection as the starting point of the main research which is explained more in Phase 2 in Chapter 6. The data showed mostly about teachers’ reflective practice in their context and the researcher found the barrier that was related to the culture of answering interview questions in Indonesian context (see Tables 5.1 to 5.9). From teachers’ perspectives, an interview is a question-and-answer activity which needs correct answers, whereas an interview in this research was an inter-change of views between two persons conversing about a certain topic of mutual interest (Kvale & Brinkmann, 2009). The researcher tried to expose teachers to and let them recall their experiences, that is, what they did to reflect on and improve their practice. There were no incorrect answers but the expected replies were sometimes unfitted for the researcher’s intention.

The observations gave the researcher information about teachers’ reflective practice by crosschecking between teacher participants implication in the interview and their actions in teaching and learning process. The findings below are based on the interview and the observation on the four lessons.

5.3.1 Dimension 1

Table 5.1 Dimension 1

Study your own teaching for personal improvement		Interview			Observation		
		T1	T2	T3	T1	T2	T3
a	Self-study (reflection)	x	x	x			x
b	Reflection-in-action (knowing-in-action)		x	x		x	x
c	Reflection-on-action (knowing-in-action after practice)	x	x	x		x	x
d	Cycle of experiential learning (concrete experience–reflective observation–abstract conceptualization–active experimentation)	x	x	x		x	x

a. Self-study (reflection)

In the interviews, teachers expressed that they were all doing reflection as T1 and T2 implied that they used to think deeply about their teaching experience after the lessons and making sense of the practice (Ghaye, 1996). T2 emphasized that reflection was important for her future practice because it related to students' understanding and referred to the importance of the subject (science) for her students in the future (Brookfield, 1995) and so did T3 that the essential of the her lesson was that her students could gain benefits of their learning for the next generation. This thought gives direction, purpose and meaning to teachers' pedagogic actions and lives (Brookfield, 1995, p. 43). T3 demonstrated that she was doing reflection by asking students to write about their learning experience after the lesson as diaries/journals. According to Zwozdiak-Myers (2012), this aspect (a) of Dimension 1 refers to mode of thought (Dewey, 1933) that involves five phases or states of thinking: problem, suggestions, reasoning, hypothesis and testing. In the interviews, the three teachers expressed that they followed the phases: find certain problem—think about several ideas to solve it—review and develop the idea which is closer to solve the problem – plan the procedures to execute the idea/modify the lesson plan—action/test the plan. The phases were considered to be naturally applied by the teachers because they admitted that they would modify the lesson if they found problems (as seen in their lesson plans, and some modifications were made, especially by T2 and T3).

b. Reflection-in-action (knowing-in-action)

T2 and T3 demonstrated reflection-in-action during the observations and mentioned in the interview. It is an intuitive action (Schön, 1987) when T2 and T3 revealed problems then they elaborated their skills to solve the problems. T2 showed a good example of reflection-in-action when one of her students asked her an important question that she had never thought before. She improved her skills of questioning later in different class/students about the same topic. Reflection-in-action also relates to students' characteristics as in Indonesia teachers who come to different classroom in the same level (e.g., there are usually 5 Year 7 classes). They had to change or use different approaches based on students' characteristics in different classes.

c. Reflection-on-action (knowing-in-action after practice)

The three teachers admitted to reflect on action, that is, looking back on action some time after the lesson has taken place (Schön, 1987). They inferred to recapture their experience, think about it, mull it over and evaluate it (Boud, Keogh, & Walker, 1985). They associated the experience or problem with their knowledge, integrated it by seeking relationship or making sense of the problem and their knowledge, validated it by reviewing their lesson plans and then made new insights as the information for future teaching.

d. Cycle of experiential learning (concrete experience—reflective observation—abstract conceptualization—active experimentation).

Kolb (1984) developed the cycle as the process which knowledge is created through the transformation of experiences (p. 41). The three teachers implied that they were experiencing, reflecting, thinking and experimenting as in the cycle of experiential learning. This cycle allowed them to improve their knowledge of teaching and be better in the next teaching and learning action. The way participant teachers experienced the cycle was related to their learning style as Mainemelis, Kolb, and Boyatzis (2002) identified a balancing learning style which integrates those four aspects in the cycle. The researcher assumed that T3’s learning style is the integration of the cycle aspects because she demonstrated strong indication of balancing learning style, whereas T2 indicated less of integrating the aspects (an aspect of Dimension 1). T1 demonstrated the least of integrating the learning style as the researcher did not observe any of the aspects of this dimension during the observations (see Table 5.1).

5.3.2 Dimension 2

Table 5.2 Dimension 2

Evaluate your own teaching		Interview			Observation		
		T1	T2	T3	T1	T2	T3
a	(Classroom) Action research (formal)			x			D
b	Action research for improving personal practice			x			
c	Being observed by others		x	x			
d	Surveys (e.g., questionnaire, journals/diaries)	x		x			x
e	Students’ test results	x	x	x	D	D	D

D: document/probes

There are three aspects that the researcher elaborates from the original one: aspects c, d and e and these were raised in the interview. The researcher thought that these aspects are part of evaluation of teachers' teaching commonly applied in Indonesian context.

a. Action research (formal)

The researcher divided action research into two types in terms of its purposes in Indonesian context. First, action research is conducted formally as it is compulsory for achieving certain rank or level of teacher position. As seen in the Table 5.2, only T3 conducted action research for the formal purpose. The reason T1 and T2 did not conduct action research was because they thought that doing action research is time consuming and the perception of most teachers was that it is difficult to do classroom action research (explained in Chapter 2). The other purpose of doing action research is to appreciate and critique teachers' own practice (Eisner, 1998). T3 intended to pin down her understanding of the linkage of her practice and her knowledge by doing action research, that is, the use of ICT in her teaching practice.

b. Action research for improving personal practice

The second type of action research is to improve personal practice. Again, T3 demonstrated the aspect well that she also had the purpose to improve her skills besides the formal reasons. By doing action research, T3 tried to reflect on and evaluate her effects on certain actions (Zwozdiak-Myers, 2012, p. 53). T1 and T2 preferred to modify their lesson plans to sort out the teaching problems than conducting action research.

c. Being observed by others

The interview data indicated that T2 and T3 seldom invited colleagues to observe their teaching process. T1 implied that he had been observed only in the Lesson Study programme, whereas T2 and T3 just asked their colleagues to come and evaluate their teaching on a daily basis. T2, in reflective context, wanted her colleagues to encourage her to have self-reflection and self-awareness about her own teaching (Cosh, 1999). She welcomed the feedback of her colleagues and she would be more confident in teaching the subject. While T3 had another intention besides reflection, she was happy

to share her knowledge and she would demonstrate her practice and become the teaching model. Some teachers would adopt her strategies.

d. Surveys (questionnaire and journals)

T1 mentioned in the interview that he once used the questionnaire and gave it to his students to evaluate his teaching practice. Unfortunately, there was no useful evidence and he did not do that again until the time of this study. T2 did not use any instrument to evaluate or reflect on her teaching besides what she implied in her answer for the first dimension. T3 always took benefit of her students' journals/diaries as her instrument to evaluate and reflect on her teaching practice. As shown in the observations, at the end of the lesson she always asked students not to forget to write their journals/diaries. She showed the evidence as well and gave her students feedback on their diaries.

e. Students' test results

This is teachers' most common tool for evaluating their teaching as reflection on their practice. Unfortunately, it is only related to students' test results but not to the value of the lesson itself. As shown in the interview, T1 fully depended on students' results for evaluating his teaching and he thought that if his students' scores were low, it meant that he failed to deliver the lesson well. So he always tried to drill his students to solve minimally three problems in every lesson. T2 focused on her students' understanding and she thought to change the strategy if her students' scores were not as high as she expected. T3 thought students' test results were about the way students understood the lesson that was why she did not depend fully on these. She kept students' diaries as her main reflection instrument.

5.3.3 Dimension 3

a. Content knowledge

As seen in Table 5.3, T1, T2 and T3 mastered the subject as their educational background fitted the subjects they taught. They understood the basic concepts and principles of the discipline so that they could give explanations including the judgement of the validity or invalidity of the discipline (Schwab, 1978).

Table 5.3 Dimension 3

Link theory with your own practice		Interview			Observation		
		T1	T2	T3	T1	T2	T3
a	Content knowledge	x	x	x	x	x	x
b	General pedagogical knowledge	x	x	x		x	x
c	Curriculum knowledge		x	x		x	x
d	Pedagogical content knowledge	x	x	x		x	x
e	Knowledge of learners and their characteristics	x	x	x	x	x	x
f	Knowledge of educational ends			x		x	x
g	Knowledge of educational contexts			x		x	x

b. General pedagogical knowledge

The three participant teachers remarked that they used their own strategies to deliver the lessons. The researcher found out in classroom observations that T1 did not use various strategies in explaining the mathematics problems. All the strategies of T1 were the same, whereas T2 and T3 demonstrated that they had a variety of strategies in every different classroom. This variation of teaching strategies can lead to meaningful learning for students, be more suitable for students with different age and background and make the lessons easier to understand (Shulman, 1986).

c. Curriculum knowledge

T2 and T3 demonstrated their understanding of the whole programme (instruction, alternative text, software, visual material, etc.) by relating materials to real life and explaining the benefits of the lessons to students (Shulman, 1986 p. 10). T1's teaching did not involve the whole programme and it seemed that he only used the same strategy in every class.

d. Pedagogical content knowledge

As illustrated in the interviews the three participants had various perceptions about pedagogical content knowledge. But in the observations, only T1 was not demonstrating various strategies of delivering his lesson. T2 and T3 showed that they really understood the subject matter by giving various strategies through demonstrations, exemplars, analogies, explanations, illustrations, images and metaphors in order to make the topics easy to understand (Shulman, 1986). These

strategies were to avoid students' misconceptions of the subject matter taught in the lesson.

e. Knowledge of learners and their characteristics

The participant teachers demonstrated that they recognised their students' characteristics so that they could help their students to understand by planning the lessons that fit with their age and their cognitive development. They personalised their learning (Zwozdiak-Myers, 2012) based on students' tendency characteristics in certain classrooms. T2 and T3 also demonstrated that they adjusted the way they explained and asked questions in different classrooms. Because T1 did not show the various teaching procedures, as the researcher observed, the way that he treated his students in his teaching was convenient to them.

f. Knowledge of educational ends

T3 strongly demonstrated that she understood the aims and purposes of her lessons for students. Revealed in her interview, she thought beyond the future that her lessons would be having benefits for her students for their better life; and not only they but also her children and grandchildren would gain benefits from better life of this generation. T3 also tried to shape students' values through everyday habitual activities such as writing journals/diaries, reminding students to maintain the environment. T2 stated in the interview that she intended to make her students think critically and understand the lesson well to apply their learning in their daily lives and she delivered the lesson well in the classrooms during the observations. The researcher believes that T1 also had the same intention but he did not demonstrate this in both his interview and during the observations.

g. Knowledge of educational context

Again, T3 understood well the educational context in supporting the teaching and learning environment. It can be seen from her interview and observations that she paid attention to the characteristics and culture of social communities, such as the size of the class, grouping students, parents' involvement, school/education policies, school leadership and management, pupil voice and overall ethos and visions of the school and so on (Zwozdiak-Myers, 2012, p. 75). T2 showed that she delivered her lesson well through good classroom management, grouping students and maintaining the

classroom environment. The researcher believes that T1 has a good understanding of the knowledge of educational context as well but he did not show it during the interview and observations.

5.3.4 Dimension 4

a. Efficacy to influence decision making

1. Influence decisions that are made in the school

The three participant teachers were vice-principals, and they used to get involved in making decision at the schools. T2 and T3 mentioned certain activities that involved their roles in schools in the interviews.

2. Express freely on important school matters

The researcher believes that as vice-principals the participant teachers should be given ideas to deal with important school matters although T1 did not mention it in the interview.

3. Acquire the teaching materials and equipment needed

It is related to the classroom observations where T1 did not demonstrate various teaching materials and equipment during the observations, although he mentioned it in the interview. T2 and T3 showed several teaching materials and equipment during the observations.

b. Teaching self-efficacy

1. Get through the most challenging students

In the observations, T1, T2 and T3 showed that they challenged students to solve/do certain problems/exercises and asked the bright students to do it after no one could or was willing to volunteer to come forward. As usual, T1 did not infer anything in the interview.

Table 5.4 Dimension 4

Question your personal theories and beliefs		Interview			Observation		
		T1	T2	T3	T1	T2	T3
a	Efficacy to influence decision making						
	1. Influence decision that are made in school		x	x	x	x	x
	2. Express freely on important school matters		x	x	x	x	x
	3. Acquire the teaching materials and equipment needed	x	x	x		x	x
b	Teaching self-efficacy						
	1. Get through the most challenging students		x	x	x	x	x
	2. Keep students on task on difficult assignment	x	x	x	x	x	x
	3. Increase students' memory on what they have been taught in previous lessons			x	x	x	x
	4. Motivate students who show low interest in schoolwork			x		x	x
	5. Get students to work well together		x	x		x	x
	6. Get children to do their homework			x	x	x	x
c	Disciplinary self-efficacy						
	1. Get children to follow classroom rules				x	x	x
	2. Control disruptive behaviour in the classroom					x	
	3. Prevent problem behaviour on the school ground						
d	Efficacy to enlist parental involvement						
	1. Get parents to become involved in school activities			x			
	2. Assist parents in helping their children do well in school			x			
	3. Make parents feel comfortable coming to school			x			
e	Efficacy to enlist community involvement						
	1. Get community groups involved in working with the school			x			
	2. Get business involved in working with the school						
	3. Get local colleges and universities involved in working with the school						
f	Efficacy to create a positive school climate						
	1. Make the school a safe place				x	x	x
	2. Make students enjoy coming to school					x	x
	3. Get students to trust teachers			x			
	4. Help other teachers with their teaching skills		x	x			
	5. Increase collaboration between teachers and the administration to make the school run effectively				x	x	x
	6. Get students to believe they can do well in schoolwork				x	x	x

7. Keep students on task on difficult assignment

The researcher observed that the participant teachers always gave assignment at the end of the lessons. They claimed in the interview that they gave projects and were surprised that students could do them better than they thought. T1 only gave a single example of a statistics project in the interview.

8. Increase students' memory on what they have been taught in the previous lessons

During the observations, the three teachers were demonstrating that they reminded students of certain topics or formulas they have learned before. Only T3 mentioned in the interview that she used to encourage students to write their journals or diaries after the lessons to make them remember the lessons.

9. Motivate students who show low interest in schoolwork

T2 and T3 demonstrated that they encouraged students who had low interest in the lessons. T2 approached the students and kept asking them about the lesson by posing to them the questions and paying attention to their activities in the classroom. T3 encouraged students to write their own journals and read them so that she could understand their problems. By doing this, T3 did not have to ask them one by one in the classroom and give them special attention while teaching. T1 did not specifically demonstrate or mention this in the interview.

10. Get students to work well together

T2 and T3 showed their strong encouragement to their students for them to work well together by grouping them in classroom activities during the observations. It was inferred in the interview as well, especially by T3, while explaining about students' projects.

11. Get children to do their homework

The participant teachers asked their students to do their homework at the end of the lessons. Only T3 mentioned about homework in the interview.

c. Disciplinary self-efficacy

1. Get children to follow classroom rules

T1, T2 and T3 showed the discipline of getting children to follow the classroom rules. As in Indonesian culture, students should obey the rules such as "to sit tight and no talking" during the lesson unless it is questioning, answering and discussion time.

2. Control disruptive behaviour in the classroom

As the researcher observed, T2 showed her strong control on her students because she found that a couple of her students were chatting. The disruptive behaviour depended on students' characteristics as the researcher did not find any such behaviour in T1's and T3's students during the observations. The researcher believes that all the three teachers would control their students' disruptive behaviour if it occurred in their lessons.

3. Prevent problem behaviour on the school ground

As vice-principals, T1, T2 and T3 would have responsibility to prevent problems on the school ground. Although they did not mention any incidents or demonstrated this during the observations, the researcher believes that they would involve strategies in preventing students' problem behaviour. For example, if they came into the classroom to teach, T2 and T3 would check classroom tidiness, especially the rubbish there. T1, as a male teacher, usually played a bigger role in disciplining male students such as juvenile delinquency.

d. Efficacy to enlist parental involvement

1. Get parents to become involved in school activities

T3 revealed parents involvement in the interview and related this to the programme she designed. T3 also asked parents to read their children journals/diaries and communicate with her through feedback on students' journals.

2. Assist parents in helping their children do well in school

By inviting parents to read their children's journals, T3 hoped that parents would help their children to do well in school, not only in her subject only but also in other subjects.

3. Make parents feel comfortable coming to school

By asking parents to get involved in her programmes, T3 meant that parents were welcome to come to school and could discuss their children's issues with her.

e. Efficacy to enlist community involvement

1. Get community groups involved in working with the school

T3 revealed in the interview that she sometimes invited English native speakers to give learning experience to her students. The English native speakers were exchange

students in *Sekolah Tinggi Seni Indonesia* (STSI) or Indonesian Art Institute, and they were willing to come and teach T3's students.

2. Get business involved working with school

Unfortunately, this aspect was not mentioned and usually at high school level, especially vocational school, this involved industries to support students.

3. Get local colleges and universities involved in working with the school

Unfortunately, this aspect also was not mentioned.

f. Efficacy to create a positive school climate

1. Make the school a safe place

During the observations, the researcher could see that students felt safe to come to school.

2. Make students enjoy coming to school

The researcher believes that T2 and T3 made students enjoy their lessons meaning that students also enjoyed coming to school.

3. Get students to trust teachers

There were no issues mentioned during the interview about this aspect. T3 expressed that students wrote freely in their journals/diaries about her gestures when she was angry. This indicated that students trusted her as their teacher by writing about whatever they felt.

4. Help other teachers with their teaching skills

T2 and T3 inferred that they seldom helped their colleagues by sharing their experiences in delivering certain topics.

5. Increase collaboration between teachers and the administration to make school run effectively

Unfortunately, this aspect was not mentioned in the interview.

6. Get students to believe they can do well in schoolwork

The three participant teachers encouraged students to work well in schoolwork during the observations. T1 assisted his students to solve the problems together, T2 encouraged her students by designing experiments and T3 made her students practise their writing through journals/diaries and increase their self-confidence.

5.3.5 Dimension 5

Table 5.5 Dimension 5

Consider alternative perspectives and possibilities		Interview			Observation		
		T1	T2	T3	T1	T2	T3
a	Professional learning conversation						
	1. Dialogical other	x	x	x			
	2. Critical friend		x	x			
	3. Coaching reflective practice			x			x
b	Mentoring						
	1. A learning conversation	x	x	x			
	2. A thoughtful relationship						
	3. A learning agreement					x	x
	4. Combining support from fellow professional learners and specialist	x	x	x			
	5. Growing self-direction		x	x		x	x
	6. Setting challenging and personal goals	x	x	x			
7. Using resources effectively	x	x	x		x	x	
c	Peer observation		x	x			
d	Student voice			x			x

a. Professional learning conversation

1. Dialogical other

T1, T2 and T3 explained in the interview that they used to discuss with their colleagues about strategies in delivering lessons. They reflected on their actions, discussed certain problems that occurred during their practice and finally they would modify and improve their actions in the next class (in the future) (Pendlebury, 1995).

2. Critical friend

T2 and T3 mentioned about inviting their colleagues to observe their practice and asked for critical comments. Actually, having dialogue with other colleagues led to critical friends who encouraged each other to improve and modify the actions (Pendlebury, 1995). But T2 and T3 did not mention further about the feedback from their colleagues.

3. Coaching reflective practice

This aspect needs the exposure to three models of reflective practice (Schön, 1987) but the researcher considers another context in which T3 used her students' journals/diaries for her reflection and it is was also a tool for her students' reflection. The researcher considers that this is *coaching reflective practice* for her students because she encouraged them to practise their writing and reflect on their

understanding of the lessons. As long as teachers reflect on their mistakes continuously, it is considered as coaching reflective practice (MacKinnon, 1989).

b. Mentoring

1. A learning conversation

T1 and T2 admitted that they did not often go to teacher workgroup activities due to the workgroup being inactive at that time. They seldom discussed with their colleagues but if they did, it was not done in structured professional dialogue (CUREE, 2005). T3 was active not only in teacher workgroup but also in other professional groups and could apply the knowledge she gained to teaching her classes.

2. A thoughtful relationship

This aspect was not clearly mentioned but the researcher can conclude that the three teachers could be trusted by their friends especially because their position was a vice-principal. Becoming a vice-principal should allow them to have a thoughtful relationship with other teachers to develop trust, respect and sensitivity to emotion for their professional learning (CUREE, 2005).

3. A learning agreement

This learning agreement could be seen during the observations of T2 and T3 towards their students. They made learning rules such as “work in groups, fulfil the tasks and homework”, whereas T1 did not clearly show this aspect.

4. Combining support from fellow professional learners and specialist

It has been mentioned in previous sections that the participant teachers seldom discussed with their colleagues about their practice. However, T2 and T3 strongly mentioned in their interviews (see Table 5.5) that they shared with their colleagues and other professionals (especially T3) their applying of strategies and approaches to their everyday practice. T1 at first mentioned that he thought back by himself and then implied that he also discussed with his colleague.

5. Growing self-direction

T2 and T3 demonstrated that they had been willing to do better in their teaching practice. In their interviews, it was obvious that they were aware of their professional development of skills and knowledge such as focusing on students, changing attitudes, reflecting on their experiences and trying to improve their practice. T1 mentioned as well that he reflected on his teaching but did not clearly show this during the observations.

6. Setting challenging and personal goals

The researcher believes that, as teachers, the participants would set challenge and personal goals for their students because they had learning objectives and purposes. They had their requirements for students and they designed the assessment and evaluation for their students.

7. Using resources effectively

T2 and T3 demonstrated that they used various strategies that involved resources. T2 effectively used the simple learning resources for the experiment, whereas T3 made use of reflection on a day-to-day basis in her practice (CUREE, 2005). T1 did not show this aspect during the observations, but in the interview, he mentioned those lessons where he used dice and cards to represent the possibility topic.

c. Peer observation

T3 inferred that she observed English native speakers when she invited them to teach her students and she admitted at that time that she found out that teaching was not just about delivering the lesson but also about making students enjoy, pay attention to and develop their interest in the lesson. As vice-principals, T1, T2 and T3 were seldom asked to do supervision of other teachers by observing their teaching practice. T2 and T3 mentioned that they did have reflection after the supervision, shared and discussed with the supervised teachers. T1 did not mention about this aspect clearly.

d. Student voice

It is obvious that T3 was always aware of her students' voice through reading their journals/diaries. In their journals/diaries, she asked her students to write about their feelings towards the lessons, the problems that occurred, and what their expectations were. She also gave feedback on both their writing and the content. T1 and T2 did not mention about this clearly but the researcher believes that they were also aware of their students' voice in different ways.

5.3.6 Dimension 6

Table 5.6 Dimension 6

Try out new strategies and ideas		Interview			Observation		
		T1	T2	T3	T1	T2	T3
a	Active engagement technique						
	1. Activating prior knowledge	x	x	x		x	x
	2. Challenge for students	x	x	x		x	x
	3. Cooperative group work					x	x
	4. Metacognition			x		x	x
	5. Modes of representing information		x	x			
	6. Scaffolds			x	x	x	x
	7. Deep and surface learning					x	x
b	Modelling		x	x		x	x
c	Questioning		x	x	x	x	x
d	Explaining						
	1. Purposes and objectives of the lesson					x	x
	2. Process, procedures and skills/explaining how				x	x	x
	3. Cause and effect/explaining why					x	x
	4. Relationship/how one factor affects another time			x		x	x
	5. Concepts					x	x
	6. Attitudes and values/involving some personal judgement			x		x	x
e	Small group work						

a. Active engagement technique

1. Activating prior knowledge

It is the learning that activates the process of construction of knowledge and development of understanding that teachers need to handle objects, refer to students' experiences, images or tell stories (DfES, 2004). T2 used certain objects to support her experiments such as straws and magnets. T3 liked referring to students' experiences by encouraging students to write their journals/diaries. Unfortunately, T1 did not show any learning aids, but he mentioned in the interview that he used dice and cards to explain certain topics.

2. Challenge for students

T2 revealed that she challenged her students to deliver certain topics and the result was beyond her expectation. Students presented their topic using *PowerPoint* and they could present various pictures and videos. During the observations, T2 challenged students to answer her questions relating to the lessons. T3 used to design projects for students to do and she found that her students were creative and could do more than

she thought. She challenged them to be brave to come in front of the classroom and answer the questions. T3 would give a reward to those who answered her questions correctly. T1 did not demonstrate that he challenged his students. He mentioned that he once encouraged students to do the projects and the result was good.

3. Cooperative group work

The three participant teachers did not mention about grouping the students in the interviews but the researcher observed that T2 and T3 grouped their students during the lessons. Cooperation has positive impact on students who can assist each other leading to development of thought in the individual (Vygotsky, 1986). T1 did not show any grouping of his students during the observations but he mentioned in the interview that he once grouped his students to do a project.

4. Metacognition

T3 demonstrated that she involved her students in reflecting on their own learning through their journals/diaries that made both her and her students to monitor their own learning process. T2, in her interview, stated that she wanted to develop her students' critical thinking and the process only happened during the lessons through questions and answers sessions. T1 did not show clearly how he demonstrated this aspect.

5. Modes of representing information

T2 demonstrated that she used various strategies in delivering the lessons. She applied demonstrations, students' group work, short videos and student' presentations to make her lesson understandable. T3 also applied various techniques in delivering her lesson to make it easy and students enjoyed doing their tasks. T1, as far as the researcher could see during the observations, only applied one strategy, just explaining.

6. Scaffolds

T1, T2 and T3 provided their students with problem solving in the lessons. T3 gave her students extended writing, that is, writing journals/diaries to support their thinking and specific projects once in a while. T2 provided them with various problems to solve (with various strategies), whereas T1 only gave them mathematics problems to solve by applying the same strategy in every classroom.

7. Deep and surface learning

T2 and T3 demonstrated that they motivated their students by applying various strategies and relating the knowledge with everyday experience so that the lessons made sense to them. T1's lessons seemed less motivating to his students as he just gave students mathematics exercise based on national test problems.

b. Modelling

In this aspect of Dimension 6, T2 and T3 provided various strategies to develop students' conceptions and understandings of the benefits of the knowledge. Grouping the students and using visual demonstrations were shown to be important technique for teaching students. T3 always informed her students of the lesson objectives at the beginning of the lesson and summarized the topic based on the objectives at the end of the lesson. T1 and T2 just summarized the lesson at the end of the lesson. T1 did not show many of the technique or strategies he applied in his lessons.

c. Questioning

T1, T2 and T3 showed their understanding of addressing the questions they asked their students during the observations. Their questions were related to the lessons and linked to learning objectives (Black & William, 2002; Good & Brophy, 2000; Muijs & Reynolds, 2011; Wragg & Brown, 2001). T3 always gave exercise sheets to check her students' factual understanding and recall, develop their basic skills of learning the new content and improve their thinking. T2 gave students exercise sheets/questions along with the experiments/tasks developing their critical thinking/cognitive level.

d. Explaining

This is the main activity that helps students to understand the topics or lessons. There are six categories of the purposes or objective of explaining the lessons:

1. Purposes and objectives of the lesson

In this category, T3 explained in the beginning of the lesson the purposes and objectives of the topic before further explaining the topic. At the end of the lesson, she would match the activities with the purposes and the objectives. T2 just informed the students briefly about these and summarized them at the end, whereas T1 did not clearly explained the purposes and the objectives of the topic.

2. Process, procedures and skills/explaining how

T2 explained clearly about the process and procedures during the experiment and demonstration. T3 also explained clearly using "at first", "next", "then" and "finally", when she exposed the lesson on a narrative, reporting or procedural genre (based approach). T1 explained briefly along with solving mathematics problems together with his students.

3. Cause and effect/explaining why

T2, as science teacher, often explained causal sequences and connectives in the experiments and demonstrations by addressing 'W-H' questions to raise students' awareness of how the experiments connected in each sequences and related to real life. She used models or learning aids to clarify the lesson and make it understandable to students. T3 explained clearly as well the sequence of her lesson and so did T1 in the lesson on solving problems.

4. Relationship/how one factor affects another time

T2 and T3 explained well about relationships between events and related the lesson to daily life. T1 did not clearly relate the mathematics to daily life.

5. Concepts

Explaining concept is difficult sometimes especially if the concept is abstract. T2 explained well abstract concepts such as genetics/filial relations and energy. She related abstract concepts to daily life which then became concrete from students' perspectives. T3, as an English teacher, explained the concept of writing which led to imaginative writing and she explained it well so that his students could create an imaginative narrative and understand the structure of the genre. T1 explained the process of solving a mathematics problem (function) well but not clear about the concept.

6. Attitudes and values/involving some personal judgement

T3 demonstrated this aspect in her lesson when she asked her students to create imaginative stories in narrative writing. T2 also related her lessons to the real world that involved her students in their judgement to distinguish between opinion and fact about the topic. T1 did not clearly show this aspect during the observations.

e. Small group work

Small group work is a strategy applied by T2 and T3 to develop their students' social skills. The purposes are to make students' interact and actively learn, communicate and discuss problems, and get resolutions among themselves (Johnson & Johnson, 1999). T1 did not apply this strategy during the observations but mentioned grouping the students in his interview.

5.3.7 Dimension 7

Table 5.7 Dimension 7

Maximise the learning potential of all your students		Interview			Observation		
		T1	T2	T3	T1	T2	T3
a	Providing effective feedback for students			x		x	x
b	Involving students in their own learning	x	x	x		x	x
c	Adjusting teaching to take account of the results of assessment	x	x	x		x	x
d	Recognising the influence assessment has on students' motivation and self-esteem	x	x	x		x	x
e	Considering students' need to be able to assess themselves and how to improve		x	x		x	x

a. Providing effective feedback for students

T3 clearly stated in the interview that she gave her students feedback on their work especially their journals/diaries (she showed the researcher several students' journals as proof). Feedback encourages students to develop their understanding and as a reward to their work in learning (Black & William, 1998). Her comments identified what students had done well leading to their improvement (Black & William, 2002). T2 did not mention about feedback in the interview but she demonstrated that she provided feedback orally during the observations. T1 did not demonstrate this clearly in the interview and during the observations.

b. Involving students in their own learning

T2 and T3 designed their lesson with activities that involving students in their own learning such as involving in their own experiments and experiencing in certain projects for their future life. T1 demonstrated only involving his students in solving mathematics problem.

c. Adjusting teaching to take account of the results of assessment

T1, T2 and T3 designed the assessment after the lessons had been taught to their students. They expected that their students could do well in assessment/evaluation as part of reflective review for students and teachers (Black & William, 2002).

d. Recognising the influence assessment has on students; motivation and self-esteem T3 implied that her students were grateful because they were experiencing assessment/evaluation in the written form as reflection. The journals/diaries T3 asked her students to compile was to develop their writing skills and make it easy for them to express their opinions. Some students testified that they could go to students exchange programmes, win in debate contests and even just do the school projects at a higher level of their study. The development of students' skills motivated them and increased their self-esteem. T2 related her lessons to real life but there was less significant impact on students' motivation and self-esteem, whereas T1 did not demonstrate this aspect.

e. Considering students' need to be able to assess themselves and how to improve This aspect has close relation to the previous one and again T3 demonstrated this aspect by applying using students' journals/diaries as reflective review for her students. She encouraged her students to improve their skills by understanding how their work might be improved through effective feedback (Black & William, 2002). Formative and summative tests were applied by T1, T2 and T3 to assess their students and the results became information for them relating to their students' ability.

5.3.8 Dimension 8

Table 5.8 Dimension 8

Enhance the quality of your own teaching		Interview			Observation		
		T1	T2	T3	T1	T2	T3
a	International perspectives of quality teaching	x	x	x			
b	Growing impact of ICT		x	x			
c	Reading various resources	x	x	x			

a. International perspectives of quality teaching

International perspectives of quality teaching here is related to factors influencing student learning (OECD, 2005). In the interview, participant teachers implied that they realised that the external factors would affect students learning such as students' input and demographic aspects because their first teaching replacement were not in a big city or a district outside Bandung. To develop her students' skills in English, T3 had

the initiative to invite guest English native speakers to her class and tried to make connection with schools abroad (e.g., Adelaide, South Australia) and conducted online distance teaching and learning. T2 had other thoughts to do experiments with simple equipment that her students could find easily such as straws or batteries. T1 expressed in the interview that he just prepared the materials and the students would do the exercises he asked them to do. This was different when he was teaching in a district school where he should check his students' literacy before he gave them mathematics problems to solve.

b. Growing impact of ICT

Indonesia has a rapidly growing impact of ICT on many areas including the education sector where effective teaching is sometimes related to the use of ICT in the classroom to make learning of students independent (Bennet, Maton, & Kevin, 2008). T2 expressed that she sometimes used *PowerPoint* to present her lesson and asked her students to use presentation as well once in a while. She thought that her students mastered the technology better than her. T3 tried to use ICT not only for presentation but also to support her lessons by using *Skype* and distance learning, and he even took courses on how to use *Edmodo* for classroom usage. T1 did not mention about using ICT in the classroom, and during the observations, the three participant teachers did not demonstrate such usage.

c. Reading various resources

This aspect is added because T1, T2 and T3 implied that they enhanced the quality of their teaching by reading various resources from the Internet and other resources (Kirsch et al, 1993). They could gain knowledge from teacher workgroups, seminars, teacher training programmes and their colleagues. This aspect is important in view of the literacy level being not so low in Indonesia for both students and teachers (Yusuf, 2013).

5.3.9 Dimension 9

Table 5.9 Dimension 9

Continue to improve your own teaching		Interview			Observation		
		T1	T2	T3	T1	T2	T3
a	Use tools interactively	x	x	x		x	x
b	Interact in heterogeneous groups	x	x	x		x	x
c	Professional learning community			x			x
d	Continuing professional development	x	x	x			x
e	Professional development portfolio			x			

a. Use tools interactively

In the interviews, T1, T2 and T3 inferred that they used technology interactively to deliver the lessons. T2 interacted with her students in effective spoken and written language in multiple situations (OECD, 2003). T3 mostly spoke English and made good interaction with her students to support her lesson. T1 mostly communicated in only one way with his students during classroom observations.

b. Interact in heterogeneous groups

T1, T2 and T3 are the vice-principals meaning that they had the ability to relate well with others, cooperate and manage and resolve the conflicts (OECD, 2003). T3 implied that, other than in the school environment, she was very active in several professional development groups for teachers such as teacher workgroup on the city level, British Council group and TEFLIN membership. All these made her have much interaction in many heterogeneous groups, whereas T1 and T2 were hardly involved in teacher workgroups because those groups for them were inactive.

c. Professional learning community

Professional learning community should cover both teacher groups in and outside the school. Teachers initiated to gather in certain subject groups once in a while. T1 and T2 did not attend teacher workgroups outside the schools, whereas T3 had much access to attend professional development activities. This gave T3 more opportunities to share with other teachers visions, values, experiences and reflective activities (Dufour, 2004).

d. Continuing professional development

Based on participant teachers' interview, they implied that they had continuing professional development (CPD) by planning, implementing, evaluating and reflecting on their teaching practice and modifying their lesson plans (planning) (MoEC, 2012). According to Training and Development (TDA), CPD has three sources that are within school, school network and other external expertise (2008). T3 demonstrated that she gained benefits from school networks with other schools and institutions and also virtual networks. She also conducted lesson observations and provided feedback to teachers as a vice-principal, and she took external courses, attending seminars and sharing her experiences in professional communities. T2 also conducted supervision of her colleagues and took external training once in a while based on her principal's assignment. T1 did not state that he conducted supervision and a long time ago he had been assigned to become a facilitator in the Lesson Study programme.

e. Professional development portfolio

T3 implied in the interview that she created a portfolio as a curriculum vitae showing her professional experiences. She used her portfolio to provide information to others and for promotion to a higher level of her career (Zwozdiak-Myers, 2012). T3 seldom applied to take part in certain teacher competitions such as Teacher of the Year and the most recent one was for a school principal candidate. This could be reflection on her teacher journey as well (Wolf & Dietz, 1998). T1 and T2 did not imply that they created any such portfolio.

