The Characteristics of Effective Professional Development that Affect Teacher’s Self-Efficacy and Teaching Practice

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Abstract: This study aims to find out the characteristics of effective quality professional development that affect teachers’ self-efficacy from the perspective of junior secondary English Language teachers in Indonesia. This study used a mixed methods research. Data derived from the initial and follow-up questionnaires, TSG observations, and semi-structured interviews. The findings found that English language teachers perceived good quality PD are those activities that increase teachers’ knowledge and teaching skills, encourages collaboration, and is based on teachers’ classroom practical needs. The study suggests the need to involve teachers in the process of planning, designing, and implementing PD in order to maximize its benefits.

Key words: Effective professional development, English language teachers, teacher self-efficacy

1. INTRODUCTION

In teacher education literature, a differentiation is often made between teacher professional development (PD) and teacher professional learning (PL). PD in its simplest form can be defined as “the development of competence or expertise in one’s profession or the process of acquiring the skills needed to improve performance” as a teacher (Simpson, 2008 as cited in Bachtiar, 2017, p. 46). Professional learning, on the other hand, is a more recent term that implies to internal process through which teachers create professional knowledge (Timperley, Wilson, Barrar, & Fung, 2008). Poskitt and Taylor (2008) provide a succinct difference between PD and PL where they describe PD as having connotations of delivering some kinds of information to teachers in order to improve their practice, while PL implies a more internal process through which individual teachers create and develop professional knowledge. As PD is the term most often used in the Indonesian context, in this article the term PD will be used rather than PL without there being a clear disparity between the two terms.

A growing consensus among researchers that innovative PD is seen to be the key to the success of any education reform initiative that helps teachers improve their teaching in the classroom (Boyle, While, & Boyle, 2004; Guskey, 2003). Clarke and
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Hollingsworth (2002) suggest PD should become a process to change teachers' knowledge, beliefs and attitudes. Change in these aspects should lead to changes in teachers' classroom practice and behaviour. Therefore, the main purpose of PD is to increase teacher's knowledge, skills, and attitude because these components have strong link to teacher's teaching practice (Penuel, Fishman, Yamaguchi, & Gallagher, 2007). Penuel et al. developed a model (see Figure 1) to understand teacher’s learning in a more comprehensive professional development system by putting teacher’s knowledge, skills and attitude in an active relationship with student’s achievement or learning change as represented by various assessment models, and through classroom practical experiences.

Figure 1. Learning Model of teacher professional development

Many researchers also agreed that innovative PD is much more effective than traditional PD (Borko, 2004; Butler et al., 2004). Van Veen, Zwart and Meirink (2012) define traditional PD in which PD activities are not situated in teachers’ workplace, the content is not adjusted to the issues and problems in teachers’ daily teaching practice, and teachers play a passive role during the PD process. While Innovative forms refer to all those interventions in which teachers play an active role and the issues in their own teaching practice determine the content. Some examples of innovative forms are mentoring, coaching, study groups, research by teachers, and networking (Garet et al., 2002).

Butler, et al., (2004) criticize traditional models of PD as failing to deepen teachers’ knowledge and being insufficient to change deep rooted beliefs in practice. Teachers often find traditional models are boring and irrelevant, and claim to forget more than ninety per cent of what they learn (Allen et al., 2005). Another problem with traditional approaches to PD is that the activities do not capitalize on the expertise of teachers, rather they operate from a deficit model (Feiman-Nemser, 2001). The problem with a deficit model is that it assumes teachers do not have sufficient information and skills to be successful in classrooms. This assumption implies that “teacher have been told often enough (or it has been taken for granted) that other people’s understandings of teaching and learning are more important than their own and that their knowledge-gained from their daily work with students” (Murray, 2009, p. 22).

