

The Effect of Professional Development on Indonesian EFL Teachers' Self-Efficacy

Bachtiar

Widyaiswara Dinas Pendidikan Provinsi Sulsel

Address: Jl. Perintis Kemerdekaan KM. 10 Makassar, Sulawesi Selatan 90245

Email: greatiar@yahoo.co.nz

Abstract: This study aims to find out the relationship between teachers' participation in professional development (PD) and changes in perceived levels of their self-efficacy in the areas of instructional strategy, classroom management, and student engagement. A mixed methods research was used in this study. The findings from this study revealed that there is a relationship between teachers' participation in PD and changes in perceived levels of their self-efficacy. The findings also revealed that PD was perceived to bring about the greatest change in levels of all participants' self-efficacy in the area of instructional strategy compared to classroom management and student engagement. The study suggests that one of the characteristics of good quality PD for junior secondary EFL teachers in Indonesia is the content should be based on teachers' classroom practical needs.

Keywords: *professional development (PD), teacher self-efficacy, EFL teachers*

1. Introduction

There is a growing consensus that professional development (PD) is an essential mechanism for increasing teaching quality (Boyle, While, & Boyle, 2004; Clarke & Hollingsworth, 2002; Darling-Hammond & McLaughlin, 1995; Guskey, 2003). Effective PD is seen to be the key to the success of any education reform initiative that helps teachers improve their teaching in the classroom. Clarke and 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.

Despite the research evidence that suggests the need to promote effective PD and a growing consensus of what PD should look like, the fact is that many PD activities are still characterized by one-shot and short-term approaches, including in Indonesia (Cannon & Arlianti, 2008; Corcoran, 1995; Hendayana, 2007; Little, 1999; Sandholtz, 2002). In the Indonesian context, although a search of the literature has been conducted on teacher PD, little research, if any, has tried to identify the

characteristics of effective PD that EFL teachers felt had the potential to positively affect their practice.

In addition to the effect of PD on teachers' classroom practice and behaviour, researchers have also explored the effect of PD on teacher self-efficacy. Effective PD is believed to help teachers enhance their self-efficacy (Karimi, 2011; Ross & Bruce, 2007). Enhancing teacher self-efficacy is important because it is related to actions teachers take, and/or outcomes of actions they achieve (Tschannen-Moran, Hoy, & Hoy, 1998). In addition, it has been argued that teachers' knowledge and understanding about teaching are not enough to achieve students' academic success; teachers need to have high efficacy beliefs of their own teaching capability in order to allow them to transfer their knowledge optimally to students (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Pajares, 1996). Research indicates that teachers with high self-efficacy tend to plan their duties better than teachers with low self-efficacy (Bandura, 1993; Tschannen-Moran & Hoy, 2007).

However, little research has been conducted on the effect of PD on teacher self-efficacy in the areas of instructional strategy, classroom management, and student engagement. These three areas are important to discuss because they are directly related to teachers' classroom practice (Tschannen-Moran & Hoy, 2001), and these three areas become common topics to discuss when teachers attend PD activities. The limited number of studies in this area does call for carrying out more research studies that probe the effects of meaningful PD for teachers that affect teacher efficacy, including in these three areas (Ross, 1994; Tschannen-Moran & Hoy, 2001). This dearth

of research studies is far more evident when it comes to teaching English as a foreign language (EFL), including in Indonesia. Therefore, the present study deals with the effects of PD activities on EFL teacher self-efficacy in the areas of instructional strategy, classroom management, and student engagement.

A. Teacher Self-efficacy

Bandura's (1999) social cognitive theory provides the theoretical foundation for self-efficacy. The social cognitive theory defines "human behaviour as a triadic, dynamic, and reciprocal interaction of personal factors, behaviour, and the environment" (Stone, 1993, p. 3). This theory implies that people need to develop ability in regulating the motivational, affective and social determinants of their intellectual functioning as well as the cognitive aspects. Good self-regulators do better academically than poor self-regulators (Pajares, 1996).