5.4 Summary

This section summarizes the responses to research question 1, which covers participants' personal improvement, self-evaluation, and links of their theories to practice (Section 5.4.1); research question 2, which views teachers' self-efficacy in terms of teaching self-efficacy and creating a positive school climate (Section 5.4.2); and research question 3, which examines the process of reflection that affects the improvement of teachers' practice (Section 5.4.3).

5.4.1 Teachers' understanding of reflection/reflective practice

It can be summarized that the results of interviews and observations showed that the three participants conducted reflection as their routine or informal activities after the lessons if they felt that the classes were not working as they had planned (Dewey, 1933; Loughran, 1996). They reflected on their experiences without realising that they had applied reflection during and after the lessons (Schön, 1983) due to their lack of knowledge or information of reflective practice. In the interviews, participant teachers said that they had never heard about reflective practice before. They were only familiar with 'unconscious' reflection and did not recognise the formal application of reflection except for T3 who tried writing journal/diaries as assessment at first due to certain curriculum demand in 2004.

T1's understanding of reflective practice was to investigate students' understanding of mathematics in his lessons as he explained in the interview. Furthermore, he admitted that he had difficulties in giving his lessons because other subjects also gave his students homework that made them unable to focus in solving mathematics problems, meaning that his understanding of reflection was limited only to students' understanding of materials referred to as *descriptive* in Jay and Johnson's (2002) typology of reflection. T1 only focused on strategies and methods used to reach predetermined goals, that is, his students could pass the National Test, as in surface reflection, one of the levels of reflection by Larrivee (2004, p. 342).

Although T2 had never heard of reflective practice before, she thought that teachers should look back at what they had given to their students and whether they understand or not and why they did not understand the lesson (teachers should find out their weaknesses). She recognised that reflection is stated in the Teacher Competency Standards (TCS) and she thought that teachers should reflect after they give the lesson. She had opinion that it is better if the reflection comes from other perspectives/persons who observed her teaching practice. T2's understanding was *comparative* according to Jay and Johnson's (2002) reflection typology as she reframed the matter for reflection in light of alternatives views and others' perspectives (p. 77). She also

connected theoretical principles and practice as she related her lesson to real life as in pedagogical reflection, one of Larrivee's (2002) levels of reflection.

T3 emphasized that he gained benefits from her students' journals/diaries. She changed her attitude towards her students to be a better teacher for them and for herself. She thought that if she understood others meaning that she also knew herself. One of the benefits was that she changed her attitudes towards her own children. She realised that both her children and her students disliked her temperament when she was angry. Another benefit was about the way she spoke in explaining the lesson that was considered to be fast and her pronunciation was not clear so that her students did not understand her explanations. T3 considered her students' journals as her evaluation tools and she tried to change and improve her speaking skills by taking courses and hanging out with English native speakers. She experimented with various methods and techniques especially for teaching difficult topics to make it easy and interesting for students. In reflection typology, T3's reflection had a critical dimension that she already considered the implications of matters and with renewed perspectives (Jay & Johnson, 2002, p. 77). Critical reflection involves making the judgement as well by considering the implications of her practice and weighing them against relevant goals, values and ethics (p. 79). T3's reflection is also considered in at the critical reflection level (Larrivee, 2004) because she focused on her attention both inwardly to her own practice and outwardly to the social conditions of her students' situation (p. 343). She was concerned with what happened to education policies and tried to apply new policies for the sake of education quality and her students' potential. T3's self-reflection included examining her beliefs and values, expectations and assumptions, family imprinting and cultural conditioning, impacts on students and their learning (Larrivee, 2005).

5.4.2 Teachers' self-efficacy in terms of their teaching and creating a positive school climate

The interviews and observations of the three participant teachers showed that teachers in general illustrated their self-efficacy when teaching students. They challenged

students to solve problems, gave assignments or projects and recalled previous lessons to increase students' memory. Teachers also motivated their students who showed low interest in their schoolwork, made them work together and do their homework. These three teachers also made efforts to create a positive school climate by designing lessons so that students would enjoy learning, communicating well verbally with other students, helping and sharing ideas for lessons with other teachers about their teaching practice, collaborating with colleagues and staff, and motivating students to work well in the schoolwork. However, one participant teacher (T1) did not demonstrate all the component of self-efficacy such as not motivating students, not designing enjoyable lesson plans for students, and not grouping students to work together.

In Phase 1, the researcher did not apply the reflective actions because she only sought the feasibility of the framework and gained the general picture of teachers' real condition for teaching in Indonesian secondary schools. Yet, it could be concluded that these teachers demonstrated pedagogical strategies to support the self-efficacy of their teaching by demonstrating the skills unconsciously (Palmer, 1998). Teachers' efficacy beliefs may affect how they support students to think optimistically by motivating them to accept challenges, have commitment and overcome obstacles (Bandura, 2006), especially in their learning. A positive school climate definitely supports the learning environment for both teachers and students. The researcher's observations showed that the schools where the participant teachers were on duty had a good learning environment.

5.4.3 Demonstrating the process of reflective practice

Based on the three participant teachers' interviews and observations, the researcher can conclude that there are three fundamental processes of reflection (Quinn, 2000) as a general picture of reflective practice application in Indonesia:

1. Retrospection: thinking back about situations or experiences;
2. Self-evaluation: critically analysing and evaluating the actions and feelings associated with the experiences, using theoretical perspectives;
3. Reorientation: using the results of self-evaluation to influence future approaches to similar situations or experiences (p. 82).

The three participant teachers demonstrated the process of reflection above, starting from thinking back (retrospection) of what they had done in the classroom in delivering the lessons, modifying the lesson plans (self-reflection) and trying to apply new methods or strategies to teaching based on modification (reorientation). This applies mostly to teachers as the application of reflective practice in Indonesia as the administrative burden is getting heavier and heavier and teachers do not have time to analyse more the problems that occur in their practices. The simple way is to just modify the lesson plan and apply it to the next class or meeting. Schön's (1987) reflection in and on action is the possible way to easily demonstrate among the teachers but without any written actions as their notes and records for their future usage (Bolton, 2014). Journals are one type of records that have several advantages as T3 applied to teaching her students whose journal/diaries became their records and her self-reflection tools that could change and improve her teaching practice. It is a good example for other teachers to follow as long as there is support at least from the school principal or school supervisor to encourage teachers to apply to their teaching the strategy of asking students to write journals for reflection. It is through the process of reflection that teachers improve their practice.

Chapter 6

Phase 2 - Main Study

6.1 Overview

This chapter explains the main study of this research and elaborates upon the teachers' interviews and observations based on the data in relation to the research context of Phase 2 (Section 6.2). This phase is the stage where the eight teachers' reflective practice in the case studies was examined and compared to the Teacher Competency Standards to gain an understanding of how these teachers have applied reflective practice in the Indonesian context. The procedure of the research is considered as reflective action to develop a reflective practice model for future use in the Indonesian context. Individual case studies portray a holistic perspective of the eight teachers in this phase of the study (Sections 6.3.1, 6.3.2, 6.3.3, 6.3.4, 6.3.5, 6.3.6, 6.3.7 and 6.3.8). This chapter is summarized in Section 6.4 and the findings are explained in the next chapter.

6.2 Phase 2

The eight case studies that follow have been constructed from individual interviews, four videotaped lessons, additional documents such as lesson plans and journals and the researcher's viewpoints. In this phase, teachers' reflection experiences were exposed especially through interviews using the framework of reflective practice by Zwozdiak-Myers (2012) which focused on certain dimensions. The researcher then could look deeper at the development of their understanding of reflective practice in response to research question 1 and research question 2 (see reflective conversations with each teacher in Sections 6.3.1.1, 6.3.2.1, 6.3.3.1, 6.3.4.1, 6.3.5.1, 6.3.6.1, 6.3.7.1 and 6.3.8.1) and research question 3 (see Observations and videotaping with each teacher in Sections 6.3.1.2, 6.3.2.2, 6.3.3.2, 6.3.4.2, 6.3.5.2, 6.3.6.2, 6.3.7.2 and 6.3.8.2). Research question 4 is responded and described through every action of the research for each participant teacher (see, for example, Sections 6.3.1.1, 6.3.1.2 and

6.3.1.3). As in the previous chapter, the researcher describes and interprets the data case by case (in alphabetical order) and avoids using teachers' names except their initials. The unique characteristics of the teachers influenced their application of reflection and how they developed an understanding of reflection and their practice based on a review of their own videos.

Each interview was considered as the first reflective action in developing the sense of reflection for the participant teachers. The interviews are also called reflective conversations (Ghaye & Ghaye, 1998) and are divided into three parts. The first part was to build a connection between the teachers and the researcher in order to develop a friendly relationship. The researcher started by asking their personal experiences such as their educational background, the first time they started to teach (when and where) and also questioned them about their understanding of the Teacher Competency Standards (TCS) especially on reflection. Reflective Conversation 1 took longer time and it pictured the teachers' application of reflection and the TCS. The second part of the conversation was arranged after participants' lessons had been video-recorded so that they could reflect on their videos. Some new aspects of the dimensions emerged and the researcher invited teachers to express and share their own perspectives on their teaching practice such as classroom management, their satisfaction in the activities and what to improve in the next lesson. In the third part of the conversation, the researcher emphasized teachers' impressions on the reflective activities, the importance of reflection and their future plan to develop their own reflective practice after the research activities. This last conversation summarized what had happened during the interviews about teachers' experiences and expressions.

Recorded classroom observation is the second reflective action and considered as direct observation (Yin, 2009 p. 109). There were two functions of recording the teaching-learning process: firstly as a tool for teachers' reflection and secondly for triangulating the researcher's data. By video-recording the activities, teachers' could observe and evaluate their own teaching practice and seeing themselves teaching was a unique experience because their teaching had never been video-recorded before. The researcher used *Penilaian Kinerja Guru* (Teacher Performance Assessment [TPA]) form (Ministry of education, 2010) for teachers to reflect on their teaching performance. The TPA form includes lesson plan, learning process, opening and

closing the lesson, learning stimulus variation, questioning and empowerment for students.

Writing a reflective journal was the third reflective action. The researcher gave information about reflective practice which was new knowledge for them. At first, the researcher tried to lead the teachers to conduct action research but it looked like that doing action research was too time consuming and needed a long process of assistance. Subsequently, she tried to introduce reflective writing such as writing diaries or journals.

6.3 Individual case studies

Individual case studies reported in this chapter are focused on teachers' expressions about their reflection on practice (Ghaye & Ghaye, 1998). Their utterances were analysed and described as types of reflection on practice based on the focused dimensions (Zwozdiak-Myers, 2012) and the Teacher Competency Standards (TCS) (Ministry of Education, 2007) towards their understanding of the questions related to their teaching experiences. The TCS would be focused on reflection aspects only.

Videotapes were analysed by teachers themselves using TPA forms (Ministry of Education, 2010) and triangulated by the researcher as an observer (see Appendix F). Reflective writing was a tool to develop action research at the beginning of the research but because of the limitations of time, the activity was only introduced as one of reflective actions.

Table 6.1 The Participants

No	Teachers & Gender	Subject taught	Teaching Experiences
1	DA/Male	Music	30 years
2	DI/Female	Science	16 years
3	EN/Female	Civics	27 years
4	NE/Female	Social science	16 years
5	NI/Female	Art	27 years
6	NU/Female	Mathematics	18 years
7	PO/Female	English	20 years
8	SI/Female	Civics	17 years

6.3.1 Music Teacher

DA was a music teacher and he had been teaching for 30 Years. In 1985-1990, he started to teach in Bogor, then he moved to Cimahi. His background was music when he graduated from the education university (IKIP). DA had limited understanding of the TCS and he admitted that there was a barrier of teaching music because there were no other music teachers in his current school who could become his sharing companion. Another barrier was the limited teaching hours for music when students had to choose between music, art and dancing.

6.3.1.1 Reflective conversations

In the first conversation, the researcher tried to build the connection with DA to make him open and feel easy to express his feelings, experiences and opinions, and lead DA to reflect on or look back at his practice based on his observations of the videos. During the conversation, not all the aspects of the focused dimensions were mentioned and he admitted that he had never heard about reflective practice before. He did not answer a few of the questions very well as the researcher expected due to his limitation in understanding the topics in the questions. Discussing personal experiences related to values and knowledge (Handal & Lauvas, 1987) would be difficult for him due to his lack of opportunities to have reflective conversations with colleagues or practitioners. This was the problem that occurred during the interview.

Reflective Conversation 1

The first conversation took place on 2 February 2015 starting at 11.44am. It was quiet difficult to schedule the conversation due to DA's tight teaching schedule.

Dimension 1: Study your own teaching for personal improvement

Researcher (R): How do you improve your practice?

DA : I sometime got challenges from students. They always asked me about musical instruments out of my topic. I told them honestly if I didn't know the topic then I tried to find out and practise musical instruments students asked. When I met them in the next meeting I explained about it. I am grateful because today there are so many media, like the Internet, and I could share and discuss with other colleagues from other schools. We used to meet up to share experiences and problems.

DA challenged himself to enrich his knowledge of many musical instruments by browsing the Internet and discussing it with his music teacher colleagues. DA's purpose was to make students enjoy the lessons and balance students' minds between study and music. He thought that he would facilitate students' curiosity and their talents but there was limited time and condition. Although DA's reflection ability was not demonstrated clearly, the researcher could consider that DA tried to learn from his previous experiences to attract students to learn and enjoy music.

Dimension 2: Evaluate your own teaching

R : How do you evaluate your practice?

DA : I give a song to be learned by students and score them. I require two kinds of instruments: string (guitar) and wind instruments (the melodica and recorder). I give all students each a guitar for a month then move to recorder or melodica. Then they will form ensembles. The good ones will be put into extracurricular classes.

R : So, if they can play well based on the scores and ensembles, do you think that you succeeded in delivering your lesson?

DA : Yes.

In this dimension, DA demonstrated that he preferred the most common evaluation through students' performance to doing research to evaluate his teaching practice. He did not conduct action research yet to evaluate his teaching due to the time limitation. DA measured the success of his practice by asking students to perform the ensemble of the musical instruments after DA explained about the scores and the instruments.

Dimension 3: Link theory with your own practice

R : How do you understand students' characteristics?

DA : I teach 8 classes this semester and I just recognise 15 students in each class but I remember their faces, not their names.

R : Do you give special attention or treatment?

DA : I do not push the slow learners. If they can play just 4 to 6 notes after I teach them intensely, I can understand them. Mostly the female students easily give up because learning the guitar grip is difficult. But for the fast learners I will give them more time.

DA admitted that it is hard to identify all his students by name and their individual characteristics considering that he taught 8 classes of 36-38 students each. In general, DA could learn the characteristics of students in certain classes and he implied that he changed strategies every year due to the different characteristics of his students and encouraged them to like other subjects as they enjoyed music. DA realized that music is not a main subject that will be in the National Examination. He thought that it was enough if students could read the scores and play the instruments.

Dimension 4: Question your personal theories and beliefs

R : How do you encourage your students to work in a team?

DA : I just let them to learn the song.

R : Are there any students who do not want to pair with certain students?

DA : Sometimes. Once they just want to work in pairs. Then I encourage them to cooperate with 4 students in a team by giving the reason that the stage is large and they'd better play with more than one instrument and less songs.

R : Do you think that students like schooling here?

DA : I think so. I didn't hear about the students not disliking teachers. Once there was a new student and nobody asked him to join the groups. I asked the students and the new one to work in a team, but before I could solve the problem, the student moved to another school.

R : Do you share ideas with other teachers?

DA : Yes, I do. Although I am the only music teacher here. We used to gather and have conversations, singing or playing music. I assisted them in a forming percussion group. But it did not last long because of time limitation for practice.

R : Do you cooperate with staff and other teachers?

DA : Yes, the staff are so helpful.

R : How do you motivate students to do the work well?

DA : There is no problem for music because all students love music. But I encourage them to like other subjects as they enjoy my lessons.

In teaching self-efficacy, DA often grouped his students to encourage them to work well together by giving them a project to learn a song and they would learn how to cooperate in groups. DA had described one of the aspects in this dimension previously that he would not push the slow learners, especially female students to play guitars. As long as they tried to work on the project, he considered that they made the effort to learn.

In creating a positive school climate, DA had a good relationship with the staff and other teachers. He expressed that students often came to his studio (belonging to art and music teachers) to make conversations and play musical instruments there during the recess. There was no serious issue of students making complaints or disliking teachers or other students. He concluded that students enjoyed going to school and learning. It could be assumed as well that DA was trusted by his students and colleagues.

Dimension 6: Try out new strategies and ideas

R : Do you apply certain strategies in your teaching?

DA : I feel that, every year, students have different characteristics so I change the strategy in facing new students. Three years ago, I just gave students the project and they would learn it. Now, I have to show them first, demonstrate my skills in playing instruments then they will pay attention to my lessons.

DA also implied that he would apply different strategies to deliver the topic and theory every year. His purpose was to make the lesson easy for his students to understand and to activate their prior knowledge. Mostly, he would show his talent first to students to get their attention in learning music. Then, he would motivate them to learn better when he was their teacher. DA demonstrated the way to challenge his students to be able to work in groups.

Dimension 7: Maximise the learning potential of all students

R : Do you give feedback to students on their work?

DA : I just give comments on their practice then offer advice tips for their practice. I score them.

R : Have you asked them to discover their own understanding of certain topics?

DA : I asked students to find their own techniques from various theories and they are good. I could gain several techniques from them.

R : Do you give assessment based on the theories or vice versa?

DA : I observe students' ability first and then, I define the assessment. I don't want to define it first because I'm afraid that students could not reach the standards.

R : Does the score you gave motivate them?

DA : I think so. I encourage students who have talent to perform. I used to perform every Tuesday during school recess to entertain them. A male student who has a good voice dared to sing after I compliment him.

R : Have you ever asked students to do self-assessment?

DA : I just asked once this semester as a requirement from the new curriculum. Now I have more administration work to do. I cross-check students' assessment and ask them to have an interview with me.

In maximising the learning potential of his students, DA did not provide them written effective feedback but verbal feedback such as comments on their practice or performance. DA would analyse students' ability before defining the assessment and

he could see that their self-esteem would rise and they were willing to perform with their talent if they got good scores. DA applied assessment based on his instruction. He would use his perception of students' skills and at the end of a topic he would give students certain marks. He noticed that the higher the mark they got, the more motivated they were.

Reflective Conversation 2

The second reflective conversation, held on 14 April 2015 starting at 12.14 pm, was to confirm DA's teaching practice after the researcher recorded his teaching activities and when the researcher tried to develop DA's awareness of reflection.

R : What do you think about your practice?

DA : I like being practical by explaining the musical instrument at the beginning of the meeting. The following meeting, I just assist them in practising it.

R : How do you motivate students who do not have talent?

DA : I asked them in private what they want me to do to make them enjoy the lesson and whether they had problem at school or at home. They just answer that they did not concentrate on the lesson.

The researcher emphasized how DA analysed and gave perspectives on his own teaching. DA inferred about the classroom and time management which he thought were well organised but the new curriculum demanded more assessment and evaluation. DA thought that the strategy he used could be applied to teaching Year 8 as well and he planned to apply it until there would be a special case that he had to apply another strategy.

DA expressed that he thought his main challenge was a shy student and he made her confident to perform to her potential. He also demonstrated that he encouraged students who were not interested in music lessons but he realised that *Seni Budaya dan Kerajinan* (Culture Art and Craft) subject is not a subject that will be tested in the national exam. This made DA think that it was not important to push his students to

learn music though he had a perspective that music is important to balance students' minds in learning. He admitted that only 60% of his students did their homework.

The most important thing is that I can reflect on and evaluate myself and motivate myself to be better.

In the last conversation, he was so impressed by the activities during the research that he felt that he could reflect on his own teaching by watching the videos and gain ideas which he could not get from his students or from his colleagues. This is a strong aspect of Dimension 1, which is reflection/self-study—he understood how to apply reflection, improved his attitude, language used in communicating with his students, and changed his way in delivering the lessons.

A new aspect also appeared, that is, self-direction because he understood the reflection by following the reflective actions provided during the research. It was a rare opportunity for him to be involved in certain activities that encouraged and supported his teaching practice or professional development.

Perspectives on Teacher Competency Standards (TCS)

When discussing the Teacher Competency Standards (TCS), DA admitted that he did not recognise what exactly the TCS are, especially the content, although he is a senior teacher.

R : To what extent do you understand the TCS?

DA : As far as I know, it is the ability to deliver subject to students.

R : How do you apply it?

DA : I focus on students' skills, encourage them to perform and present in front of the public in certain event like in graduation day.

The interview revealed that DA mostly pedagogical skills with the focus area of organizing the topic and learning environment, applying strategies, methods and approaches to make students more creative, identifying students' characteristics,

communicating effectively with students, and understanding the nature of assessment and evaluation and recording the learning process.

DA showed his social awareness towards students such as acting inclusively, not discriminating and telling the objectives to students, colleagues and surroundings and communicate well with colleagues and other communities. And in professional practice, he demonstrated that he updated his knowledge by learning through the Internet (using technology) and also communicating not only with his colleagues at school but also with the artist community.

R : Do you think that you have applied the TCS?

DA : I am not satisfied because this was my first time delivering the lessons in that class. I swapped the schedule, the classes I usually taught now are learning traditional dances. But I think that students' reactions are the same, they are enthusiastic in attending my lessons.

In the second conversation, the researcher showed the complete the TCS document to DA and let him read and review his understanding and application of the TCS. He said that he was not sure about the way he taught but he sensed the positive reactions from the students.

R : Have you seen your video? What do you think?

DA : Yes, I have. I have to improve my attitude and language I used for communicating with students. There was a section that I gave difficult lessons straight away, not step by step from the easy part, and I have to change that.

In the last conversation (after he had observed his videos for the first time his teaching was recorded), the researcher asked for his perspectives on the process of teaching and learning. DA showed his improvement in his understanding TCS by implying more focus areas than he did when interviewed in the two previous conversations. Focusing on the reflection part of the TCS, he admitted that he began to reflect on his practice, utilized the results of reflection to improve his next teaching and tried to apply it continuously. He expressed that the activities or reflective actions during the research were important and influenced him to be reflective. Although he did not clearly state

in the conversation, the researcher could get the impression that DA, as a senior and experienced teacher, had applied most of the standards naturally without reading and understanding them first but he failed to demonstrate in a formal way such as referring to documents of his action research and lesson plans even though it is a compulsory administration requirement.

6.3.1.2 Observations and videotaping

The observations were taken together with videotaping the participants to gain an understanding of what happened in the classroom with a focus on teachers, the learning environment and activities. Four observations were conducted to look at the natural presentations of the teachers because teachers may be nervous at the first time and adjusted at the second time, and then get used to the researcher in her third and fourth visits (Wang & Hartley, 2003).

Observation 1 was held on 13 February 2015 at 8.10 am in Year 7 class M (7M). It was new class for DA because the class had taken dance as a subject in the previous semester. The semester during this research was DA's turn to teach music to this class. DA was a bit nervous because this was the first time his practice would be recorded and it was a challenge to teach in the new class.

Observations 2 (in Year 7 class D or 7D), 3 (in 7D) and 4 (in 7H) were conducted in his regular classroom and the environment was effective especially the interaction between DA and his students. DA did not provide the lesson plan so that the researcher could not confirm or cross-check the consistency of his teaching practice with what he had planned. DA reflected on his teaching practice by observing the videotape and checking on the Teacher Performance Assessment guidelines/forms.

In opening the lesson, there were variations depending on the classroom that DA entered. In Observation 1, as DA entered the new class, in the first 5 minutes, it was shown that there was an effort of DA to get the attention from his students to be involved and be active in the lesson. Whereas in Observations 2 and 3 (same class

7D), DA instantly communicated his plan to do in that period to his students; the researcher could see the enthusiastic interaction of the teacher and students.

Table 6.2 Teacher Performance Assessment: DA

No	Teacher' performance	Ob1	Ob2	Ob3	Ob4
1.	Ability in opening the lesson				
	Attract students' attention	v	v	v	v
	Give initial motivation	v	v	v	v
	Give apperception (connection with the previous topic)	v	v	v	v
	Share learning objectives	v	v	v	v
	Give material	v	v	v	v
2.	Attitudes/behaviour				
	Clear articulation	v	v	v	v
	Body movements/gestures do not distract students' attention	v	v	v	v
	Show enthusiastic	v	v	v	v
	Mobility in giving the lesson	v	v	v	v
3.	Mastering the topic				
	Lesson plan based	v	v	v	v
	Topic clearness	v	v	v	v
	Giving examples	v	v	v	v
	Have broad knowledge on the topic	-	-	-	-
4.	Teaching and learning process				
	Use appropriate method with the topic	v	v	v	v
	Objectives/indicators based	v	v	v	v
	Ability in responding and answering students' reaction/questions	v	v	v	v
	Have proper time based	v	v	v	v
5.	Teaching and learning media usage				
	Use media properly	v	v	v	v
	Use appropriate media with the topic	v	v	v	v
	Have ability in using media	v	v	v	v
	Increase students' attention in learning activities	v	v	v	v
6.	Evaluation				
	Relevant with objectives	-	v	-	v
	Various evaluation/assessment	-	v	-	v
	Lesson plan based	-	v	-	v
7.	Ability in closing the lesson				
	Review the topic	v	v	v	v
	Give opportunities to students to ask/question and answer				
	Give conclusion	v	v	v	v
		v	v	v	v
8.	Follow-up				
	Give exercise/home work to students both individual or/and group	-	v	v	v
	Give information of topic for the next meeting/lesson	-	-	v	v
	Give students motivation to have learning spirit	v	v	v	v

Observation 4 was regular but with less interaction. In all the openings, DA provided a motivating talk, explained the learning objectives and introduced the lesson. DA's attitude showed in four indicators: his voice articulation which was clear, his body movements which were not distracting students' focus, being enthusiastic in teaching and his position or mobility when he delivered the lesson. DA mastered the lessons well although the researcher could not check whether the lessons were delivered as he had planned or different from what he had designed due to the absence of lesson plans. His explanations and examples he gave were brief and clear and he asked students' to gain more knowledge outside the classroom as he considered himself not having enough information to share with his students. DA organised his lessons well, referring to methods and time allocated and also the usage of media in attracting students' attention. DA did not apply any evaluation in Observations 1 and 3 because this was only an introduction to music instrument to his students. DA gave opportunities to his students to ask questions but did not review completely the material in closing the lesson section. It was interesting that students clapped spontaneously when they were successful in their singing project.

DA's reflection

Most of DA's reflections on the observation had been expressed in the conversations but he added some points in his assessment form. For example, the material that DA gave to students was taken from the textbook and there was no evaluation in Observations 1 and 3 because it was still the introduction to music instruments lesson. No follow-up or project, especially in Observation 1 of the class he considered a new class for him and he was just switching class with his colleague (the traditional dance teacher).

6.3.1.3 Writing journals

DA did not attend the meeting when the researcher introduced the topic of reflective writing. He just wrote his experiences when he first time taught in SMPN 3 Cimahi and reflected on his practice in a less impersonal way (Wong et. al., 1995). The researcher asked him to write his teaching experiences in the classrooms which were observed.

Table 6.3 Checklist for reflective journals

Level 1	Element of reflection	Brief definition	Checklist
Time	Reflection in action	Occurs while in the midst of an action; on the spot decision	v
	Reflection on action	Occurs after the action has been completed	v
	Reflection for action	Occurs before being faced with the situation; begins to plan for the future	-
Content	Content	Explores the experience from a number of perspectives (beyond description)	-
	Process	Describes the strategies used or available	-
	Premise	Recognizes and explores own assumptions, values, beliefs and biases	-
Stage	Returns to experience	Describes the experience	v
	Attends of feelings	Acknowledges and begins to work with feelings	-
	Re-evaluates	Reappraises the situation versus past experience	-
Level 2	Level of reflection		
Journal	Non-reflection	No evidence of reflection is present	v
	Reflection	Evidence of reflection is present	v (in Observation 4)
	Critical reflection	Evidence of critical reflection is present	-

Adopted from Plack et al. (2004)

DA only described his teaching practice and showed reflection in and on action in Observation 4. He reflected more on students' performance that they could not sing properly and he said that the lesson objectives were not achieved and the lesson should be continued in the next meeting. In Observation 4, DA reflected on the material or topic that was too difficult for Year 7 students. It showed that DA demonstrated reflection in and on action, then he changed the topic or the song with a simple one suitable for his students.

I found that only several students could follow the material. I tried and tried giving the lesson using the technique for them to master the musical instrument, still it didn't

work. Then I made an evaluation [and found] that the song is too difficult for students of Year 7.

6.3.2 Science Teacher

DI was a young science teacher, with a major in physics, and she had been teaching for 16 years when this research began. She previously taught in Pamanukan, Subang District which is 132 kilometres from Bandung, the capital city of West Java province. She moved to Cimahi three years later because there was science teacher recruitment every year and for family reasons. Then, she had been transferred to two different schools until she settled in her current school in 2014 and since been teaching there. DI was a talkative person and the researcher did not have any difficulties communicating with her; in fact she had productive conversations and useful classroom observations with DI. Although DI expressed that she did not understand deeply about reflection and the TCS, she demonstrated her reflection well during the conversations and observations by showing most of dimensions and the TCS.

6.3.2.1 Reflective Conversations

Reflective Conversation 1

The first conversation took place on 29 January 2015 at 09.03am. DI was a busy teacher with a tight schedule of her activities outside her school such as giving private lessons in a learning centre (*Bimbingan Belajar*) and in her house.

Dimension 1: Study your own teaching for personal improvement

R : How do you improve your teaching skills?

DI : First I learn from my experiences. A long time ago I didn't have many experiences in teaching. Now I teach every day and my teaching skills now are getting better including my content knowledge. Second, I am very grateful that I've asked to attend several workshops and seminars. I also join a learning centre in Cimahi which provides workshops on how to solve science problems that I can apply as well to teaching my students at school.

DI showed that she demonstrated most of the aspects of reflection or self-study in dimension 1. She expressed that she always learned from her experiences from the first time she became a teacher until the time of this study. She conducted reflection in and on action (Schön, 1987) which enhanced her teaching skills, and to become aware and conscious of how she could frame teaching and learning situations. She was able to control the students and the circumstances and be engaged at the same time with her knowledge and how to deliver that knowledge to students' levels of thinking. She also attended seminars and workshops once a year (better than none) because attending the activities was based on the school principal's assignment. The science teacher workgroup was useless to DI because she thought that the activities did not give her up-to-date science knowledge.

Dimension 2: Evaluate your own teaching

R : How do you evaluate your teaching practice?

DI : I look at students' test results for sure, especially on certain projects.

R : How do you evaluate yourself?

DI : I hardly do reflection; it's new for me. I used to do reflection before closing the lesson when I ask students' for their feelings about the lesson. I used to ask students to write things about the way I teach at the end of the semester. Then I can improve the way I teach.

DI inferred that she evaluated her teaching by analysing students' test results. It was not purely a task, but a project she gave to students and they had to make a report within a week. At the end, her students should submit their apparatus creation which is simple and easy to use. To evaluate herself, she asked her students at the end of the lesson about their feelings towards the lessons. They would say they were happy to learn with DI but would complain as well if she applied new strategies that they did not like. DI also gave questionnaires to students to express their positive or negative comments on her along the semester and this was the way she improved herself especially in teaching.

Dimension 3: Link theory with your own practice

R : How do you recognize your students' characteristics?

DI : It's very hard to assist students ever since I was a student teacher. There are gang members, divorced parents and so forth. But I used to remember all their names and call them during my lessons.

In recognising students' characteristics, DI demonstrated well by trying to remember all her students' names. She was a student teacher in one of Year 8 classes and the students' characteristics were varied. To manage that information, DI collected parents' CV so she could call or text the parents to meet them once in a month especially for children who had problems. DI also conducted home visits and held personal conversations with students who had low motivation as well from other classes. To honour good students who had good achievement in science, DI asked them to join a science club to train them to be ready for competition.

Dimension 4: Question your personal theories and beliefs

R : How do you motivate students?

DI : I talk to them in private especially students who did not pay attention to my lesson. With the slow learners, once in a while, I invite them to see me and discuss which part of the lesson they did not understand.

In teaching self-efficacy, DI challenged her students who were fast learners to do additional exercises at home and for those who submitted their completed exercises first to her, she would give them bonus points. As demonstrated during the observations, DI always improved her students' memory by recalling the previous lesson or certain formulas or symbols in science. DI motivated the slow learners by giving them extra time in her spare time to explain topics they did not understand. However, it was time consuming, that was why she did this just once in a while. There are two new aspects that occurred during the conversations and observations. DI could control disruptive behaviour of her students which was difficult to handle in Year 8 by giving much commitment. She also invited parents to come and discuss their

children's problems and behaviours, and assisted the parents to help their children to do well in school.

R : How do you cooperate with your colleagues and staff?

DI : As I just joined the school in 2014, I feel that everybody is welcome here. The staff are helpful and I often share and discuss with my colleagues.

In creating a positive school climate, DI could blend really well in the school environment with other teachers and staff but she limited her intention to socialize due to her activities as a private teacher in a private learning community outside the school. She also encouraged her students to enjoy coming to school by giving them joyful learning and made them trust her as their teacher. DI's attitude demonstrated an ideal role model for students. She was willing to help her students outside the classroom as long as they came and asked her to explain more on certain topics.

Dimension 5: Consider alternative perspectives and possibilities

DI demonstrated clearly aspects of the fifth dimension which occurred during the research. The first aspect involved the learning conversations which in which DI was engaged when she often shared ideas and discussed the subject with other science teachers. During the research, there was another participant teacher, a social science teacher, who was eager to sit in DI's classroom and observe the strategy she used to apply to teaching her students. DI also combined the perspectives from her colleagues and from professionals—that she got while she was attending a seminar or workshop—to be applied to her classroom.

Dimension 6: Try out new strategies and ideas

R : Have you ever tried new strategies or new ideas?

DI : I always implement new 'things' when I just returned from workshops. Sometimes it works, and sometimes it doesn't apply so well. For example, I applied discovery learning but I found out that it needed more time and equipment when students had to report on certain topics.