On the other hand, many researchers claim that innovative forms of PD are more effective to meet teachers’ needs because most of these activities are in the form of collaboration and are grounded in teachers’ classroom practice (e.g. Butler et al., 2004; Desimone et al., 2002; Penuel, Fishman, Yamaguchi, & Gallagher, 2007). Many researchers believe that innovative models provide greater opportunities for teachers to try new ideas, and reconstruct knowledge and skills about teaching as a prerequisite to increase
teachers’ knowledge and improve pedagogy (Darling-Hammond & McLaughlin, 1995; Desimone, 2009).

Innovative PD is also seen to help teachers enhance their self-efficacy (Karimi, 2011). Enhancing teacher self-efficacy is important because it is related to actions teachers take, and/or outcomes of actions they achieve (Tschannen-Moran & Hoy, 2007). Research indicates that teachers with high self-efficacy tend to plan their duties better than teachers with low self-efficacy (Bandura, 1999; Tschannen-Moran & Hoy, 2007).

According to Bandura’s social cognitive theory (1999), someone’s believe on their self-efficacy influence them in many aspects, such as reaction they make, choice they chose, efforts they do, respond to challenge and handicaps, level of depretion they face in solving environment/working problem, and level of achievement they achieve. The higher someone’s efficacy believe, the greater the effort, perseverance, resilience, and the level of achievement of efforts and vice versa. Bandura clarifies four sources of efficacy, namely: (1) mastery experiences or performance experiences that refers to interactions in a specific situation. A strong sense of efficacy is created through repeated successes. Repeated success builds strong beliefs in one’s personal efficacy, whereas failures create weak efficacy beliefs; (2) vicarious experiences refers to social comparison through observing the successes and failures of others. Vicarious experiences impact people’s efficacy beliefs when they observe others’ behaviour and use these experiences to form their expectancies in relation to their own behaviour and its consequences; (3) verbal persuasion refers to specific performance feedback from colleagues, supervisors, or from other people concerned with one’s ability to achieve something (Hoy, 2000); and (4) Physiological and emotional states refer to the physical and emotional reactions of the body during an activity. People’s physical reaction to stressful situations can lead them to worry about their abilities to succeed.

Although it has been widely recognized that PD is an essential activity for teachers to help them update their knowledge and skills related to the learning they do, the results of recent studies show that attitudes and teacher’s efficacy beliefs also contribute to their effectiveness as educators (Bandura, 1997; Pajares, 1996). Teacher’s efficacy believe has been proven to be directly related to many positive aspects related to teacher behavior and attitudes (Pandang, Hajati, and Aswad 2019). However, few studies have been conducted regarding the effect of PD activities on teacher self-efficacy, especially in the Asian context.

From Indonesian context, PD programs for teachers have become a strong tradition. These programs are intended to help teachers improve the effectiveness of their teaching practice. PD also has been used to disseminate new policies associated with the curriculum or approaches to teaching. In many cases, the central government has invited some (senior) teachers to participate in PD activities such as workshops and training to cover each region/district. Later, the teachers should become disseminators of this knowledge to their colleagues in their district/school to spread the information, including in the rural areas (Hendayana, 2007).

In 2005, the government of Indonesia, through the Ministry of National Education (MONE)
started to implement ‘the Teacher Certification Program’ mandated by law for teachers and lecturers. The Teacher Certification Program is designed to establish a quality benchmark for all teachers, including government and non-government teachers. It provides a public guarantee of the standards of training and competency required from teachers. In addition, the Teacher Certification also has been designed to harness a number of strategies to improve the quality and welfare of teachers (Sudarminta, 2000).

This study examines the perceptions of junior high school English language teachers in three districts in Indonesia of the characteristics of effective PD activities that affect their self-efficacy and teaching practice. So far, very few (if any) studies have examined the impact of PD activities on teacher’s self-efficacy and teaching practice in the Indonesian context. The research question of this research is “what are the characteristics of effective PD activities that English language teachers consider to have an effect on their self-efficacy and teaching practice?

