



# An insight into teacher self-efficacy belief of PGDT (post graduate diploma in teaching) trainees: implications for Ethiopian secondary school teacher education program

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## Abstract

The purpose of this study is to examine the state of PGDT (Post Graduate Diploma in Teaching) trainees' self-efficacy beliefs and the factors that contributed to its development with particular emphasis to PGDT trainees of Dilla University. The participants included 112 PGDT trainees who were selected using stratified random sampling. Quantitative data was collected through questionnaire which was eventually analyzed using both descriptive and inferential statistics such as independent sample t-test, one sample t-test, one way ANOVA and Multiple Linear Regression. The finding indicated that trainees have marginally average level of efficacy. It was also found that attitude to teaching ( $\beta = .573$ ,  $t = 10.129$ ,  $p < .05$ ) was the biggest contributor to self-efficacy belief followed by school climate in secondary schools measured in terms of teachers' professional collaboration ( $\beta = .198$ ,  $t = 5.276$ ,  $p < .05$ ) and in-campus training practice ( $\beta = .146$ ,  $t = 3.201$ ,  $p < .05$ ) respectively. Compared to males, females had low self-efficacy beliefs. In contrast to popular expectations, the study additionally revealed that there was no significant mean difference in trainees' efficacy scores in terms of their CGPA. Interestingly, teaching experience before PGDT training negatively contributed to self-efficacy belief ( $\beta = -.070$ ,  $t = -1.995$ ,  $p < .05$ ). Based on these major findings, it was concluded that trainees' efficacy with regard to bringing desired impact on secondary school students' achievement and behavior was not adequate and requires immediate attention. Finally, it was recommended that graduates should be given on-job training and teachers' professional collaboration in Ethiopian secondary schools should be further strengthened.

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**Keywords:** Post Graduate Diploma in Teaching (PGDT), attitude, teacher self-efficacy

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## 1. Introduction

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Quality teacher education program warrants the functioning of effective schools and this is mainly possible through producing competent and highly efficacious teachers. Teacher self-efficacy refers to teachers' perception of their ability to succeed with teaching strategies, challenging school situations and intended growth of their students (Tshannen-Moran et al, 1998).

Teacher self-efficacy has emerged as a key concept in teacher education over the past few decades (Cantrell, Young & Moore, 2003) because it is an important construct that shapes teachers' classroom effectiveness (Maguire, 2011). It is the strongest predictor of teacher enthusiasm, commitment to teaching profession, career satisfaction, and superior performance. Teachers with high self-efficacy were found to be more resilient in their teaching responsibilities (Pendergast et al., 2011). Thus, supporting the development of teachers' self-efficacy is essential for producing effective, committed and enthusiastic teachers (Tschannen-Moran & Hoy, 2001).

Being a key component of social cognitive theory, self-efficacy describes underlying interrelationship among environmental events, personal elements, and behavior (Bandura, 1986). According to Bandura, for success to occur, people must believe in their ability to exercise control over events that affect their lives. In the context of teaching, a teacher must believe in his/her ability to impact learning so as to be effective in his/her profession. Self-efficacy; therefore, influences thought patterns and emotions that determine classroom actions of teachers.

Conversely, teacher self-efficacy itself is influenced by four factors: Mastery experiences (One's own experiences of success and/or failure); verbal persuasion (feedback from significant others); vicarious experiences (modeling and observation of ideal person and/or performance); and emotional arousal (associated with perceived capability that influence the process and outcomes of the attempted task). These four sources undergo a form of cognitive processing that determines how the source of information will be weighted and influence the desired teaching task. Mastery experiences are considered the most powerful influence as they provide authentic evidence of one's performance in a teaching situation (Mulholland & Wallace, 2001). The implication is while successful performance by a teacher leads to increased self-efficacy, a failure results in a decline. As teachers develop mastery experience which positively contributes to their self-efficacy, they rely on these as memories and interpretations of similar past teaching experiences (Tschannen-Moran & Hoy, 1998).