One of the fundamental aspects of social cognitive theory is self-efficacy. Bandura (1997) defines self-efficacy as composed of "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). He states that people can do something better when they have high efficacy beliefs about their capabilities than those who have low efficacy beliefs about their capability.

According to Bandura's (2006) theory, people develop self-efficacy beliefs by interpreting information from four sources. The four sources are: mastery experiences, verbal persuasion, vicarious experiences, and physiological states. The four sources of information are important because

individual's beliefs are developed by cognitively processing diverse sources of information (Schwartz, 2010). Of the four sources of self-efficacy above, mastery experiences are considered as the most important source of self-efficacy in relation to one's performance (Bandura, 1999; Schmidt & Shumow, 2012). This is because a prior success in an activity is thought to build one's self-efficacy beliefs for similar tasks in the future, while repeated failures can lower one's self-efficacy perceptions (Schmidt & Shumow, 2012).

Mastery experiences (performance experiences) refer to interactions in a specific situation (Bandura, 1999). 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 (Tschannen-Moran et al., 1998). Mastery experiences are the most powerful in shaping self-efficacy because they "provide genuine evidence about the person's ability to perform in a situation" (Mongillo, 2011, p. 17). Vicarious experiences refer 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 (Bandura, 1997; Hansen, 2005). Verbal or social persuasion refers to specific performance feedback from colleagues, supervisors, or from other people concerned with one's ability to achieve something (Hoy, 2000). People who are persuaded verbally that they possess the capabilities to be successful most often exert greater effort and try harder. Therefore, a learner can be persuaded of the likelihood of success

for a task. Yet, if the task is not deemed successful by the learner, it will be disregarded (Schwartz, 2010). Physiological and emotional states refer to the physical and emotional reactions of the body during an activity (Bandura, 1997).

In terms of teacher self-efficacy, its construct is generally grounded in the psychological frames of Bandura (1997, 1999). Teacher's self-efficacy has been defined as "teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran et al., 1998, p. 233). Further, teacher self-efficacy has also been conceptualized as teachers' beliefs in their own ability to plan, organize and carry out activities required to attain given educational goals (Federici & Skaalvik, 2012), or as "teachers' belief or conviction that they can influence how well students learn, even those who may be difficult or unmotivated" (Guskey & Passaro, 1994, p. 4).

Teacher self-efficacy theory that is applied in the educational context has encouraged a rich line of research (Tschannen-Moran et al., 1998). This is because teachers' self-efficacy beliefs are related to actions teachers take and/or outcomes of actions they achieve. According to Tschannen-Moran and Hoy (2001), self-efficacy for teachers is important because it determines the degree to which teachers can control their own actions internally or externally. For example, teachers who do not expect to be successful with certain students are likely put less efforts in preparing and delivering instructions, and to give up easily although they, in fact, know instructional strategies that could assist these students.

Previous research indicates that efficacious teachers tend to plan their duties better than low efficacy teachers (Bandura et al., 1996; Gersten, Keating, Yovanoff, & Harniss, 2001). This is because high efficacy teachers perceive difficult tasks as challenges to be solved rather than consider them as threats to be put aside. They set challenging teaching goals and set a strong target to achieve them (Bandura, 1993; Tschannen-Moran & Hoy, 2007). On the other hand, low efficacy teachers usually shy away from difficult tasks because they perceive these tasks as personal threats (Tschannen-Moran & Hoy, 2007). Low efficacy teachers also have low commitment to the learning goals that they have stated. They tend to give up easily in handling and facing difficult conditions and find difficulties in recovering their sense of efficacy after failure or setbacks (Caprara, Barbaranelli, Steca, & Malone, 2006). Anaphora (2005) in her research on the issues of self-efficacy of novice teachers at the beginning of their teaching career, argues that although teachers come to classrooms with good understanding of subject matter, they find difficulty in balancing their theoretical framework and practice. According to Anaphora, the stage of transition from learning to teaching requires a lot of confidence, which new teachers mostly do not possess. Providing new teachers with some PD opportunities to help lift their self-efficacy would be highly critical in their first years of teaching. Similarly, Knoblauch and Hoy (2008) state that teachers need more than content and pedagogy knowledge to allow them to be effective in teaching and gain the goals. Teachers need motivation and a sense of efficacy to be able to transfer content and pedagogy knowledge optimally.