In trying out new strategies, DI planned her teaching and learning processes to help her students to gain a new concept and knowledge by providing simple apparatus and relate the topics to students' everyday experiences in order to make the concept easy to understand. DI also created the appropriate level of challenge to her students and encouraged them to work together in groups. They could share ideas and form their own understanding together in groups. She also gave opportunities for students to reflect on their work so that they became engaged with learning as a process. The way DI delivered and represented the topics was clear using visual representations such as objects and pictures.

The other aspects that occurred automatically was questioning and explaining. DI demonstrated that she asked effective questions to gain students' attention, understanding and reinforcing, and encouraging students in their critical thinking (Wragg & Brown, 2001). Explaining was also demonstrated well especially in giving information of the purpose or objective of the lessons and describing the process and procedures of science concepts. She also involved some personal judgement or attitudes and values into the lessons so that students could give their opinions or perspectives relating to the lessons.

Dimension 7: Maximise the learning potential of all students

R : Do the assessment influence students?

DI : Slow learners slowly can understand my lessons and solve the problems. Fast learner' learning can be more encouraging and have strong self-confidence.

Feedback was an important thing for students according to DI. She always encouraged her students to be involved in their own learning process even just giving them applause after they had solved problems. DI planned her lesson based on the assessment because she understood the influence of assessment on students' motivation and self-esteem. DI expressed her view that she used to give initial assessment verbally to find out their prior knowledge about her lessons and wrote this in her own journal as her notes. In the next meeting, she would address the questions to other students. After the lesson she usually gave evaluation, whether written or verbal, as reflection on her lessons. To ask students to assess themselves was difficult

to organise because the subjectivity and objectivity were too high an objective for them (there were self- and peer-assessment).

Reflective Conversation 2

The second conversation was held on 13 March 2015 at 11.14am. The researcher showed her the TCS document to be reviewed and asked her to observe her video of teaching and learning. Mostly, the researcher confirmed her good teaching and asked for her own perspectives; it was the first time for her teaching being recorded.

R : What are the things that you need to improve your teaching?

DI : First, prepare the instrument or apparatus which should be used in the classroom, even just a simple instrument to demonstrate or describe the topic. Second, I have to prepare my students to learn since there was a distraction like unscheduled programme, an official guest or counselling from the National Narcotics Body just now. I have to focus and alter students' mood to pay attention to learning again.

The researcher revealed DI's practice through the video and DI reflected that she had to prepare her lesson well by providing simple apparatus to support her teaching. DI thought that she had to prepare the students to be ready to receive the lesson, and to alter their mood also, because it was quite difficult for them to pay attention to the lesson after an unscheduled event from the school. DI was excited to see her video and she recognised the different strategies and methods. She noticed that she had to organise the students into small groups and reduce the number of learning tasks in one lesson. DI felt more confident after seeing her video and she was satisfied with her performance especially to see her students' enthusiasm. DI gave enough opportunities, challenges and motivations to her students. She was still trying to treat students who kept silent and were hard to cooperate with others. Overall, DI had a good performance in every video.

Reflective Conversation 3

It was held on 22 April 2015 at 11.49 am. DI's showed her impressions of reflective actions and gained new knowledge over reflective practice.

I can apply various methods and strategies, recognise my strengths and weaknesses. Now I know the benefit of doing reflection.

In the last conversation, DI's perspectives on reflective practice became wider and she understood its benefits. She thought that doing reflection was important and considered that she would have continuous improvement if she did it more often. DI was eager to continue the reflective actions but the barriers were the video-recorder and shooter in the classroom that were a distraction. If she did it again, her reflection would be based on students' activities only. Another barrier was the administration work she had to do which was not related to the teaching and learning process at all. DI thought that reflection was a doable action every time after the lessons but she focused first on a certain perplexed event to be fixed in the next lesson.

Perspective on TCS

At first, DI did not understand well the TCS but she focused on pedagogic competence:

First, to create lesson plans is the important thing in teacher competence. Second is teaching ability to apply the lesson plan to teaching the students. Third, evaluation to find out the results of the lesson plan and teacher's teaching practice. In short: teaching preparation, implementation, evaluation and the last is improvement.

DI demonstrated the TCS in four dimensions and in almost all the focus areas. She understood how to become a good teacher by showing her teaching skills, having a good personality and social awareness at the same time. She understood her students' characteristics and how to encourage them to maximise their potential. As explained above, she recognised students' prior knowledge and their learning difficulties. She was able to interpret the curriculum in her teaching practice by organising the topics, learning objectives and choosing the approach based on students' characteristics. She was also able to create an enjoyable learning environment, though there was a time when she lost her mood, and provided learning activities to actualize students' potential. In communicating, DI demonstrated an effective and proper way and

students respected her. She understood the nature of assessment and evaluation, developed the instruments and procedures and recorded the results. Emphasizing her reflection on the TCS for personal improvement, DI demonstrated that she always reflected on her teaching learning practice time after time and utilized the assessment results to develop and improve her teaching skills but had not yet conducted action research.

DI appreciated students' different backgrounds, her colleagues and students' parents and she was proud to be a teacher and had self-confidence. She communicated well with the communities (parents, colleagues and other academic groups) and solved several problems/learning difficulties related to her students.

For the last dimension of the TCS, DI demonstrated her reflection for professional development by revising and modifying her lesson plans, sometimes instantly when there was adjustment needed, and included the evidence to be improved for the next year lessons.

6.3.2.2 Observations and videotaping

It was interesting for the researcher to attend and observe DI's lessons because she applied various strategies in each observation. The first observation was on 11 February 2015 at 11.42 am, with a Year 8 class (Year 8F). DI started by asking students to memorize the terms used in the topic about pressure. It was motivating for students and she provided a general picture of the topic. DI informed students of the learning objectives while explaining the formulas. The second observation was on 18 February 2015 at 10.33 am (Year 8E) and DI opened the lesson by reminding students of the previous lesson on formulas. Observation 3 was on 4 March 2015 at 1.22 pm (Year 8F) and took place in a laboratory. DI's lesson was also recorded for the school to be compiled in a school profile video. DI applied another strategy, that is, to let students read the material first before she started to explain the lesson. In this observation, DI admitted that her mood was a little bit down because there was an unexpected activity from the school that distracted school periods. The last observation was on 19 March 2015 at 7.35 am (Year 8E) and DI started the lesson by

checking the absent students and saying prayers. DI explained briefly about the topic, grouped the students and gave instructions on how to do the project/task.

In all the observations, DI's attitude such as her clear voice or articulation and gestures were effective, but the most important thing was that her enthusiasm during the lesson was superb. DI's expressions, connections or interactions with her students were evident to gain students' involvement in gaining their own knowledge. DI mastered the topics, organised the lessons as she had planned, gave brief and clear example and connected the topics to real life. DI also assisted students during the workgroup and responded to students' questions straightaway. DI had the ability to use the media effectively to represent the topics. DI also used various strategies to evaluate students' understanding with group competition, quizzes and worksheets.

In closing the lessons, DI reviewed the lessons to strengthen students' understanding and also confirmed the knowledge students' gained or students' works then invited questions and summarized the topics. DI also asked students' impression on how the lessons went and gave them information about the next lessons.

DI's reflection

Although DI expressed her reflection mostly in reflective conversations, the researcher asked her to review her videos and gave comments on the forms. DI admitted in her first observation that her voice was not clear because there was noise from outside the classroom and also she skipped several steps of the procedures that she had planned. DI thought that sometimes she spoke too quickly and did not approach or interact with slow learners. DI also thought that she gave too much information and did not let the students review or summarize their own understandings. Overall, DI was happy that she could analyse her own teaching by reflecting on her videos.

Table 6.4 Teacher Performance Assessment: DI

No	Teacher' performance	Ob1	Ob2	Ob3	Ob4
1.	Ability in opening the lesson				
	Attract students' attention	v	v	v	v
	Give initial motivation	v	v	v	v
	Give apperception (connection with the previous topic)	v	v	v	v
	Share learning objectives	v	v	v	v
	Give material	v	v	v	v
2.	Attitudes/behaviour				
	Clear articulation	-	v	v	v
	Body movements/gestures do not distract students' attention	v	v	v	v
	Show enthusiastic	v	v	v	v
	Mobility in giving the lesson				
3.	Mastering the topic				
	Lesson plan based	-	v	v	v
	Topic clearness	v	v	v	v
	Giving examples	v	v	v	v
	Have broad knowledge on the topic	v	v	v	v
4.	Teaching and learning process				
	Use appropriate method with the topic	v	v	v	v
	Objectives/indicators based	v	v	v	v
	Ability in responding and answering students' reaction/questions	v	v	v	v
	Have proper time based	v	v	v	v
5.	Teaching and learning media usage				
	Use media properly	v	v	v	v
	Use appropriate media with the topic	v	v	v	v
	Have ability in using media	v	v	v	v
	Increase students' attention in learning activities	v	v	v	v
6.	Evaluation				
	Relevant with objectives	v	v	v	v
	Various evaluation/assessment	v	v	v	v
	Lesson plan based	v	v	v	v
7.	Ability in closing the lesson				
	Review the topic	v	v	v	v
	Give opportunities to students to ask/question and answer	v	v	v	v
	Give conclusion				
8.	Follow-up				
	Give exercise/home work to students both individual or/and group	v	v	v	v
	Give information of topic for the next meeting/lesson	v	v	v	v
	Give students motivation to have learning spirit	v	v	v	v

6.3.2.3 Writing journals

DI mixed the style of her writing, being both descriptive and personal (Wong et al, 1995). DI began her writing by describing the procedure of her teaching from the

opening to the closing, then she wrote about the reflective actions. The writing was personal and she mentioned the researcher, the process of preparing the lesson, the time and ended with problems she was facing during the lesson, the plan for the next lesson and notes from discussion with the researcher after the lesson.

Table 6.5 Checklist for reflective journals

Level 1	Element of reflection	Brief definition	Checklist
Time	Reflection in action	Occurs while in the midst of an action; on the spot decision	v
	Reflection on action	Occurs after the action has been completed	v
	Reflection for action	Occurs before being faced with the situation; begins to plan for the future	v
Content	Content	Explores the experience from a number of perspectives (beyond description)	v
	Process	Describes the strategies used or available	v
	Premise	Recognizes and explores own assumptions, values, beliefs and biases	v
Stage	Returns to experience	Describes the experience	v
	Attends of feelings	Acknowledges and begins to work with feelings	v
	Re-evaluates	Reappraises the situation versus past experience	v
Level 2	Level of reflection		
Journal	Non-reflection	No evidence of reflection is present	-
	Reflection	Evidence of reflection is present	v
	Critical reflection	Evidence of critical reflection is present	v

Adopted from Plack et al. (2004)

DI's reflective writing contained the items at level 1 and level 2 of the checklist. She described well the situation of reflection in and on, even for action.

I tried to complete my lesson plan for the second observation last night but it has not been finished yet. I am a bit confused because today I have to give an exercise to my students. Then, I got an idea to turn the exercise into a fun activity by using 'Number Head Together'. I grouped them and gave clear them instructions before started the activity. During the activities, I was happy because I could see that my students

enjoyed the quiz and they reviewed the material as well. The interaction between students was good and they all gained good scores.

DI summarised her writing with something that became an obstacle during the lesson and what should be improved in the future.

Obstacle: unfinished lesson plan; improvement: should complete the lesson plan with students' worksheet-quiz with 'Number Head Together' will suit students as an exercise in reviewing the lesson.

It can be seen that DI also mentioned the strategy she used and her feelings towards her practice, thought about her weaknesses by exploring the situations. DI was considered as a critical reflector because she implied that the problem occurred and was able to critique her own assumption. DI also tried to modify her practice in the future and to improve it.

6.3.3 Civics Teacher 1

EN was a senior teacher, and her major was civics education, and she had been teaching for 27 years at the time of this study. She had previously taught in Jakarta since 1989 and then moved to Cimahi in 1995. She was a fine person with good utterance of *Bahasa Indonesia* structure but has had difficulties in academic writing such as that about action research. It was a bit difficult to invite her to express her thoughts on her experiences, mostly she told the researcher about her students. Although EN was a senior teacher, she had a limited understanding of the TCS and thought that it was based on teacher's competence. EN thought that she might finish her duty and resign, she did not have any passion to conduct action research and she just followed what the regulations applied.

6.3.3.1 Reflective Conversations

Reflective Conversation 1

The first conversation was held on 29 January 2015 at 10.55am.

Dimension 1: Study your own teaching for personal improvement

R : How do you improve your teaching?

EN : I used to join the teacher workgroup (MGMP), but this semester it hasn't started yet. Last semester we invited lecturers from university to improve our knowledge. But there's no schedule yet from the local education authority district.

EN did not say much about the aspects of the dimensions and she expressed more about reflection in the second conversation. To improve her teaching, EN attended teacher workgroups such as MGMP which invited professionals such as lecturers from university to enrich teachers' knowledge. There was a visit to Corruption Eradication Commission in Jakarta when the researcher was there. But there were no activities after that.

Dimension 2: Evaluate your own teaching

R : How do you evaluate your teaching practice?

EN : I asked students to comment on my performance. They said I speak fast and sometimes I have to re-explain the lessons. The fast learners answered my questions because they paid attention and wanted to know more.

To evaluate her teaching, EN asked her students for their feedback of her teaching practice. Most feedback EN got from the students was that she spoke fast and she had to explain again but she kept focusing on explaining students' conditions on how they received the lesson.

Dimension 3: Link theory with your own practice

R : How do you understand students' characteristics?

EN : To understand deeply is very difficult so I group them to remember their names and other characteristics as well. I mark them in my students' list to find out which are smart, diligent, average, lazy and slow learners.

EN often linked the lesson to daily life to give examples about values to students. She understood that students should be given the actual values through certain activities. EN considered that Year 7 students were easy to understand contextual events although there were several students who were lazy to work in a group. EN tried to build students' good characters and gave them values such as honesty or not cheating and patriotism.

Dimension 4: Question your personal theories and beliefs

R : Do you observe that your students like school?

EN : The majority say they are happy to go to school. Compared to open school students (there are 5 classes of open school, that is, classes for low social and very slow learner background in another part of the school), the regular school students stay inside the classroom while there's no teacher. The open school students like to wander around.

In teaching self-efficacy, EN seldom needed to encourage students to do their homework. EN gave stars (symbols) as reward to students. She used to design an essay test to challenge fast learners besides the multiple choice test. EN explained to her students about the assessment and evaluation system to make them aware of their capability in the lessons. Self-assessment also was applied as one of requirement in the new curriculum.

In creating a positive school climate, EN interactively talked with students in the classroom in general about maintaining the good school environment. Mostly, she emphasized applying values in everyday life in her teaching to students. Sharing and discussing with other teachers and staff was also done when there were difficulties to deliver certain topics.

Dimension 6: Try out new strategies and ideas

R : Do you try new strategies?

EN : I just apply [them to make] a little change. Once in a while I asked my students to sing together or use a talking stick strategy to answer the questions.

EN applied most of teacher-centred approach by explaining the topic to students, and just once in a while, by having some variation which depended on her design of the lesson, especially the tasks EN gave during the lesson.

Dimension 7: Maximise the learning potential of all students

R : How do you recognise students' potential?

EN : I encourage students to like every lesson. Most students think that maths, science and English are more important than other subjects because those are compulsory in national examinations. I told them that every lesson is important.

EN tried to pull out students' potential by motivating them to enjoy and focus on every subject. She emphasized that all subjects had their own benefits. If students could gain good scores in mathematics but had bad attitude, it was useless. EN gave students star feedback and designed the assessment based on students' needs.

Reflective Conversation 2

The second conversation was held on 13 March 2015 at 1.17 pm. EN admitted that she did not manage her class well and she had to motivate her students to be ready to learn in her classroom.

R : How do you organize your time?

EN : In certain classes, I could manage well but in another class, I could not finish my lesson (tasks) because most students are slow learners.

EN was not satisfied with her teaching practice from her video. It seemed that EN classroom management was dependent on the students' characteristics in general. EN did not pay attention to all students in the classroom. The researcher observed that students in the back seats did not pay attention to her teaching and did their homework instead.

I think I have delivered my lesson as I planned beforehand but I have to improve the strategies.

EN realised that she did not apply various strategies in delivering her lesson. She noticed that a good score affected students' motivation but still found it difficult to apply self-assessment to get feedback from her students due to their subjectivity.

Reflective Conversation 3

The conversation was held on 22 April 2015 at 8.54 am. EN admitted that before the researcher came to the classroom to observe, she just did her teaching spontaneously. Now, she thought about preparing her practice before she came to the classroom.

Now I think about preparing everything in the classroom like the assessment and tasks with instructions to students. I think that my practice is more focused now.

In the last conversation, EN implied that she wanted to change her practice and improve in her practice by overcoming her weaknesses. Her understanding of reflection was to recall of what she had done and improve the weaknesses.

Perspective on TCS

R : To what extent do you understand teacher's competence?

EN : I think every person has different competence. And the education background should be linear or in accordance with his/her field.

EN's understanding of teacher's competence was limited to the regulations of teachers' levelling ranks. The researcher tried to solicit EN's explanations of certain dimensions of the TCS, but her answers were not as elaborate as expected. EN applied the TCS to teaching students by integrating the topic she delivered with daily life in a way better than only reading the textbook. EN often asked students to find issues on TV and the Internet.

6.3.3.2 Observations and videotaping

Observation 1 was held on 16 February 2015 at 8.21 am (Year 7B) and EN started with checking the homework and gave consequences to students who did not do it. EN then reviewed the answers and cross-checked those among student groups. The lesson on that day was about the homework so EN reviewed it while she explained the topic. Observation 2 was held on 26 February 2015 at 7.36 am (Year 7G) and the lesson was about group performance and there was no opening or motivation. EN just asked students to prepare for the performance. The third observation was held on 18 March 2015 at 10.45 (Year 7H) and EN opened the lesson by informing the students the lesson objectives and explaining the tasks students should do. The fourth observation was held on 24 March 2015 at 7.44 am (Year 7D) and EN started with the project that students did and explained the purpose of the activity.

EN's voice was clear during the lessons but was less enthusiastic when connecting with her students. EN mastered the teaching material and organised her lessons as she had planned, but mostly, she dominated the classroom. At certain point, usually nearly at the end of the lessons, students were bored and did not pay attention seriously to the lessons. This was likely related to the lack of learning media usage to support EN's lesson delivery. EN applied evaluation during students' presentations or based this on their works. EN closed the lesson by reviewing the lesson and gave opportunities for students to ask questions. EN gave homework as the follow-up to the next meeting.

EN's reflection

EN gave an argument that, in Observation 2, it was only the continuation of the previous lesson so that students just prepared for their presentations. EN admitted that she did not use media and she encouraged students to learn more from other resources. EN also argued that she did not use media because there were some students who still were not active in the group. In her reflection, EN said she did not use media in Observation 1 because she did not prepare for the lesson but she ticked the form in the media usage section. Similarly, in Observation 4, EN did not use media because the activity was question and answer but she ticked the section about using media.

Table 6.6 Teacher Performance Assessment: EN

No	Teacher' performance	Ob1	Ob2	Ob3	Ob4
1.	Ability in opening the lesson				
	Attract students' attention	v	-	v	v
	Give initial motivation	v	-	v	v
	Give apperception (connection with the previous topic)	v	-	v	v
	Share learning objectives	v	-	v	v
	Give material	v	-	v	v
2.	Attitudes/behaviour				
	Clear articulation	v	-	v	v
	Body movements/gestures do not distract students' attention	v	-	v	v
	Show enthusiastic	v	-	v	v
	Mobility in giving the lesson				
3.	Mastering the topic				
	Lesson plan based	v	-	v	v
	Topic clearness	v	-	v	v
	Giving examples	v	-	v	v
	Have broad knowledge on the topic	v	-	v	v
4.	Teaching and learning process				
	Use appropriate method with the topic	v	-	v	v
	Objectives/indicators based	v	-	v	v
	Ability in responding and answering students' reaction/questions	v	-	v	v
	Have proper time based	v	-	v	v
5.	Teaching and learning media usage				
	Use media properly	v	-	v	v
	Use appropriate media with the topic	v	-	v	v
	Have ability in using media	-	-	v	v
	Increase students' attention in learning activities	v	-	v	v
6.	Evaluation				
	Relevant with objectives	v	-	v	v
	Various evaluation/assessment	v	-	v	v
	Lesson plan based	v	-	v	v
7.	Ability in closing the lesson				
	Review the topic	v	-	v	v
	Give opportunities to students to ask/question and answer	v	-	v	v
	Give conclusion	v	-	v	v
8.	Follow-up				
	Give exercise/home work to students both individual or/and group	v	-	v	v
	Give information of topic for the next meeting/lesson	v	-	v	v
	Give students motivation to have learning spirit	v	-	v	v

6.3.3.3 Writing journals

EN mostly described her teaching and emphasized students' performance in doing their homework or tasks. EN did not reflect on her own teaching practice but judged students' attitude or behaviour towards her lesson or even their ability in following or doing the tasks. EN evaluated her students/classroom teaching based on how long they could complete the tasks.

Table 6.7 Checklist for reflective journals

Level 1	Element of reflection	Brief definition	Checklist
Time	Reflection in action	Occurs while in the midst of an action; on the spot decision	-
	Reflection on action	Occurs after the action has been completed	-
	Reflection for action	Occurs before being faced with the situation; begins to plan for the future	-
Content	Content	Explores the experience from a number of perspectives (beyond description)	-
	Process	Describes the strategies used or available	v
	Premise	Recognizes and explores own assumptions, values, beliefs and biases	-
Stage	Returns to experience	Describes the experience	v
	Attends of feelings	Acknowledges and begins to work with feelings	-
	Re-evaluates	Reappraises the situation versus past experience	-
Level 2	Level of reflection		
Journal	Non-reflection	No evidence of reflection is present	v
	Reflection	Evidence of reflection is present	-
	Critical reflection	Evidence of critical reflection is present	-

Adopted from Plack et al. (2004)

If I measure from the lesson objectives, this class was slow and demanded tasks or projects which were joyful like searching the meaning of folk songs. If I give them a certain task, only two groups completed the task.

EN did not provide learning material that mediated students' interests. EN assumed that every classroom she taught should have the same tasks and projects. EN's writing did not represent that she was a reflector and did not show her feelings about her practice.

6.3.4 Social Science Teacher

NE had been teaching for 16 years when she participated in this research and she previously taught in Majene-Sulawesi Barat, a province in Sulawesi Island, east from Java Island. She lived there and applied for teacher transfer and then moved to West Java, Cimahi City, in 2014 because she followed her husband who served in the army. NE's character was calm and hardly got angry making it difficult for her to manage her Year 7 students; she always wanted to find a proper strategy to attract her students to enjoy the lessons. NE was willing to change and gain new knowledge. She demonstrated the changes during the research by trying to apply new strategies from her observation of her colleague and her reflection through videos.

6.3.4.1 Reflective conversations

Reflective Conversation 1

The first conversation was held on 29 January 2015 at 10.07 am. The researcher invited her to explain more by leading the conversation because NE was never in such a conversation before.

Dimension 1: Study your own teaching for personal improvement

R : How do you improve your teaching practice?

NE : I attend teacher workgroups if there is any invitation. I also like to attend training but it is limited because the school management (principal and vice-principal) would assign certain teachers to go. I could not ask to be assigned as I am a new teacher here and I think the teacher training was held not for as many times as before.

NE expressed that she was hardly given opportunities to attend professional development activities because she was a new teacher and the principal or vice-principal would assign her colleagues instead of her.

Dimension 2: Evaluate your own teaching

R : How do you evaluate your teaching practice?

NE : Mostly from students test results. If average students could gain good scores, I assume that my teaching practice is quite successful.

NE thought that she had taught well but still there were several students with low scores and some did not submit their homework. NE was perplexed by this situation, then she made a commitment with students that she did not allow them to attend her class before they submitted their homework.

Dimension 3: Link theory with your own practice

R : How do you recognize your students' characteristics?

NE : I teach 7 classes and remember 'most' students, especially the smartest, laziest, naughtiest and uncommunicative ones.

NE tried to remember and understand her students' characteristics by observing while teaching them. NE asked the fast learners to become tutors of their classmates and often called the naughtiest students to answer her questions.

Dimension 4: Questions your personal theories and beliefs

R : How do you motivate students who have low interest in your lesson?

NE : I give them tasks and they can do them whenever they like. I offer them scores as much often as they do the tasks and consider this as a debt to them. If they still don't do the tasks in the next semester, I just put the minimum scores to them.

NE tried to make a commitment with the students in terms of motivation such as involving fast learners to become group leaders and doing their homework. In creating a positive school climate, NE often discussed with her colleagues and sat in their classes to observe how they applied certain strategies and methods. NE also interacted well with other staff and they helped her in administrative work.

Dimension 6: Try out new strategies and ideas

R : How do you motivate students to learn at school?

NE : Students are quite busy with other homework and extracurricular activities. So, I advise them to do my assignment at school. I give them flexibility.

NE applied strategies she gained from observing others to teaching her students and she admitted that the results were varied. It depended on students' ability in responding to her lessons. NE did not give enrichment to fast learners but she encouraged them to become group leaders and organize the groups and this took time.

Dimension 7: Maximise the learning potential of all students

R : Do you give feedback to your students?

NE : Yes, I always give them written feedback and they will compare among themselves and make comments.

NE hardly gave her students verbal feedback because she was quite busy teaching during the day. Once in a while, she assigned students a project to involve them in their own learning and to browse the Internet on a daily basis. The assessment would motivate students as well if they gained good scores.

Reflective Conversation 2

The second conversation was held on 11 March 2015 at 1.15 pm. NE instantly embraced the idea of reflection and applied it. She found from her videos that several parts of her practice should be improved. NE thought that her teaching practice ran as she had planned but the results were varied: some students gained high scores and

some did not. The strategies were not as effective as she expected. NE had to sort out the effective classroom management since students grouped with their own choice. NE's attention was focused on fast-learner students because the less academic learners were slowing down her lesson so that she could not finish her lesson objectives. NE was still trying to find the proper strategies for teaching her students in order to attract and raise their interest in the lesson.

By knowing my weaknesses, I have intention to improve my practice not only from my students' perspectives but also from my own perspectives. I want to learn more from my colleagues as well.

Reflective Conversation 3

The last conversation was held on 22 April 2015 at 9.28 am. NE found that the reflective actions had several advantages for her improvement. She could improve her teaching through overcoming her weaknesses, gain new knowledge and understanding of reflective practice by experiencing the actions herself.

I will keep doing my reflection to attract students' attention to my lesson. I also will continue to learn from my colleagues like observing how they apply certain strategies to teaching students.

Perspectives on TCS

Teacher competence is about the performance, administration and coming on time to school and classroom.

NE had a limited understanding of the TCS. NE thought that teacher competence is based on how to organise administration such as lesson plans, syllabus and attendance list and so on. NE tried to apply those by maximising the standard of her administration such as teaching preparation and she admitted to learn how to make good lesson plans. NE tried to be a model for her students by coming to the class on time.

I deliver the subject matter that I mastered. I cannot manage my students easily. Probably I should classify them to fast learners, average students and slow learners.

In the second conversation, NE admitted that she was not satisfied with her practice although part of it ran as she had planned. NE tried to synchronize her practice with the lesson plan, and she did not achieve her targets or learning objectives. NE emphasized that she had professional practice because she mastered the subject she taught as she had her educational background.

6.3.4.2 Observations and videotaping

Observation 1 was held on 11 February 2015 at 7.24 (Year 7L) and EN began her lesson with greetings and explanations of the topic right away. In Observation 2, with the same class, NE opened the lesson more lively, asked students' conditions and connected the topic with students' daily context. In Observation 3, NE utilised a *PowerPoint* presentation to attract students' attention in explaining the topic. It was held on 18 March 2015 at 1.14 pm in Year 7M. The last observation was on 23 March 2015 at 12.44 pm and NE began explaining the topic after greetings and asking questions.

NE spoke clearly and her gesture or body language was just right. Her expressions were not so enthusiastic based on her character that was not too expressive. NE mastered the subject matter and could explain briefly and clearly. The lesson ran as NE had planned but she admitted that she still needed to learn to use certain strategies and media. NE started to join the researcher to observe other teachers and tried to apply what she observed to her classroom such as 'Number Head Together' strategy, question-and-answer cards and other strategies. But still there were several students who did not focus on her lesson and talked or did other matter that not related to the topic. NE conducted evaluation through the project and task. NE confirmed the topic before closed the lesson to strengthen students' understanding.

Table 6.8 Teacher Performance Assessment: NE

No	Teacher' performance	Ob1	Ob2	Ob3	Ob4
1.	Ability in opening the lesson				
	Attract students' attention	-	v	v	v
	Give initial motivation	v	v	v	v
	Give apperception (connection with the previous topic)	v	v	v	v
	Share learning objectives	v	v	v	v
	Give material	v	v	v	v
2.	Attitudes/behaviour				
	Clear articulation	v	v	v	v
	Body movements/gestures do not distract students' attention	v	v	v	v
	Show enthusiastic	-	v	v	v
	Mobility in giving the lesson	v	v	v	v
3.	Mastering the topic				
	Lesson plan based	v	v	v	v
	Topic clearness	v	v	v	v
	Giving examples	v	v	v	v
	Have broad knowledge on the topic	v	v	v	v
4.	Teaching and learning process				
	Use appropriate method with the topic	v	v	v	v
	Objectives/indicators based	v	v	v	v
	Ability in responding and answering students' reaction/questions	v	v	v	v
	Have proper time based	-	v	v	v
5.	Teaching and learning media usage				
	Use media properly	v	v	v	v
	Use appropriate media with the topic	v	v	v	v
	Have ability in using media	v	v	v	v
	Increase students' attention in learning activities	v	v	v	v
6.	Evaluation				
	Relevant with objectives	v	v	v	v
	Various evaluation/assessment	v	v	v	v
	Lesson plan based	v	v	v	v
7.	Ability in closing the lesson				
	Review the topic	v	v	v	v
	Give opportunities to students to ask/question and answer	v	v	v	-
	Give conclusion	v	v	v	-
8.	Follow-up				
	Give exercise/home work to students both individual or/and group	v	v	-	-
	Give information of topic for the next meeting/lesson	v	v	-	-
	Give students motivation to have learning spirit	v	v	v	-

NE's reflection

NE reflected on her teaching practice that she thought her opening was too long and could not attract her students' attention to the subject. In her first observation, NE was not feeling well and that made her not behave maximally during the teaching. The interaction between the teacher and students also not well connected. In the second

observation, NE thought that she could not give brief instruction and students could not finish their work in time. In the last observation, NE thought that the strategy was not effective because the ability of the students was different from that in the previous class (in Observation 3). The reflection of the lesson was not running well because it was the last period of the day and several classrooms had already ended their period.

6.3.4.3 Writing journals

NE wrote her reflective journals very well because she expressed the development and improvement of her practice. In the first observation, NE reflected that she was nervous and had never been videotaped before and did not have enough confidence due to her health (coughing). NE exposed that her confidence was increasing slowly from Observations 2 to 4 by preparing her lesson well and applying various methods (she sat in her colleagues' classrooms to observe how to apply their methods).

Table 6.9 Checklist for reflective journals

Level 1	Element of reflection	Brief definition	Checklist
Time	Reflection in action	Occurs while in the midst of an action; on the spot decision	-
	Reflection on action	Occurs after the action has been completed	v
	Reflection for action	Occurs before being faced with the situation; begins to plan for the future	v
Content	Content	Explores the experience from a number of perspectives (beyond description)	-
	Process	Describes the strategies used or available	v
	Premise	Recognizes and explores own assumptions, values, beliefs and biases	v
Stage	Returns to experience	Describes the experience	v
	Attends of feelings	Acknowledges and begins to work with feelings	v
	Re-evaluates	Reappraises the situation versus past experience	v
Level 2	Level of reflection		
Journal	Non-reflection	No evidence of reflection is present	-
	Reflection	Evidence of reflection is present	v
	Critical reflection	Evidence of critical reflection is present	v

Adopted from Plack et al. (2004)

NE demonstrated most of elements of reflection in her reflective writing such as involving the feelings and reflection on and for action. NE described the strategies used, her experience and critique her own practice.

“I felt confident this time because I could use media maximally. I also used PowerPoint presentation to support my lesson”.

I ended today’s lesson with happy feelings although it was not perfect. I started to try another method which was different from usual and it seemed that students enjoyed it. I hope in the next meeting I can use this method better in another classroom.

6.3.5 Art Teacher

NI had been teaching for 27 years when she participated in this research. In the first seven years, 1988-1995, she taught senior high school sociology and anthropology because there was a lack of these teachers. She was an easy-going person, liked to discuss things, was creative and innovative in teaching art. She had sufficient knowledge and her own style of teaching.

6.3.5.1 Reflective Conversations

Reflective Conversation 1

The conversation was held on 28 January 2015 at 9.05 am. NI was an extroverted person and it was easy to hold discussions with her. She mainly emphasized her teaching strategies and how she understood her students and never pushed them to create perfect artwork.

Dimension 1: Study your own personal improvement

R : How do you improve your teaching practice?

NI : I never give the same lesson to students that make me always use creative and innovative strategies to deliver my lessons. I attend workshops as well to enrich my knowledge such as a batik-making workshop which was held by a lecturer and was free for teachers.

NI was an active person and she joined a group of art teachers and was often involved in art exhibitions held by the government or other organisers. She assisted students in preparing for the school competition on drawing batik.

Dimension 2: Evaluate your own teaching

R : How do you evaluate your teaching practice?

NI : I evaluate my practice through students' results of certain project. If many students' works are failures, it could mean that my expectations or the project for secondary students are too complicated. I reflect on my practice and learn myself, and then I create a project that would have minimal failure but still students can gain knowledge and create artworks.

NI replied that she always designed new things, especially teaching strategies and techniques in making artworks for students that were doable. She evaluated her teaching practice through students' results of making artworks and would adjust the lesson with students' abilities based on their age.

Dimension 3: Link theory with your own practice

R : How do you understand your students' characteristics?

NI : I try to enjoy my practice in every class. I always try to understand their characteristics by grasping their teen life in order to make them comfortable learning with me.

NI did not remember the names of all her students but she admitted that the way she communicated was by understanding their teen life and singing together an up-to-date song if she noticed that the students became bored. She recognised the talented students and the laziest.

Dimension 4: Questions your personal theories and beliefs

R : Have you challenged the students to work at a difficult level?

NI : Of course. I want them to submit their good design. They have to do it by heart and I push them to do it with more effort.

R : How about the less talented students? Do you motivate them?

NI : My strategy is to group them in a project but still they do it individually. Before the group submits the work, all individual works have to be finished first. So, they will remind each other.

NI designed a project which was doable for both students who had talent and those who had low motivation. To motivate students, she would push their abilities to create artwork and facilitate the less motivated to do the project just to fulfil the minimal standard of the requirements. NI also grouped the students to improve their abilities in cooperating with others and set up disciplines for the less motivated students' to submit their tasks.

NI observed that students were happy to go to school but disagreed that school should always check students' appearance on shoes, uniforms, the length of their hair (for boys) and their nails (which should be cut regularly). The relationship between teachers and staff was considered close to create a positive climate in the school.