Empirical studies conducted in diverse contexts have confirmed that teacher self-efficacy has been related to student achievement (e.g., Tschannen-Moran & Woolfolk, 2007), teachers' instructional innovations (e.g., Cousins & Walker, 2000), teachers' commitment to teaching (e.g., Coladarci, 1992), increased job satisfaction (e.g., Caprara, Barbarnelli, Borgogni & Steca, 2003), greater levels of planning and organization; and working longer with students who are less motivated to learn (e.g., Gibson & Dembo,

1984). As such, teachers with high efficacy work hard and exhibit persistent behavior when students are difficult to teach irrespective of the causes. Consequently, a determined teacher employs varied instructional strategies to teach a new concept or skill, and continues until all students gain understanding.

### *1.1. Statement of the problem*

The Ethiopian secondary school teacher education had witnessed several reforms. Two of the most recent reforms included: Teacher Education System Overhaul (TESO) and Post Graduate Diploma in Teaching (PGDT). Driven by the same quality problems which led to the initiation of the TESO, the PGDT was given a mission to curb the problems of quality education at secondary schools; a prophecy its predecessor failed to realize. Hence, the PGDT envisioned “seeing secondary school teachers who are capable of producing responsible and competent citizens, committed to their profession and ready to lifelong learning, and who respect and behave in accordance with the democratic principles enshrined in the constitution” (MoE,2009, p.5).

To this end, the PGDT relied on willingness and competence to recruit candidates for the profession, which is in a stark contrast to the TESO. This showed the emphasis the MoE paid to recruiting intrinsically motivated candidates who have positive attitude to the profession and committed enough to contribute to the enhancement of quality in secondary schools.

Yet, as prior studies conducted on the PGDT program (e.g., Mohammed et al, 2014; Koye&Yonas, 2013) confirmed, the program faced several implementation challenges with regard to trainees’ motives for joining the program, their attitude to the profession, mentoring processes; among others. More specifically, prior studies showed that the PGDT is entangled with shortage of experienced and qualified mentors (Koye&Yonas, 2013; Mohammed et al, 2014); trainees’ low motivation (Koye, 2014), unorganized program implementation and inadequate collaboration among stakeholders (Demis et al., 2015); and shortage of quality training materials (Koye&Yonas; 2013; Mohammed et al, 2014; Demis et al, 2015). These local studies had considerably contributed to the understanding of PGDT trainees’ professional disposition and the challenges of the program. Nevertheless, as most of these studies and anecdotal reports from teacher-educators and trainees suggested, there were certain areas of the training that still needed further investigation.

One key area to examine, which this study aimed at, was trainees’ teacher self-efficacy belief. Being a construct with several antecedents and multi-dimensional consequences with immense implication to quality education, investigating teacher self-efficacy beliefs and ascertaining the relative impact of the factors that contribute to it is crucial in planning for coursework and practicum experiences that could enhance effectiveness of teacher preparation programs (Cantrell et al., 2003). Because teachers are expected to

manage a wide range of social and academic processes, the efficacy of their efforts considerably determines their persistence and the quality of their classroom practice. Thus, training programs that attempt to instill appropriate skills and attitudes in prospective teachers are needed to consider the effects of teacher education programs on self-efficacy beliefs (Gorrell & Capron, 2017).

As literature review indicated, and to the best of the researchers' knowledge, there were no prior studies which examined teacher efficacy belief of PGDT trainees and its relationship with their gender, teaching experience, attitude to the profession, level of teacher collaboration and principal support in their respective secondary schools. To put it in a nutshell, the fact that the area is little researched and the absence of prior studies on PGDT training of Dilla University were the underlying reasons for conducting this study. With such rationale, the study aimed at investigating the level of and the factors that affect PGDT trainees' teacher self-efficacy beliefs with particular emphasis to Dilla University.

### *1.2. Objectives of the study*

The specific objectives of this study were to:

- Examine the level of teacher self-efficacy beliefs of PGDT trainees
- Identify the factors that affect PGDT trainees' teacher self-efficacy beliefs
- Determine the extent to which each factor predicts PGDT trainees' teacher self-efficacy beliefs

## **2. Method**

### *2.1. Research Design*

Survey design was used in order to address the research questions promised in the study. Surveys are useful for gathering factual information, data on attitudes and preferences, beliefs and predictions, behavior and experiences both past and present (Cohen et al, 2007).