In recent years, a few studies have been conducted to investigate the link between teacher self-efficacy and teacher teaching practice in Asian countries (Chong & Ong, 2016; Malinen, 2016), including one study in the Indonesian context (Kamil, Mukminin, & Kassim, 2014). Chong and Ong (2016) investigated the link between self- and collective efficacy and school academic climate on student achievement. They found that teachers with higher perceptions of self- and collective efficacy had higher beliefs to promote organizational changes and student achievement.

B. Professional Development

A growing body of research has pointed out the benefits of PD for teachers (e.g. Darling-Hammond & McLaughlin, 1995; Desimone et al., 2002; Guskey, 2003). Diaz-Maggioli (2003) stresses the importance of PD as the way for teachers to succeed in their professional job. This is because PD focuses especially on how teachers learn new methods and skills as processes to meet their students' learning needs. Along the same lines, Ingvarson, Meiers, and Beavis (2005) see PD for teachers as a vital component of policies to enhance the quality of teaching and learning which promotes a responsible, creative, and proactive approach. Therefore, PD is seen an appropriate process to increase teacher knowledge and skills (Boyle et al., 2004; Desimone et al., 2002; Fishman, Marx, Best, & Tal, 2003; Guskey, 2003).

According to Fishman et al. (2003), PD should be able to help teachers increase their knowledge, skills, and attitude because these aspects have a strong link to teachers' practices in the classroom. These

ideas are supported by Feiman-Nemser (2001) who perceives PD as a process of transferring knowledge, skills, and understanding to teachers to improve their personal practice and shared responsibility.

There is an agreement among researchers that 'innovative' PD is much more effective than 'traditional' PD (Borko, 2004; Butler et al., 2004; Desimone et al., 2002). Van Veen, Zwart and Meirink (2012) provide definitions of traditional and innovative forms of PD. *Traditional* refers to the way PD is organized in that the 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. Some examples of traditional forms of PD are seminars, one-day workshops, and conferences. *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., 2001).

A growing body of research indicates that many of PD programmes are still conducted in more traditional forms and may not meet the ultimate objectives of PD namely to enhance the quality of teaching and learning (Little, 1999; Sandholtz, 2002). Some researchers indicate that many teachers attend short term PD sessions that are selected by others, presented by outside experts and predominantly led by the use of direct instruction (e.g. Sandholtz, 2002; Schlager & Fusco, 2003). This is because PD providers assume that teachers need information

from outside experts to 'fix up' inadequacies in their practice (Keown, 2009). Such PD frequently ignores key principles of adult learning (Vella, 1995), and teachers are often seen as passive recipients and the content of PD is frequently separated from teachers' daily work (Allen et al., 2005; Sandholtz, 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; Miller, 1998). Robb (2000), for example, describes a typical one-shot workshop and noticed that after the first fifteen minutes, "some teachers doodling, others closed their eyes and many other teachers repeatedly looked at their watches" (p. 5). 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).

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). 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 forms of PD take into account teachers' existing frames of knowledge and experience, as well

as a classroom practical focus. James (2001) mentions PD is effective when it exploits fully the knowledge that teachers bring with them. McGee (2011) also indicates the importance of teacher professional learning activities having a practical focus because this will enable teachers to value these activities as they are not separate from their everyday work.

C. Professional Development for Teachers in Indonesia

Realizing that the overall achievements of the Indonesian education system are still rather disappointing, the government of Indonesia has made tremendous efforts to improve the quality of teachers (Hendayana, Asep, & Imansyah, 2010). One of their efforts is through PD activities. PD programs for teachers have had a strong tradition in Indonesia since the 1970s. Two-thirds of the World Bank budget for education in Indonesia during the 1980s was devoted to teacher PD initiatives (Fuller, 1987 as cited in Thair & Tregust, 2003).