**English as a Foreign Language in Indonesia**

English is the first foreign language that was introduced and learned by students in Indonesia. Different to other foreign languages, English is a compulsory subject in high schools. Students learn English for three years in junior high school (Years 7 through 9) and three years in senior high school (Years 10 through 12). In the present decade, English has been formally allowed to be introduced in elementary schools in Indonesia (Raja, 2009).

In the Indonesian context, there are two main reasons why English is important in relation to accelerating the development of the country. First, the development should be supported by the mastery of science and technology, and most of the books for science and technology are written in English. In the same way scientific information available on electronic media is also presented in English. Second, English is the international language used for various international communication purposes, i.e. trade, diplomacy, politics and education. A good mastery of English is seen as a prerequisite for the success of developing Indonesia (Madya, 2010).

The important role of English as a medium of instruction in Indonesia is frequently collocated with ‘globalization’ and ‘competition’ (Coleman, 2011). The perception is that globalization is “synonymous with international competition; international competition in turn is assumed to involve the use of English; and using English appears to necessitate the learning of other subjects through English” (Coleman, 2011, p. 16). Figure 1 illustrates the correlation between globalization and learning English in Indonesia.
2. RESEARCH METHOD

This study used Mixed Methods Research (MMR). The concept of mixed methods research has been defined in a number of ways. Johnson et al. (2007) define mixed methods research as “an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative and quantitative research)” (p. 113). Mixed methods research is also described as an approach to complement the strengths of quantitative and qualitative approaches because these “both approaches may provide stronger evidence for a conclusion” (Johnson & Onwuegbuzie, 2004, p. 21).

Mixed methods research bridges the quantitative and qualitative conflicting approaches in educational research. Therefore, mixed methods researchers reject any forced choice between quantitative and qualitative (Creswell, 2013). They consider specific decisions regarding the use of mixed, qualitative and quantitative approaches and methods, which depend on the nature of the research question and the nature of each stage of the research cycle, and avoid the use of metaphysical concepts such as truth and reality. Johnson et al. (2007) further justify the use of mixed methods research,

…in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) (p. 123).

This research was conducted in three districts in South Sulawesi Province. The researcher especially selected the three districts that were “likely to be information-rich” (Gall, Gall, & Borg, 2005, p. 310). All the three districts were purposefully selected from among a list of potential districts using predetermined criteria. One of the criteria is that all these three districts had regular English language TSG meetings every month. This was important as one of the investigative tools in this study was TSG observations.

This research involved four phases of data collection. The participants for the initial
questionnaires and the follow-up questionnaires consisted of the entire population of junior secondary English language teachers in the three districts. The rationale for targeting all EFL teachers in the questionnaires is to ensure that the results obtained are as generalizable as possible for the three areas. For TSGs observations, purposive sampling was used to identify three TSGs within the population that met the specific criteria and could be accessed. To find out more in-depth details and to triangulate the data from both the questionnaires and TSGs observations, six teachers from each of the TSGs (N = 18) were interviewed.

Data sources for this research consisted of quantitative and qualitative data. The quantitative data were gained from closed questions in the questionnaires, while the qualitative data was gained from open-ended questions in the questionnaires, TSG observations, and semi-structured interviews. The quantitative and qualitative data were analysed separately. The quantitative data (i.e. responses to scales and multiple choice questions) in the initial questionnaires and the follow-up questionnaires were transferred and analysed using SPSS. To investigate teachers’ perceptions of good quality PD, and the relationship between teachers’ participation in PD (TSGs) and teachers’ self-efficacy, thematic analysis was used in the present study. The data from open-ended responses, semi-structured interviews transcriptions, and observation notes were entered into the NVivo 10 data management program, and a comprehensive process of data coding and identification of themes was undertaken.

3. FINDINGS AND DISCUSSION

Table 1 shows the participants who responded the initial questionnaire and the follow-up questionnaire based on their teaching experiences and gender.