### *2.2. Target Population and Sampling Procedure*

The target population of the study included 568 prospective PGDT graduates of the 2016 summer modality in Dilla University. From the total of 568 (161 Female & 407 male) PGDT prospective graduates, 136 (about 24%) were taken as a sample. Yet, only 112 questionnaires were found legit while the rest were not returned or discarded due to inconsistency of responses. Having determined the sample size to be taken from the target population, stratified random sampling procedure was used.

### 2.3. Instruments

Describe Questionnaire was used as data collection instrument. Two types of items (questions) were used in the questionnaire. While most of the items used in this study were prepared by the researcher himself, some of the items were adapted from the works of other researchers (e.g. Teacher sense of efficacy scale by Tschannen-Moran & Woolfolk-Hoy, 2001). In this regard, Teacher Sense of Efficacy Scale (TSES) developed by Tshannon-Moran and Woolfolk-Hoy (2001) was used to collect data about PGDT trainees' teacher self-efficacy belief. The instrument consisted of 12 items that assess the degree to which trainees feel efficacious about their capabilities to deal with issues related to three sub-scales: student engagement (4 items), instructional strategies (4 items), and classroom management (4 items). The instrument was chosen for this study because it has been found to be reliable and valid measurement in various educational and cultural contexts, appropriate to use for both pre-service and practicing teachers (Henson et al, 2001). Adaptation was made on the original 9 point scale items to be 5 point Likert scale where 1= 'Nothing'; 2= 'Very little', 3='Some Influence', 4 = 'Quite a Bit', 5='A Great Deal'.

Furthermore, a 5-point Likert scale was used to measure the other variables of the study. The Attitude Scale contained 10 items. In addition, 10 items were used to measure Teacher Collaboration, 9 items were used to measure perceived principal support and 12 items to measure perceived satisfaction of prospective PGDT graduates with in-campus training delivery all measured in five point likert scale. The scale consisted of both favorable and unfavorable statements. In the case of favorable statements strongly agree was scored 5, agree was scored 4, undecided was scored 3, disagree was scored 2, and strongly disagree was scored 1. The values were reversed for negatively worded statements. Furthermore, items focusing on socio-demographic and academic characteristics of trainees were included.

So as to ensure validity of the items, the questionnaire was given for two teacher-educators of Dilla University for their comments on content and construct validity of instruments. As a result of the comments, certain amendments were made to some items. To check the internal consistency of the instrument, a pilot study was conducted prior to its actual use in the survey. As a result, each scale was tested for internal consistency using Cronbach alpha coefficient. The scales in the questionnaire satisfied the criterion sufficiently. The Cronbach alpha reliability coefficient of the teacher self-efficacy belief scale was found to be  $\alpha=0.74$ . The Cronbach alpha reliability coefficient of the attitude scale was found to be  $\alpha=0.96$ . Moreover, the reliability coefficients for Teacher Collaboration, perceived principal support and satisfaction of with in-campus training delivery were found to be  $\alpha=0.75$ ,  $\alpha=0.73$  and  $\alpha=0.92$  respectively.

### 2.4. Data analysis techniques

The collected data were analyzed quantitatively using frequency, percentage, mean, standard deviation, independent sample t-test, one way ANOVA, one sample t-test, Pearson's correlation coefficient and multiple linear regressions. The data were coded, analyzed and interpreted with the help of a Statistical Package for Social Sciences (SPSS) software version 21.

### 3. Results

*Table 1. Demographic characteristics of sampled Respondents of the study*

<b>Variable</b>	<b>Category</b>	<b>N</b>	<b>%</b>
<b>Gender</b>	Male	70	62.5
	Female	42	37.5
<b>Age</b>	18-24	60	53.6
	25-35	52	46.4
<b>Field of study a primary choice</b>	Yes	49	43.8
	No	63	56.3
<b>Content GPA (BA/BSc)</b>	2.00-2.49	5	4.5
	2.50-2.74	31	27.7
	2.75-3.24	38	33.9
	3.25-3.49	20	17.9
	3.50-4.00	18	16.1
<b>Teaching Experience before joining the PGDT program</b>	0	28	25.0
	1	46	41.1
	2	18	16.1
	3	11	9.8
	4	9	8.0

Source: Survey, 2017

As presented in table 1, 70 (62.5%) and 42 (37.5 %) of the sampled trainees were males and females respectively. Slightly more than half of (53.6%) of trainees reported an age between 18 and 24. The remaining 51 trainees (about 46%) reported that their age is between 25 to 35 years.