Indonesian teachers' opportunity to attend PD to improve their professionalism is guaranteed by Indonesian law (Evans et al., 2009; Hendayana, 2007). One of the current foci for teacher PD in Indonesia is lifting academic qualifications of teachers with a two or three years-diploma degree to bachelor degree. It is believed that gaining an academic professional qualification has a proportional relationship with the mastery of subject content and teaching strategies that can potentially increase successful student learning (Saito, Hendayana, Imansyah, Isamu, & Hideharu, 2006; Tanang & Abu, 2014). Currently, there is an increase in the numbers of teachers who hold master and doctoral degrees as a means to

improve the quality of the teaching profession and for career opportunity (Hendayana et al., 2010).

PD has been implemented in Indonesia to attempt to fulfil the needs of teachers to increase their knowledge, skills, and attitude. Among PD activities are seminars, workshops, training, mentoring, coaching, and subject teacher's forum (Evans et al., 2009; Sudarminta, 2000). In Indonesia, PD programs have particularly been implemented to disseminate new curriculum policies or approaches in teaching. In many cases, the central government invites some teachers to participate in PD activities such as workshops and training as a representative for each region/district. Later, the teachers will become disseminators to their colleagues in their district/school to spread the information, including to the rural areas (Tanang & Abu, 2014). In the Indonesian school setting, PD for teachers has increased since 2005, whilst before this time PD activities were not a priority for teachers and/or schools in Indonesian (Iwani, 2014).

2. Methods

This research was conducted in three districts in South Sulawesi province of Indonesia. 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.

This study 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 (around 168 teachers) in the three districts. For TSG 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 Gathering Tools. The investigative tools that were utilized in this study included questionnaires, TSG observations, and semi-structured interviews. These multiple sources of data provided triangulation that contributed to the trustworthiness and validity of the study (Glesne & Peshkin, 1992; Maxwell, 2012). A questionnaire is a self-report instrument useful for economically and speedily obtaining data from a large number of respondents (Brown, 2001). The six-page questionnaire used for this study was divided into three separate parts. Part A (demographic data) was used to gather teachers' demographic information, including their gender, location of school, and years of teaching experience. Part B employed a Teacher Sense of Efficacy Scale (TSES). The TSES by Tschannen-Moran and Hoy (2001) that consist of 12 items was adapted and administered for this study. In the current study, the 12 items were modified to suit the study context, namely teaching of English as a foreign language in Indonesia. Part C comprised of 10 items consisting of closed questions and open-ended questions.

The second investigative tool was TSG observations. According to Gebhard (1999), an observation is a non-judgemental description of

events which can be analysed and given interpretation. The purpose of observations in this study context was to observe the process in the three TSGs to allow a means of understanding what, when, and how teachers conducted the TSGs and comparing reported practice to what actually happened. This study involved non-participant observation of some TSG meetings conducted by the participants in each of the three TSGs using a loosely structured observation protocol.

In addition to questionnaires and observations, semi-structured was employed. The semi-structured interviews was conducted to allow the researcher to control the direction of the interviews and to have more opportunities to acquire extensive follow-up responses (Bogdan & Biklen, 2003; McDonough & McDonough, 2014). The semi-structured interviews were carried out in Bahasa Indonesia.

3. Findings and Discussion

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. For analyses, the data on the participants' teaching experience were divided into three categories as shown in Table 1.

Table 1. Range of Teaching experience

Teaching Experience	Gender	Frequency			Total (%)
		Urban District	Rural District A	Rural District B	
More than 15 years	Male	7	5	6	17.3
	Female	11	8	6	23.1
6 – 15 years	Male	4	5	6	14.4
	Female	15	7	7	27.9
Less than 6 years	Male	0	3	0	2.8
	Female	8	2	4	14.4
Total		45	30	29	100

Based on the results, most of the respondents who returned both the Q1 and the Q2¹ 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.