Dimension 6: Try out new strategies and ideas

R : Have you tried new strategies or ideas in your practice?

NI : Ideas, absolutely! But I haven't applied those because tools and equipment are limited. I want my students to know about using tools and equipment instead of just creating artworks. I expected that my students in the future will find art is very useful in their lives.

NI had a future expectation that the art lesson should be useful in the future. She had a kind of critical thinking that lessons in school, especially the art lesson is useful for

students in their future life. She encouraged students to be confident and always gave examples on how to create an artwork depending on their age.

Dimension 7: Maximise the learning potential of all students

R : Do you give feedback to your students?

NI : Yes, I always give them verbal feedback.

Besides giving her students verbal feedback, NI would encourage them to search for information for the next lesson that motivated them to learn and complete the project. NI designed the assessment based on the students' needs and they could value their own artwork whether it was good creation or not.

Reflective Conversation 2

The conversation was held on 15 April 2015 at 12.51 pm. NI emphasized her application of the TCS and she explained in her understanding that are more about teaching and learning and its evaluation is to motivate her students. After NI had watched her video, she thought that her classroom management was not good enough although when she planned her lesson she would think about what would happen in the classroom. In practising the delivery of her lessons, NI thought it was difficult to give attention to every student in assisting them while in theory it was so easy to control the situation in a lesson.

I always think that every teacher has his/her own characteristics in delivering the lessons. It will be difficult to change them but techniques should be varied in order to avoid students' boredom.

Reflective Conversation 3

It was held on 24 April 2015 at 10.10 am. In this conversation, NI admitted that videotaping was important to correct each other's mistakes for improving teachers' teaching quality. She could reflect on her own recorded teaching. She used to observe other teachers because she was the assessor in the school. NI was eager to write reports

of her exhibition as the replacement for classroom action research and she thought it was reflection too. In the future, she wanted to empower art teachers in their workgroups by disseminating her experience during research.

I like to capture the process of doing the artworks to make students gain from their own experiences while working on the art project.

NI expected that in the future school could videotaped teachers and they could correct each other's mistakes to improve teaching quality. NI applied strategies to teach her students how they could experience their learning to gain knowledge so that they would get not only theories but also the practice of the knowledge.

Perspectives on TCS

The Teacher Competence Standards have been practised naturally by me as a teacher but I never realise how I apply them.

NI admitted that she did not have much understanding of Teacher Competence Standards, although she could mention the dimensions of the standards. NI's understanding was that social awareness deals with teachers' interaction with community and colleagues, professional practice concerns teachers as professionals, pedagogy skills is the approach or teaching. NI admitted that he was not well informed about teacher standards the first time she became a teacher.

I applied pedagogy which is about teaching and learning. I think I understand most of my students. I evaluate my students verbally and in written form by giving them worksheets to find out their knowledge.

NI admitted that her classroom management was not as good as she would like, although she imagined first what would happen in the classroom before she started to design a lesson plan. NI still discussed with her colleagues to get other perspectives or alternatives.

6.3.5.2 Observations and videotaping

Table 6.10 Teacher Performance Assessment: NI

No	Teacher' performance	Ob1	Ob2	Ob3	Ob4
1.	Ability in opening the lesson				
	Attract students' attention	-	v		
	Give initial motivation	-	v		
	Give apperception (connection with the previous topic)	v	v		
	Share learning objectives	v	v		
	Give material				
2.	Attitudes/behaviour				
	Clear articulation	-	v		
	Body movements/gestures do not distract students' attention	v	v		
	Show enthusiastic	-	v		
	Mobility in giving the lesson	v	v		
3.	Mastering the topic				
	Lesson plan based	v	v		
	Topic clearness	v	v		
	Giving examples	v	v		
	Have broad knowledge on the topic	v	v		
4.	Teaching and learning process				
	Use appropriate method with the topic	v	v		
	Objectives/indicators based	v	v		
	Ability in responding and answering students' reaction/questions	v	v		
	Have proper time based	v	-		
5.	Teaching and learning media usage				
	Use media properly	v	v		
	Use appropriate media with the topic	v	v		
	Have ability in using media	v	v		
	Increase students' attention in learning activities	v	v		
6.	Evaluation				
	Relevant with objectives	v	v		
	Various evaluation/assessment	-	-		
	Lesson plan based	v	v		
7.	Ability in closing the lesson				
	Review the topic	v	v		
	Give opportunities to students to ask/question and answer	-	v		
	Give conclusion	v	-		
8.	Follow-up				
	Give exercise/home work to students both individual or/and group	v	-		
	Give information of topic for the next meeting/lesson	v	-		
	Give students motivation to have learning spirit	-	-		

The researcher just had the opportunity to attend NI's lessons and record her teaching practice twice only due to NI's tight schedule so that they could not meet at any other

time. The first observation was on 9 February 2015 at 12.24 (Year 9C) and it was a second meeting that NI just gave an example of doing an individual project right away. The second observation was on 5 March 2015 at 10.23 (Year 9E) that NI opened the lesson by reviewing students' knowledge and checking their previous understanding.

NI spoke in a clear voice and there was connection between her and her students and NI admitted to have encouraged her students to be mobile during her lessons to develop their creativity. NI's knowledge and understanding of the subject was excellent and she gave examples to students in a brief way. It seemed that NI let her students do the project in their own way, although she still assisted them once in a while. In the second observation, NI played a video of making artwork and gave an evaluation to gain students' understanding of the topic. The evaluation would be the product of students' artwork which would be collected a couple of weeks later.

NI's reflection

After seeing her video, NI reflected that she did not give her students written tests but based her evaluation on the products of their artwork. NI did not give motivation to students in the beginning of the lesson. She did not organise her students properly and as a result they did not focus on the practice but talked and teased among themselves. NI admitted that she did not conclude the lesson clearly.

6.3.5.3 Writing journals

NI admitted that she was better at designing or draw something than at writing. Although the researcher asked her to draw something to express her reflection on her practice, NI did not practise it.

Table 6.11 Checklist for reflective journals

Level 1	Element of reflection	Brief definition	Checklist
Time	Reflection in action	Occurs while in the midst of an action; on the spot decision	-
	Reflection on action	Occurs after the action has been completed	-
	Reflection for action	Occurs before being faced with the situation; begins to plan for the future	-
Content	Content	Explores the experience from a number of perspectives (beyond description)	-
	Process	Describes the strategies used or available	-
	Premise	Recognizes and explores own assumptions, values, beliefs and biases	-
Stage	Returns to experience	Describes the experience	-
	Attends of feelings	Acknowledges and begins to work with feelings	-
	Re-evaluates	Reappraises the situation versus past experience	-
Level 2	Level of reflection		
Journal	Non-reflection	No evidence of reflection is present	-
	Reflection	Evidence of reflection is present	-
	Critical reflection	Evidence of critical reflection is present	-

Adopted from Plack et al. (2004)

6.3.6 Mathematics Teacher

NU had been teaching for 18 years when she participated in this research. She taught in Sumedang, a district about 50 km south of Bandung, and then, she moved to Cimahi because in 2003 she met her husband who, during this research, served in the army in Cimahi. NU was a quiet and neat person. She was good at doing computerised administration and that was why she had been assigned to help the vice-principal's job and this made her so busy doing school administration. During the research, NU was often ill because she had to finish certain administrative work and she admitted that she could not focus on delivering the lessons. Although doing administrative tasks, she had limited understanding of the TCS.

6.3.6.1 Reflective Conversations

Reflective Conversation 1

The first conversation was held on 30 January 2015 at 10.12 am. At first, the researcher thought that NU was a quiet person but after getting involved in the conversation, NU expressed a lot about her teaching practice.

Dimension 1: Study your own teaching for personal improvement

R : How do you improve your practice?

NU : I improve it by remembering my previous practices which I considered failures in using certain methods. I have my own notes in my mind, and unfortunately, I did not write them down. When I enter a certain class, I will not use the same methods or strategies because I have already modified it.

NU always revised her lesson plan by taking notes on the previous lesson plans. It happened that NU taught two gifted classes of Year 8. She often differentiated the lesson plan and the treatment. She did not mention about attending any professional development groups.

Dimension 2: Evaluate your own teaching

R : How do you evaluate your practice?

NU : I used to do item analysis to see students' understanding of the problems in evaluation.

In this dimension, NU relied on item analysis and her reflection on the lesson to evaluate her teaching. She also replied that students were given information about the benefit of the lesson.

Dimension 3: Link theory with your own practice

R : Do you understand your students' characteristics?

NU : I understand the special students, the smartest and the laziest. I can recognise their abilities by looking at their works, which show which students have already understood the lesson and which students have not.

NU taught eight classes and she had a strategy to group her students so as to remember them easily. She always assisted the groups and read students' names from their name tags. NU also held remedial and enrichment classes and the parents should sign the work of their children. She gave the remedial lessons to students who got low scores and enrichment for those who gained high scores.

Dimension 4: Question your personal theories and beliefs

R : How do you motivate slow learners?

NU : I talk to them in private and invite their parents to see me. I will pay attention to the slow learners during my lesson and also see their attitudes. I encouraged them to solve problems in front of the classroom to gain some points and slowly their self-confidence rises and understand the lesson. But several students still hardly understand although I've already changed my strategies and approaches personally for them. Then I ask their parents to assist them at home.

In teaching self-efficacy, NU increased students' memories of the previous lesson, motivated low learners, gave difficult tasks to challenge them and made them do their homework with their parents' assistance. Students worked well together and NU assisted them during the group work.

In creating a positive school climate, NU often developed the understanding of her students about caring their school by creating a good environment. Once NU helped a student who had economic difficulties by visiting and encouraging the students to keep learning and coming to school. NU shared and discussed with her colleagues and the relationship between staff and teachers was good.

Dimension 6: Try out new strategies and ideas

R : Have you ever tried new strategies or ideas?

NU : I just tried to make students interested in mathematics that's why once in a while I use cards or else as props. To give the lesson using PowerPoint, the preparation takes a week whereas I just deliver the lesson only for two periods.

NU hardly applied new strategies because her focus was on students' ability in solving the problem which made her emphasize exercises and once in a while she gave 'brain gyms' or brain stretching to make her students focus.

Dimension 7: Maximise the learning potential of all students

R : Do you give feedback to students on their works?

NU : I write the feedback both on the students' exercise books and my notebook. This is to show that I am serious in scoring and giving feedback and this procedure can motivate them as well.

In maximising the learning potential of her students, NU emphasized the evaluation to motivate her students. There is self-evaluation in the first semester to find out students' impressions of the lesson including the previous teacher. NU could investigate the scores students gained whether they cheated or not in the previous year.

Reflective Conversation 2

The second reflective conversation was held on 10 April 2015 at 9.15 am. It was to confirm NU's teaching practice after the researcher recorded her teaching activities and tried to develop NU's awareness of reflection.

R : What do you think about your practice?

NU : I found that several students do not understand about the lesson. I reflected on my practice on the next day and I think I should apply a different strategy to explain that.

NU inferred that she wanted to attend another mathematics teacher's class and learn about the teacher's strategies and methods. She had weaknesses in grouping the students or managing students' group work which took longer of her time. NU gave opportunities to students to question and answer and let them do their homework innovatively.

Students were motivated by the good scores and worksheets considering that mathematics as one of the compulsory subjects in National Examination. NU would check and analyse their work and they would ask her to give the worksheets back if NU forgot to hand those to them.

Reflective Conversation 3

The third reflective conversation was held on 24 April 2015 at 11.13 am. This conversation was to gain NU's understanding and her perspectives on the activities during the research.

Video supports reflection. I can see my weaknesses and I can ask students what they really want me to present in the lesson in order to make them understand the topic. I think it's good if there is combination of supervision and recorded observation. Supervisor can give me input while I am watching my video.

In the last conversation, NU implied that she was very grateful to gain new knowledge and experiences. NU hoped that school would provide the video-recorder and apply the same activity to help teachers designed lesson plans for the future.

Perspective on Teacher Competency Standards (TCS)

NU had limited understanding of Teacher Competence Standards and only focused on designing lesson plans.

R : To what extent do you understand TCS?

NU : As a teacher, I should know what I am doing: my main role, how to prepare the lesson, ready to face my students. In short, I should be ready in my teaching practice

R : Do you think that teacher competence deals with teacher's preparation and lesson plans?

NU : Yes, I think it's better to create my own. Teacher workgroups usually provide lesson plans from the guidelines and they are on the Internet, I usually look at them and modify one.

NU mostly demonstrated pedagogical skills with the focus area of understanding the curriculum and determining learning objectives to be applied to lesson plans. NU also organised routine evaluation and analysed students' results to determine their mastery learning. NU often used technology such as *PowerPoint* presentation to deliver the subject.

R : After you see the videos, have you applied teacher standards?

NU : I think I have applied pedagogy because I can understand students' characteristics and interpret the curriculum for lesson in the classroom.

In the second conversation, the researcher showed the complete TCS document to NU and reviewed her practice. NU focused on students' characteristics and understood how to interpret the curriculum for the subject delivered to her students. In general, NU was satisfied with her teaching because it ran as it had been planned but just with slight miscommunication with her students about the students' worksheet.

6.3.6.2 Observations and videotaping

NU taught in Year 8B, a class of accelerated students, and the observation took place in that classroom. NU mostly opened the lesson with checking students' homework or group work after greeting them. NU gave apperception by reviewing previous lessons

and connected the lesson to everyday life with examples. NU spoke gently but clearly, was not too enthusiastic and the lesson was organised as she had planned.

Table 6.12 Teacher Performance Assessment: NU

No	Teacher' performance	Ob1	Ob2	Ob3	Ob4
1.	Ability in opening the lesson				
	Attract students' attention	v	v	v	v
	Give initial motivation	v	v	v	v
	Give apperception (connection with the previous topic)	v	v	v	v
	Share learning objectives	v	v	v	v
	Give material	v	v	v	v
2.	Attitudes/behaviour				
	Clear articulation	v	v	v	v
	Body movements/gestures do not distract students' attention	v	v	v	v
	Show enthusiastic	-	-	-	-
	Mobility in giving the lesson	v	v	v	v
3.	Mastering the topic				
	Lesson plan based	v	v	v	v
	Topic clearness	v	v	v	v
	Giving examples	v	v	v	v
	Have broad knowledge on the topic	v	v	v	v
4.	Teaching and learning process				
	Use appropriate method with the topic	v	v	v	v
	Objectives/indicators based	v	v	v	v
	Ability in responding and answering students' reaction/questions	v	v	v	v
	Have proper time based	v	v	v	v
5.	Teaching and learning media usage				
	Use media properly	v	v	v	v
	Use appropriate media with the topic	v	v	v	v
	Have ability in using media	v	v	v	v
	Increase students' attention in learning activities	v	v	v	v
6.	Evaluation				
	Relevant with objectives	v	v	v	v
	Various evaluation/assessment	v	v	v	v
	Lesson plan based	v	v	v	v
7.	Ability in closing the lesson				
	Review the topic	v	v	v	v
	Give opportunities to students to ask/question and answer	v	v	v	v
	Give conclusion	v	v	v	v
8.	Follow-up				
	Give exercise/home work to students both individual or/and group	v	v	v	v
	Give information of topic for the next meeting/lesson	v	v	v	v
	Give students motivation to have learning spirit	v	v	v	v

NU used methods that she believed was effective to teach students such as explaining the formula then giving them an exercise. NU used several media such as *PowerPoint* presentation and coloured paper. In Observation 1, NU gave Energizer, an activity to

warm up students, to increase students' motivation and alter their mood to learn. NU gave worksheets to her students and asked them to solve the problems in groups. NU assisted her students while they were doing their work and at the end they put the workgroups' completed worksheets on the board and presented the results. At the end of the lesson, NU gave peer-evaluation sheets to students.

Observation 2 was conducted over 2 days because there was an incident event at the school and this had taken up two periods of NU's lesson. The second day there was no electricity so that NU could not use her *PowerPoint* presentation to explain the lesson. Then, she started to explain a formula by writing on the board. As usual, NU then gave her students a worksheet and asked them to work in groups to solve the problems. NU assisted them and asked them to present their work in front of the class. NU reflected on the lesson by giving evaluation sheets to students at the end of the lesson.

Observations 3 and 4 were on teaching the same topic, about the circle. In Observation 3, NU mostly just explained about the basic knowledge and at the end of the lesson she reflected and summarized the topic with students and gave homework. In Observation 4, NU asked students to come forward to present their homework. NU gave another task and assisted students in solving it. It can be seen that NU always gave follow-up to students in every lesson.

NU's reflection

NU admitted that her performance was not too attractive and she thought that encouragement like gestures or facial expressions was not too important for Year 8 students. NU just gave her students verbal motivation that she thought would be enough for them.

6.3.6.3 Writing journals

NU expressed her reflective writing personally that involved her feelings, reflection and experience but did not show much about the strategies she had used. NU wrote

the procedures of her practice and emphasized problems she had faced during the practice.

Table 6.13 Checklist for reflective journals

Level 1	Element of reflection	Brief definition	Checklist
Time	Reflection in action	Occurs while in the midst of an action; on the spot decision	-
	Reflection on action	Occurs after the action has been completed	v
	Reflection for action	Occurs before being faced with the situation; begins to plan for the future	v
Content	Content	Explores the experience from a number of perspectives (beyond description)	v
	Process	Describes the strategies used or available	-
	Premise	Recognizes and explores own assumptions, values, beliefs and biases	-
Stage	Returns to experience	Describes the experience	v
	Attends of feelings	Acknowledges and begins to work with feelings	-
	Re-evaluates	Reappraises the situation versus past experience	v
Level 2	Level of reflection		
Journal	Non-reflection	No evidence of reflection is present	-
	Reflection	Evidence of reflection is present	v
	Critical reflection	Evidence of critical reflection is present	v

Adopted from Plack et al. (2004)

I gave students' worksheet, two different problems, and students worked in groups and nobody asked about the problems. When they had to present the results, there was nothing wrong with Problem 1, all groups could answer it correctly. But I found that only 50% answered Problem 2 correctly. I asked them about drawing the graphics, and they answered that they did not understand how to draw the graphic. I think I should explain the topic once again.

6.3.7 English Teacher

PO had been teaching for about 20 years when she participated in this research and she did not graduate from IKIP/Education University. At first PO did not have a passion to teach but in 1995 she started to teach in a public primary school, a secondary school and then a high school on a low salary. Then she continued her study by taking a teaching certificate and applied for a teacher programme called *Guru Bantu* (Helper Teacher) in 2002. PO taught in a low-standard private school for four years. Fortunately, PO was assigned to become a government teacher in 2006 and she began to teach English in the current school. She admitted that she had to gain as much knowledge as she could to become a better teacher because her background was not in teacher education.

6.3.7.1 Reflective Conversations

Reflective Conversation 1

Conversation 1 took place on 28 January 2015 at 12.51 am. PO was the first teacher the researcher interviewed and she was excited to share her experiences through the conversations. PO had not graduated from teacher education university and that made her feel less confident and that she was not good enough in delivering the lessons.

Dimension 1: Study your own teaching for personal improvement

R : How do you improve your teaching practice?

PO : I read a lot. It happens that my father was a lecturer and he wrote several books. I helped him in translating references and I gained knowledge from those references.

PO replied that she had already applied certain strategies such as asking students to go outside to learn and find sources for their learning. By reading books PO could determine the strategy and method she could apply in delivering her lessons.

Dimension 2: Evaluate your own teaching

R : How do you evaluate your practice?

PO : I evaluate my practice from students' test results and often ask my students about my weaknesses in teaching. I asked them to write on a piece of paper without putting their names.

In this dimension, PO preferred the most common evaluation through students' performance and used questionnaires once in a while rather than doing research to evaluate her teaching practice. PO admitted that she could not change her weaknesses which resulted in complaints by her students who created an indiscipline situation in her classroom.

Dimension 3: Link theory with your own practice

R : How do you understand students' characteristics?

PO : I remember their 'special' characteristics only. I try to understand when there are problems or they get low scores. I often offer [opportunities for] them to talk to me in private and comfort them.

PO admitted that to facilitate the learning of every student was time consuming. But she welcomed students who wanted to talk to her and expressed their problems, sadness and difficulties in learning. Several students still contact her just to share their news and motivate each other.

Dimension 4: Question your personal theories and beliefs

R : Do you often give challenges to motivate students?

PO : Yes, I do. I often give enrichment to students who are fast learners. I tell students about my following lesson so that they can find the topic and explain it in front of the class. For the slow learners or [those who pay] less attention to the lesson, I just talk to them in private.

R : Do you give students understanding that school is a safe place?

PO : Yes, I can see that my students enjoy being at school. I give suggestions to students who join a gang [to become a] member that a person's personality reflects who his/her friends are. Just a few students who have problems, but mostly they are fine.

R : Do you share ideas with other teachers?

PO : Yes, I do. We, English teachers, share how we deliver certain lessons to improve students' learning process.

R : To what extent do you cooperate with teachers and also staff in order to make a nice workplace?

PO : I think the staff are very helpful. They do their job in a good manner.

R : How do you motivate students to do their schoolwork well?

PO : I just told them to motivate themselves and do their best. I give rewards once in a while as well to appreciate students or groups that have good marks or performance.

In teaching self-efficacy, PO focused on giving motivation and understanding to students and giving challenges to fast learners to present a topic in front of the classroom. She thought that it was not necessary to group her students since they are in Year 9. She admitted that to pay more attention to low-interest students depends on her mood because she had to listen to their learning problems and it took time.

In creating a positive school climate, PO had a good relationship with the staff and other teachers. She often discussed and shared with other English teachers how to organise certain lessons.

Dimension 6: Try out new strategies and ideas

R : Do you like to try new strategies and ideas?

PO : I just give freedom to my students when they are doing the tasks, for example when I asked them to describe things, they could go outside the classroom and choose the objects.

PO often used *PowerPoint* presentation in presenting the lesson and asked students to present as well in front of the classroom. PO admitted that she sometimes did modifications or unplanned activities in delivering certain topics depending on students' situations. PO encouraged students who lack confidence by involving them in certain competitions like speech contest.

Dimension 7: Maximise the learning potential of all students

R : Do you give feedback to students on their works?

PO : I give them stars, comments and motivation.

R : Do the students inquire the topics?

PO : I do occasionally ask students to find or search certain topic before the lesson. Then, I give them freedom to work whether in pairs, group or alone and that makes it hard for me to organise the time.

R : Do you give assessment based on theories or vice versa?

PO : I inform students of all the topics for the semester then the assessment will follow the topics.

R : Do you think that the test results affect students' self-confidence?

PO : I think so. There was a group of my students last year to perform drama. I was not sure about this group because they were trouble-making students but after the performance they changed. I asked my students to write diaries as well.

PO mostly encouraged her students with motivation in maximising their learning potential such as giving them stars and writing them motivating feedback ("good job", "well done", etc.). PO urged her students to seek their own understanding of certain topics to get them involve in their own learning and present their findings in front of the classroom. PO recognised her students' ability by grouping and giving them projects. The good work they got would increase their self-confidence and motivate themselves to do better in the next lesson.

Reflective Conversation 2

The second reflective conversation was held on 2 March 2015 at 12.25 pm. The researcher showed PO the video her teaching and learning process and confirmed with her in finding her own strengths and weaknesses. This activity was to develop PO's awareness of reflection.

R : How do you think your practice in general?

PO : I think the teaching in my second video is better than the previous one. I think it's because the classroom, and the number of students affect my practice as well.

R : Which part of your practice that you want to improve?

PO : I want to arrange my lesson well. I should inform the lesson objectives at the beginning not at the end. I think I have to write a note or draft to manage or arrange my lesson.

PO realised that she should improve her teaching practice, especially in classroom management, designing the lesson and increasing her self-confidence. PO assumed that the student assignment was suitable for the topic and did not have to group her students. She gave encouragement to fast learners by giving them stars or comments.

Reflective Conversation 3

The third reflective conversation was held on 22 April 2015 at 12.14 pm. This last conversation was to gain PO's understanding and her impression of the activities during the research. The researcher also wanted to find out her planning towards reflective practice in the future and suggested activities she could apply for doing his reflection.

I can improve myself by seeing certain strategies, methods or techniques to improve the quality of my teaching. I have to think how to make my lesson interesting and solve several problems that occurred in the classroom.

PO felt that she had many weaknesses that she must try to overcome. From her point of view, having notes in every lesson was important to keep up with things that happened in every practice. PO realised that she had to prepare well by designing organised lesson plan and she thought that using video as a reflection is an effective way. PO could view the video repeatedly to find out her own weakness in every aspect of teaching.

Perspective on Teacher Competency Standards

There were several times that the school held professional development activities regarding Teacher Competence Standards. PO did not remember the content of the standards but she tried to apply them.

R : To what extent do you understand Teacher Competence Standards?

PO : In general, as a teacher, we not only teach or give students knowledge but also develop or build students' characters to respect others and their skills.

It was revealed that PO demonstrated pedagogical skills with the focus area of understanding students' characteristics of their socio-emotional background and socio-culture (Ministry of Education 16/2007). PO was willing to give encouragement and motivation to students especially to emphasize the values and norms. PO also provided students with potential development activities such as assisting them for English competition and drama performance. PO could communicate well with her students to motivate them in doing their work at school well. PO showed that she had high social awareness by acting as an honest, mature and responsible individual and did not discriminate against other persons based on race, gender and religion. In professional practice, PO used technology to support students' learning process and to update her own knowledge.

R : After you saw your video, do you think that you have applied the TCS?

PO : I think I have applied professional practice but not maximally pedagogical skills to my teaching because I did not give attention to all students. I just paid attention to active students because they asked me questions, then I forgot the slow learners.

In the second conversation, PO admitted that she did not apply all the TCS and was not satisfied with her performance. PO thought that her lesson was run as she had planned but there were things that were not as she expected. The number of students affected as well to her performance. PO thought that having the video was a good tool to reflect her practice.

R : What is your plan?

PO : I want to adapt student' worksheets from my colleague. I just want to improve my lesson plan, teaching preparation.

In the last conversation, PO realised that she needed improvement by reflecting on the videos. Although she admitted that the need of someone to discuss and share the teaching experiences sometimes could be fulfilled by her colleagues, but still the video supported her reflection. PO thought that reflection was easy to do as long as she could provide the time to write the notes every time she finished the lessons. The video provided her with other perspectives of seeing things in her practice.

6.3.7.2 Observations and videotaping

There were only three observations that the researcher could have in PO's classroom due to her tight schedule as she assisted several students to prepare for an English language competition. PO could not gain students attention in the opening part of the lesson although she informed them of the lesson objectives in Observation 2. PO showed enthusiasm in delivering the topic but she spoke softly which made her students not paying too much attention.

Table 6.14 Teacher Performance Assessment: PO

No	Teacher' performance	Ob1	Ob2	Ob3	Ob4
1.	Ability in opening the lesson				
	Attract students' attention	v	v	v	
	Give initial motivation	v	v	v	
	Give apperception (connection with the previous topic)	v	v	v	
	Share learning objectives	v	v	v	
	Give material	v	v	v	
2.	Attitudes/behaviour				
	Clear articulation	v	v	v	
	Body movements/gestures do not distract students' attention	v	v	v	
	Show enthusiastic	-	v	v	
	Mobility in giving the lesson				
3.	Mastering the topic				
	Lesson plan based	v	v	v	
	Topic clearness	v	v	v	
	Giving examples	v	v	v	
	Have broad knowledge on the topic	v	v	v	
4.	Teaching and learning process				
	Use appropriate method with the topic	v	v	v	
	Objectives/indicators based	v	v	v	
	Ability in responding and answering students' reaction/questions	v	v	v	
	Have proper time based				
5.	Teaching and learning media usage				
	Use media properly	v	v	v	
	Use appropriate media with the topic	v	v	v	
	Have ability in using media	v	v	v	
	Increase students' attention in learning activities	v	v	v	
6.	Evaluation				
	Relevant with objectives	v	v	v	
	Various evaluation/assessment	v	v	v	
	Lesson plan based	v	v	v	
7.	Ability in closing the lesson				
	Review the topic	v	v	v	
	Give opportunities to students to ask/question and answer	v	v	v	
	Give conclusion				
8.	Follow-up				
	Give exercise/home work to students both individual or/and group	v	v	v	
	Give information of topic for the next meeting/lesson	v	v	v	
	Give students motivation to have learning spirit	v	v	v	

The lesson was organised as PO had planned and she mastered the material well. PO admitted that she had difficulties in managing the classroom because her background was not from teaching education.

Observation 1 was held on 5 February 2015 at 10.38 am (Year 9C). PO used *PowerPoint* presentation to deliver the topic. PO explained the topic through a video and displayed the students' tasks and their evaluation as well in *PowerPoint*. Observation 2 was on 27 February 2015 at 9 am (Year 9B). PO used the board instead of the *PowerPoint* because there was no LCD facility in this classroom. PO grouped students before she began to explain the topic. PO gave students the lesson objectives and instruction of what they should do for the periods. To attract students' attention, PO invited students to sing a song (Old McDonald) then continued to explain the topic. PO could not organise the class well and did not manage students to answer the questions because all students talked whether they were answering her questions or just talking about other things. Observation 3 was on 17 March 2015 at 8.56 am (Year 9A). There was a senior teacher who supervised her teaching that day. PO tried to attract students' interest but it seemed that her strategy was not effective enough. PO asked students to work in pairs and have dialogues relating to the topic. Then, at the end of the lesson, PO gave them the evaluation.

PO's reflection

PO admitted that, in Observation 1, she did not pay attention to students' behaviour because she had limited mobility while teaching. Some students discussed things outside the lesson. PO did not organise the classroom well. This happened also in Observation 2 although PO tried to approach students with more intensity. In Observation 3, PO seemed more organised (there was a supervisor) and students were more cooperative in their learning process.

6.3.7.3 Writing journals

PO mostly described briefly about her teaching procedures and mentioned the weaknesses in her lesson such as not giving opportunity or attention to slow learners to actively get them involved in the lesson. PO admitted that she did not prepare well especially in Observation 3 with the intention to show her real performance without any trumping up.

Table 6.15 Checklist for reflective journals

Level 1	Element of reflection	Brief definition	Checklist
Time	Reflection in action	Occurs while in the midst of an action;	-
	Reflection on action	Occurs after the action has been completed	v
	Reflection for action	Occurs before being faced with the situation; begins to plan for the future	-
Content	Content	Explores the experience from a number of perspectives (beyond description)	v
	Process	Describes the strategies used or available	-
	Premise	Recognizes and explores own assumptions, values, beliefs and biases	v
Stage	Returns to experience	Describes the experience	-
	Attends of feelings	Acknowledges and begins to work with feelings	v
	Re-evaluates	Reappraises the situation versus past experience	-
Level 2	Level of reflection		
Journal	Non-reflection	No evidence of reflection is present	-
	Reflection	Evidence of reflection is present	v
	Critical reflection	Evidence of critical reflection is present	v

Adopted from Plack et al. (2004)

I did not prepare well for this lesson and it was a new topic for me as well. I did not have time to think about this topic in the first place due to my other activities. I just thought 'let it flow' but it turned messy whereas I was observed by my colleague as well.

6.3.8 Civics Teacher 2

SI had been teaching for 17 years when she participated in this research and for the first five years (1998-2003) she was a short-term teacher in Pandeglang, a district 252 km east of Bandung. SI became an assistant teacher in 2003 and taught in a secondary public school. She officially became a government teacher in 2007 and moved to a private school in Cimahi in 2013 following her husband who was also a teacher and transferred there as well. She moved to the current school last year. SI was a nice person and talkative in the classroom as well. SI had limited understanding of the TCS

but she was open minded and willing to change as well. She admitted that she often discussed with EN (see Section 6.3.3 Civics Teacher 1) but she disliked EN's perspectives on learning process and considered her too conventional or traditional.

6.3.8.1 Reflective conversations

Reflective Conversation 1

Conversation 1 took place on 2 February 2015 at 10.21 am and SI seemed a bit anxious to answer the researcher's questions because she thought it was just like an interview that needed correct answers.

Dimension 1: Study your own teaching for personal improvement

R : How do you improve your practice?

SI : I joined the teacher workgroup and have attended twice to improve my practice and knowledge. It's interesting to involve in this group because there will be a plan to visit an anti-corruption agency in Jakarta.

SI admitted that she worked hard to keep up and improve her teaching skills since she came from a small district before where the abilities of the students were far behind the school she taught at the time of this research. SI shared and discussed with her colleagues about the lessons and the related issues.

Dimension 2: Evaluate your own teaching

R : How do you evaluate your practice?

SI : Besides the test results, I usually ask students to reflect on the lesson: what they have learned, the benefits they have gained and attitudes they have to change.

In this dimension, SI demonstrated that she used students' reflection to collect the information about the lesson she gave. SI informed students about the lesson objectives at the beginning of the lesson and concluded it with reflection at the end of

the lesson. After that, sometimes she conducted an evaluation. SI admitted that it was more difficult to assess attitudes than knowledge.

Dimension 3: Link theory with your own practice

R : How do you understand students' characteristics?

SI : I used to check students' attendance lists and call their names before I start the lesson. I can recognise their faces and names; I can remember my students.

R : How do you give them motivation?

SI : I give rewards to the clever ones with good scores. I think it applies to other students because scores are varied.

SI used to teach 13 classes with 36 students in each class. Since there were two new teachers, the number of classes she taught was reduced to eight. SI recognised clever students, trouble-makers and difficult ones because she assisted them when they worked in groups. SI encouraged students to find as many resources as they could, especially in Year 8 because the school did not provide the text books. SI admitted that she preferred discussing certain topics with students, especially the fast learners. Slow learners were sometimes too lazy and given some additional tasks to motivate them.

Dimension 4: Question your personal theories and beliefs

R : Do you think that your students like to go to school?

SI : Yes, I think this school has a good environment and good students compared to the private school I taught before.

R : How do you motivate students to do schoolwork in general?

SI : I tell them to learn earnestly because all subjects are knowledge and useful for their future. Sometimes they dislike a certain subjects because they are afraid or dislike the teacher.

R : How do you cooperate with other teachers and staff in order to have a comfortable environment?

SI : We support each other.

Students often came to see SI in private to have conversations about their personal matters as proof that students trust her as their teacher. SI preferred to teach Year 8 students than Year 7 students because she thought that Year 8 students were already mature enough to be given a topic to discuss. Year 7 students were hard to be asked to give opinions. SI motivated Year 7 students by grouping them, assigning the students with potential to become group leaders and they were responsible for helping their slow learner friends.

Dimension 6: Try out new strategies and ideas

R : Do you try new strategies or ideas?

SI : I really want to do that but it is limited by time.

SI admitted that she did not have much time to apply her new strategies or ideas. SI understood her students' potential from their scores and enthusiasm in her class. To motivate students with lack of confidence, she assisted and encouraged them when they worked.

Dimension 7: Maximise the learning potential of your students

R : Do you give feedback to students on their works?

SI : Yes, I do. I write comments on their works.

R : You said earlier that you asked students to find their own understanding. Do you think it can improve their knowledge?

SI : I give them pictures and events to be observed. They can interpret and ask everything about the pictures and events. I think it will stimulate their [learning of] knowledge.