Majority of the trainees (56.3%) reported that the department they graduated their BA/BSc was not their primary choice of study. On the other hand, about 43.8% of them reported the department was their first choice. The result indicates that teaching was not a preferred profession by most of the trainees. In terms of Content CGPA (of their

BA/BSc), the majority of the trainees reported that their CGPA is between 2.75 and 4.00. The total number of trainees who reported their CGPA falls in this category was 76 (67.8%). Only 5 trainees (4.5%) indicated their CGPA is between 2.00- 2.49. The result revealed that almost all graduates satisfy the minimum threshold stated in the Qualification Framework which is a minimum CGPA of 2.50 and above. Arguably, PGDT is attracting trainees with high CGPA in their field of study.

As indicated in the above table, most of the trainees reported at least one year teaching experience before joining the program. While 25% of the trainees joined the PGDT before starting the teaching career, the majority (75%) had at least one year experience when they came to the university for the training. More specifically, 41.1%, 16.1%, 9.8% and 8% of the trainees reported 1, 2, 3,4 and above years of teaching in secondary schools respectively.

*Table 2. Descriptive Summary of Continuous Independent Variables*

<b>Variable</b>	<b>No. of Items</b>	<b>Mean</b>	<b>SD</b>
Attitude	10	2.98	1.18
Satisfaction with in-campus training	12	2.93	1.12
Teacher Collaboration	10	2.88	1.01
Principals support	9	3.25	1.16

As depicted in table 2 above,PGDT trainees had moderately negative attitude towards the profession with the overall mean score of M=2.98, SD= 1.18 which was below the expected mean of 3.Regarding satisfaction with in-campus training delivery, the mean score was M= 2.93, SD= 1.12. That is also slightly below the expected mean. This indicates that trainees were not satisfied with the training practices. The overall result for the scale suggests that instructors’ use of instructional activities, immediate feedback and opportunities for reflective teaching practice requires much improvement. The mean score for teacher collaboration is 2.88 with SD=1.01 while the mean for the principal support scale was M=3.25 with SD= 1.16. The result suggested that school principals are executing their responsibilities in helping novice teachers, slightly above the expected average. Nevertheless, teachers’ professional collaboration was found to be below the expected mean.

### *3.1. Teacher Efficacy Beliefs*

Teacher self-efficacy refers to a teacher’s belief in his/her own abilities to produce intended result on student learning. Table 3 below presents the results.

*Table 3. Teacher Efficacy Beliefs of Trainees*

<b>Items</b>	<b>Mean</b>	<b>SD</b>	<b>T-Value</b>
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<b>Efficacy in Classroom Management</b>	<b>2.73</b>	<b>1.13</b>	$t = -2.481, df = 111, p < .05$
Establish classroom management system with each group	2.72	1.16	
Calm a student who is disruptive or noisy	2.71	1.28	
Control disruptive behavior in the classroom	2.71	1.20	
Get students follow classroom rules	2.80	1.30	
<b>Efficacy in Student Engagement</b>	<b>2.94</b>	<b>.56</b>	$t = -1.049, df = 111, p = .297$
Assist families in helping their children	2.63	1.06	
Help students value learning	2.96	1.10	
Get students believe they can do well in school	3.11	1.24	
Motivate students who show low interest	3.07	1.14	
<b>Efficacy in Instructional Strategy</b>	<b>3.53</b>	<b>.5</b>	$t = 11.141, df = 111, p < .001$
Craft good questions	3.62	.96	
Use variety of assessment	3.44	.92	
Implement alternative strategy	3.51	1.01	
Provide an alternative explanation or example	3.56	1.14	
<b>Overall Teaching Efficacy</b>	<b>3.07</b>	<b>1.13</b>	$t = 1.286, df = 111, p = .201$

Source: Survey, 2017

The findings (As put in table 3 above) indicated that trainees' average self-efficacy in classroom management is  $M=2.73$ ,  $SD=1.13$ . When individual items were considered, trainees mean score in all of the four items of this sub scale was below the expected mean. This indicated that trainees believed that they were not capable of managing disruptive behavior in the classroom. The one sample t test analysis also indicated statistically significant mean difference between the actual and the expected mean ( $t = -2.481$ ,  $df = 111$ ,  $p < .05$ ).