In order to investigate if there was a difference between the perceived level of teachers' self-efficacy at the beginning and end of the research, the total scores for each of the 104 participants were calculated for both the Q1 and the Q2. These individual scores were then used to calculate a participant's 'gain score' (GS²) representing how much their self-efficacy had changed over the period of the study. The means and standard deviations of the total scores and the gain scores of the 104 teachers for the whole scales are shown in Table 2.

¹ Q1 (the Initial Questionnaire) & Q2 (the Follow-up Questionnaire).

² Gain score is the difference between the initial and follow-up scores on the TSES

Table 2. Means and Standard Deviations for the cohort (104 teachers)

Item	The Q1		The Q2		GS	
	Means	SD	Means	SD	Means	SD
104 teachers	45.90 ³	3.14	49.19	3.27	3.29	1.43

Table 2 shows that teachers' self-efficacy scores for all participants rose, on average, over the five months of the study from 45.90 to 49.19, an average gain of was 3.29, 95CIs [3.01, 3.57].

A. Teachers' Perception of the Importance of Self-efficacy

The current study found that most of the participating teachers thought that good self-efficacy was important to be a successful teacher. The participating teachers reported that having high efficacy beliefs helped them to maximize their

³ Maximum score of the TSES is 60

teaching practices, not only because it helped them to teach creatively, but it also helped them to value and utilise their skills to generate students' motivation to learn. The majority of the participants in the interview said that their perception of their ability in delivering lesson content and using certain teaching strategies determined the success of the learning process in the classrooms. The participants believed that teachers with high efficacy beliefs can maximize their successful teaching practices.

Another aspect that most of the participants perceived to be important for self-efficacy was related to choices teachers make in relation to solving teaching problems. One of them, for example, said that the level of teachers' self-beliefs about their competence influence the choices they make in solving teaching problems. High efficacy teachers will see teaching problems as challenges that need to be solved.

The participating teachers also linked self-efficacy to teachers' commitment to help students achieve learning goals. The participants, both in the questionnaires and the interviews, perceived that teachers with high self-efficacy beliefs tend to make more effort to achieve learning objectives than teachers with low self-efficacy. The findings from this study share some similarities with those of Tschannen-Moran and Hoy (2001) who indicate that teaching efficacy affords teachers the ability and feeling of confidence to make an effort when they find something does not go smoothly to achieve learning goals.

Despite the participating teachers' overall perceptions of the importance of self-efficacy as a

single factor, some of them commented further that teacher self-efficacy and teacher competence are interrelated. They reported that teachers will have high efficacy beliefs when they have good knowledge and understanding about teaching. Similarly, they believed that teachers may have good knowledge and understanding about teaching but they would be unable to teach well because they have low self-efficacy. The findings from this study indicate that teachers need to have both high efficacy beliefs and good knowledge and understanding about teaching to help them to teach well. It is interesting to note, as Knoblauch and Woolfolk Hoy (2008) have also suggested, that teachers need more than content and pedagogy knowledge to allow them to be effective in teaching and achieve learning objectives. Knoblauch and Woolfolk Hoy argue that teachers need motivation and a sense of efficacy to allow them to transfer content and pedagogy knowledge optimally. The participating teachers in this study mostly reflected this view that teachers who have good knowledge and understanding about teaching tend to have high self-efficacy beliefs in their teaching.

One of the findings in this study is that the participants agreed with participants in previous studies (Lakshmanan, Heath, Perlmutter, & Elder, 2011; Tschannen-Moran & Hoy, 2007; Wertheim & Leyser, 2002) about the importance of having high self-efficacy, regardless of their individual differences in terms of cultural backgrounds and the content areas they taught. They shared the view that more efficacious teachers are more effective in teaching than less efficacious teachers. The findings from this study may strengthen the general agreement about the importance of self-efficacy for teachers.