In maximising students' learning potential, SI expressed that she wrote comments on students' works. SI delivered the lesson as she had planned and good results of assessment affected students especially students who gained high scores.

Reflective Conversation 2

The second reflective conversation was held on 23 March 2015 at 10.27 pm. This conversation was to review SI's activities after the researcher recorded her teaching.

R : What do you think about your practice?

SI : I am not satisfied with my practice. I tried to teach as I planned but I still found several students talking and did not pay attention to my lesson.

R : Do you understand all students' characteristics?

SI : I thought so. But after I saw the video I don't think that I know all my students' characteristics. It's hard for teachers to know so many children especially the average students. I recognise several students who are actively giving their opinions, asking questions and talkative.

The researcher emphasized how SI analysed and gave perspective on her own teaching. SI admitted that she was still finding the right strategies to deliver the lessons especially in Year 7. SI still dominated the class, spoke too quickly and forgot to appreciate students who gave their opinions. The time management was organised because SI had three periods after one another (3 x 40 mins) and she could give attention to both fast and slow students to approach them while they were doing their group discussions.

Reflective Conversation 3

The third reflective conversation, held on 24 April 2015 at 10.34 am, was to find out SI's impression especially her understanding and perspectives during the activities.

I really enjoy and am happy because I can get new knowledge and give positive impacts. I hardly use teaching media before though I know the theories. Now I try a couple [of media] and enjoy it while applying the strategy in the classroom.

Using media or new strategy could avoid students' boredom according to SI. She thought that the learning environment had changed such as students' enthusiasm, and their being motivated and encouraged to read and learn.

SI thought that it would be better if there was a video as well to see her own weaknesses when she was observed by the school supervisor. SI admitted that writing about her reflection was interesting because she could reflect on what she had done while writing. It helped her to increase her vocabulary as well since she never wrote anything about reflection before. SI felt so excited and relieved after she had written about the reflection on her teaching the class, her weaknesses and students' reactions. She found it useful if she wrote every time she finished teaching.

Perspectives on Teacher Competency Standards (TCS)

SI's perspectives on the Teacher Competency Standards were not limited because she recognised the dimensions of teacher standards although she could not describe or explain those in detail.

R : How do you understand teacher competence standards?

SI : Competency means ability of someone depending on his/her profession. As a teacher, I have to know teachers' abilities. As far as I know, there are four competencies: pedagogy competence, social competence, professional and personal. In pedagogy, there are seven focuses, right? From understanding students' characteristics, curriculum, students' potential, etc.

R : How do you apply it?

SI : Before I deliver my lessons I have to make the lesson plan. I have to make the classroom plan as well and should know my students' responses on my lesson delivery. I will find it through evaluation.

SI demonstrated pedagogical skills on the focus area of designing lesson plans and evaluation, using technology, good communication with students, and reflecting on the lessons to improve students' learning quality. SI also communicated well with her colleagues, especially in discussing and sharing teaching experiences. SI also was

involved in teacher workgroup actively. SI had a good understanding of the subjects and often motivated students to change to be better persons based on the values and norms.

R : After you see the video and teacher standards, which standards have you applied?

SI : I think pedagogy skills. I know students characteristics' well, deliver my lesson based on the curriculum, master the lesson based on my educational background.

In the second conversation, the researcher showed SI the teacher competence standards document and the videos to be observed. SI seemed confident although she admitted that she forgot several things in organising the classroom.

R : What is the benefit of using teaching media and new strategy?

SI : I can avoid students' boredom

In last conversation, SI demonstrated the pedagogy skills of having reflection to improve learning quality. SI also utilised technology and designed the strategies for students' learning process such as PowerPoint presentation, recording students' activities and using internet. These strategies are purposed to facilitate students to develop their potential.

6.3.8.2 Observations and videotaping

SI started the lesson by reviewing and reminding students of the previous lesson except in Observation 4 which was the second meeting of the topic. Mostly, SI used *PowerPoint* presentation to help her deliver the topics and give students initial motivation. Observation 1 was held on 12 February 2015 at 10.36 (Year 8K) and SI assigned a couple of students to review the previous topic.

Table 6.16 Teacher Performance Assessment: SI

No	Teacher' performance	Ob1	Ob2	Ob3	Ob4
1.	Ability in opening the lesson				
	Attract students' attention	v	v	v	v
	Give initial motivation	v	v	v	v
	Give apperception (connection with the previous topic)	v	v	v	v
	Share learning objectives	v	v	v	v
	Give material	v	v	v	v
2.	Attitudes/behaviour				
	Clear articulation	v	v	v	v
	Body movements/gestures do not distract students' attention	v	v	v	v
	Show enthusiastic	v	v	v	v
	Mobility in giving the lesson				
3.	Mastering the topic				
	Lesson plan based	v	v	v	v
	Topic clearness	v	v	v	v
	Giving examples	v	v	v	v
	Have broad knowledge on the topic	v	v	v	v
4.	Teaching and learning process				
	Use appropriate method with the topic	v	v	v	v
	Objectives/indicators based	v	v	v	v
	Ability in responding and answering students' reaction/questions	v	v	v	v
	Have proper time based	-	v	v	v
5.	Teaching and learning media usage				
	Use media properly	v	v	v	v
	Use appropriate media with the topic	v	v	v	v
	Have ability in using media	v	v	v	v
	Increase students' attention in learning activities	v	v	v	v
6.	Evaluation				
	Relevant with objectives	v	v	v	v
	Various evaluation/assessment	v	v	v	v
	Lesson plan based	v	v	v	v
7.	Ability in closing the lesson				
	Review the topic	v	v	v	v
	Give opportunities to students to ask/question and answer	-	v	v	-
	Give conclusion	-	v	v	-
8.	Follow-up				
	Give exercise/home work to students both individual or/and group				
	Give information of topic for the next meeting/lesson	-	v	v	-
	Give students motivation to have learning spirit	-	v	v	-
		-	v	v	-

Observation 2 was held on 4 March 2015 at 7.33 am (Year 7M) and students could connect easily with her without any hesitation to answer her questions. Observation 3 was on 24 March 2015 at 11.21 am (Year 7J) and SI grouped the students after she

had reviewed their understandings in the previous lesson. Observation 4 was on 25 March 2015 (Year 7I) and SI gave a general picture of the material they would discuss that day.

SI's lessons were interesting because she taught about the diversity of tribes in Indonesia. SI could express the topic based on real life or context and involved students in presenting various cultures in Indonesia especially in Year 7. SI's articulation was a bit faster and she was enthusiastic in giving her lessons. SI mastered the subject and the lessons were presented as she had planned beforehand.

Observation 1 was in Year 8 classroom and SI gave a group discussion task to develop students' critical thinking about the values and norms of being Indonesian youth who had already responsibility and vision of the future. SI invited them to sing one of the national songs which was related to the topic. SI was using videos as well to explain the topic and she asked students to work in groups afterwards. SI approached and assisted students while they were doing their work and evaluated their performance in group work.

Observations 2, 3 and 4 were in Year 7. The topics were interesting and about an introduction to the varieties of cultures in Indonesia. SI grouped the students and played the video about Indonesian diversity. SI invited her students to express their opinions on the video especially the attitudes that students should show towards the differences. SI explained the topic and gave students worksheets, and then she would assist and evaluate their performance during the group work. Group evaluation was performed at the end and SI invited students to summarize the lesson to close the lesson.

Observation 3 was the second meeting of the topic. SI already grouped the students and it was the time for them to present about the diversity of Indonesian cultures. Before the presentations, SI asked students to recall their previous learning and repeated the important points of the last meeting. It was very interesting to see students' performance and some of the groups' preparation of costumes. SI mixed the students' presentations with group evaluation using games and made it interesting that

each group would compete to gain their points (this class was having a meeting of three periods).

SI opened the lesson in Observation 4 by inviting one student who was from Bali to perform a dance. SI repeated the games to evaluate students' knowledge (before they had to read the topic from the textbook) and gave the groups points.

Overall, SI lessons were organised as she planned beforehand, and she was able to use the media and gave reflection at the end of the lesson. The reflection was about students' feelings and understandings in the lesson.

SI's reflection

SI believed that students were more active but she admitted to recognise students' characteristics for the sake of grouping them. SI also admitted that she forgot to give instructions for students to take notes while observing the video so that the students were confused when she asked several questions. SI thought that her ability to manage the classroom should be improved because she still found that several students were talking about something outside the topic.

6.3.8.3 Writing journals

SI described briefly about her practice and emphasized her strategies in the classes. SI also described students' characteristics and related them to their attitudes towards the lessons. One class was considered as slower than other classes and she thought that she did not group the students based on their characteristics.

The last observation was in Year 7-I which was the last period [of that day]. I had to struggle to keep up students' interest in my lesson away from their sleepiness. I changed my strategy with the button game and it worked. Students were active to compete and they started to read to answer the questions from the cards.

Table 6.17 Checklist for reflective journals

Level 1	Element of reflection	Brief definition	Checklist
Time	Reflection in action	Occurs while in the midst of an action; on the spot decision	-
	Reflection on action	Occurs after the action has been completed	v
	Reflection for action	Occurs before being faced with the situation; begins to plan for the future	-
Content	Content	Explores the experience from a number of perspectives (beyond description)	v
	Process	Describes the strategies used or available	v
	Premise	Recognizes and explores own assumptions, values, beliefs and biases	-
Stage	Returns to experience	Describes the experience	v
	Attends of feelings	Acknowledges and begins to work with feelings	v
	Re-evaluates	Reappraises the situation versus past experience	-
Level 2	Level of reflection		
Journal	Non-reflection	No evidence of reflection is present	-
	Reflection	Evidence of reflection is present	v
	Critical reflection	Evidence of critical reflection is present	-

Adopted from Plack et al. (2004)

6.4 Summary

This chapter provided the main research data presentation from eight participant teachers as the unit of analysis from the case studies. The participant teachers' understanding about reflection was in response to research question 1. The teachers each discussed their experiences about their teaching practices through their reflective actions, and then the researcher commented on the teachers' practices in relation to their reflections. The participant teachers stated that they enjoyed discussing and describing their past experiences because they were not provided with the opportunities to engage in these activities and express their thoughts and feelings formally at school. Besides the conversations, the researcher also noted teachers' interactions to build good relationships with students, colleagues and staff by designing learning to motivate students to work well in school, share and discuss their

practice with their colleagues and collaborate with staff in other schools. These findings showed that participant teachers had self-efficacy in their teaching practice which was in responses to research question 2.

The researcher expected that these reflective actions may lead to effective reflective practice and the teachers implied that they would remain engaged in certain actions such as writing reflective journals, recording learning activities, and having peers observe their lessons. That teachers tried new strategies and ideas—to support the development of students' learning potential—responds to research question 3. The future application of reflective actions mentioned by the participant teachers is in response to research question 4 as a suitable model of reflective practice for them. Further details are discussed in the next chapter. However, the barriers to follow these intentions were the equipment to record their teaching practice and time to write reflective journals. NE and SI started to record their students' activities using their mobile phones. The results and findings of this main study are presented in the next chapter and the researcher analyse the teachers reflective actions, comparing each of the participants in terms of the dimensions examined.

Chapter 7

Results and Findings of the Main Study

7.1 Overview of the chapter

This chapter exposes teachers' applications of reflection in their everyday teaching practice. The research not only explored their understanding, but also raised their awareness of reflection as a habit that was worth doing regularly. In this chapter the researcher explored the data gained to reveal teachers' practices from reflective conversations and their reflective journals in order to reveal aspects of their reflective practice as to respond to research question 4 (see Sections 7.2, 7.5 and 7.6). For certain questions, the researcher did not gain the information she expected due to participants' limitation of understanding the questions relating to the reflective practice. Most answers sometimes provided examples of events or experiences which were not relevant with the context of the questions about the practice of reflection.

The results and findings presented in this chapter are divided into the following sections: comparing each teacher on his or her reflective conversations (Section 7.2), other dimensions and components that occurred during the reflective practice sessions (Section 7.3), participant teachers' perspectives on the Teacher Competence Standards (Section 7.4), observations and videotaping of lessons (Section 7.5), reflective writing (Section 7.6) and conclusions in summary of the chapter (Section 7.7). The participant teachers were DA (Music Teacher), DI (Science Teacher), EN (Civics Teacher 1), NE (Social Science Teacher), NI (Art Teacher), NU (Mathematics Teacher), PO (English Teacher) and SI (Civics Teacher 2).

7.2 Reflective conversation

Reflective conversation is one of the keys to reflective process (Ghaye & Ghaye, 1998) and the content of reflective conversation is the teachers' experiences (p. 22). The researcher suggests that through conversation the possibilities and potential of

looking at previous teaching or other experiences would open up and create or design strategies to improve teaching practice in the future.

In this study, the researcher introduced reflective conversations rather than interviews which gave the teachers opportunities to express their feelings through their experiences. The researcher interrogated teachers' previous practices and they would share their experiences which they had never discussed before with others.

7.2.1 Dimension 1: Study your own personal improvement

Table 7.1 Components showed in Dimension 1: Study your own teaching for personal improvement

No.	Components	Participant Teachers							
		DA	DI	EN	NE	NI	NU	PO	SI
1	a. Self-study (reflection)	x	x		x	x	x	x	x
	b. Reflection in action	x	x			x	x	x	
	c. Reflection on action	x	x	x	x	x	x	x	x

Note: x means action took place

In the reflective conversations, the teachers expressed various views about self-study. In the first conversation, five teachers (DA, DI, NE, NI and NU) expressed the view that self-study includes challenges to themselves, learning from their experiences, attending seminars and workshops, and creating lesson plans. This is considered as self-study or reflection because these teachers were aware of the problem, solution and reasoning (Dewey, 1933). SI reflected on her teaching in the second conversation. DI demonstrated complete components by reflecting on experiences and attending workshops and seminars, whereas the other teachers improved their knowledge by joining teacher workgroups, sharing with their colleagues, reading and browsing the Internet.

DI also demonstrated clearly reflection in action because she implied that she often changed or modified her lessons based on students' reactions to her lessons. DA and PO also expressed the same view especially when they had to change strategies to make their lessons work better. NI and NU were engaged in reflection in action

through evaluating students' project or homework. NU would take notes on her lesson plans and modify the lessons later. NI would modify her strategy as well to modify students' failed artwork into another but different artwork by lowering the standard. These modifications are considered natural (Dewey, 1933) because they modified the lesson if they found a problem there.

All teachers would engage in reflection on action as intuitive action (Schön, 1987) to look back at their lessons, after they had observed their own videos, especially EN who wanted to direct students and use various assessments. In the last conversation, DA intended to change his attitudes, especially his gestures towards students after observing his videos. DI always compared her methods and strategies in every lesson by engaging in deep thinking after several activities were completed and then intended to apply various methods and strategies in the next lessons. NE was a good example of developing reflection because after she had learned how to do reflection, she kept doing reflection and applying various strategies to deliver better lessons. PO found her weaknesses after reflecting on her video.

7.2.2 Dimension 2: Evaluate your own teaching

Table 7.2 Components showed in Dimensions 2: Evaluate your own teaching

No.	Dimensions	Components	Participant Teachers							
			DA	DI	EN	NE	NI	NU	PO	SI
2	2: Evaluate your own teaching	a. Action research (formal)								
		b. Action research for improving personal practice								
		c. Being observed by others	x	x	x	x	x	x	x	x
		d. Students' test result	x	x	x	x	x	x	x	x
		e. Surveys (optional)		x				x	x	x

Note: x means action took place

None of these eight teachers engaged in action research at a formal (to achieve certain levels of teacher position) or informal level (to improve their practice). The reason is mostly about time and space because they implied that action research should be planned and time is needed especially time for reading and writing.

Participants had experience in being observed by others because their practices were evaluated by school supervisors, headmasters or senior teachers once a semester. This was a routine evaluation and the report could affect their performance assessment. Unfortunately, most observers did not give proper feedback to the teachers, whereas in a reflective context the observer should encourage self-reflection and self-awareness about the teaching (Cosh, 1999).

All teachers relied on students' test results as evaluation. DA and NI are music and art teachers, respectively, so they evaluated their own teaching by looking at students' performances. It was interesting that DA measured the success of his teaching practice by how well his students played the musical instruments in groups. If they performed well, this meant that DA achieved his objectives. NI intended to make her students experience the process of making the artworks. NU used item analysis to find out students' understanding of certain topics. DI, EN, PO and SI also administered questionnaire surveys to students as evaluation besides using the students' test results. They would ask students about their teaching performance both in appearance and in the way they taught. Students' feedback was a good reflection based on their perspectives (Zwozdiak-Myers, 2012) and in this way teachers can reflect on their practice.

7.2.3 Dimension 3: Link theory with your practice

Table 7.3 Component showed in Dimension 3: Link theory with your practice

No.	Dimensions	Components	Participant Teachers							
			DA	DI	EN	NE	NI	NU	PO	SI
3	3: Link theory with your own practice	Knowledge of learners and their characteristics	x	x	x	x	x	x	x	x

Note: x means action took place

The participant teachers admitted that they recognised their students' characteristics, especially those of fast learners, slow learners, trouble-makers and very shy students. DA recognised 15 students in each class, and for the rest, she could remember their faces. He would remember the talented and misbehaving students only. DI demonstrated her knowledge of her students by designing lesson plans based on their

abilities and characteristics. The researcher noticed that DI could recall all students' names during the lessons. She would revise and review her lesson plans based on students' needs and taught her students according to their level of abilities (low, middle and high profile students). DI understood her students' cognitive development by personalising the lesson that fit with their age (Zwozdiak-Myers, 2012). EN and NU grouped the students to remember their names and characteristics. SI always checked on the attendance list to memorize the names of her students. PO had a different strategy to remember her students by asking her students to read aloud in front of the class. NE was engaged in knowing students' characteristics by observing their behaviour during the lesson and NI measured students' ability to determine the design of the artwork project that was suitable with their age.

7.2.4 Dimension 4: Question your personal theories and beliefs

Teaching self-efficacy

Get through to the most challenging students

In the conversations, the participants, except NU and SI, implied that they challenged their students based on the subject matter. DA and NI, as music and art teachers, would recognise talented students and encourage them to be more confident and challenged them to join the competition. DI designed a project for all students to create an apparatus. DI observed that her students enjoyed doing the project and some of them submitted their product earlier or several times if some of the students were not satisfy with their work requirements for an earlier product. DI also encouraged fast learners to join the science club. EN would give essay tests for the fast learners to develop their understanding of the topics and gave a test of multiple choice to slow learners. EN would add points to the fast learners as well. While NE asked the fast learners to become tutors for their friends and compete between groups, she thought this strategy might motivate both the fast and slow learners.

Table 7.4 Components showed in Dimension 4: Question your personal theories and beliefs

No.	Dimensions	Components	Participant Teachers										
			DA	DI	EN	NE	NI	NU	PO	SI			
4	4: Questions your personal theories and beliefs	Teaching self-efficacy											
		1. Get through to the most challenging students taught in previous lessons	x	x	x	x	x			x			
		2. Keep students on task on difficult assignment	x	x	x	x	x	x	x				
		3. Increase students' memory of what they have been taught in previous lessons		x				x	x				
		4. Motivate students who show low interest in schoolwork	x	x				x	x	x			
		5. Get pupil to work well together	x	x			x						
		6. Get children to do their homework		x				x					
		Efficacy to create a positive school climate											
		1. Make the school a safe place	x	x	x		x	x	x	x			
		2. Make students enjoy coming to school					x		x	x			
		3. Get students to trust teachers	x	x	x			x	x	x			
		4. Help other teachers with their teaching skills		x	x			x	x				
		5. Increase collaboration between teachers and administration to make the school run effectively	x	x		x	x	x	x	x			
		6. Get students to believe they can do well in schoolwork	x	x	x		x	x	x	x			

Note: x means action took place

Keep students on task on difficult assignment

Most teachers would design tasks which were not easy and adjust them to fit with students' cognitive development. DA gave projects to his students to make up groups and perform with a combination of two musical instruments. He gave his students the song/score and let them work by themselves. DI gave students enrichment homework to do at home for students who like challenge, especially fast learners, and in that way they can get additional points especially those who submit their homework earlier. EN asked students to do the tasks in groups and NE kept asking the unmotivated students to answer the questions as homework. As an art teacher, NI would design a project to be created by students. NU always asked her students not to erase the wrong answers of their homework to make them remember how to solve the problems. PO gave enrichment homework to the fast learners, such as preparing a presentation by *PowerPoint* to explain the topic to his/her classmates in front of the classroom once

in a while. SI did not imply that she gave the assignment but the researcher believes that she asked the students to search their own knowledge for the next meeting.

Increase students' memory on what they have been taught in the previous lessons

This component could be seen in the observations. The researcher noticed during the observations that DA, DI, NE, NU and SI often began their lesson by reviewing the previous lesson. DI would ask her students to remember the formulas and remind students to highlight the important information in general.

Motivate students who show low interest in schoolwork

Teachers sometimes do not pay attention to students who have low interest in the subjects. DA implied that he did not support female students and slow learners who had no motivation to learn musical instruments, especially the guitar. But DA interviewed students who had low self-confidence in private just to find out their interests only. DI also talked to students in private to reveal their difficulties. She interviewed them to find out their barrier in learning and tried to explain the topic or exercise to make them really understand about the topic. NU encouraged students, especially the slow learners, to solve problems in front of the class to increase their confidence. PO would design work that slow learners were capable of doing. SI gave rewards and punishment to slow learners and motivated them as well.

Get students to work well together

The participants would encourage students to work well in groups. DA grouped the students and let them cooperate the work in their groups. DI grouped students to develop their learning habits and switched the members of the groups continuously; she also gave bonus points for student leaders if all members of the group could gain a certain score and the members would compete the work based on how the leaders gave explanations. NI and NU encouraged students to do the tasks in groups as well. PO encouraged fast learners to work with slow learners and SI grouped students based on their potential.

Get children to do their homework

Most participant teachers would encourage students to do the homework. DI did not emphasize that her students should do the homework but they just did their homework

because they were willing to test their understanding of the lesson. EN would help the understanding of her students by asking them not to be lazy to do their homework and marked their homework tasks. Also NU and PO would check students' homework.

Efficacy to create a positive school climate

Make the school a safe place

The participant teachers were thoughtful and had certain strategies to create a positive learning environment. DA thought that the school was a safe place for students because he had never heard about terrible things such as fights or riots in the school. DI supported the positive school climate by giving students understanding of how they should behave based on their own religion. EN, NE, PO and SI observed that students were happy to go to school. EN and NU would provide students with an understanding to keep the school clean. On the contrary, NI thought that tight school rules, such as checking uniform and the length of the hair for male students, would intimidate students. NI argued that secondary students did not deserve to be treated like kindergarten or primary school students who should be taught about hygiene or how long their nails and hair should be.

Make students enjoy coming to school

Based on the teachers' observation, in general, students enjoyed coming to school. DI designed and provided various strategies that allowed students to enjoy her lessons. She expected that students would enjoy coming to school if they were happy to learn.

Get students to trust teachers

Trusting teachers is the important aspect in creating a positive school climate. DA thought that students trusted him because they often came to him to talk privately. Also DI often talked face-to-face with students to build a connection, making it easier for her to develop a positive interaction with her students. EN admitted that some students came to see her in private to talk about personal matters, and sometimes, about something related to other teachers or the school environment. NI believed that no students trusted her in person but recently no students contacted her personally. NU and SI welcomed students who wanted to talk to them personally about family problems and their economic backgrounds. But PO sometimes did not have time to

listen to her students' problems other than during the lesson because she had lots to do.

Help other teachers with their teaching skills

All participant teachers implied that they helped and shared the experiences with their colleagues. DI shared and discussed experiences with other science teachers. She discussed certain lessons that were not easy to deliver to students. As a senior teacher, EN would share how to manage students with her colleagues. NI often shared with other teachers about assessment and evaluation and so did NU who always shared with colleagues and helped each other. NU helped other teachers on the computer. PO often shared with her colleagues to improve her teaching practice and SI implied that teachers supported each other.

Increase collaboration between teachers and the administration to make school run effectively

The participant teachers implied that staff or administrators were helpful. DI thought that the culture of the school supported teachers to make collaboration easier. NI admitted that she and the staff had good relationships and cooperation.

Get students to believe they can do well in schoolwork

The participant teachers encouraged students to do well in schoolwork. DA motivated students to believe in their potential and were willing to learn. DI had a student who had asthma and DI motivated and encouraged him to keep learning although he often missed the class. DI also provided students with various activities to encourage them to do well in constructing their knowledge. NU motivated or advised students to do schoolwork properly. A good score would improve students' motivation. PO gave rewards to students who worked hard and SI encouraged students to like and learn every subject earnestly. SI encouraged students to do the work at its best to raise their self-confidence.

7.2.5 Dimension 6: Try out new strategies and ideas

Table 7.5 Components showed in Dimension 6: Try out new strategies and ideas

No.	Dimensions	Components	Participant Teachers							
			DA	DI	EN	NE	NI	NU	PO	SI
5	6: try out new strategies and ideas	Active engagement techniques		X			X		X	
		1. activating prior knowledge		X			X		X	
		2. challenge for students	X	X	X		X		X	
		3. cooperative group work		X		X				
		4. metacognition	X	X			X			
		5. modes of representing information		X		X	X	X		
		6. scaffolds		X		X				X
		7. deep and surface learning		X		X				

Note: x means action took place

Active engagement technique

Activating prior knowledge

Strategies used in the learning process should activate students' construction of knowledge and development of their understanding (DfES, 2004). DA used strategies to deliver the topic and the related theory and DI provided teaching aids to support students in constructing their knowledge and attending workshops enriched her to improve her strategies. NI admitted that not all ideas or strategies could be applied due to the limitation of tools and equipment, whereas PO let students do the tasks with their own insights and perspectives.

Challenge for students

PO and SI implied that they challenged the students to present certain topics in class and the results were beyond expectations. DI gave students enrichment project tasks to do at home—the project was making an apparatus. EN would give an essay test for fast learners as a challenge and NI challenged students to submit good work. NI would find out students who had potential and then she would assist them to the next level—a competition (batik or drawing competition).

Cooperative group work

Although the teachers did not always state this in the conversations, the researcher found out through the observations that all the participants would design group work

except for PO. DA encouraged students to work well in a group and gave suggestions for better ways of learning. DI, EN, NE, NI, NU and SI used to group the students to encourage them, especially the slow learners. Teachers assume that if they mix the groups based on students' abilities, the fast learners may support the slow learners as suggested by Vygotsky (1986) that students can assist each other which lead to development of the thought in each individual. However, PO argued that there was no need to group the students because in Year 9 (the last grade of secondary school) students just had to concentrate on the national examination for entry to high school.

Metacognition

The participant teachers admitted that they motivated their students to improve and reflect on their own learning. DA motivated students to do better than him in playing music. DI and NI would allow students to think about their own learning by assessing their own works.

Modes of representing information

In the conversations, DA replied that he changed strategies every year due to the different characteristics of students. He considered that he applied appropriate strategies and sometimes it was hard for him to change a strategy if students felt comfortable with it. DI implied that straight after she had attended workshops, she applied the new knowledge in teaching her students. NE tried to apply a new strategy in every topic although the results were varied. NU, PO and SI used *PowerPoint* slides to attract students' attention. NI would use real objects or demonstrations and sometimes presented videos in giving students information. EN mostly just explained the topic.

Scaffolds

The participant teachers obviously designed problem-solving activities in their lessons to support students' knowledge construction although some did not imply in the conversations. DI provided various strategies to support students' thinking in solving given problems. NE and SI tried to use various strategies to attract students in solving problems while others applied the same or slightly different strategies.

Deep and surface learning

The participant teachers except DI and NE admitted that they tried to apply strategies to support their students' learning. However, the researcher could see in the lesson plans that DI really applied various strategies in every topic and NE's effort was to sit in her colleagues' classroom to observe how teaching strategies were applied. The strategies might motivate students to construct their own knowledge. NE tried to apply different strategies to motivate and avoid students' boredom

7.2.6 Dimension 7: Maximise the learning potential of all students

Table 7.6 Components showed in Dimension 7: Maximise the learning potential of all students

No.	Dimensions	Components	Participant Teachers							
			DA	DI	EN	NE	NI	NU	PO	SI
6	7: Maximise the learning potential of all your students	a. Providing feedback	x	x	x	x	x	x	x	x
		b. Involving students in their own learning	x	x	x	x	x	x	x	x
		c. Adjusting teaching to take account of the results of assessment	x	x	x	x	x	x	x	x
		d. Recognising the influence assessment has on students' motivation and self-esteem	x	x	x	x	x	x	x	x
		e. Considering students' need to be able to assess themselves and how to improve.	x	x	x	x	x	x		x

Note: x means action took place

Providing effective feedback for students

All the participant teachers stated in the conversations that they gave both written and verbal feedback to students. DA and NI provided students verbal feedback, commenting on their practice or performance, tips for them to improve their practice and grades for their performance. EN's feedback was to give stars or points to students and applause during the lessons if they could answer or complete the tasks. DI's feedback was both verbal and written. She often asked about students' impressions of her lesson before closing the lesson, then provided verbal feedback to develop their understanding (Black & William, 1998). Written feedback would be given in DI's journal (score books). NE, NU, PO and SI used to give written feedback on students' work and presentations.

Involving students in their own learning

The participant teachers designed their lessons with activities involving students in their own learning such as doing their own experiment and having experience in certain projects for their future life. DA asked students to find their own technique of learning from various theories and DI gave homework or projects that involved students' investigation. NE designed projects to construct students' understanding as PO did. PO asked students to utilise the Internet in their learning and so did NI. NU often asked to other teachers to gain information about students' ability for learning other subjects and personally asked slow learners for their difficulties on learning mathematics. SI designed her lessons with pictures or events and she would let the students explore their interpretations.

Adjusting teaching to take account of the results of assessment

The participant teachers designed assessment for their lessons taught to students. DA analysed students' ability before defining the assessment, whereas NU gave initial test before the lesson. DI designed the evaluation after the learning process at the end of the lesson; and EN, NE, NI, PO and SI designed the lessons based on students' needs, created assessment based on their lesson, and mostly their students did group work. They expected that students could do well in assessment/evaluation and that this was also part of the reflective review for students and teachers (Black & William, 2002).

Recognising the influence that assessment has on students' motivation and self-esteem

Assessment had a positive impact on students in this research. It might be motivational and increase self-confidence of students. Then students would believe that they could do well in their schoolwork. DA observed that if students got a good score, their self-esteem rose and they were eager to show their talents in their performance as EN, NU, PO and SI observed in their students. DI implied that her students were enthusiastic in preparing for the test or quiz. NE observed that fast learners would be motivated but not those students who copied others' work. NI implied that her students were honest in assessing their own work. Motivation depended on students' points of view because it was art and NI designed projects with low failure rate.

Considering students' need to be able to assess themselves and how to improve

In the new curriculum, Curriculum 2013, there was a requirement for teachers to ask students to assess themselves once per semester as DA, EN and NE did. DI did not ask her students to do self-evaluation because her project already involved self-assessment. NI implied that students would assess their own work based on a model to determine the standard. NU used to give a questionnaire in the first semester as self-evaluation to identify students' abilities, whereas SI asked students to do peer assessment as well. PO never asked students to assess themselves because he did not implement the new curriculum/Curriculum 2013 with Year 9.

7.3 Dimensions that occurred during reflective conversations

During the reflective conversations, the researcher identified other dimensions that occurred in teachers' statements. Reflection is intuitive actions (Schön, 1987) so that the participant teachers demonstrated the dimensions spontaneously. It was proof that teachers were actually engaged in reflection but they did not realise or recognise what they had done.

The first dimension and aspects that emerged during the reflective conversations were the two aspects in Dimension 4 as shown in Table 7.7. DI and NE explained about students who were troublesome and how they made them follow classroom rules. DI approached students who gave trouble by talking with them face-to-face to build the connection and understanding which resulted in students becoming close and open to their problems. NE would explain about the assessment system for students and give certain treatment to lazy students on how to do homework. If they did not submit it within a certain time, NE would reduce the students' points/scores. EN would send troubled students to the counselling room. In general, the participant teachers showed the discipline of getting children to follow the classroom rules. In Indonesia, the culture is that students should obey the rules such as "sitting tight" and "no talking" during the lesson unless it is questioning, answering or discussion time.

Table 7.7 Dimensions and aspects occurred during the reflective conversation

No.	Dimensions	Components	Participant Teachers							
			DA	DI	EN	NE	NI	NU	PO	SI
1.	4: Questions your personal theories and beliefs	Disciplinary self-efficacy 1. get children to follow classroom rules		x		x				
		2. control disruptive behaviour in the classroom		x		x				
		3. prevent problem behaviour on the school ground			x					
		Efficacy to enlist parental involvement Assist parents in helping their children to do well at school		x				x	x	
2	5: Consider alternative perspectives and possibilities	Professional learning conversation 1. dialogical other	x	x	x	x	x	x	x	x
		Mentoring 1. a learning conversation		x	x	x			x	x
		2. combining support from fellow professional learners and specialist		x						
		3. Growing self-direction	x	x						
3	6: Try out new strategies and ideas	Questioning		x						
		Explaining 1. Purpose and objective of the lesson		x	x		x		x	
		2. process, procedures and skills/explaining how		x			x			
		3. cause and effect/explaining why		x			x			
		4. relationship/how one factor affects another over time		x			x			
		6. Attitudes and values/involving some personal judgement		x	x					
		e. small group work				x				

Note: x means action took place

DI, NU and PO mentioned in the conversations that they often involved parents to discuss about both their students' academic or behaviour problems. NU would ask parents to assist their children in doing their homework. DI kept parents' phone numbers and CV to gain information about her students' backgrounds. She sometimes went to visit parents to understand their students' home environment. She scheduled meetings with parents of difficult students once a month.

The second dimension and aspects in the conversations were the two aspects in Dimension 5 as shown in Table 7.7. All the participant teachers mentioned about being

involved in teacher workgroups and holding discussions with their colleagues. DA often discussed with his colleagues outside the school (DA was the only music teacher in the school), whereas NI was involved in broader communities outside the school. DI criticized the science teacher workgroup which was inactive and did not give its participants many benefits. She found the workshops and seminars giving examples on how to apply strategies to support the teaching and learning process. DI also found that sharing and discussing with colleagues or other professional practices was more satisfying than attending teacher workgroups. She could reflect on her actions, discuss the problems that occurred during the practice and finally she would modify and improve her action in the next class (Pendlebury, 1995). EN and SI joined the civics teacher workgroup which was well organised and which designed interesting activities such as visiting the Corruption Eradication Commission office in Jakarta. NE and NU were hardly involved in teacher workgroups. Nor did they attend seminars. NE was still considered a new teacher and NU was busy doing administration. PO mentioned that once or twice she attended teacher workgroup activities.

During the research, participant teachers gained their self-confidence especially DA and DI who mentioned it; DA who set his own direction in teaching his students based on his reflection. Although NE did not mention about her growing self-direction, she demonstrated her improvement of the evolving process of her professional development of skills, knowledge and self-awareness (Zwozdiak-Myers, 2012, p. 100) by sitting in the classes of DI and another science teacher to observe how DI applied certain strategies which were effective in changing the way she taught.