In the second sub scale, efficacy in student engagement, trainees actual mean score ( $M = 2.94$ ,  $SD = .56$ ) was below the expected mean. When individual items were considered, trainees response to the two items, "Assist families in helping the children" and "Help students value learning" were  $M = 2.63$  ( $SD = 1.06$ ) and  $M = 2.96$  ( $SD = 1.10$ ) respectively. Though the mean score difference with the expected mean was not statistically significant ( $t = -1.049$ ,  $df = 111$ ,  $p = .297$ ), their efficacy in this sub scale falls slightly below the option of "some influence". Trainees' score was relatively better in the third dimension i.e. efficacy for instructional strategy. The mean score for this sub scale was  $3.53$  with  $SD = .50$ . The result was above the expected mean and statistically significant ( $t = 11.141$ ,  $df = 111$ ,  $p < .001$ ).

### 3.2. Gender Differences and Teacher Efficacy Beliefs



Analysis Independent sample t-test was computed to see the relationship between the two variables in Ethiopian context. Table 4 below shows the findings.

Table 4. Independent sample t-test result of teacher self-efficacy according to gender

						Levene's Test				
		Gender	N	Mean	SD	F	Sig.	t	Df	Sig. (2-tailed)
Overall Teaching Efficacy	Female		42	2.67	0.55	3.086	.082	-6.78	110	.000**
	Male		70	3.31	0.44					
Efficacy in Classroom Management	Female		42	2.03	1.08	1.005	.318	-5.80	110	.000**
	Male		70	3.16	0.94					
Efficacy in Student Engagement	Female		42	2.65	0.45	1.496	.224	-4.58	110	.000**
	Male		70	3.12	0.56					
Efficacy in Instructional Strategy	Female		42	3.32	0.52	1.631	.204	-3.59	110	.001
	Male		70	3.66	0.46					

Source: Survey Result, 2017

\*\*Significant at 0.01 level.

Key: **O**TE= Overall Teacher Efficacy; **E**CM= Efficacy in Classroom Management; **E**SE= Efficacy in Student Engagement; **E**IS= Efficacy in Instructional Strategies.

As depicted in Table 4 above, independent sample analysis revealed that there are significant gender differences in EIS ( $t = -3.59, p < 0.05$ ), ESE ( $t = -4.58, p < 0.01$ ), ECM ( $t = -5.80, p < 0.01$ ), and OTE ( $t = -6.78, p < 0.01$ ) with males scoring significantly higher than females. The result showed female trainees have low self-efficacy beliefs.

### 3.3. Content Cumulative Grade Point Average (CGPA) and Teacher self-efficacy

Report Given that CGPA is generally believed to measure academic ability, PGDT program utilizes this criterion for trainee selection. The table below shows the relationship between CGPA and Teacher self-efficacy.

Table 5. Trainees' Efficacy beliefs in terms of CGPA of their Applied Degree

		Sum of Squares	df	Mean Square	F	
Classroom Management	Between Groups	7.038	4	1.760	1.390	.242
	Within Groups	135.497	107	1.266		

		Total	142.535	111			
Student Engagement		Between Groups	3.998	4	.999	3.426	.011
		Within Groups	31.216	107	.292		
		Total	35.214	111			
Instructional Strategy		Between Groups	.427	4	.107	.410	.801
		Within Groups	27.839	107	.260		
		Total	28.266	111			
Overall Teacher Efficacy		Between Groups	2.583	4	.646	2.022	.096
		Within Groups	34.174	107	.319		
		Total	36.758	111			

Source: Survey Result, 2017

One way ANOVA was computed for the three sub scales and for the overall teacher self-efficacy belief to see if the mean differences were statistically significant. The results confirmed that the differences were not statistically significant. Overall Teacher Efficacy and efficacies for student engagement, instructional strategy and classroom management and did not differ significantly among the five GPA categories (groups). ECE ( $F(4, 107) = 1.390, p = .242$ ), EIS ( $F(4, 107) = .410, p = .801$ ), and OTE ( $F(4, 107) = 2.022, p = .096$ ) were not statistically significant across the five GPA categories. Though, the ANOVA result for ESE seems significant ( $F(4, 107) = 3.426, p = .011$ ) it did not satisfy Levene's test for homogeneity of variance.