B. Change on the TSES4 Sub-scales

To investigate the difference level of teacher sense of efficacy in the areas of instructional strategies, classroom management and student engagement, an ANOVA test was conducted. The means and standard deviations of the total scores and the gain scores on each of the sub-scales are shown in Table 3.

Table 3. Means and Standard Deviations of the Three Sub-Scales

TSES Sub-Scales	The Q1		The Q ²		GS	
	Means	SD	Means	SD	Means	SD
Instructional Strategy	15.09	1.22	16.42	1.24	1.34	0.96
Classroom Management	15.57	1.27	16.58	1.22	1.01	0.90
Student Engagement	15.14	1.27	16.09	1.33	0.95	0.89

An ANOVA test of the participants' Q1 found that there was a statistically significant difference between the initial average scores of self-efficacy in the three subscales, $F(2, 309) = 4.57, p = .011$. The results from the ANOVA test of the gain scores identified that there was a statistically significant difference in the average gain scores between the three subgroups, $F(2, 309) = 5.50, p = .004$. Similarly, the result from the ANOVA test of the participants Q2 also found that there was a statistically significant difference between the final average scores of self-efficacy in the three subscales, $F(2, 309) = 4.10, p = .017$.

A multiple comparison (Post Hoc tests) was applied to further examine which sub-scale mean gain scores differed significantly from each other. The results from the multiple tests are shown in Table 4.

Table 4. Output from Post Hoc Tests of the gain scores for the Three Sub-scales

Multiple Comparisons

Dependent Variable: TSES Sub-scale

Tukey HSD

(I) Subscale	(J) Subscale	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Instructional Strategy	Classroom Management	.327*	.127	.029	.03	.63
	Student Engagement	.394*	.127	.006	.09	.69
Classroom Management	Instructional Strategy	-.327*	.127	.029	-.63	-.03
	Student Engagement	.067	.127	.857	-.23	.37
Student Engagement	Instructional Strategy	-.394*	.127	.006	-.69	-.09
	Classroom Management	-.067	.127	.857	-.37	.23

*. The mean difference is significant at the 0.05 level.

² Teacher Sense of Efficacy Scale

Post hoc comparison using the Tukey HSD test indicated that the average gain score for instructional strategy was statistically higher than the average gain scores for classroom management and student engagement with the significant values 0.029 and 0.006 respectively ($p < 0.05$) (as highlighted). However, there is no difference in the average gain score between classroom management and student engagement subscales ($p = 0.857$).

In order to construct a range of values within which the population values falls or to estimate the mean in the population (Field, 2009), 95% confidence intervals for the distribution of sample means were calculated. The results are presented in figure 3.1.