The third dimension and aspects in the conversations were the three aspects in Dimension 6 as shown in Table 7.7. The participant teachers would address questions related to the lessons and linked them to the learning objectives (Black & William, 2002; Good & Brophy, 2000; Muijs & Reynolds, 2011; Wragg & Brown, 2001) but only DI realised that she should give more opportunities to slow learners to develop their critical thinking skills. During the observations, EN, NE, NI, NU, PO and SI provided their students question sheets before and after delivering the topic to check their students' factual understanding.

Only four of the participant teachers explained and mentioned about the purpose and objectives of their lessons in the conversations—DI, EN, NU and PO were aware that they had to inform students of the lesson objectives before they started the lessons. But in the observations, all participant teachers only explained it implicitly to students.

DI and NI clearly stated in the conversations how to explain the processes and procedures related to their lessons although in the observation DA, NE and NU demonstrated the aspect as well. DI, as a science teacher, and NI, as an art teacher, often explained causal sequences and connections related to the experiment and demonstration. They used models or learning aids to clarify the lesson and make it understandable to students. They also implied about the relationship between the events and related them to daily life. DI also integrated her lesson with verses from the Qur'an to show students God's creation. DI observed that it motivated students and made them learn earnestly, whereas EN integrated the topic with daily life. Younger students tended to obey or do assignments easily.

Small group work is one of the strategies to engage students' social skills. Most participant teachers designed group work, and PO just asked students to work in pairs. NE mentioned this during the conversations and other implied this implicitly but the researcher observed that they asked students to work in groups during the observations.

7.4 Teachers' perspectives on TCS

There are two domains of the TCS that the researcher focused in this main study: pedagogy skills and professional practice. There are four standards and several focus areas which are limited to aspect relating to reflection and evaluation (see Table 7.8).

Pedagogy Skills: Teacher can assess and evaluate children's learning

Teachers should understand how to design, conduct and analyse assessment and evaluation for their students in order to gain information about their achievement of the learning objectives. The researcher believes that participant teachers were familiar with these activities but they did not express this in the conversations.

Table 7.8 Focus area showed in Teacher Competence Standards

No.	Domain	Standard	Focus area	Participant Teachers							
				DA	DI	EN	NE	NI	NU	PO	SI
1	Pedagogy skills	Teacher can assess and evaluate children's learning	8.1 Understand the nature of assessment and evaluation in subjects	x	x	x			x		
			8.2 determine the important aspects of learning results of assessment and evaluation	x	x	x	x	x			
			8.3 determine assessment and evaluation procedures		x	x					
			8.4 develop instrument of assessment and evaluation		x						
			8.5 record the learning process and results continuously using various instrument	x	x						
			8.6 analyse the learning process and results for teaching and learning objectives	x		x					
			8.7 conduct evaluation process	x	x				x		x
2		Teacher can utilize and evaluate learning results	9.1 Use the evaluation to determine learning achievement		x	x		x	x		
			9.2 use the result to develop and create remedial and enrichment programme		x				x		
			9.3 share the result to related parties								
			9.4 use the result to improve learning qualities		x						
3		Teachers should do reflective practice to improve teaching learning quality	10.1 Reflect on teaching learning practice	x	x	x	x	x	x	x	x
			10.2 utilize the result of reflection to improve and develop teaching learning process	x	x		x	x	x	x	
			10.3 conduct classroom action research to improve teaching learning quality								
4	Professional practice	Teacher should develop continuing professional development through reflective practice	23.1 Apply reflective practice towards owns' performance continuously	x	x		x		x	x	x
			23.2 utilize reflection to improve teachers' professionalism		x						
			23.3 do classroom action research to improve professionalism								
			23.4 update the knowledge by learning through various resources	x							

Note: x means action took place

As the researcher looked up their lesson plans, she found that the teachers except DA included the items and the evaluation/assessment system. DA who did not submit his

lesson plans analysed students' ability before defining the assessment/evaluation by giving them tasks about music. DI understood that students need to be differentiated—slow learners might slowly understand the lesson and solve the problems, whereas fast learners were more encouraging and had high confidence. EN and NU designed different evaluations for their students based on their students' capability.

DA argued that the evaluation/assessment was to examine his practice and DI determined that every meeting should produce certain scores to reflect both on students' understanding and hers. EN implied that the lesson was based on students' needs and the evaluation as well. EN and NE created the assessment based on the lesson and students' needs. NI determined the standards of students' works based on a model of art so that students could assess their own works.

Pedagogy skills: teachers can utilize and evaluate learning results

Teachers utilized the learning results of their students to reflect on or evaluate both teachers' practice and students' understanding. Although the participants did not state this in the conversations, the researcher believes that they intended to use the students' test results to improve their learning quality. DI, EN, NI and NU expressed the view that they used the evaluation to determine the students' learning achievement. In the conversations, most participant teachers implied that students who gained high scores in tests were motivated and this might increase their self-confidence in doing their work in other subjects. In other words, the learning objectives were achieved if students' test results were fulfilled and met the expected scores set by the teachers.

DI and NU used the students' test results to examine students' understanding. They would create remedial and enrichment programme materials based on the test results. The researcher assumes that other participant teachers would apply remedial and enrichment programmes based on the evaluation as well but they did not express it in their conversations.

For sharing the students' test results with related parties, the researcher assumes that the students' test results might be shared in the school—in this case, with the headmaster and curriculum deputy principals—and also with parents, and Local

Authority for specific reasons, usually for reporting to the Ministry of National Education for education mapping.

DI implied and emphasized that she would utilise the students' test results to improve her practice in order to increase their learning quality. She would talk to slow learners personally regarding their test results and try to motivate them. The researcher assumes that most participant teachers would create remedial programmes based on students' evaluation. The enrichment programme might apply to both for fast and slow learners.

Professional practice: teachers should do reflective practice to improve teaching learning quality

During the research, the participant teachers recognised that activities organised by the researcher involved reflective actions meaning that the activities were provided as practice of reflection for them. In the conversations, the teachers admitted that they were impressed by the activities and they started to think seriously about reflection. Their perspectives on reflection changed and they would engage in reflection on their teaching and learning practice seriously and try to apply the activities continuously. DA intended to change his attitude especially his speech and gestures, and also to pay attention more to his students. DI demonstrated reflection in and on action during the research and emphasized the effort needed to practise better based on her experiences. DI, EN and SI used to do reflection at the end of the lessons to confirm students' understanding of the lesson. DI asked the students more about their feelings towards the lessons (happy experience, strategies used and their understandings) and sought critiques about her performance (the way she delivered the lesson). NI would evaluate her practice by reviewing her students' projects. NU often took notes every time a problem occurred during her teaching process and she would improve the practice by remembering previous experiences. PO often reflected on students' test results and used a questionnaire to find out the weaknesses of her performance.

All the results of the participant teachers' reflection were used to improve and develop their practice and students' learning process. Unfortunately, none of the teachers conducted action research to reflect on their practice or to solve learning problems that occurred due to the time-consuming reasons.

Professional practice: teacher should develop continuing professional development through reflective practice

In this part of the TCS, most participant teachers implied that they did not engage in action research formally to improve their professionalism which is related to their level of career teachers. DA, DI, NE, NU, PO and SI intended to continue their reflection in the same way as they were engaged during the research. DA would observe his videos to find out his own weaknesses which he hardly got from the students who did not want to critique his performance. DI would continue giving questionnaires to students, besides observing her video as well, for them to comment on or critique her performance. NE would continue to record students' activities as her reflection, to observe and learn from her colleagues and to identify her weaknesses in her practice from her colleagues' perspectives. NU, PO and SI would continue to engage in self-assessment and self-evaluation based on their previous experiences.

DI had utilised reflection to improve her professionalism by attending several workshops and seminars, joining the learning centre (to become an instructor) for teaching students, which provided workshops for instructors. Other participant teachers, like EN, NI and SI, joined the teacher workgroups as they mentioned before in the conversations. Most teachers would update their knowledge by learning through various resources such as reading from the books or the Internet, attending seminars or workshops, joining teacher workgroups and even presenting their artworks in the exhibition (NI often involved in art exhibition).

7.5 Observations and Videotaping

The researcher used observations and videotaping as part of reflective actions to support teachers' development of understanding reflective practice. Besides that, these actions were positioned as data triangulation to seek the consistency between the reflective conversations and the real conditions of teachers' teaching practice (Patton, 2002). The researcher found that not all the participants expressed in the conversations what they were really doing in the videos of their teaching. It was because they were not aware that they were engaged in reflection. Craig (1994) and Cruickshank (1987)

argued that though teachers notice that they have to embrace reflection, they do not realise and see its application in their real-life teaching experience.

7.5.1 Ability in opening the lesson

DA had his own style in opening the lesson. In first observation, DA introduced new musical instruments and Year 7 students listened to him and paid attention. The connection had not developed yet and there was an awkward moment for 10-20 minutes. DA did not try to know each name of the students but he would find students' potential first. The three other observations were going well because DA recognised the students and the interaction between him and his students was now developed.

DI had a natural ability to connect with her students and the researcher would instantly feel the positive and strong bond between DI and her students. She attracted students' attention with her apperception by reminding them of their previous studies and motivated them. DI related the topic to everyday life. DI would check on students who did not come to school on time.

EN opened the lesson formally if she had to deliver a new topic. The researcher thought that the formal language she used might not be suitable for her students' age. She straight away asked students for the homework (if it was the second meeting) or set a task that her students should perform.

NE actually was systematic in opening the lesson by connecting the current topic with the previous lesson. She also related her lesson with real life to make students understand the topic easily.

NI would give her students explanations and questions about the topic because she had already asked them to find the initial knowledge through the library or the Internet. NI would ask straight away about the project her students had to do if it was the second meeting.

NU would first check the students who were absent in her class and ask if there was any project or homework her students should complete. NU would make her students remember the previous lesson and relate it to real life. PO would share the learning objectives with her students then explain the lesson. She could not control the students well enough especially in managing the classroom. The students were freely talking to each other about something outside the topic.

SI had a good opening by checking students who were absent and gave them a general picture of the topic she would deliver. SI had developed positive connections with her students and reviewed briefly the previous topic. SI would motivate her students relating her teaching to the topic which would be discussed.

7.5.2 Attitudes and behaviour

DA admitted that he had to change his attitude especially the way he spoke to students. His articulation was not too clear but understandable and his body movements did not distract students. He seemed less enthusiastic when he entered the classroom but he delivered his lesson well and his students showed their enthusiasm.

DI had a certain personality that made students instantly become connected with her. She had clear articulation, good body movements or gestures and other more important things that she demonstrated her enthusiasm in the classroom. She approached and assisted her students during their group work.

EN, NE and NU had similar characteristics in delivering their lessons. Their articulation was clear, suitable body movements and they approached and assisted students during their group work but their expressions were usual, not too enthusiastic.

NI had clear and loud articulation, showing enthusiastic and good body movements PO was less assertive and SI spoke too fast sometimes. They approached and assisted students as well during their group work.

7.5.3 Mastering the topic

The participant teachers were lesson plan-based in delivering the subjects, with the exception of DA, who did not submit his lesson plan so the researcher could not confirm anything, but he had clarity about the topic and gave clear examples and instruction. NE and SI worked on giving clear instruction and had broad knowledge of the topics they delivered.

7.5.4 Teaching and learning process

Most participant teachers were using appropriate methods with the topic. PO once did not use a strategy or method that fit the topic. Most teachers delivered the topic based on the learning objectives or indicators and had correct use of time in their lessons. EN and NE admitted that there were time issues because of their students' abilities in different classrooms while they were using the same strategies and methods. DI had good reactions or answers from her students and also good responses to their questions.

7.5.5 Teaching and learning media usage

DA used appropriate media relating to the topic and the musical instruments in his teaching, to increase students' attention during his lessons. DI provided various media from the simple one to the science kit to support and increase students' attention and understanding in the learning activity. She could use things around the classroom and provide the complete kit if the learning took place in the laboratory. NI facilitated students' learning with the real learning aid to make the artwork such as clay or paint, and sometimes, she used the video to explain the process of making the artwork. NE, NU, PO and SI often used *PowerPoint* slides and videos to support teaching their topic. SI often provided the music to explain the various cultures in Indonesia. The researcher did not see EN using any learning media in her teaching.

7.5.6 Evaluation

All the participant teachers designed evaluation which was relevant with the learning objectives and used various evaluation/assessment based on the lesson plan. DI would use competition (Number Head Together) to assess her students. DI and NI were using performance evaluation as EN and SI used once in a while if the topic was about Indonesian culture.

7.5.7 Ability in closing the lesson

DI, EN and NE reviewed the topic at the end of the lesson and gave confirmation of students' learning from the task or topic given. NU gave students a follow-up learning task such as homework or another task and DA invited students to ask him about the lesson. PO and SI would give evaluation at the end of the lesson, whereas NI evaluated students' artworks later.

7.5.8 Follow-up

All the participant teachers would give exercises for both individuals and groups to enrich students' understanding of the topic. The teachers would inform the students about next meeting's material whether they would continue the topic or have a new topic.

7.6 Reflective Writing

Reflective writing was offered as an alternative reflective action that can be done anytime and anywhere depending on teachers' time to reflect on their experiences. The participant teachers admitted that they enjoyed writing about their own experiences and they felt that they wrote not only their own diaries but also about their teaching practice. NI was the only teacher who disliked writing and preferred drawing.

Table 7.9 Checklist for reflective journals

Level 1	Element of reflection	Brief definition	DA	DI	EN	NE	NI	NU	PO	SI
Time	Reflection in action	Occurs while in the midst of an action; on the spot decision	v	v	-	-	-	-	-	-
	Reflection on action	Occurs after the action has been completed	v	v	-	v	-	v	v	v
	Reflection for action	Occurs before being faced with the situation; begins to plan for the future	-	v	-	v	-	v	-	-
Content	Content	Explores the experience from a number of perspectives (beyond description)	-	v	-	-	-	v	v	v
	Process	Describes the strategies used or available	-	v	v	v	-	-	-	v
	Premise	Recognizes and explores own assumptions, values, beliefs and biases	-	v	-	v	-	-	v	-
Stage	Returns to experience	Describes the experience	v	v	v	v	-	v	-	v
	Attends to feelings	Acknowledges and begins to work with feelings	-	v	-	v	-	-	v	v
	Re-evaluates	Reappraises the situation versus past experience	-	v	-	v	-	v	-	-
Level 2	Level of reflection	of								
Journal	Non-reflection	No evidence of reflection is present	v	-	v	-	-	-	-	-
	Reflection	Evidence of reflection is present	*v	v	-	v	-	v	v	v
	Critical reflection	Evidence of critical reflection is present	-	v	-	v	-	v	v	-

Adopted from Plack et al. (2004)

It can be seen from the Table 7.9 that only DA and DI demonstrated reflection in action in their writing and most participants wrote about their reflection after the lessons. DI, NE and NU thought about improving their next teaching based on their previous experiences.

In the content of her writing, DI demonstrated that she explored her teaching experiences from different perspectives, not only from hers but also from students' perspectives. NU, PO and SI also wrote something similar about their perspectives, such as that they did not judge students' performance but looked at their own problems during the lessons. DI, EN, NE and SI described the strategies they used in the lessons and explained the procedures as well.

DI, NE and PO wrote their own assumptions about things that did not run well during the learning activities. They assumed that there were mistakes in organising the lessons and they would try to improve them in the next meetings such as using other strategies or practising in front of the mirror.

Most teachers were looking back at their experiences to explain what really happened in the learning process although those were not given in detail. Some of the teachers showed their feelings when problems occurred in achieving the objectives, such as being confused, not being satisfied or happy. DI, NE and NU would compare the experiences that happened with past experiences and integrate those to find the similarities and problem-solving strategies for the current events.

In level 2 for reflective journals (see Table 4.5), DA and EN did not show or write any evidence of reflection, whereas other participant teachers demonstrated that by writing the journals they could express their thoughts on their experiences and reflect on those and critique themselves for not being effective teachers because of the weaknesses they had identified.

7.7 Chapter Summary

In reflective conversations, the participant teachers were interrogated based on six dimensions of the framework of reflective practice. Most of them implied that they engaged in reflection by modifying the lesson plans, changing the strategies or thinking about unsuccessful previous lessons. They might instantly engage themselves in reflection in and on action, and joining the teacher workgroups, attending seminars and workshops were alternatives in improving their practice.

Unfortunately, all the participants did not conduct reflective action research to inquire about their practice (Hagevik et al., 2012) with the reasons being a lack of time to do the writing and reading. To evaluate their practice, they relied on students' test results and performances for music and art teachers. Some of the teachers might try to apply action research after this study ended.

All the participant teachers admitted that they only recognised their students who were talented, smart, lazy, slow learners, diligent and those who spoke up. Three teachers were really trying hard to know their students' characteristics by grouping them and remembering them one by one. The purpose of knowing students' characteristics is to adjust the learning so that it is suitable for their age. The art teacher adjusted the projects based on students' age and ability.

Most participants did not realise that they had to teach self-efficacy to students. Mostly teachers had to motivate their students to work individually and in groups well and challenge them to learn difficult topics. The participant teachers implied that they motivated their students to learn well and gave them enrichment programmes. Teachers also have to create a positive school climate by making students trust them and enjoy coming to school, building good collaboration among teachers and between staff and motivating students to do well in school. Some teachers in this study welcomed students to come to see them in private but they had administrative work that took up most of their time for them just to talk to their students.

The participant teachers could provide various methods and strategies to activate students' prior knowledge and give challenges for their students. They designed group work and problem-solving tasks for their students, and asked them to reflect on their learning. Three teachers were trying to use as many strategies as they could to support students' learning.

To maximise students' potential, teachers should provide feedback and involve students in their own learning. Most the teachers asked their students to do their homework related to the next meeting's topic using information from other resources such as the Internet, other books and library. The influence of assessment also had a big impact on students' self-confidence and motivation and could be used to enhance their enthusiasm towards getting good scores in a quiz or test. The self-assessment was not considered to have a positive influence, and sometimes, it was hard to award the right score.

There were some aspects of other dimensions that emerged during the reflective conversations. The components covered the children's disruptive behaviour,

involvement of the parents, having learning conversations and trying out new strategies and ideas. Two teachers were concerned about students' disciplinary problems and they tried to overcome the problems by approaching the students and making conversations personal. Three teachers mentioned about involving parents to help their children learn well. All the participant teachers implied that they always shared and discussed with their colleagues ways to improve their teaching practice.

The researcher notices that the framework for reflective practice is related to the Teacher Competency Standards (TCS) in Indonesia, especially to focus areas that mention about evaluation and reflection. The participant teachers intuitively engaged themselves in reflection although they did not recognize and memorize the TCS. The teachers designed the evaluation based on the lesson and utilized the results for improving the learning process. The teachers' understanding of the TCS was limited and some of them implied that being a teacher, they should master the learning preparation, the action and evaluation. Because the participant teachers were experienced teachers, they just naturally performed pedagogy skills in the observations. The researcher just raised their awareness of reflection and of engagement in it seriously to improve their teaching practice.

Observations and videotaping are data triangulation to show the consistency of their conversations and their practice. The videotaping itself became a tool for teachers to improve their practice by reflecting on their own experiences and looking at their practice from different perspectives. They could observe the videos repeatedly and might find their own weaknesses by themselves.

Another alternative of reflection is reflective journals or diaries. Teachers were offered to reflect on their experiences by writing them down and remembering things in their previous lessons. By writing, not only could they reflect on their experiences but they could also practise their writing since the teachers had no time to sit down and think back about what they had done. The teachers admitted that writing the reflective journals was a good experience to train their brain in remembering things and they enjoyed it.

Overall, these reflective actions could develop the teachers' awareness and understanding of reflective practice and these were good examples for them if they wanted to promote activities especially those for their reflection on their teaching practice.

Chapter 8

Discussions, Conclusions and Implications

8.1 Overview

This chapter discusses the findings of Phases 1 and 2 of this study and associates the relations between the two phases. The comparison between the phases based on the research objectives lead the discussion to answer the research questions. Another focus is on the Teacher Competence Standards (TCS) as the formal regulation on reflection for Indonesian teachers. The chapter is finally summarised with conclusions and implications for improving education quality in Indonesia by recommending the model—of reflective practice through reflective actions—developed from the findings of the study reported in this thesis.

The chapter is divided into four sections beginning with the Phase 1 study's implications leading to Phase 2 study and their connectedness (Section 8.2), discussion (Section 8.3) which responds to the research questions (Sections 8.3.1, 8.3.2, 8.3.3 and 8.3.4), reflection of the study (Section 8.4) and conclusions and implications from the study (Section 8.5).

8.2 Discussions of Phase 1 and Implications for Phase 2

This study was divided into Phases 1 and 2. Phase 1 is considered as the initial study or pilot study to seek the possibility of using the framework for reflective practice for the main study and to gain a general picture of teachers' understanding of reflection especially in Bandung City. Phase 2 was designed to investigate or gain deeper knowledge on how teachers understand the notion of reflection in their daily practice based on the TCS and the reflective practice framework introduced by the researcher. Zwozdiak-Myers' (2012) framework for reflective practice was used to explore and examine teachers' understanding of the notion of reflection from their experiences by presenting nine dimensions designed to capture the participants' expressions in

understanding their experiences to be reflected in their teaching practice. Zwozdiak-Myers developed the framework based on the principle of reflective practice by Ghaye and Ghaye (1998) who proposed that reflective practice is a discourse (Fairclough, 1998) which contains “a set of meanings, statements and stories” (p. 16) that produce certain events. This study has led to the development of a model of reflective practice for Indonesian teachers through reflective actions.

In Phase 1, the researcher used the nine dimensions as the protocols for the interviews with three teachers; the single interview was designed to gauge teachers’ understanding of reflective practice. The researcher could gain knowledge and trial the nine dimensions so that she could decide which dimensions should be applied in Phase 2. In Phase 2, the researcher only applied six dimensions with specific components that were considered to be related to the TCS in which teachers could demonstrate and express their experiences through reflective conversations and observations of their teaching.

8.3 The typology of reflective practice

It can be seen in Table 8.1 that the study in Phase 1 was intended to reveal the conditions of applying reflective practice from senior teachers based on their teaching in three schools, whereas in Phase 2, the researcher focused on one school to develop teachers’ understanding of implementing reflective practice. According to the literature, there are three types of reflective teachers: descriptive, comparative and critical reflective teachers. One teacher in Phase 1 (T1) and four teachers in Phase 2 (DA, EN, NU and SI) were considered as descriptive reflective teachers, namely, they were involved in the process of setting the problems that they were trying to deal with (Schön, 1983). Their reflections were limited to students’ understanding of their lessons. They tried to solve the problems they encountered by changing their strategies and sharing with colleagues but they applied the same strategy in every class they taught (usually explanations followed by exercises). They described the matters for reflection based on, mostly students’ tests, and dealt with students’ disruption and off-task behaviours (Dewey, 1933).

The comparative reflective teachers (three teachers— T2 in Phase 1: and NE and PO in Phase 2) were involved in thinking about different perspectives or in a frame experiment (Schön, 1983) as reviewed in Section 3.4.6. Although their reflection was focused on students' understanding, they also questioned their own beliefs and orientations on other problems and issues (Zeichner & Liston, 1996). In Phase 1, T2 thought about students' critical thinking and looked for strategies for developing this kind of thinking. She often did experiments before delivering the lesson and shared with colleagues about how to teach certain topics. She often changed strategies in different classes based on students' characteristics and conditions. She performed reflection in and on action (Schön, 1983) as observed in her classrooms. She developed an environment to encourage students to learn and maximise their potential by planning and managing her classrooms. Her students enjoyed learning with her. In the interview, she explained that sometimes she asked her colleagues to observe her teaching and make notes in order to evaluate her practice. In Phase 2, NE and PO reframed the teaching material by looking at alternative views such as reading certain resources, applying certain treatments to students and looking at teaching from other perspectives such as observing how other teachers were applying certain strategies to be also applied in her own practice.

In Phase 1, one teacher (T3) was considered as a critically reflective teacher who was involved in viewing her teaching in different ways and made judgements (Schön, 1983). She made use of students' journals/diaries to change her way of teaching and attitudes in front of the class. She was also involved in taking a broader historical, socio-political, and moral context of schooling (Valli, 1990). For example, she planned her lessons by considering their influences on her students in the future, how students would become good citizens and might have an impact on their communities. She was engaged in professional development by being involved actively in teacher workgroups and the English teachers' community. She engaged in classroom action research projects, attended seminars and training, and became an instructor for her colleagues. She applied various new strategies and methods in her classrooms. She often invited native English speakers and developed a networking with schools in Adelaide, Australia, to make her students practise English well. In the interview, she claimed that students' diaries made her change a lot in her teaching as it was a tool to evaluate her practice and performance as well. She improved her teaching

performance mostly from students' perspectives. In Phase 2, two participant teachers who were considered critical reflective teachers (DI and NI) were involved in careful consideration of the problems in teaching, and examined the process of teaching as being the ability to find new meanings in a situation, used it to reframe the questions and then further inquired into the situation to be able to understand it better and move to action (Schön, 1983). It can be seen that these two teachers thought beyond the learning processes by designing lesson plans because students need not only gain good scores but also have the benefit of developing learning skills so that they would achieve better in the future. These teachers often try out new strategies and ideas and know how to maximize students' potential.

Table 8.1 Comparison between Phases 1 and 2

Phase 1	Phase 2
1. Three experienced teachers (deputy principals)	Eight experienced teachers
2. Three different schools	One school
3. Nine dimensions	Six dimensions with focused components
4. To capture a general picture of the practice of reflection	To investigate and explore teachers' understanding of reflective practice
5. To try the possibility of applying the framework of reflective practice	To develop the model of reflective practice through reflective actions
6. Interviews (1), observation/videotaping (4)	Reflective conversations (3), observation/videotaping (4), reflective writing
7. -	Teacher Competence Standards
8. -	Three periods of reflection
9. Typology of reflective practice	Typology of reflective practice

8.4 Discussion of the findings

This section discusses the results and findings of both phases and how they provide the meaning-making for the study. The researcher attempts to make sense of all the findings by placing those in research questions to answer the objectives of the study. The participant teachers' understanding, including their assumptions and what they really did during the research, are summarized to answer the research questions.

8.4.1 Research Objective 1

The first research objective was to develop teachers' understanding of reflective practice through reflective actions in terms of personal improvement, self-evaluation and knowledge of learners and their characteristics. The research question is as follows:

What are teachers' understanding of reflection or reflective practice?

To understand reflection, teachers should realise that it is part of self-study (Zwozdiak-Myers, 2012) which integrates what teachers learn into their "existing knowledge, belief systems and deciding how to act" (Marshall & Rowland, 1998, p. 8). As explained in Chapters 3 and 5, reflection includes five phases of reflective thinking: *suggestions, intellectualization, hypothesis, reasoning and testing* (Dewey, 1933). If teachers are faced with difficult circumstances, they develop several suggestions to solve the problem, or at least one action is adopted directly. This situation of the *suggestions* phase happened to participant teachers, in both Phases 1 and 2, when they modified their strategies or lesson plans to adjust to students' conditions at that time. This is when reflection in action happened, when the participant teachers reflected during their practices. This modification is considered natural (Dewey, 1993) and intuitive (Schön, 1987) because direct action is necessary to handle an emerging perplex situation. However, Dewey suggested that in the phase *intellectualization*, the problem is not just an assigned *task* to be solved but that teachers should recheck the situation that confronts them. Teachers should locate and define the problem then it

becomes something intellectual to bring the suggestion to the next phase in a certain way. This is when teachers are engaged in reflection on action, that is, reflection after the event. The participant teachers demonstrated several strategies in intellectualising the problem such as sharing and discussing it with their colleagues, reading and browsing the Internet because the action that was adopted directly in the beginning had no intellectual element such as what teachers did with it and how they used it. Teachers should describe the problem, collect the data, look at the problem closely, modify and expand the alternatives of its solution. This activity makes the suggestion more technical, and the suggestion becomes a hypothesis. Some of the participants were engaged in this reflective thinking such as T3 (Phase 1), DA, DI, NI, NU, and PO (Phase 2).

The three teachers in Phase 1 expressed that when they found certain problems, they would modify their lesson plans in several ways to adjust their teaching to the situations and would develop one that was closest to solve the problems. The results in Phase 2 were varied, five teachers implied that they challenged themselves, learned from experiences and created lesson plans when they found the problems. These modification and learning from their experiences are the fourth stage—*reasoning* where ideas are developed from observation about what had happened before and are hypothesised through “a series of scientific observations and experiments” (Dewey, p. 933, p. 113). In this case, modifying lesson plans is based on participants’ observations and experiences on certain cases or problems.

The fifth stage of thinking during reflection is testing the hypothesis by applying the idea planned, a kind of *experimental corroboration* or *verification* (Dewey, 1933, p. 114) and sometimes results in consequences such as failures or outcomes far from the expected situation. This was shown in Phase 2 when teachers DI, NE and SI tested strategies to overcome the problems based on their reflection or observation in solving them. DI applied *Number Head Together* strategy to motivate students to memorize the previous lessons because she did not complete her lesson plan yet. DI was engaged in reflective thinking stages *suggestions* and *intellectualization* while conducting this strategy and she succeeded because she could achieve the lesson objectives and students enjoyed her lessons. On the other hand, NE, who observed DI’s practice of this strategy, was in the *reasoning* stage to test her hypothesis by observing DI’s way

of organizing her classroom using the strategy. NE tested the strategy in teaching her students and also succeeded to motivate students' learning and group works. SI experienced all the five stages of reflective thinking and reflected on her testing of the strategy and found some weaknesses. Then, she tested again the same strategy which was improved in another classroom.

Another way to understand reflection is that participant teachers could engage in self-evaluation. It is suggested that teachers should conduct action research, especially classroom action research (Department of National Education, 2007) to improve learning quality and as part of the requirements of teachers' appraisal and career development (Ministry Agency of Empowerment, 2009). This suggestion is supported by Hagevick et al. (2012) not only for the requirements for licensure for pre-service teachers but also as reflective practice. Unfortunately, except for T3 in Phase 1, the participant teachers involved in this study did not conduct any classroom action research. They implied that the heavy workload, time and space for collaborative work and technical things such as reference support (lack of library resources) and assistance (Halai, 2012) limited their passion to engage in action research. O'Connor and Diggins (2007) proposed a spiral model of reflection which leads to continuous improvement because it will encourage teachers to develop new insights by acting, selecting the action, naming the action, reflecting, researching, planning, acting the plan and monitoring. In Phase 2, DI and EN tried to engage in action research by writing down the problem first but they did not continue it due to their tight teaching schedule.

The experience of being observed by school supervisors, head teachers or/and colleagues did not have a good impact on teachers' teaching because the teachers claimed that they did not get proper feedback. However, observers should encourage self-reflection and self-awareness about the teachers' teaching (Cosh, 1999). In Phase 1, T3 used students' journals or diaries to reflect on the way she taught her students. T3 admitted that it was an effective way because she could change her attitude and listen more to students. In Phase 2, the participant teachers applied several strategies other than questionnaire surveys such as using item analysis of test data to assess students' performance or works. Students' feedback is considered as good reflection because it is based on their perspectives (Zwozdiak-Myers, 2012).

Most participant teachers admitted that they did not recognise all their students except the smartest, the laziest and the naughtiest. DI and SI always tried to memorize every student's name with certain strategies. But most of the participant teachers in both Phases 1 and 2 would personalise their teaching based on the characteristics of their students' learning in the classroom (Zwozdiak-Myers, 2012). The strategies were varied helping them to recognise their students' characteristics.

Based on the findings and results in Phases 1 and 2, most participating teachers' understanding of reflective practice was about their students' understanding of the lesson. The teachers focused on students and improved their teaching strategies and methods based on students' test or performance results. The teachers were limited to this perception, while they should also reflect on their own teaching practice. It can be seen in the Phase 1 that teachers' perception in general was limited by this assumption. The researcher looked at the Phase 1 study to get a general picture of teachers' understanding in reflective practice. Because this phase of the study was held in three different schools, it can be hypothesised that in general teachers have a limited understanding of reflection. In Phase 2, the researcher tried to look deeper into the teachers' perceptions and helped them to develop their understanding through reflective actions in an intensive way over four months. At the end, most participant teachers realized that reflection is not focused only on students' reflection on their understanding of the lessons but also on teachers' understanding of applying theories to practice (Schön, 1983). By experiencing a situation or a problem faced in their daily practice (Dewey, 1933), teachers can reconstruct their actions, beliefs, knowledge and theories to improve their teaching practice through a meaning-making process (Rodgers, 2000; Zwozdiak-Myers, 2012).

In relation to the TCS that require teachers to improve their practice by reflection, most participant teachers in both Phases 1 and 2 had limited perceptions that they had to conduct action research to demonstrate how they applied reflection. Action research becomes "the major assumption" (Halai, 2012, p. 394) of the only action that connects the theory-and-practice gap for teachers to generate knowledge but the participant teachers found that it was not easy to conduct this research in the classroom due to limited time and space, heavy workload and lack of resources or references. Through reflective conversations, the researcher could identify teachers' understanding of the

TCS through four levels of reflection (Bronfenbrenner, 1979), especially levels three and four. Level three was directly related to the TCS when participant teachers realized the application of these standards in their daily practice. The teachers reflected on their videos and observed whether or not they had applied the standards in their teaching practices. They would consider the policies and regulations they followed to design and plan their lessons. The teachers also should review and reflect on the National Education Goal (level four) by applying the TCS in their daily practice such as developing students' attitudes and values as DI, EN, PO and SI tried to cover in their lessons. These levels of reflection supported teachers to have a better understanding about reflective practice and its relation to the TCS application in daily practice.

8.4.2 Research Objective 2

The second research objective was to investigate teachers' self-efficacy towards reflective practice utilising reflective actions in terms of teaching self-efficacy and efficacy to create a positive school climate. The research question is as follows:

To what extent is teachers' self-efficacy towards reflective practice utilising reflective actions in terms of teaching self-efficacy and efficacy to create a positive school climate?

Teachers' self-efficacy beliefs can influence students' achievement and motivation and also can affect teachers' beliefs about teaching and their teaching behaviour (Zwozdiak-Myers, 2012). In teaching self-efficacy to students, teachers should encourage and motivate students in challenging them on difficult assignments, increasing students' interest and memories of the lesson, and working well with other students and completing their homework. In Phase 1, one participant teacher (T3) motivated students to solve problems, designed projects, reminded students about formulas they had learned before, grouped the students and encouraged them to write journals. In Phase 2, the participant teachers encouraged students by giving them projects and showing them how to become tutors for their friends (e.g., DI and NI demonstrated well in designing projects). Most participant teachers began their lessons

by reviewing previous topics and they also interviewed students who had low interest in schoolwork. To get students to work well together, most teachers grouped their students to develop good learning habits and encourage them to be willing to do their homework.

In creating a positive school climate, teachers should be sensitive to build relationships between themselves and others including students, colleagues and staff. Teachers should have noticed that students enjoy coming to school to learn and feel safe during school time. Teachers should help their colleagues in sharing and discussing about teaching and increased their collaboration between teachers and the administrators to provide an effective school. In both phases of the study, the participant teachers demonstrated their self-efficacy in this dimension.