### 3.4. Relationship among Continuous Independent Variables and Trainees' Self-efficacy

Correlation analysis was computed to see the relationship between continuous independent variables and trainees' efficacy levels. The table 6 below portrays the results.

Table 6. Correlation analysis of Continuous Independent Variables and Overall Teacher Efficacy Levels of Trainees

Variables		1	2	3	4	5	6
1.Principal Support	Pearson						
	Correlation	1					
2.Attitude	Sig. (2-tailed)						
	Pearson						
3.Teaching Experience	Correlation	.448**	1				
	Sig. (2-tailed)	.000					
4.Teacher Collaboration	Pearson						
	Correlation	-.314**	-.579**	1			
5.Training Satisfaction	Sig. (2-tailed)	0.001	.000				
	Pearson						
	Correlation	.468**	.593**	-.438**	1		
	Sig. (2-tailed)	.000	.000	.000			
	Pearson						
	Correlation	.324**	.573**	-.517**	.552**	1	

	Sig. (2-tailed)	0.001	.000	.000	.000	
6.Overall Teacher Efficacy	Pearson Correlation	.506**	.929**	-.609**	.702**	.793**
	Sig. (2-tailed)	.000	.000	.000	.000	.000

Source: Survey result, 2017      \*\* Correlation is significant at the 0.01 level (2-tailed).

As depicted in the above table, there was statistically significant positive relationship between attitude and teacher self-efficacy belief,  $r=.929, p= .001$ . The result revealed that as the attitude of the trainees becomes increasingly positive, so does their self-efficacy belief. A strong positive correlation was also found between satisfaction level of trainees with their in-campus training and their self-efficacy with  $r = .793, p < .001$ . Increases in satisfaction with the quality of in-campus training were correlated with increases in self-efficacy.

Moreover, strong positive relationship was identified between teacher collaboration and self-efficacy ( $r=0.702, p < .001$ ), while a moderate yet positive relationship was identified between support from principals and teacher self-efficacy beliefs ( $r = .506, p < .05$ ). Surprisingly, negative moderate correlation ( $r= -.579, p < .001$ ) was found between years of teaching experience of trainees before starting the PGDT training and teacher efficacy score.

### 3.5. Multiple Linear Regression Analysis

Multiple regression analysis was computed to identify the relative impact of the factors that influence PGDT trainees’ teacher self-efficacy beliefs. Six predictors (i.e. Gender, principal support, Teacher Collaboration, attitude, satisfaction with in-campus training and teaching experience) were considered in this model. Using the enter method it was found that the six independent variables explain a significant amount of variance in self-efficacy level of trainees. The overall model was significant, ( $F(6, 105) = 194.333, p < .05, R^2 = .917, R^2_{Adjusted} = .913$ ). All necessary checkups were made to make sure that the data satisfies major assumptions such as normality, linearity and multicollinearity.

Table 7. Regression Analysis of Perceived Overall Teacher Efficacy

Model	Unstandardized Coefficients		Standardized Coefficients Beta(β)	t	Sig.
	B	Std. Error			
(Constant)	1.052	.114		9.257	.000
Gender	.115	.041	.097	2.824	.006
Attitude	.333	.033	.573	10.129	.000***
Teacher Collaboration	.191	.036	.198	5.276	.000***
Principals Support	.051	.024	.068	2.079	.040
Teaching Experience	-.034	.017	-.070	-1.995	.049
On-campus Training	.096	.030	.146	3.201	.002**

Dependent Variable: Overall Teaching Efficacy; N=112; R Square= 91.7; Adjusted R<sup>2</sup> = 91.3

\*\*\*, \*\*, \* Significant at 0.01, 0.05 and 0.1 respectively

Source: Survey result, 2017

As clearly shown in table 7 above, the 6 independent variables were found to be significant predictors of trainee's teacher self-efficacy beliefs. Gender was a significant predictor of efficacy ( $\beta = .097$ ,  $t = 2.824$ ,  $p < .05$ ). Similarly attitude ( $\beta = .573$ ,  $t = 10.129$ ,  $p < .05$ ), teacher collaboration ( $\beta = .198$ ,  $t = 5.276$ ,  $p < .05$ ), principal support ( $\beta = .068$ ,  $t = 2.079$ ,  $p < .05$ ) and satisfaction with in-campus training ( $\beta = .146$ ,  $t = 3.201$ ,  $p < .05$ ) were found as significant predictors of teaching efficacy beliefs of PGDT trainees. Interestingly, teaching experience was found to negatively contribute to trainees teaching efficacy belief ( $\beta = -.070$ ,  $t = -1.995$ ,  $p < .05$ ).