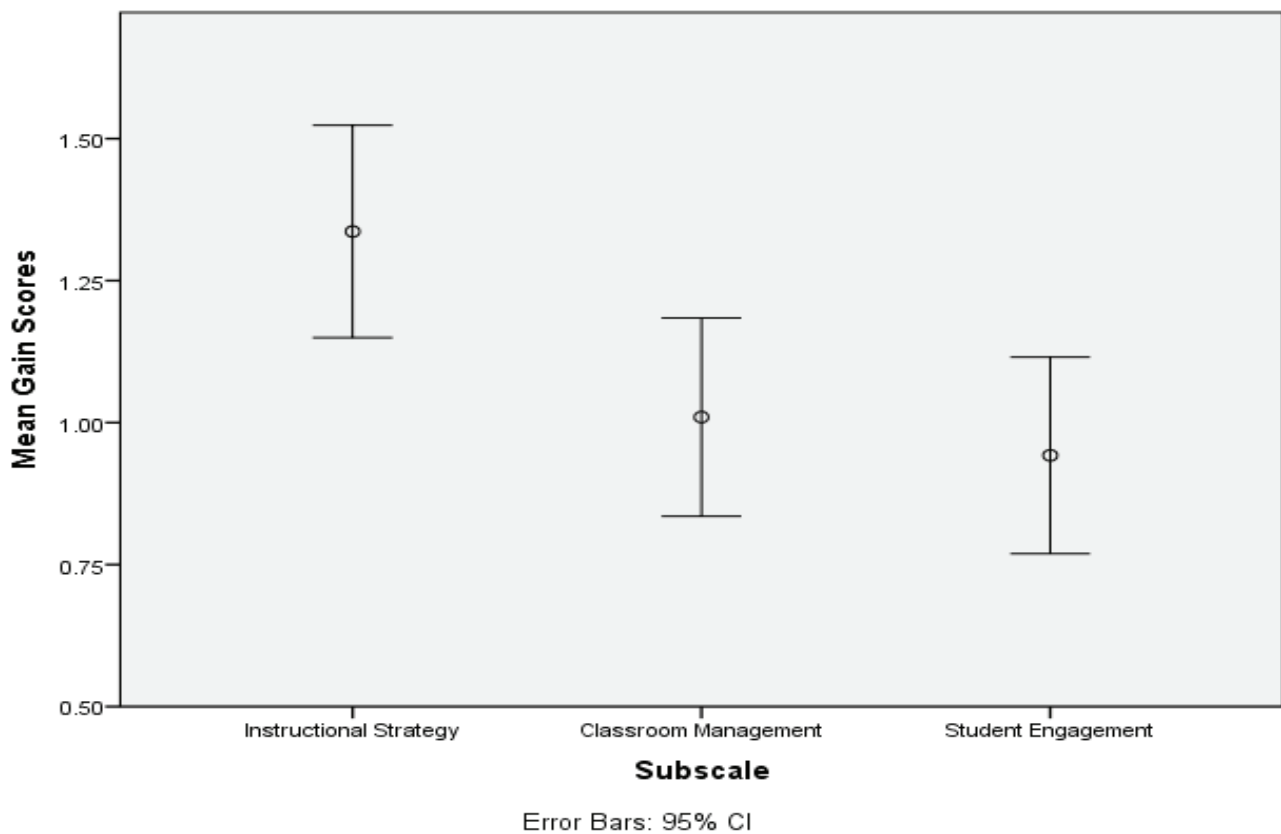


Figure 1. 95% confidence intervals for the sub-scales mean gain scores.

The results from the calculation of the 95% confidence intervals indicate positive gain scores in all three subscales.

Findings from this study showed that over the course of the study, PD was perceived to bring about the greatest change in levels of all participants' self-efficacy in the area of instructional strategy. This finding concurs with the study by Murshidi, Konting, Elias, and Fooi (2006). However, this finding is in contrast to the study by Ross and Bruce (2007) where PD affected the greatest change in classroom management. The study by Ross and Bruce found that only the changes in classroom management were statistically significant. Ross and Bruce suspected that teachers' confidence in their ability to engage student interest and to use new instructional strategies follows confidence in classroom management. In contrast to Ross and Bruce's argument, some of the participating teachers in the interviews in this study reported that their ability to use appropriate instructional strategies affected their beliefs about engaging students and managing classrooms, and so instructional strategies were perceived to be more important.

The sort of knowledge about instructional strategies that the participants discussed when attending PD, perhaps caused them to make the greatest change in instructional strategy in this study. This assumption is consistent with many teachers' comments, where the participating teachers reported that they had learned how to deliver certain lesson content from seminars, workshops, training and TSGs. This assumption is also strengthened by the participating teachers' comments that they usually discussed and shared more information, knowledge

and skills about instructional strategy in the TSGs than about classroom management and student engagement.

Another reason why EFL teachers in this study may have made the greatest changes in self-efficacy about instructional strategy could be because the English curriculum in Indonesia underwent some changes and the participants at the time of the research were focused on how to teach English lessons through appropriate instructional strategies. This seems to indicate why EFL teachers made the greatest change in their beliefs and efficacy about instructional strategy. There is an indication that the participating teachers in this study made the greatest change in the area that they were most familiar with and had experienced some success in performing, which is instructional strategy.