According to Bandura (1986), self-reflection is the most “distinctly human” (p. 21) trait because through self-reflection teachers can “make sense of their experiences, explore their own cognitions and self-beliefs, engage in self-evaluation and alter their thinking and behaviour accordingly” (Pajares, 2002, p. 3). Furthermore, Hamilton (1993) showed that belief has a greater impact than does teaching culture. Her work involved the exploration of cultural models that provide a way to understand teachers’ decision-making processes and the motives behind certain beliefs and choices which lead teachers to be aware of what affects their thoughts and actions that facilitate deeper reflection about personal beliefs and practices. Hence, Brookfield’s (1995) critical model encourages teachers to look at their practice from different perspectives that may increase their awareness of others’ self-efficacy, especially their students, and strengthens teachers’ sensitivity to connect positively with others such as colleagues and staff. Brookfield proposed four critically reflective lenses to teaching about self-efficacy to students and creating a positive school climate. In teaching self-efficacy, the participant teachers mostly used the theoretical literature lens by providing several strategies or techniques in challenging students to do assignments, homework and work in groups. In creating a positive school climate, the participant teachers demonstrated well using students’ eyes as T3 in Phase 1 who read students’ journals or diaries. DI (Phase 2) provided various strategies based on students’ perspectives to make them enjoy coming to school. Most participants in Phase 2 admitted that students often came to see them to talk about their issues on family or

other problems. The participant teachers in both Phases 1 and 2 were engaged in reflective lenses as learners and teachers by sharing, discussing and helping their colleagues about certain topics or lessons that were difficult to deliver to students. They were also engaged in using the perspectives from their colleagues' experiences by building good connections with their colleagues and administration to provide a better school community. NE (Phase 2) demonstrated that she took benefit of her colleague's experiences (DI) by observing DI's teaching practice for strategies to be applied to her own teaching.

Self-efficacy is not clearly stated in the TCS but several focus areas are similar to Dimension 4 of Zwodiak-Myer's (2012) reflective practice framework. The focus areas (see Table 2.2) that emerged during the reflective conversations other than reflection were about understanding students' characteristics which are related to the physical, intellectual, social-emotional, moral, spiritual, and social-culture aspects (1.1); communicating effectively based on children's condition and response in teaching and learning processes actively to prepare and persuade children to get involved in learning process; asking children to take part; seeking students' responses; providing teacher reactions towards students' response (7.2), acting inclusively and objectively towards children, colleagues and surrounding in teaching learning process (16.1), not discriminating towards children, colleagues, parents and others based on gender, religion, race or social background (16.2), communicating well with colleagues and other scientific communities (17.1), communicating well with parents and communities (17.2), involving parents and community in solving learning difficulties and improving learning qualities. These focus areas emerged in the conversations because teachers were actually engaged in the TCS that supported them to teach self-efficacy to students and create a positive school climate without realizing that they were applying the TCS. Each of these participant teachers recognised the students' conditions, encouraged them to learn, and had good communication with colleagues, staff and parents.

Furthermore, self-efficacy was examined in terms of Bronfenbrenner's (1979) levels of reflection, especially levels one and two. The participant teachers identified their own feelings towards certain situations and experiences related to values, beliefs and assumption (level one) to raise self-awareness of the presence of colleagues (adults),

students (children), interactions (teacher-teacher/staff, student-student and student-teacher) and the learning environment (O'Connor & Diggins, 2002). The teachers were aware of and paid attention to others not only just because of their existence but also about the relationship that occurred among them. For example, the participant teachers observed that students enjoyed going to school and the staff or administration were all very helpful to organize teachers' documents. The teachers also reflected on the learning environment (level two), especially the classroom which influenced teachers' practice and formed an important process as part of the reflective process. Most participant teachers, especially those in Phase 2, admitted that they had issues in classroom management, realizing this might enhance their attitudes towards reflection (Dewey, 1933) which made them able to possess open-mindedness and whole-heartedness and have the responsibility to improve their practice based on their experiences.

8.4.3 Research Objective 3

The third research objective was to improve teachers' teaching practice in order to have meaningful learning using reflective actions in terms of trying out new strategies and ideas and maximising the learning potential of students. The research question is as follows:

How does reflective practice improve teachers' teaching practice to have meaningful learning using reflective actions in terms of trying out new strategies and ideas and maximising learning potential of students?

Loughran (1996) proposed that "understanding such thinking in pre, during and post teaching experiences is a guide to how reflection influences practice" (p. 152). Loughran's statement was extended from Baird's (1990) recognition of three periods of reflection: anticipatory reflection (pre-teaching), contemporaneous reflection (during teaching) and retrospective reflection (post-teaching). This understanding should impact on teachers' teaching practice as they developed their thinking about reflection as seen during the reflective conversations. As shown in Table 8.2, observations of the participating teachers' teaching based on their videos provided

evidence of the wide range of impact on their practice as they reflected on their own experiences to improve their own teaching.

Table 8.2 Three periods of reflection that occurred during the reflective conversations

Participant teachers	Anticipatory reflection	Contemporaneous reflection	Retrospective reflection (change for the future teaching practice)
DA	Did not evaluate his own practice	Lacked strategy to teach musical instruments	Changed how to communicate with students (attitude and verbal)
DI	Did not engage in reflection or apply new strategy (need time and equipment)	Too many task /assignments for students	Engaged in reflection more
EN	Did not use various strategies	Should emphasize classroom management (to motivate students more)	Tried to use various strategies, methods and technique
NE	Lacked method/strategy to deliver the lessons	Should emphasize classroom management, strategies and lesson plan	Tried to apply new strategies and continued observing colleagues
NI	Did not apply new ideas, limited by tools and equipment	Should emphasize classroom management	Tried to conduct action research
NU	Less strategies	Should emphasize strategies and needs modelling, classroom or time management	Tried to overcome weaknesses
PO	Less attention to slow learners	Did not arrange the lesson well and also poor classroom management to control students	The teaching practices were not well prepared
SI	Need to improve more	Should emphasize classroom management and strategy	Tried to reflect through video, to strengthen the lesson, strategy, material enrichment and continued writing

Most of the participant teachers in the first conversation implied that their weaknesses were based on their own feelings (pre teaching) and experiences that would influence their practice (Loughran, 1996). In the second conversation, after they had viewed their own videos (during teaching reflection), they could see what really happened in the classroom. Most teachers thought that they lacked a range of teaching strategies

and that they needed tools and equipment to apply new ideas and strategies and in this way they did not reflect on their practice. After observing their own videos during the conversations, they found that the problems that occurred were mostly in classroom management and applying various strategies. As Loughran explained further, there are two types of contemporaneous reflection; those are thoughtful approaches and subconscious actions. The thoughtful approach is reflection towards problems which were recognised by the teachers and they could explain the situation easily such as when certain teaching strategies did not work well. The subconscious action is reflection that is difficult to explain because it was spontaneous action such as motivating students, controlling students and managing the time. In the last conversation, the teachers' reflection came from their conversation conducted at the first time and after viewing the videos of the teaching episodes. The retrospective reflection was a way for the participant teachers to refine their practice in the future by learning from their experiences through the videos. DI, EN, NE and SI planned to improve teaching by overcoming their weaknesses based on their anticipatory reflection as the problem—which they found after watching their videos—was part of their reflective practice they should improve. DA, NI, NU and PO each had a different focus on their improvement after observing their videos. DA was more concerned about his attitude towards the students. NI and PO intended to improve their teaching preparation, whereas NI planned to conduct action research. All the participant teachers in Phase 2, tried to “reconstruct the episodes and find new meaning that might help them to reshape their teaching” (Loughran, 1996, p. 169).

Reflective conversations facilitate the teachers in expressing their experiences or discussing the processes of their teaching practice relating to teachers' strategies in trying out new strategies and maximising students' learning potential. The researcher believes that teachers should encourage students to activate their prior knowledge, challenge students, design cooperative group work, involve students in their own learning, create well organised lesson plans, design lessons that support students in solving problems and construct their own knowledge.

Teachers also should provide effective feedback both in verbal and written forms to motivate students in improving their learning (Churchill et al., 2011; Hattie & Timperley, 2007; Knight & Yorke, 2003). Effective feedback is very important to

develop students' learning and encourage them to achieve their learning objectives (Knight & Yorke, 2003). Most participating teachers provided written feedback on students' work and presentation; for example, DA and NI gave verbal feedback on students' performance and artwork, EN gave students stars or points as good feedback and DI provided both verbal and written feedback. In Phase 1, T2 and T3 provided both forms of feedback, whereas T1 just gave written feedback such as scoring students' work.

The other ways to maximise students' learning potential are involving students in their own learning and using assessment to influence students' motivation and self-esteem. This assessment should be based on the lessons with students being able to assess their own abilities. The participant teachers designed their lessons using experiments (T2 and DI), experiences in certain projects (DA and NI) and using pictures or videos (PO, SI and NI). Other teachers asked students to utilise the Internet and other resources. Teachers recognize that their assessment influence students' motivation. If students gain good scores, they would be motivated to learn more.

In general, the impact of reflection on the participant teachers is to raise their awareness of their weaknesses by reflecting on their videos so that they could develop open-mindedness, whole-heartedness and responsibility (Dewey, 1933). Moreover, teachers can incorporate theories into practice, develop active learning for students by paying attention to the abilities of students who are not empty vessels and by having participative learning to translate the curriculum into lesson plans (Thompson & Pascal, 2012).

Based on three periods of reflection, the teachers' understanding of the TCS also changed and they were expected to engage in different activities in the future as shown in Table 8.3. At first, most of the participant teachers except NI did not recognize the TCS until the researcher showed them the document. The teachers could reflect on their videos and decide which competence in the TCS that they intended to demonstrate. For future action, most teachers implied that they wanted to engage in action research as suggested in the TCS (Bronfenbrenner, 1979).

Table 8.3 Three periods of reflection that occurred about TCS during reflective conversations

Participant teachers	Anticipatory reflection (TCS understanding)	Contemporaneous reflection (after observing the video)	Retrospective reflection (expectation)
DA	The ability to deliver the subject to students	Was not aware of the TCS, just motivated students and led them to be ready to accept the lesson	Made good communication (attitude and verbal utterance)
DI	Preparation-implementation-evaluation-improvement	Applied most pedagogy skills: provide opportunities for students in the lessons, learning process, reflection/group work, question and answer and technology	Engaged in action research
EN	Every teacher has different competence	Did not recognize students' characteristics, classroom management, did not motivate all students	Planned classroom scenario (used to be deliver spontaneously and now thinks about everything in the classroom)
NE	Teacher performance/administration, come on time, fulfil teacher requirement	Applied professional practice/delivered the subject well, good classroom management	Changed strategies and methods
NI	Social awareness (deal with teachers' interaction with community and colleagues), professional concerns with teacher as profession, pedagogy is approach to teaching	Recognised need to focus on classroom management	Reflected on her lesson
NU	Should prepare/be ready to face various or levels of students	Recognized students' characters and interpreted lessons in the classroom	Engagement in action research
PO	Teachers not only teach but also develop or build students' characters	Did not give attention to all students and needed better classroom management	Learned how to teach properly
SI	TCS is teachers' ability	Recognized students' characters, delivered the lesson based on curriculum	Tried various teaching strategies, reflected on students' enthusiasm

8.4.4 Research Objective 4

The fourth research objective is to develop an effective reflection model for Indonesian teachers using reflective actions. The research question is as follows:

What is a suitable model of reflection for teachers in Indonesia?

This study looked at the connection between the framework of reflective practice and the Teacher Competence Standards (TCS) in Indonesia in terms of reflection. Reflective actions are a way to develop the habit of reflection (Cruickshank et al., 1981) and support teachers' understanding of the nature of reflection as being in-depth reviews of events (Bolton, 2014). Bartlett (1993) promoted the idea of a cycle of reflection which is explained in Chapter 3 (see Section 3.6) that teacher revisited the records or episodes of their practice that needed to be discussed, shared and discussed the problems with their colleagues, linked those problems with teaching practice and applied strategies to improve it. The researcher reveals that the first step to teachers' open-mindedness about their teaching is a reflective conversation (Ghaye & Ghaye, 1998) which is the key action of this study. As a medium for teachers to express and interpret their experiences on teaching, reflective practice provides time and opportunity to explore and look back at events or situations that were important for them due to recalling the perplexed nature and uniqueness of the events or situations. The other key action of this study was videotaping lessons as a powerful medium to record activities that happened in the classroom and utilize these videotaped observations as engaging critical conversations (Harford & MacRuairc, 2008). The conversations focused on the teachers' generated teaching practice (Loughran, 1996) and discussed their performance. After observing the videos, the teachers in this study were encouraged to engage in reflection.

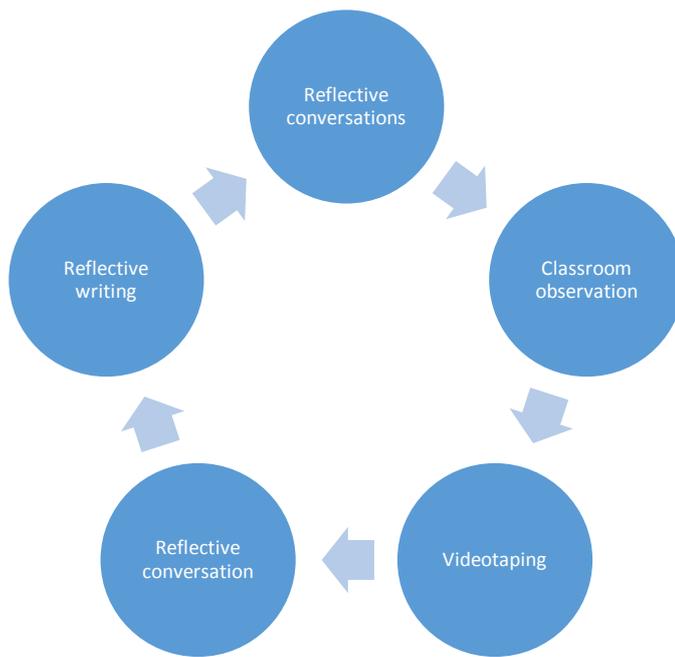


Figure 8.1 A preferable model of reflective practice for Indonesian teachers

As shown in Figure 8.1, the cycle is intended to develop and engage teachers in reflective practice. Reflective conversation is a gate to open teachers' mind to articulate their experiences in public (Ghaye & Ghaye, 1998). It is considered as a discourse which involves questions and answers that raise teachers' awareness of the questions in their teaching practice related to their values, beliefs, theories and their applications. Teachers can discuss and have conversations with a mentor, critical colleagues or co-teachers (Crow & Smith, 2005). In this study, the researcher's practical involvement is considered as a practitioner and is referred to as the researcher because the participants admitted that they had never had experience with this kind of conversations before. This situation was built upon teachers' trust to discuss teaching matters beside their colleagues and they treated the researcher as a critical friend (Bana, 2010). All the participant teachers implied that they often discussed and shared experiences or problems in teaching practice with their colleagues, which was a good start for them as a reflective activity because it allowed them to recognize the espoused theories and theories in use (Schön, 1987). Teachers would discuss the issues naturally and intensely with their colleagues and this might lead to everyday reflection (Crow & Smith, 2005). Teachers could improve their teaching practice by having conversations with critical colleagues. The last conversation is with a co-teacher who is considered as a colleague in team teaching, collaborative teaching, shared teaching and co-operative teaching.

They could discuss the lesson plans, classroom management and evaluation, and then apply the strategy they had already planned to their teaching practice.

These two activities—reflective conversation and videotaping—are important because teachers rarely express their personal teaching practice experiences that actually reveal their perspectives and open their minds to reflection. The researcher found that these participating teachers were very excited to describe their feelings and activities and also to identify barriers during their teaching practice. They could share experiences on certain methods and strategies and peer observations were welcomed for teachers who were eager to know the procedure of the teaching methods or strategies. Observing their own videos was an exciting moment as well because they could see in their own performance how they organized the classroom, communicated and interacted with students and explained the topics to them in front of the classroom. Using this model, most teachers' self-confidence was observed to rise and they could manage the classroom and apply various strategies to improve the quality of education delivered. Teachers were encouraged to learn through their experiences, express their opinions and thoughts, reflect critically on their own performance and implement their own professional development by sharing and discussing with their colleagues.

Observation is another alternative suggested by Cosh (1999) as a reflective approach and “it is not carried out in order to judge the teaching of others, but to encourage self-reflection and self-awareness about our own teaching” (p. 25). It could be an alternative if there is no video-recorder provided and there should be no excuse for teachers not to engage in reflective action. The observation is expected to be focused on teachers' own development so the feedback should be critical but not offensive and lead to improvement of strategies, classroom management or other aspects of teaching practice.

Reflective writing is another alternative way to engage in reflective practice. Teachers should focus on the content of the written text which expressed the basic issues related to teaching and learning (Ghaye & Ghaye, 1998). Teachers could write the text in a creative and personal way to reveal their emotions, thoughts and experiences (Bolton, 2014). In this study, most participants (Phase 2) admitted that they hardly wrote anything about their experiences. The researcher then helped them to develop an essay about their memorable experiences on teaching practice by using Bolton's (2014) “five

stages” which provide steps to begin reflective writing. At the beginning, the teachers were confused about what to write; then in the next ten minutes they could not stop writing their story on paper. The writing context was influenced by teachers’ perspectives on students’ learning (Ghaye & Ghaye, 1998), the situations that happened during the learning process and the feelings that were involved in the situations. The weakness of this action is that teachers need special time to do the writing while they have tight workloads and increased administration duties.

8.5 Reflection of the study

In Chapter 1 (see Section 1.5), the researcher mentions that there were limitations about this study based on the nature of the research. In this section, the researcher comments about reflection of the research based on her experiences during the study. In both Phases 1 and 2, the participant teachers were surprised when the researcher interviewed them for the first time. They used to be interviewed with leading questions that encourage them to give the correct answers, whereas in this study, they could express their own experiences because the interviews were in a conversation form. This led to participants’ expressions that sometimes they did not answer the researcher’s intended questions; instead, they gave examples of what happened related to their experiences with students. Some teachers (DA, EN, NE and SI) did not focus on their own reflection or weaknesses in practice but exposed students’ difficulties in learning the lessons. But NE and SI gradually improved and started to reflect on their own previous practice and applied various strategies to overcome their problems.

Time became a barrier for the participating teachers to do reflective writing. Mostly, they wrote all at once based on their memories, although the researcher asked them to write after the lesson that was video-recorded. Previously, the researcher gave a small workshop on reflective writing but one teacher, DA, never showed up to attend the event. Because it was the first time for them to write reflective writing, they could not express themselves very well especially NI who preferred drawing than writing. Several participants like DI could express well in reflective writing and the researcher could capture important aspects such as feelings involved in, pre, during and post reflection.

In general, the researcher's timeline was not sufficient to explore the data such as the videos that should be processed to identify sequences that focused on teachers' reflection in and on action. Videos would be a great resource for teachers in engaging in their reflective practice especially to capture certain episodes to improve their practice. It was due to the time limitation during the study that the researcher focused on the reflective conversations and videos as major sources of data to support triangulation.

8.6 Conclusions of the study

The data for this study has indicated that Indonesian teachers do not reflect on their teaching practice in any formal way, do not recognize reflective teaching, and only apply reflection as their natural instincts or habits of thought (Dewey, 1933; Valli, 1997) when they find certain problems in the classrooms. Most teachers are more like technicians than teachers (Dewey, 1933) and they only deal with students' disruption and off-task behaviours and try to find strategies to solve these problems as observed in this study, especially for those teachers in Phase 2 (EN, NE, PO and SI). The study demonstrated that interrogation through reflective conversations or interviews can encourage teachers to reflect on their experiences. Most participant teachers confessed that they were relieved that they could speak up on their daily practice since no one had asked them to do it before. The videotape was also shown to be a useful tool for doing reflection because teachers could observe their own practice repeatedly and thereby improve their strategies. Consequently, teachers need a certain model of reflective practice to assist and guide their teaching practice. Teachers can control the class if they are confident enough to deliver the lessons after they reflect on and analyse their performance (see Section 6.5) as inferred in the teacher participants' third reflective conversation. In Phase 2, the participant teachers admitted that they would try to apply and engage in reflective practice after reflecting on their own experiences (see Table 8.2).

Guided and integrated reflective practice shapes teachers' understanding of the relationship between the theories and practice through looking back at their experiences. Reflection is not just the dialogue with experience and process of practice

but also the way (and mind-set) the reflective professional chooses to work with the experience and the process of practice. It is not easy as well to understand reflection that has certain elements to be exposed and requires its break down and interpretation, which is significant to the reflective activities or processes for the reflection on the elements of an object or problem.

The framework of reflective practice from Zwozdiak-Myers (2012) was used by the researcher to support the manner in which she was able to reveal the teachers' understanding and application of reflection relating to the TCS. This framework can be used as guidelines in the model of reflective practice developed in this study. The model raises teachers' awareness of self-efficacy in practice, and workplace identity by using the dimensions of reflective practice questioning teachers' personal improvement, self-evaluation, beliefs and how they apply new ideas and maximize students' potential. The teachers in Indonesia might seek the purpose of reflection relating to their teaching practice or even questioning their teaching practice influenced by students' development of becoming good citizens in the future (see Section 8.3). As shown in Table 8.2, the participant teachers started to understand the TCS and intended to change their attitudes, engage in action research as part of reflective practice and apply various strategies and methods to their teaching.

8.7 Recommendations

8.7.1 Teachers need assistance in engaging in reflective practice

An important finding that can be drawn in this study is that teachers need assistance in engaging in reflective practice. Gün (2011) stated in her study that “a structured and guided procedure, i.e. input session, trainer, colleague and learner feedback, as well as feedback from watching the video-recorded lessons” (p. 133) were crucial in aiding teachers to reflect, reveal and understand the problems that occurred during the learning process. For the role of the stakeholders, such as the authority (government), school supervisor and organization (school), school supervisors have the closest connections with teachers. The problem is that the number of supervisors is limited and all supervisors understand the real problems of teaching and learning issues. It is important

that teachers develop reflective practice to improve the quality of education (Day, 1993). Day suggested that the managerial climate affects the success of reflective practice application, especially in developing professional development involving the collaboration and consultation of teachers, staff, school supervisors and headmasters. The findings from this study are consistent with those of Day. The participant teachers in Phases 1 and 2 implied that they had a good relationship with staff and developed a good school environment. In Phase 2, the participant teachers could share and discuss problems that occurred in delivering certain topics with their colleagues (see Section 6.4).

8.7.2 Indonesian Government or Ministry of National Education should provide guidelines or support for teachers

A recommendation from this research is that the Indonesian Government or Ministry of National Education should provide guidelines or support for teachers to engage in reflective practice because the education of pre-service teachers did not include unit of reflective practice, nor did the Teacher Competence Standards. The researcher assumes that when the government released the regulation in 2007 the university could not change or revise the curriculum instantly. It is the government's responsibility to provide the guidelines to promote reflective practice for teachers. The school supervisors have an important role to play as they could assist teachers based on their personal experiences of teaching and enhance teachers' practice by guiding them to develop their theories to practice (Slick, 1997).

8.7.3 District authority should facilitate reflective practice

Furthermore, the model of reflective practice developed in this study can be replicated to other schools to develop the habit of reflection among teachers. School principals can support teachers' engagement in reflective practice and school supervisors can assist teachers in applying reflection. At least, the district authority might start to facilitate teachers' reflective practice before the researcher gives recommendations to the government or Ministry of National Education in the future.

8.7.4 Teachers to videotape their lessons to learn about reflective practice

This study is a milestone to other studies in this research area about reflective practice in Indonesia. The study might lead to the next research which is focused on other aspects such as the use of videos in teachers' reflection and the benefits of reflective writing to teachers' professional development. Another implication from this study is that teachers' professional development activities will be facilitated by their engaging in reflective practice. There are many ways for teachers to improve their practice by following activities that promote reflective practice. The most important way is by engaging in reflection so that teachers would improve their teaching practice and might increase students' ability in learning and lead to improving education quality in Indonesia.

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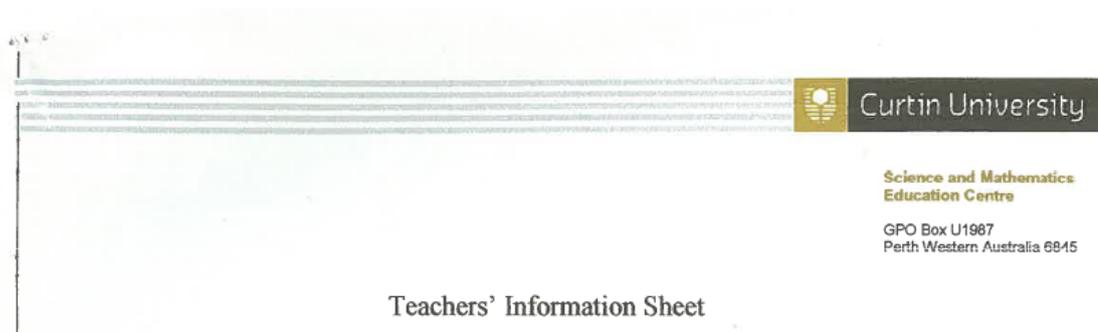
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Every reasonable effort has been made to acknowledge the owners of copyright material. I would be pleased to hear from any copyright owner who has been omitted or incorrectly acknowledged.

Appendices

Appendix A: Teacher Consent



Dear Teacher,

I am currently a teacher trainer in *Lembaga Penjaminan Mutu Pendidikan Jawa Barat (LPMP Jabar)* and completing a research project for my Doctoral degree at Curtin University Western Australia. My research title is *Developing Reflective Teaching Practice through Action Research Projects*. I invite you to consider taking part in this research because this research will influence your teaching practice and professional development as well. This study will meet the requirements of The Research Ethics Committee.

Purpose of Research

I am investigating teachers' understanding of reflective teaching practice and how reflection influence your beliefs, attitude, moral and values in your teaching practice. At the end of the research, we can develop a suitable reflection model for teachers and improve teaching practice into a meaningful teaching and learning.

Your Role

I am interested in working with you in order to gain a deep understanding of reflection. I will record your teaching learning process during my research, interview you and use the recording to be discussed in teacher workgroup activities. In this case, we can develop the perception together with other teachers and conduct action research. These activities are to improve teaching practice into a meaningful teaching and learning. At the end of my research, you and your students will be asked to fill in a questionnaire. A questionnaire will take more or less 15 minutes to respond.

Consent to Participate

Your involvement in the research is entirely voluntary. You have the right to withdraw at any stage without it affecting your rights or my responsibilities. When you have signed the consent form I will assume that you have agreed to participate and allow me to use your data in this research.

Confidentiality

The information you provide will be kept separate from your personal details, and only I will have access to this. The interview transcript will not have your name or any other identifying information on it and in adherence to university policy, the interview tapes, podcasts and transcribed information will be kept in a locked cabinet for at least five years, before a decision is made as to whether it should be destroyed.

Further Information

This research has been reviewed and given approval by Curtin University Human Research Ethics Committee (SMEC XXX). If you would like further information about the study, please feel free to contact me. If you would like further information about the research, please feel free to contact me on +62 8156115368 / +61 414467840 or by email: endy0103@gmail.com or endahyanurati@postgrad.curtin.edu.au.

Thank you very much for your considerations on taking parts this research. Your participation is greatly appreciated

Your sincerely,

Endah Yanuarti

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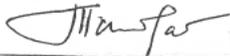
Science and Mathematics
Education Centre

GPO Box U1987
Perth Western Australia 6845

TEACHER'S CONSENT FORM

-
- I understand the purpose and procedures of the study.
 - I have been provided with the participation information sheet.
 - I understand that the procedure itself may not benefit me.
 - I understand that my involvement is voluntary and I can withdraw at any time without problem.
 - I understand that no personal identifying information like my name, address or school will be used in any published materials.
 - I understand that all information will be securely stored for at least 5 years before a decision is made as to whether it should be destroyed.
 - I understand that updates of the progress of the research will be provided to me.
 - I have been given the opportunity to ask questions about this research.
 - I agree to participate in the study outlined to me.

Name: HJ. SITI AMINAH, Spd

Signature: 

Date: 12 Januari 2015

Appendix B: The Example of Interview Transcripts

29 January 2015

Interview 1

EY1: how long have you been a teacher?

Di1: I've been a teacher since 2000 and being stationed in Subang District, Pamanukan. Every year there was recruitment for new teachers and mostly science teachers. That's why I moved to Cimahi District with the reason that my child always ill and I had to go to school from Bandung to Subang everyday (4 hours taking mini bus) for three years. Then I applied for transfer to SMPN 3 Cimahi. It took a year when finally I could transfer to Cimahi, but I was rejected because there was too many science teachers. I looked for another school and accepted in SMPN 5 Cimahi in 2004 until 2011. Then I moved again to SMPN 1 Cimahi until 2014 because I wanted to get close to home. There was a government requirement that teachers should teach minimum 24 hours/week while in SMPN 1 there were too many Science teachers. At last, I transferred to SMPN 3, again, in 2014 until now.

EY2: were there any different in learning environment among schools?

Di2: yes, but I think it's all about the students' ability. It depends on the area like students in SMPN 5, mostly from suburb, and 3 are very different. Not to compare with students in SMPN 1 which is a favourite school in Cimahi. In 5, I felt it was very hard to teach. Most students did not understand instantly and hardly asked what they did not understand. In 1, I felt it was easy, it's just they would to ask everything before I teach. It challenged me to teach better. In 3, students' ability is nearly similar with 1.

EY3: to what extent is your understanding on teacher competence/teacher standards?

Di3: first, create lesson plan. For me, to make lesson plan is the important thing in teacher competence. Second is teaching ability. Because teacher makes lesson plan then applies it when she/he teaches, whether it is concordant or not to students. Although sometimes teacher will adjust it to characters of students in each class. Third, evaluation. How students' learning result from the lesson plan," teacher's teaching practice. I think for teacher competence covers teaching preparation, implementation, evaluation and fourth, improvement.

EY4: pedagogic is the main thing for teacher, isn't it?

Di4: yes, I think others are additional, like attending teacher workshops (MGMP). Is it correct if I have a thought like that?

EY5: it's ok. It is your interpretation or understanding on teacher competence. Although government wants you to understand, but you have different point of views. So, what does the best lesson plan according to you?

Di5: I think it's better if teacher creates it by him/herself. There are many examples from friends and government, but ideally for me it's better to create it by myself. Though it is quite difficult and I feel so lazy to do it."

EY6: but I think if you create it you can modify it based on your own need to apply it to different classes/students. I always talk to teachers that lesson plan is a teaching guideline, do not strict be flexible. The most important things what we teach is what we design.

Di6: I agree. But school supervisor also demands us to make lesson study as government form. It makes me unsatisfied when I have to teach children with that formation. I have my own teaching style.

EY7: the point is you teach as you have planned. It doesn't matter if there is any adjustment. You have two supervisors, right? School supervisor and subject matter supervisor.

Di7: no, only one, just school supervisor.

EY8: I see. Probably there is shortage of school supervisors. Do you understand other domains of teacher standards beside pedagogic?

Di8: I know but do not understand deeply. I get confused and mixed. The most important is pedagogic for me. Is it ok?

EY9: I think it does not matter. Because I think the domains of social awareness and good personality are included automatically as teachers. Pedagogic is the way you teach and professional is more on the subject matter content.

Di9: what is the example of social awareness?

EY10: the way you interact with colleagues, parents and community.

Di10: I can say it includes in me as teachers.

EY11: we cannot measure social awareness and personal instantly like test. We can feel and see how teachers act.

Di11: yea, it's true.

EY12: how to apply the way you teach and create lesson plans and also its evaluation? Do you continue make them in semester or every month or even every week you change them?

Di12: in every semester I prepare them although it depends on situation. There is always a workshop for lesson plans making and we gather several examples of lesson plans. Then we modify and revise our previous lesson plans on that semester based on our experience, knowledge and examples. But sometimes I modify instantly my lesson plan if there is any change or improvement I have to make or certain situation. I also include the evidence. Next year, I still

use that lesson plan with minor revision and modification. That's how I make and use lesson plans.

EY13: I think your lesson plan is quite up to date every semester.

Di13: yes, I think so.

EY14: although you do not make it every semester you always review them.

Di14: sure, I always revise and modify them instantly if there are any change or I assume I should change them based on students' need.

EY15: how do you improve your teaching skills?

Di15: first, I learn from my experiences. Long time ago I did not have many experiences in teaching. Because I teach every day, my teaching skills are getting better including my content knowledge. I am very grateful that I've asked to attend several workshops and seminars. Those helped me to improve my teaching skills. I join learning centre (*bimbingan belajar*) which provides workshop on tips and tricks how to solve science problems that I apply the tricks to students at school.

EY16: I see, you improve your teaching skill through workshops, seminars and MGMP. Do you often attending those?

Di16: not too often. Usually once in every semester or year. It is better than not, for me, I need the knowledge certificate is just a bonus.

EY17: do you think that teacher workgroup can help you improve?

Di17: no. though there is a schedule, usually once a month, but I found it useless. It should be gain and dig science knowledge which is up to date but I have not found it yet. So I never attend MGMP.

EY18: how about workshops?

Di18: it helps me much especially on teaching steps or strategies. I attended CTL (contextual teaching learning), KBK (competency based curriculum), PAKEM/PAIKEM (joyful learning) and the recent one is Kurtilas (2013 curriculum). There is a new term scientific approach in this new curriculum but I think I have found it in CTL.

EY19: yup, sometimes there is only the matter of terms. What you have found in certain strategies actually similar with others. It is just the matter of different terms. Then, how do you evaluate your teaching practice?

Di19: first, I look at students' result tests. For practice, depends on the subject. For example, chemistry practice. Students should do certain projects at home and I give them a week to report. At the end they should create a certain apparatus which is simple and easy to use (i.e. respiration).

EY20: so students can practise not only their cognitive but also psychomotor.

Di20: yea, and they enjoy it. I give them a month to collect but several submit it only in a week. Sometimes they make another which is better and replace the previous. It is good for me if students are willing to do it.

EY21: you make this as the indicator for your teaching practice evaluation.

Di21: yes, and evaluation for value I can see it every day.

EY22: how about evaluation for yourself? To know that your teaching practice is good enough or there something that you should improve?

Di22: I hardly do reflection. So when you said about reflection, it's new for me. I know that there is reflection before closing the lesson when I ask students how they feel about the lesson. They usually say they are happy to learn with me. But if I try new strategies and they dislike them, I would not apply it. That's my understanding of reflection so far.

EY23: so, what mostly they like?

Di23: I sometimes do not give them notes and just give them a video to review. They will say before closing that they do not like it. They like to write the notes first then practicepractise. But it depends on students. Luckily I just get five classes so I can prepare and provide each class what the strategies they like.

EY24: good. It is called reflection too.

Di24: then I used to make questionnaires. I ask students to write something about me especially the way I teach for this semester. There are positive and negative comments. Is it reflection?

EY25: yes, it is. How do you treat the comments? Do you make any changes on negative comments?

Di25: I try to improve the way I teach. Mostly they comments on the way I speak. I speak fast and I try to slow it down. When you see me in the classroom, I have reduced the speed. Probably most people did not understand me before because I spoke too fast.