<table>
<thead>
<tr>
<th>Teaching Experience</th>
<th>Gender</th>
<th>Frequency</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Urban District</td>
<td>Rural District A</td>
</tr>
<tr>
<td>More than 15 years</td>
<td>Male</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>6 – 15 years</td>
<td>Male</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Less than 6 years</td>
<td>Male</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>45</td>
<td>30</td>
</tr>
</tbody>
</table>
Of the 104 teachers who gave responses on both questionnaires, 45 (43.3%) teachers were from an urban area, and 59 (56.7%) were from rural districts. The teacher respondents included 35 (33.7%) males and 69 (66.3%) females and they had a range of teaching experience. Based on Table 1 above, most of the respondents who returned both the initial questionnaire and the follow-up questionnaire were either very experienced teachers (more than 15 years) or experienced teachers (6-15 years). There were 17 novice teachers who took part in this study.

One of the aspects that has been observed in this research was teachers’ perception of the quality of professional development activities they have participated in. Table 2 presents the participants’ perception of PD they have attended.

Table 2. The Quality of PD the Participants have participated in

<table>
<thead>
<tr>
<th>Types of PD</th>
<th>Data Sources</th>
<th>Quality</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Good</td>
<td>Average</td>
<td>Poor</td>
<td></td>
</tr>
<tr>
<td>Seminars</td>
<td>The Q1</td>
<td>33 (32.7%)</td>
<td>57 (56.4%)</td>
<td>11 (10.9%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Q2</td>
<td>33 (32.7%)</td>
<td>61 (60.4%)</td>
<td>9 (8.9%)</td>
<td></td>
</tr>
<tr>
<td>TSGs</td>
<td>The Q1</td>
<td>79 (77.5%)</td>
<td>21 (20.6%)</td>
<td>2 (1.9%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Q2</td>
<td>83 (81.4%)</td>
<td>18 (17.6%)</td>
<td>1 (1%)</td>
<td></td>
</tr>
<tr>
<td>Workshops</td>
<td>The Q1</td>
<td>28 (29.8%)</td>
<td>58 (61.7%)</td>
<td>8 (8.5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Q2</td>
<td>29 (30.9%)</td>
<td>59 (62.8%)</td>
<td>6 (6.3%)</td>
<td></td>
</tr>
<tr>
<td>Mentoring</td>
<td>The Q1</td>
<td>50 (74.6%)</td>
<td>17 (25.4%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Q2</td>
<td>51 (76.1%)</td>
<td>16 (23.9%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Observing Colleagues</td>
<td>The Q1</td>
<td>30 (83.3%)</td>
<td>6 (16.7%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Q2</td>
<td>28 (77.8%)</td>
<td>8 (22.2%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Coaching</td>
<td>The Q1</td>
<td>15 (83.3%)</td>
<td>3 (16.7%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Q2</td>
<td>14 (77.8%)</td>
<td>4 (22.2%)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Conferences</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* the Q1 = the initial questionnaires; the Q2 = the follow-up questionnaires
n/a = Not available
Table 2 shows that from various PD activities the teachers had participated in, observing colleagues, coaching, TSGs, and mentoring were considered as good forms of PD that could help them to increase their competence. Of the seven types of PD, TSGs were seen have most significantly increased in perceived quality between the Q1 (77.5%) and the Q2 (81.4%), followed by observing colleagues (the Q1 = 77.8%; the Q2 = 83.3%) during the period of the study. In addition, more than half of the participants saw the quality of seminars and workshops as 'average'. Some of them even stated 'poor' for the quality of seminars and workshops they had attended.

One of the key findings from this research is that the participants perceived good quality PD activities are those that: (1) facilitate increased teachers’ knowledge and teaching skills; (2) encourage collaboration; and (3) is based on teachers’ practical classroom needs. Following is the discussion of each of the three aspects.