The above result gives us the R-square ( $R^2$ ) or the total variance in the dependent variable that is explained by the six independent variables together which is 91.7%. When the relative influence of each predictor variable is considered, trainees' attitude to the teaching profession explained more than half of (53.2%) of the variance in their self-efficacy. The other five predictors together explained 38.5% of trainees' self-efficacy of which 13.9%, 11.6%, 5.3%, 4.3%, and 3.4% of trainees' efficacy was predicted by teacher collaboration, in-campus training, gender, teaching-experience and principal support respectively. The remaining 8.3% of the variance in the trainees' self-efficacy beliefs was explained by other factors not included in this study.

#### **4. Discussion**

The purpose of this study was to examine the level of PGDT trainees' self-efficacy belief and identify the factors that contribute to its development with particular reference to Dilla University. Accordingly, the findings revealed that overall efficacy level of trainees could be considered as average ( $M = 3.07$ ). In other words, trainees believe that they can only have 'some influence' on producing the intended impact on student learning. The result in the overall efficacy scale indicated that PGDT trainees were not confident enough to the extent they can influence the behavior of their students and influence the same to value learning irrespective external factors. This is more concerning because the main reason behind the introduction of the PGDT program was to improve teachers' commitment to follow and support students (MoE, 2009). This result; however, suggested that PGDT has not yet achieved its promise in this regard.

The second research question was to identify the factors that affect PGDT trainee's sense of efficacy belief. The result revealed that, except content CGPA, all the other independent factors included in the study significantly predicted trainee's self-efficacy belief. In this study, it was found that female trainees were less efficacious than their counter parts. The finding was similar with Klassen and Chiu (2010) and Shaukat and Iqbal (2012) who reported that male teachers held stronger efficacy beliefs than females. Nevertheless, it was different from Yeo et al. (2008) who reported that male and female teachers did not differ significantly in their teacher efficacy. When the findings of this study was considered, the difference might be due to cultural influences and/or due to

female trainees' meager opportunities to see female models in the university as well as in secondary schools.

Interestingly, the finding indicated that there was no significant difference in efficacy beliefs of trainees according to content CGPA. The finding was inconsistent with prior studies such that of Isiksal and Cakiroglu (2005) who identified a positive relationship between mathematics teaching efficacy levels and academic performance in university coursework. If CGPA truly measures knowledge of subject matter, the result is also inconsistent with a study by McCoy (2011) who found significant positive correlations between personal teaching efficacy and possession of specialized mathematical knowledge among pre-service elementary school teachers. In this study, the result might hint the unattractiveness of the teaching profession due to poor benefits and low social prestige.

Another variable considered in the study was Attitude. Needless to say, attitude towards a profession significantly affects the effort a person exerts to tasks and activities subscribed under that profession. However, the descriptive analysis indicated that the attitude of trainees is moderately negative. Thus, it is safe to conclude that the major reason trainees become teachers is due to lack of other alternatives. This finding is consistent with the findings of Koye (2014) and Demis et al (2015).

In this study, it was also found that efficacy was negatively predicted by teaching experience before PGDT training. In fact, the literature on the relationship between teaching experience and teacher efficacy seems cloudy. Some studies (e.g., Wolters & Daugherty, 2007) suggested efficacy beliefs strengthen as teachers accumulate teaching experience); while others (e.g., Page et al. 2014) reported absence of significant relationship between teacher self-efficacy and years of teaching experience. In another study; however, Tschannen-Moran and Woolfolk Hoy (2007) found that it is not merely teaching experience but satisfaction with ones' own teaching performance that determines efficacy beliefs of both novice and experienced teacher. In light of this study, it can be argued that the efficacy belief of PGDT trainees of Dilla University was negatively predicted with their prior teaching experience because they started the teaching job without adequate theoretical exposure to the profession. And, this situation might have influenced them develop low self-efficacy belief during the initial year of their teaching career, may be due to traumatic experiences. Hence, how novice teachers interpret their performance is as important as the amount of mastery experiences they have.