EY26: probably, because I understand what you have said in the classroom.

Di26: some students still think that I speak too fast.

EY27: it's ok, you can practice practise to speak slower.

Di27: the positive comments that I am a kind teacher.

EY28: of course you are a nice person. So, your understanding about reflection is asking students with questionnaires, right?

Di28: is it ok that I just 'that' understanding?

EY29: it's fine, you have already done that and it is good. I skip to ask you about other domain of teacher standards. Do you teach based on theory or vice versa?

Di29: I usually find the theories first because I am a science teacher. I make preparation with this steps: find a certain theory, the exercise. If there is practicum, I only held it in the classroom and students should prove the theory by report the practicum. If I only give theory, students should find the examples from daily life. I look up the theory first then teach.

EY30: from five classes, how do you recognize students' characteristics?

Di30: I am a student teacher of certain class. And my students happen to be varied: cheeky, gang member, divorce parents, nice one and more (laugh). So, it's very hard for me to assist them.

EY31: how do you manage it?

Di31: I have parents CV so I can call and meet the parents once a month for those who have problem. I never saved parents' numbers on my phone at the old days, but now, I have to keep the numbers. I sometimes visit students' house to find out their real life. But before home visit, I talk to certain student face to face because personal problem from home can affect negatively to their learning process. For other classes, I used to ask students who get low scores to see me and have conversation whether there are any difficulties or problem. For those who gain good scores, I ask them to join the science Olympiad club and it happens that I am the tutor. So, they feel happy and honoured.

EY32: so, you pay attention to the 'low and up' students only?

Di32: yea, I do not notice to the middle ones. But I know my students' name and face. So, I can call their names during my lessons. I used to recall students' name easily at old times, but now I am struggling to remember them.

EY33: I think we are getting old now and hard to remember names and faces. Have you given any challenge to students?

Di33: to those who are 'higher' I seldom give additional exercise to do at home. There is additional point and also those who submit it earlier to me. I give them bonus.

EY34: for the low students?

Di34: I sometimes call them and ask what the difficulties are. Then I explain again and ask them to do the simple exercise. When they stuck, I ask again which part is difficult. That is quite time consuming.

EY35: indeed, it will be different the smart and slow learner. The fast learner understand instantly after you give the example. But do you seldom do that to slow learner?

Di35: once in a while, because it needs time and patience.

EY36: how about students do not pay attention to your lessons? Do you motivate them?

Di36: I just talk to them face to face to build a connection. I had once a student who said that she would dropout. One day she said that she was ill and did not come to school. But I saw her riding motorcycle speeding. Then I came to her and made conversation why she did not come to the class, was there any problem or else. After that conversation, she decided to keep going to school. Now, I have a student who joins a motorcycle gang (*it's been a negative issue in education in Indonesia) and he said he will quit from school. I just do not know to persuade him to quit from his gang and keep schooling.

EY37: it's hard for him I think meaning that he cannot associate with others at school.

Di37: to keep him is also difficult.

EY38: is there any counsellor here?

Di38: yes, there are couple of counsellor teachers. And I think they are good counsellor also. But the problem is that student is a nice kid at school, then something happen outside school and all teachers just found out that he is member of the gang. And his academic is also good so we think he is a good student both personality and academic.

EY39: have ever motivated students to have good interaction among them so they can do their works easily in group?

Di39: I group students and it is a demand from new curriculum that students should work in groups. I put fast learners in each group as leaders. Children can learn from their colleagues. But they get bored then I change the groups again in every three months. There are bonus score for student leader who can make other students achieve certain score on tests. Meaning that student leader can explain the subject to his/her friends and they understand it.

EY40: hmm, interesting.

Di40: the leaders motivate their friends to understand and gain good score and feel like they compete with other groups.

EY41: motivation come from their own friends, right?

Di41: true, and sometimes the leader complain that his/her friends in certain group make his/her exhausted because they do not understand easily and want to change group.

EY42: so interesting. Have you ever given understanding to students that school is a safe place and good environment to them?

Di42: for me it's the main thing. Before I start to give the lesson I always tell them story (not preach). That's why some students tell me that I am capable to become religion teacher. I am very

grateful that in SMPN 3 Cimahi there are reciting Qur'an every Tuesday and Thursday before starting lessons in the morning and I translate the ayat (verse) and explain to students what the verse mean is. Fifteen minutes minimal that students can learn about their own religion.

EY43: it's very good then. But do you know that your students feel safe and comfy at school? How do you know?

Di43: I am very grateful that couple years ago in science syllabus there were integration to religion in every topic. It made me easier to give motivation to students relating to my lesson. One chapter of science book, one verse. There is a hadist (explanation of verse) that if you study one hour to achieve understanding of God creation is equal that you pray for seventy years. This make my students think deeply and have motivation to study earnestly.

EY44: that's why I like science because it talks about our body, nature and phenomena of our daily life.

Di44: that's why I am so grateful that I am science teacher.

EY45: as you are new here, start teaching in 2014, do you often sharing with colleagues, staff or other school members?

Di45: of course, I usually share with her (there is another science teacher sit beside her). We are often share ideas and discuss them.

EY46: good for you, you have your own team!

Di46: yea, we discuss certain lessons that are not easy to deliver to students.

EY47: how you cooperate with staff/administrator to make the school environment comfortable?

Di47: I think it is school culture that everyone welcome me here. So, I feel comfortable. My colleagues just talk to me as if I teach here for a long time. The staff are helpful considering my speaking speed and they understand that I have to go home early because my home is close to school, I have to pick up my daughter (year 4) and I am quite busy with teaching in learning centre as well after school hours.

EY48: how do you motivate your students to follow lessons well? (there are several students that are slow learners, right?)

Di48: I cannot tell about students that skip school with no reasons. But I have a student who suffering from asthma and he is so diligent although he always sick and do not come to school every week. He brings his inhaler to classroom. I told him to ask his friends whenever he did not come to school to see the exercise or the lessons he missed. If you did not understand, just asked me.

EY49: how many students in his class?

Di49: 36 students. He often out of breath in the middle of the lesson. I am sorry for him.

EY50: have you ever tried new strategies or new ideas?

Di50: I always implement new 'things' when I just return from certain workshop. From example when I was given about discovery learning. I tried it to students and they have to discover the theories by themselves. It seems that I need more time, more equipment to apply it to students when they have to report it. So, I feel I am not satisfied with discovery learning approach.

EY51: as long as you tried new strategies and ideas, there will be a barrier to do it. Keep trying! Teacher workgroups also did not do any better. To gain knowledge you said that you always read and attend workshops. You know that every child has own potential. How do you acknowledge their potential that vary?

Di51: students outside my assistance I do not know much. But for my students, I often interact with them and I can see some students have other skills. For example, I have a student that good at art. I encourage her to make class newsletter. Another one has skill in organize classroom, I ask her to manage her friends to tidy up and make the class comfy for them to study.

EY52: how to motivate children that do not have self-confidence whereas they are have potential to do something.

Di52: there are couple students like that in every class. I used to call them by name and ask them to solve the problem or present something in front of the classroom. Although they come forward with a little 'push', when they succeed in presentation I and other students give applause and this appreciation can make their self-confidence improve. Later, they used to come forward and their friends have respect to them.

EY53: it's good way to improve students' self-confidence. Have you ever give feedback to students' work whether written or verbally?

Di53: of course. I fond of giving students money. If they can solve the problem with certain criteria I'll give them certain amount of money (around IDR5000-50.000/ 5 cent - \$5). So, they compete to understand and do the problems. Not just money, at least a reward like gifts or something. It is usual if I give compliment or applause.

EY54: interesting! How about the assessment, do you deliver the lesson first then give the assessment or vice versa?

Di54: I usually give students initial assessment, verbally, to find out their prior knowledge. I have my own journal for this, which students can answer the questions. Next meeting I will ask other students (take turn). After the lesson I always close the meeting by evaluation whether written or verbally. Sometimes I evaluate their works and notes and give certain scores. Is it also assessment or evaluation?

EY55: yea, kind of. I can assume that your lesson is based on assessment, right?

Di55: yes, as far as I remember, I always do that. Every meeting should produce or gain scores.

EY56: do those scores influence students? They are motivated, for example.

Di56: as long as I notice, there is certain change for students. Slow learners slowly can understand lessons and solve problems. Fast learners are more encouraging and strong self-confidence. And I can ask them to help their friends in explaining or assisting lessons or exercise. For those who do not have any score at all, by this system they can have additional scores.

EY57: have you ever asked them to assess or evaluate themselves?

Di57: yes, I have. But I rarely asked them only in questionnaire form. But new curriculum demand them to assess or evaluate themselves. There are assessment from teacher's observation, self and peer assessment. I have applied it last week but I think the objectivity is quite high. For example, A is a good student, but his several friend said he is not while others said he is very good.

EY58: I see. But do you notice any improvement with this system?

Di58: yes, there is. Especially slow learners, I always talk to them and tell them what their friends have assessed about them to motivate them to improve.

EY59: I see. Now, I will ask you about your feel towards what our activities (observation and interview). How do you feel?

Di59: I like the questions you asked me. Those make me flash back (reflect) to what I have done in the past about my teaching practice. You remind me also about teacher competence/standards and I am not sure about my answers.

EY60: it's ok, you don't have to worry about it. Because I ask you based on certain theories, some of my questions probably weird if I translate it to Indonesian context like do you teach based on theories or not.

Di60: yes, it's very hard for me to understand and answer it.

EY61: indeed, because it should be some theories behind your teaching practice. Also about assessment, there are choice that you give lessons based on certain assessment or not.

Di61: I see.

EY62: but the context is still covering teaching practice, right? Not outside your practice.

Di62: I can take some knowledge from it, I hope.

EY63: yea, in our context we haven't spoken about what we have done in our teaching practice. It depends on the culture. Western culture usually discuss about this. I think teacher workgroups should do this, sharing and reflecting what they have done in their teaching practice. It's the matter of culture I think.

Di63: I think Indonesia could adopt this.

EY64: I believe it can. We have a complicated system. Begin with teacher competencies that has four domains and lots of standards (around 72) and not to mention our lesson plans.

Di64: teachers should follow certain format which come from government. I think it is enough if we just make scenario, right?

EY65: yes, indeed. Too strict I think for teachers. Only teachers know how to deliver their own lessons. If it is limited to a format, how teachers can create good delivery of learning. There is no score achievement, but percentage of achievement. 85% is good, meaning that student has good understanding on topic.

Di65: it looks like if we have to judge all achievement by scores. And now everything change again especially curriculum.

EY66: yea, some said it was too difficult to implement. The minister of education said he will stop the practice of this curriculum.

Di66: at first I was struggling to apply this. But now, it is easier to manage my lesson with this new curriculum. I do not know how the future of this curriculum.

EY67: just think about the money government spent from 2012 to 2013 preparing this. If new minister stops it, just wasting money and time.

Di67: I am really glad to involve in your research. I can share my teaching practice and gain knowledge as well. I hope I can understand more about reflective teaching practice. I just heard of it.

EY68: I just want to support teachers to start writing. Why action research for teachers is so difficult, because teachers hardly write or practice practise their writing skills. Like lesson plans, it is so rigid that makes teachers hardly write their own ideas. Try also write something out of the box, I hope it can shift teachers' perspective on writing.

Di68: how about reflection itself? As I have told you that my understanding is limited while it is important. What kind of reflection is best?

EY69: it varies. You can do reflection in various ways not only one way like journals, watching videos, pictures, diagram and things that support reflection. Action research is also an example of reflection but teachers think it is a main activity of certain requirement (for upgrading teacher's level). You didn't realize that using questionnaire to students is reflective action

though it is focused on students. But it influences you, right? That you should change the way you teach like slow down your speaking speed, and so on. The weakness is that most teachers do not documented those. So, you don't have records or notes to support your action research. It's natural for teachers to do reflection unconsciously (without knowing they do that).

13 March 2015

Interview 2

Before interview, Dian saw her video on her practice and I gave teacher standards document.

EY'1: after you saw your video, which dimension of teacher standards you have applied?

Di'1: I think I have applied pedagogy in general. Because I provide opportunities for students from topic/lesson, process of learning, reflection, work/group work, questions and answer and technology.

EY'2: do you satisfy with your practice?

Di'2: no, I don't. I should not feel satisfy.

EY'3: from those three, which one do you feel unsatisfied?

Di'3: the last one.

EY'4: why? Does it not as you planned?

Di'4: no, it is precisely as I planned. I just did not mood when I was teaching.

EY'5: it depends on the mood, right?

Di'5: yes, sometimes when I do not plan in details but I have a good mood, it turns an enjoyable class. I think I have to maintain my mood or being motivated all the time. But it's hard to do.

EY'6: what is the points if you need to improve your teaching?

Di'6: first, prepare the equipment/instrument/apparatus which are should be in the classroom although not too complete or even simple instrument to demonstrate or describe the topic. Second, prepare students to learn. It is hard to focus students. Sometimes there is any distraction like unscheduled programme, official guests, or counselling from National Narcotics Body just now. So I have to alter students' mood to pay attention to learn again.

EY'7: is that all? How about strategies?

Di'7: of course I have to prepare the strategies. I have to learn more.

EY'8: how do you think your practice in general?

Di'8: I think my practice is good enough, I can see from students' enthusiastic.

EY'9: how about your performance?

Di'9: I think I am a neat person.

EY'10: group work?

Di'10: I think I have to work on that. If I have to reduce the number of group member, I have to prepare it earlier. It's difficult for students to adjust.

EY'11: how about assignment?

Di'11: I think I have to give less assignment. For two teaching hours, my assignments were too much.

EY'12: how about giving opportunities to children to solve the problem in front of the class, questioning, or answering your questions?

Di'12: do you think that I have to give more opportunities to slow learners?

EY'13: could be. It's up to you.

Di'13: in every group there is always student who just keep silent. I think I should assign student like that to come in front of the classroom or answer my questions.

EY'14: probably it will give good effect. What about your delivery?

Di'14: I think I deliver an accordant material and match with students' age.

EY'15: do you understand students' characteristics?

Di'15: yes, I do. I know every students' characters in my classes.

EY'16: do you pay attention to students' potential? (Like Luis at your class)

Di'16: it's easy for me to treat them. The problem is student who just keep silent and hard to cooperate like Rizky, from the beginning I met him until now, and he just keeps silent in group work. He does not cooperate well with others.

EY'17: have you motivated him?

Di'17: yes, but the change is slight.

EY'18: do you give challenge to students?

Di'18: yes, I do. I ask them to make an apparatus.

EY'19: how about the fast learners? Have you given them the enrichment?

Di'19: hmm. I think I haven't done that.

EY'20: have you motivate students to learn well?

Di'20: yes, I have.

EY'21: do you apply new strategy?

Di'21: yes, I do.

EY'22: yup, you always apply new strategies. How about feedback?

Di'22: I think I give feedback to students mostly verbally.

EY'23: how about assessment? Do you give it before or after learning process?

Di'23: mostly after.

EY'24: does it affect students?

Di'24: yes, they are more motivated. After I tell them what to assess they look enthusiastic in preparing the test or quiz.

EY'25: after you watched your videos, is there any change?

Di'25: of course! I feel more confident. I will be ready if there are official guest who wants to come to my classroom.

EY'26: how is your understanding on reflective practice?

Di'26: I can compare my method or strategy in every lesson.

EY'27: so, what is your understanding?

Di'27: for me it's an evaluation for my performance, the way I speak (I have to speak slower). I have to be calm when I in front of the classroom. Now I fix my eye contact to students, I have to see or browse all my students with my eyes. Time management, I have to divide the proportion of apperception, core activities and closing. I have to emphasize on core activities than others.

EY'28: what do you feel now?

Di'28: I have better understanding now and there is a connection between teacher standards and teaching practice. Thanks God I have applied pedagogy in my practice more than I thought. I have to become model for students because they look at my personality as teacher. Students will do what I ask and believe everything what I said. I also have social awareness, right? I have interaction with colleagues, parents and community. The last is professional practice. If students ask me something and I cannot answer, it would be a shame, right?

EY'29: hmm, I think if you cannot answer you can say you don't really know and will find the information first. You have to be honest as a teacher and model for your students. It can teach them honestly as well.

Di'29: hmm, it makes sense. But, I always say 'I' (saya). Is it ok?

EY'30: it's ok. It's your choice if you think that you are their colleagues. If you choose to be their 'mam', you can use 'ibu'.

Di'30: do you think it's nice to hear?

EY'31: why don't you ask your students? Ask them which one they choose (laugh).

Di'31: ok. I'll ask students then.

22 April 2015

Interview 3

EY''1: how do you think about our activities?

Di''1: first, I want to talk about reflection. Before I met you, there was no thought about doing reflection. I never do that. I used to reflect only in my mind, not write it down. I never thought that I have to think what my weaknesses are and 'fix' those for the next meeting. When you came, I notice that every meeting should be a general picture of teaching learning process (that is reflection, right?) and I write down the experience. For next meeting, I can see my writing and improve my practice and apply new things/strategies/methods. Second, I just found out that I can use 'backwards' strategy. When applied it to students, at the first meeting of a topic, they looked a little bit trouble but then in the next meeting they can easily understand and doing their own experiment based on student sheet I gave.

EY''2: keep doing that and looking for new ideas and strategies. What are the benefits then?

Di''2: first, I can apply various methods/strategies. Second, I can recognise my strength and weaknesses (I always assume that I am the best). Third, I know the benefit of reflection now. I will start reflecting from now on.

EY''3: what do you get from our activities?

Di''3: knowledge for sure. Knowledge on teacher standards/competence and else. From our discussion I can gain or share experience and knowledge as well. My teaching practice improves, I feel that.

EY''4: how about (classroom) action research? Do you understand how to do research?

Di''4: I attended training once, but I still did not understand about the cycle and the system. When we discuss it (reflect on my practice), now I get it. I have the picture now about research.

EY''5: do you think it's easier when you do research after you write your reflection, or vice versa?

Di''5: I think it's easier if I begin with reflection.

EY''6: what activities that support reflections?

Di''6: create lesson plan, then reflection. So, I know the weaknesses and improve it.

EY''7: do you think video support it?

Di"7: of course. It is for self-assessment. I can see my own practice there and I can revise my lesson plan, 'polish' my teaching in certain ways.

EY"8: you can record/videotaped as well without me, right? Like bu Netty, she begins to record her activities in the classroom now. How about writing your experiences? Does it support reflection?

Di"8: yes, to remember what I have done in the classroom. I think it will match with the video, picture and written material. Who shot her? A student?

EY"9: no, she shot students' activities. So, she reflects on what students do. What do you understanding on reflective teaching now?

Di"9: I think in every meeting there should be reflection. I have to spend a little time to reflect, write it on, after I give lesson. Hmm, it will be a continuous improvement I guess if I do that every time and every day.

EY"10: sure! The barriers are teacher have many teaching hours (24 hours per week), administration works and else. Sometimes not relating to teaching and learning process. Ideally, every lesson you have to reflect on. But for the time being, you can reflect on something not right first, and make improvement for the next meeting. Hmm, do you think there is any change in four months?

Di"10: yes, there is. Especially my performance and strategies I use. Now, I can adjust my strategies with time and condition of students. Second, the techniques and methods I applied. After reflection, I find various methods/techniques/strategies and avoid students' boredom.

EY"11: will continue doing reflection?

Di"11: of course!

EY"12: which one? Will you continue reflect by writing it, or just recall, or record your practice?

Di"12: I will continue reflecting by writing and recording. I will follow bu Netty's way.

EY"13: how do you feel now?

Di"13: I feel so happy. I feel that I have high self-confidence. When I attended training last week, my group asked to present first and prepared the apparatus. I think my group delivered the presentation well with our own apparatus. I really want to do (classroom) action research now after I met you.

Appendix C: Reflective Writings

This example of reflective writing shows the teacher's effort to express their reflection through their writing on what had happened during observations.

Date:	Date:
	- REFLEKSI -
<p>Nama Guru : DIAN SURDIJANI, S.Pd. Guru : IPA Kelas : 8D, 8E, 8F, 8G, 8H Unit Kerja : SMPN 3 Cimahi Thn Pelajaran : 2014/2015</p>	<p>① Observasi 1 Kelas : 8E Waktu : jam ke 7,8,9 (Pukul 11.30 - 14.10) Tgl : Rabu, 9 Januari 2015 Pokok Bahasan : "Tekanan pada Zat Padat" Model Pembelajaran : "Remedial" (Kooperatif) Metode Pembelajaran : Diskusi, demonstrasi, ekspt., info, informasi, modelling Pendekatan : Saintifik</p> <p>Tahapan Pelaksanaan :</p> <p>A. Pembekuan</p> <ol style="list-style-type: none"> 1. Membuka dg salam 2. Menyecek kehadiran siswa 3. Memberikan penunatan perhatian, dg menunjukkan alat (jarum, paku, kayu, balok, dll) 4. Menyampaikan tujuan pembelajaran <p>B. Kegiatan Inti</p> <ol style="list-style-type: none"> 1. Guru memperlihatkan alat "ketaman pd zat padat" 2. Kemudian, mendemonstrasikan penggunaan alat tsb. dan siswa diminta mengamati. 3. Guru meminta beberapa siswa mendemonstras-
MIRAGE	MIRAGE

Date:	Date:
	Case study / case method / case story
<p>Kita seperti contoh (guru). Guru tersebut siswa berdiskusi tentang hasil pengamatan dari demonstrasi + kemudian tsb. Guru membimbing siswa membuat review (kesimpulan dari demonstrasi tsb). Guru meminta siswa duduk dalam tatanan kelompok. Guru membagikan Lembar Kerja / Lembar Diskusi Siswa (LDS) berupa soal latihan PO dan kuis singkat. Siswa diminta mengerjakan soal berkenaan dg latihan dan dibimbing oleh guru. Guru membimbing "membahasan soal" dalam Diskusi kelas. Siswa yang mendapat nilai terbaik, mendapat penghargaan berupa nilai yang baik.</p> <p>Contoh</p> <ol style="list-style-type: none"> 1. Guru memberi informasi tgg konsep Tekanan pada Zat Padat 2. Guru memberikan tugas / kegiatan rumah untuk penguatan selanjutnya 3. Guru menanyakan perasaan siswa untuk mengetahui pemahaman hati siswa (berang / tidak) 4. Guru menutup dg salam 	<p>Refleksi :</p> <p>Hari ini, hari pertamaku di supervisi Neng Enah dari UMP-Jabar. Seperti biasa, bilamana ada rencana supervisi beberapa hari sebelumnya habitus berapalah tak menentu. Pasan khawatir, malu, takut, optimis dll menjadi satu. Perasaan kelung ini sulit dihilangkan. Tapi, supervisi apapun itu hrs dijalani.</p> <p>Untuk mempersiapkan diri, sehari sebelumnya aku sudah Rpp sudah silabus dan pokok bahasan yg akan diajarkan. Aku mempersiapkan pula alat-alat percobaan yg akan digunakan. Dengan Rpp, LK, LDS dan alat yang akan digunakan di kelas ketika sedikit lega banting di supervisi.</p> <p>Hari Rabu jam ke-7,8,9 ini, aku masuk ke kelas 8E di dampingi Neng Enah, dan aku persilahkan neng Enah tuh buku di banyak belakang. Mulailah aku melaksanakan pembelajaran dgn Padi Kober.</p> <p>"Assalamu alaikum Wr. Wb." ... Sa. Tadih kata pembekuan pembelajaran. Aku lakukan pada Puluhan siswa Rencana (Rpp). Dalam waktu 10 menit, pertemuannya sah aku lakukan, heheh, malu mang, pxcaya siiku bnda ketangan dan aku melingir awal 8E sah dapat dikondisikan.</p>
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No. _____ Date: _____	No. _____ Date: _____
<p>Kelika memulai kegiatan ini, aku demonstrasi kan alat-alat yang aku bawa sesuai petunjuk. Tetapi, Aku putul paku simpul dan paku runcing ke dalam kayu, tapi ternyata ketika paku Kristina paku runcing tidak mengeluarkan lubang dalam seruni kinjiran.</p> <p>Aku minta beberapa siswa melakukan hal yg sama krngn hasilnya belum memuaskan. Aku pikir ada alat-alat yang kurang tepat dg paku dalam.</p> <p>Dalam keberuntungan, aku ajak anak2 untuk mengamati fenomena yg ada & kesehariannya. Ternyata, ternyata hal ini lebih mengeren & tujuan pembelajaran.</p> <p>Melalui siklus kelas, siswa dpt mengumpul kan informasi sebanyak2nya dgn tkn tkn dan pd zat padat. Aku menyadari, siswa3 kn tkn bisa dianggap sebagai titik yg kosong. Mereka sda kritis dan informasi yg mereka punya mungkin lebih banyak daripada ilmu tk.</p> <p>Mengakhiri pembelajaran ini akan membantu menyajikan soal latihan per kelompok (LDS) kemudian kami bahas bersama. Hasilnya siswa cukup mendapatkan manfaat.</p>	<p style="text-align: center;">process ?</p> <p>⊙ Kendala / keterbatasan :</p> <ul style="list-style-type: none"> - Persediaan alat yang kurang lengkap - Kemampuan atau menggunakan alat dg alat bantu masih terbatas <p>⊙ Perbaikan :</p> <ul style="list-style-type: none"> - Harus lebih banyak mencoba alat & yg lain yg berhubungan & materi pembelajaran - bila mana pembelajaran tdk sesuai yg diinginkan guru hrs mempunyai keahlian dan "memilih strategi baru" dan pembelajaran. - Rpp, LK, LDS harus siapkn. <p>Catatan: Menurut Meng Endah: "Baik dan" sda</p> <p style="text-align: center;">Kulihat :</p>  <ol style="list-style-type: none"> 1. Hasil akhir 2. Sda ada penyimpulan 3. Materi sda Unit / Rumus 4. Sda sesuai & strategi dalam Rpp 5. Kontekstual terlihat 6. Ada ilmu agama 7. Pengetahuan kelas sda baik.
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Appendix D: Lesson Plan

The lesson plan mostly explains the aspects should occurred in a meeting such as school identity, time, objectives, students' attitude expected, the stage of learning activities, and assessment. Teachers should attached the student worksheet as well. This is considering a complex form because limited by government regulation.

RENCANA PELAKSANAAN PEMBELAJARAN (RPP)	
Sekolah	: SMP Negeri 3 Cimahi
Kelas/Semeste	: IX (sembilan) / 2
Standar Kompetensi	: 10. Mengungkapkan makna dalam teks lisan fungsional dan monolog pendek sederhana berbentuk <i>narrative</i> dan <i>report</i> untuk berinteraksi dalam konteks kehidupan sehari-hari
Kompetensi Dasar	: 10.2 Mengungkapkan makna dalam monolog pendek sederhana dengan menggunakan ragam bahasa lisan secara akurat, lancar, dan berterima untuk berinteraksi dengan lingkungan sekitar dalam teks berbentuk <i>narrative</i> dan <i>report</i>
Jenis teks	: Narrative Text
Tema	: <i>fairy tale</i>
Aspek/Skill	: Speaking
Alokasi Waktu	: 2 x 40 menit (1 x pertemuan)
Tujuan Pembelajaran	
Pada akhir pembelajaran:	Siswa dapat mengungkapkan cerita <i>narrative</i> secara lisan.
Karakter siswa yang diharapkan :	Kerjasama (cooperative)
	Rasa hormat dan perhatian (respect)
	Tekun (diligence)
	Berani (courage)
Materi Pembelajaran	
	Video musical cerita Cinderella
	Contoh teks narrative
	Ciri-ciri kebahasaan teks narrative
Metode Pembelajaran:	three-phase technique
Langkah-langkah Kegiatan	
A. Kegiatan Pendahuluan	
Motivasi :	Menjelaskan pentingnya materi yang akan dipelajari berikut kompetensi yang harus dikuasai siswa
B. Kegiatan Inti	
Eksplorasi	
Dalam kegiatan eksplorasi, guru:	
	Melibatkan peserta didik mencari informasi yang luas dan dalam tentang topik/tema materi yang akan dipelajari dengan menerapkan prinsip alam takambang jadi guru dan belajar dari aneka sumber;

Menggunakan video visual sebagai pendekatan pembelajaran dan media pembelajaran.;
Melibatkan peserta didik secara aktif dalam setiap kegiatan pembelajaran.

Elaborasi

Dalam kegiatan elaborasi, guru:

Memfasilitasi peserta didik melalui pemberian tugas, untuk memunculkan gagasan baru baik secara lisan maupun tertulis;
Memberi kesempatan untuk berpikir, menganalisis, menyelesaikan masalah, dan bertindak tanpa rasa takut;
Memfasilitasi peserta didik dalam pembelajaran kooperatif dan kolaboratif;
Memfasilitasi peserta didik berkompetisi secara sehat untuk meningkatkan prestasi belajar;
Memfasilitasi peserta didik untuk menyajikan hasil kerja individual maupun kelompok;
Memfasilitasi peserta didik melakukan kegiatan yang menumbuhkan kebanggaan dan rasa percaya diri peserta didik.

Konfirmasi

Dalam kegiatan konfirmasi, guru:

Memberikan konfirmasi terhadap hasil eksplorasi dan elaborasi peserta didik melalui berbagai sumber,
Memfasilitasi peserta didik melakukan refleksi untuk memperoleh pengalaman belajar yang telah dilakukan,
Memfasilitasi peserta didik untuk memperoleh pengalaman yang bermakna dalam mencapai kompetensi dasar:

C. Kegiatan Penutup

Dalam kegiatan penutup, guru:

bersama-sama dengan peserta didik dan/atau sendiri membuat rangkuman/simpulan pelajaran;
melakukan penilaian dan/atau refleksi terhadap kegiatan yang sudah dilaksanakan secara konsisten dan terprogram;
memberikan umpan balik terhadap proses dan hasil pembelajaran;
menyampaikan rencana pembelajaran pada pertemuan berikutnya.

Sumber belajar

Buku teks yang relevan..

Script cerita Cinderella

Video lagu cerita Cinderella.

Penilaian

Indikator Pencapaian Kompetensi	Teknik Penilaian	Bentuk Instrumen	Instrumen/ Soal
1. Mengungkapkan makna cerita secara lisan berbentuk <i>narrative</i> .	Unjuk kerja	Uji Petik berbicara	<i>Arrange these jumble words into a good sentence</i> <i>Arrange these jumble sentences into a good paragraph.</i>
2. Menjawab pertanyaan berdasarkan teks.			<i>Act it out</i>

Instrumen:

Daftar petunjuk:

Act the story out in front of the class

Pedoman Penilaian
Jumlah skor maksimal keseluruhan 100

Rubrik Penilaian

Element	Score
Pronunciation	25
Delivery	25
Performance	25
Supporting aids	25

Standard of each element:

Excellent	21-25
Very good	16-20
Good	11-15

Cimahi, 5 Februari 2015
Guru Mata Pelajaran

Popi Puspasari, SPd.
NIP. 196305182006042001

KUNCI JAWABAN

- I.
 1. One day an ant was searching for some water.
 2. She slipped and fell into the water.
 3. The dove plucked a leaf into the water.
 4. The ant moved to the leaf.
 5. It carried her safely to the ground.

- II.
 2. One fine morning Mother Bear made a delicious pudding.
 3. The pudding should be left to make it cool for an hour.
 1. So they took a walk to the forest near their house.
 5. Goldilocks was passing by their house and intended to come into it.
 4. She sat on their chair, ate their puddings and slept on Teddy Bear's bed.
 6. The Teddy Bear family arrived at home and surprised to find the messy house.
 7. Goldilocks felt sorry and asked them their apologies.
 8. She promised not to come into someone's house without permission.

alhamdulillah

Lembar Kerja Siswa

Nama :

Kelas :

I. Rearrange these jumble words into good sentences:

1. an ant – searching – One day – was – some – for – water.
2. slipped – and – She – fell – the water – into.
3. The dove – into – a leaf – plucked – the water
4. moved – the leaf – to – The ant
5. carried – her – It – to – safely – the ground.

1.
2.
3.
4.
5.

II. Rearrange these jumble sentences into a good paragraph.

1. So they took a walk to the forest near their house.
2. One fine morning Mother Bear made a delicious pudding.
3. The pudding should be left to make it cool for an hour.
4. She sat on their chair, ate their puddings and slept on Teddy Bear's bed.
5. Goldilocks was passing by their house and intended to come into it.
6. The Teddy Bear family arrived at home and surprised to find the messy house.
7. Goldilocks felt sorry and asked them their apologies.
8. She promised not to come into someone's house without permission.

_____ / _____ / _____ / _____ / _____ / _____ / _____ / _____

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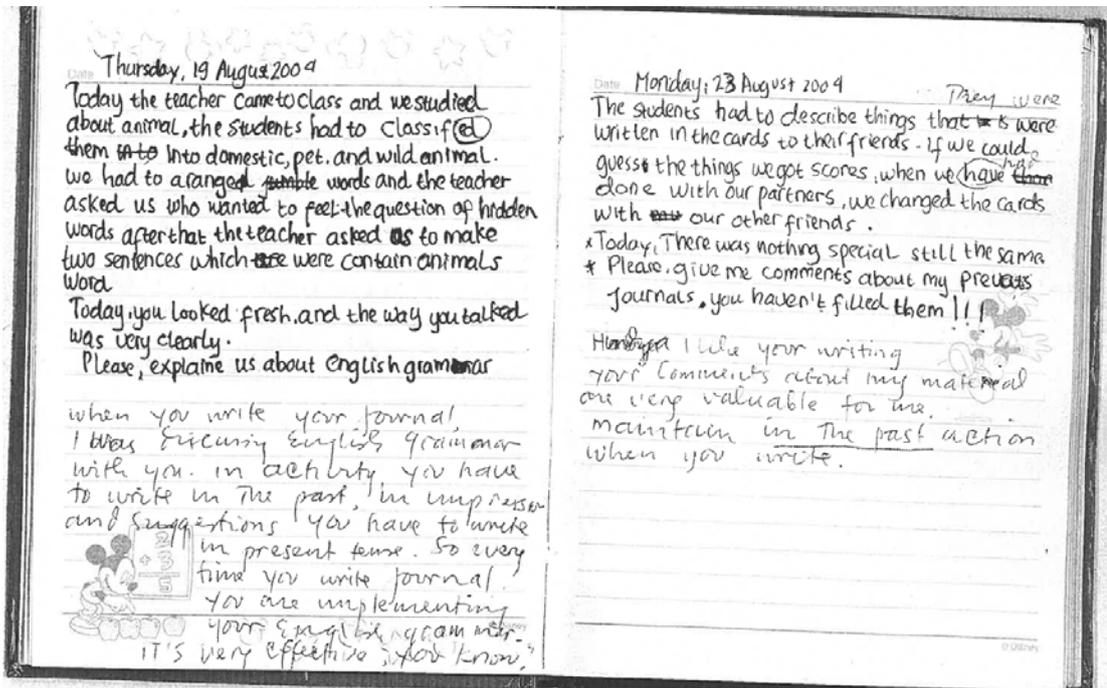
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GOOD LUCK

Appendix E: Study Diary



Appendix F: Video Capture

This picture shows that the science teacher were using various technique and teaching aid in delivering her lessons. She demonstrated the respiration system with water bottle and balloon.



THE END