3.1. PD Develops Teachers’ Knowledge and Teaching Skills

The participants in this research perceived the main aim of good quality PD activities is to help teachers increase their knowledge and understanding about teaching. This knowledge and understanding was mainly related to content knowledge and pedagogical content knowledge. The participants assumed that to achieve the learning goals, teachers need a good understanding of their subject matter together with knowledge and skills to convey the lesson content. They perceived that, for teachers to have a positive impact on students’ learning, they not only need to master the lesson content but also know how to use teaching strategies that are appropriate for the EFL lesson content.

The findings from this research concur with previous research (Ball, Thames, & Phelps, 2008; Darling-Hammond & Bransford, 2007). Darling-Hammond and Bransford's (2007) study indicates that knowing how students understand lesson content and having a repertoire of strategies to help students engage with learning ideas are at the core of pedagogical content knowledge. Similarly, Ball, Thames, and Phelps (2008) point out the need for teachers to know the subject matter they teach. Therefore, good PD activities are needed to help teachers increase their understanding of content knowledge and pedagogical content knowledge to help them improve their teaching practice.

One of the interesting findings from this research is that the participants perceived that effective PD would facilitate teachers’ understanding of content knowledge and pedagogical content knowledge, and also enhance their self-efficacy beliefs. For example, one of the teachers in the interviews reported that good PD helped him to increase his content knowledge and pedagogical content knowledge, as well as enhancing his self-belief about his competence in teaching. The findings from this study are consistent with Hansen’s (2005) study that identified subject knowledge and professional development as direct contributors to positive
professional confidence and capability. Likewise, as Khourey-Bowers and Simonis (2004) indicate, teachers’ self-efficacy was reported to improve when they felt competent to teach English subject content knowledge using appropriate pedagogical content knowledge.

3.2. Encourages Collaboration among Teachers (PD Participants)

The second characteristic of effective PD according to the participants is the opportunity to collaborate with other teachers. The findings from this study showed that teacher perceived collaborative PD encouraged teachers to share their knowledge and understanding about teaching. The teachers seemed to value the *how (the process)* in addition to the *what (the content)* of PD. So, along with the acknowledgement of the importance of PD that can help them to increase their knowledge and understanding about teaching, teachers felt that it was important to collaborate with other participants during the PD process. The participants’ views of the importance of collaboration are exemplified in the following quote.

For me, the degree to which the participants can collaborate during PD process determines the quality of PD. The more opportunities participants have to share their knowledge and skills, and to give and get feedback, the greater the possibility of the participants getting benefits from PD. (IT.Ahmad.ET.RA).

The findings from this study are relatively well aligned with the Eisenhower model (Garet et al., 2002) that identified collaboration as a characteristic of effective PD. In the Eisenhower model, opportunities for collaboration reflected the structural feature of active and collective participation, which indicated that shared learning experiences encouraged reflection and support over time. The findings from this research study also concur with other previous research (e.g. Desimone, 2009; Penuel et al., 2007) that identifies the opportunity for teachers to collaborate and share knowledge and skills as a characteristic of effective PD.

The benefit of collaboration in PD is supported by social constructivist theories of learning (Lave & Wenger, 1991). Social constructivist theories of learning assume that learning occurs when individuals hear and share their thoughts and ideas, and articulate their own emerging understandings. On many occasions, the participating teachers agreed with the idea that learning is more effective when the opportunity exists to interact with others and with their environment (Williams, 2010). The findings from this research are in line with Psychoyos’ (2012) study that found that the combined strengths of each member in a professional learning community helped to develop each teacher’s knowledge and teaching skills, and produced a better understanding of quality teaching. The findings from my research also support what Darling-
Hammond and McLaughlin (1995) see as important to the success of teachers' learning that teachers are given “opportunities to work together, assume the role of learner, restructure time constraints and focus on professional trust and encourage problem solving” (p. 4).