Although not the largest gain in self-efficacy, the participating teachers also highlighted the importance of having a good understanding of classroom management and student engagement, in addition to instructional strategy. The participating teachers reported the importance of teachers having good knowledge and skills in all the three aspects because they thought these three aspects had a direct link to their self-efficacy and their teaching practices. The participants reported that a thorough understanding of these three aspects was necessary to effectively deliver lessons using appropriate instructional strategies, managing their classroom and engaging students to study. These perceptions are consistent with previous studies (Lloyd, 1995; Peterson et al., 2011) that found that sufficient knowledge in these three aspects was necessary in

order to help teachers to build a good relationship and rapport with students, as well as to help teachers increase students' learning achievement.

The current study also showed that the participants had different perceived levels of efficacy beliefs across the areas of instructional strategy, classroom management and student engagement at the beginning of this study. The highest self-efficacy was in instructional strategy, followed by classroom management and student engagement. The findings from this study support Bandura's (1999) idea that self-efficacy is specific to a particular task, therefore teachers may not feel competent at all tasks. Teachers' efficacy beliefs differing across a subject domain also concurs with previous research such as Tschannen-Moran, Hoy and Hoy (1998) and Hansen (2005) who claim that teachers cannot be expected to be consistently efficacious across all teaching competencies because it is context-specific. Tschannen-Moran, Hoy and Hoy (1998), who studied beginning teachers' efficacy beliefs, found that beginning teachers did not feel efficacious in all teaching domains. A beginning teacher might have high teacher efficacy in one domain - such as classroom control - but low efficacy in another domain - such as teaching strategy. Therefore, Bandura (1997) proposed that self-efficacy beliefs are context-specific rather than a generalized expectancy.

The findings that showed that EFL teachers' efficacy beliefs differed across the three areas at the beginning of the research are in line with the previous studies (Bandura, 1997; Valentine, DuBois, & Cooper, 2004). However, the study by Bandura (1997) and Valentine et al. (2004) only investigated

the perceived level of teacher self-efficacy without investigating changes to teacher self-efficacy as a result of participating in PD activities. The current study investigated changes in teacher self-efficacy, including the three areas (instructional strategy, classroom management, and student engagement), as a result of participating in PD. This is important to get an understanding of the effect of PD activities on teachers' knowledge and skills, and the relationship between these activities and changes on teacher self-efficacy beliefs.

In addition, the findings identified from this study about the different changes in teacher self-efficacy in these three areas, also provide some clarification of the areas in which these EFL teachers gained the most self-efficacy. These findings are important for policy makers and PD providers to take into account when considering what to include in professional activities for EFL teachers.

C. Conclusion

High efficacy teachers tend to plan their duties better than low efficacy teachers (Bandura et al., 1996; Stempien & Loeb, 2002). Teachers with high efficacy are more widely to be effective in classrooms and they also appear to be the most receptive to the implementation of new instructional practices like those associated with mastery learning (Tschannen-Moran and Hoy, 2007). PD also affects teacher self-efficacy concerning instructional strategy, classroom management, and student engagement. The findings from the current study revealed that the greatest change in levels of all participants' self-efficacy was in the area of instructional strategy. The findings suggest that the area in which these teachers made

the greatest change in self-efficacy was related to the area in which they experienced repeated successes the most. The findings also showed the TSES was a suitable measure to identify the effect of PD on the perceived levels and changes in teacher self-efficacy because the TSES covers a wide range of teachers' classroom activities (Bandura, 1999; Tschannen-Moran and Hoy, 2007).

Although this study tried to invite all junior secondary EFL teachers in three districts in the target areas and had a high response rate, the findings do not represent the entire population of junior secondary EFL teachers in South Sulawesi province of Indonesia or of course in Indonesia. More research using larger samples sizes, different groups, and various settings, however, needed to comprehensively investigate the effect of PD on teacher self-efficacy, including in the areas of instructional strategy, classroom management, and student engagement. Thus, research intended to reveal the effect of effective PD interventions which have the potential to enhance teacher self-efficacy, including in the areas of instructional strategy, classroom management, and student engagement is called for.

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