The findings from this research suggest that teachers, especially novice teachers, need to open their classroom doors more often and invite their peers in for support that may help them to feel less isolated. Teachers need to find and make time for each other to share questions as well as new ideas about classroom behaviour and learning. A previous study by Dussault, Deaudelin, Royer, and Loisell (1999) identifies professional isolation as “the unpleasant experience that occurs when a person's network of social relations at work is deficient in some important ways, either quantitatively or qualitatively” (pp. 943-944). By identifying collaborative PD for teachers, this study provides usable information that can minimize teacher isolation and at the same time encourage PD necessary for continued teacher growth, as well as facilitating student achievement.

The participants’ preference for sharing and collaboration suggest PD which adopts a bottom-up approach where the starting point was teachers’ needs. Richards (1991) defines this as an internal view of PD when the design and content of PD arises from the teachers themselves, while in the external view the ideas are determined by an outsider. Some comments from the participating teachers indicate that a top-down approach often left them feeling that they had no real personal investment in the programme and were therefore less committed. Therefore, the participants valued PD activities that encouraged teachers to collaborate and used bottom-up approaches. The findings from my study are supported by Attema-Noordewier, Korthagen, Zwart, Kooij, and Van Veen (2012) who indicate that top-down approaches may create external pressure on teachers, especially if ideas are in contrast with teachers’ views and needs.

3.3 PD Content is based on Teachers’ Practical Needs

The third major theme to emerge from the findings in relation to the characteristics of good quality PD was the perceived value of PD content that addressed teachers’ practical classroom needs. The findings showed that the participants valued PD that was applicable to their daily classroom activities. PD content based on teachers’ practical classroom needs aligns with the key characteristic of fostering coherence between teachers’ work and their professional goals (Garet et al., 2002).

The findings from my study that showed PD needs to be based on teachers’ real needs in classrooms, also concurs with some previous studies (Creemers, Kyriakides, & Antoniou, 2013; Karimi, 2011). A study by Karimi (2011), for example, pointed out that good quality PD programs are aimed specifically at raising teachers’ operational knowledge of classroom
practice which in turn boosts teachers’ efficacy. The participating teachers in my research reported that they needed PD activities that were suitable for their practical classroom needs and implied that teachers are adult learners who bring “a repository of information, consisting of direct experimentation and realities” (Ahedo, 2010, p. 67). Further, McGee (2011) also discusses the importance of teacher professional learning activities having a practical focus because this will enable teachers to value these activities as connected to their everyday work.

Interestingly, all of the participants in the interviews reported that when the content of PD addressed teachers’ classroom practical needs, it enhanced teachers’ self-efficacy. The findings from my study suggest that one way to help teachers enhance their self-efficacy is by ensuring that PD content is based on their practical needs. The findings from this study also support the need for educational policymakers to consider launching quality PD programs aimed specifically at raising teachers’ operational knowledge and content standards which in turn appears to boost teachers’ efficacy (Karimi, 2011).

4. CONCLUSION

Based on the research result, it is suggested to implement collaboration and practice focused PD for in Indonesia. Through confirming that the research participants valued opportunities for collaboration and PD content that met teachers’ practical needs, they situated their perceptions about professional learning that helped them experience in meaningful learning activities. There is also a need to take into account teachers’ classroom practical needs when determining the content of PD. This means that teachers’ practical needs at a local level should become key aspects of consideration in determining the content of PD. Understanding teachers’ perceptions of effective PD and the factors that influence these perceptions are essential foundations for the implementation of effective PD for teachers in Indonesia, including junior secondary EFL teachers, that can help them increase their knowledge, skills, and attitude.

This study also suggests the need to involve teachers in the process of planning, designing, and implementing PD activities in order to maximize its success and benefits. Some of the participants in this research reported that on some occasions when they attended traditional PD activities, the content was not related to their teaching needs. Therefore, they suggested evaluating every PD activity so the organizer would know its usefulness in helping teachers improve their teaching practice.

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