In relation to this, Tschannen-Moran and Woolfolk Hoy (2007) stated, once established, teacher self-efficacy seems to be change-resistant and the individual is more likely to attend to confirmatory experiences which further consolidate his/her initial efficacy. It follows that PGDT trainees of Dilla University, though their years of experiences increases, it might be probable that they were not satisfied with their actual teaching

performances. As Tschannen-Moran and Woolfolk Hoy underscored, it is the teacher's satisfaction with his/her performance, not the amount of years he/she spends in 'teaching' that contributes to his/her efficacy beliefs.

On the other hand, the findings indicated that trainees who were found to have high self-efficacy were those who were satisfied with in-campus training delivery. This result was consistent with Darling-Hammond, Chung, & Felow (2002) and Knobloch and Whittington (2002) who confirmed that teachers who had more positive perceptions of their initial teacher education program were more likely to be more efficacious in their actual teaching responsibilities. The finding was also consistent with Erawan (2011) who found training effectiveness as the strongest predictor of teacher self-efficacy among pre-service teachers.

School contextual factors play significant role in shaping self-efficacy beliefs of novice teachers. This is because teacher self-efficacy is context specific construct (Dellinger et al., 2008) and is shaped within a particular environment (Tschannen-Moran, Hoy, & Hoy, 1998). The result in this study confirmed there was a positive and strong relationship between the level of collaboration in the respective school of the trainee and his/her efficacy belief. The result was also consistent with Guo et al (2011) who found that teachers who receive guidance from their colleagues feel more efficacious, regardless of whether it is in the form of supervision, mentoring, or interdisciplinary teams. The result was consistent with the findings of Tschannen-Moran and Woolfolk Hoy (2007) who concluded that school organizations which support collaboration among teachers has been found to significantly contribute to self-efficacy beliefs of novice teachers.

In this study, it was also found that there was a moderate and positive relationship between teacher self-efficacy and support from principals. The findings were consistent with Tschannen-Moran and Hoy (2002) and Dale (2012) who concluded that if teachers enjoy the principal's support, they are more likely to have stronger self-efficacy beliefs. The result revealed that working environment and school leadership are important factors in the development of trainees' self-efficacy.

## **5. Conclusions**

You Based on the major findings of the study, the following conclusions were reached.

□ PGDT trainees have low efficacy beliefs in student engagement and classroom management. They have moderate self-efficacy in instructional strategy. Their overall teaching efficacy could be described as average. Thus, the efficacy level of trainees could not be taken as sufficient enough to impact their classroom practices, persistence and commitment to the teaching profession and hence academic achievements of their students to the expected level.

□ Compared to males, female have low self-efficacy beliefs in student engagement, instructional strategy and classroom management as well as overall self-efficacy beliefs.

□ There is no mean difference in trainees' self-efficacy scores of the three sub scales and overall teaching efficacy based on CGPA of their applied degree. Thus, CGPA has no predictive value in trainees' self-efficacy belief.

□ Attitude to the teaching profession is the largest predictor of trainees' self-efficacy beliefs. Hence, the level of PGDT trainees' teacher self-efficacy is largely determined by their attitude to the profession. The fact that a large amount of variance was explained by attitude suggests that there is much to work to improve the attractiveness of teaching as a profession.

□ How PGDT trainees perceive the level of support provided by principals of secondary schools they work in, significantly impacts their efficacy about their own teaching.

□ The quality of the initial teacher education program significantly influences trainees' teacher self-efficacy. In this study, trainees with high self-efficacy belief were those who were satisfied with in-campus training delivery. Hence, as the teacher education program offers trainees with authentic teaching opportunities, opportunity to reflect upon their experiences, the foundation for efficacy beliefs becomes solidified. In other words, trainees who felt better prepared were more likely to believe they could teach all students to high levels.

□ The finding indicated that self-efficacy level of trainees who started the teaching career before joining PGDT training was lower than those who started teaching having attended PGDT training at least for one summer. Hence, if self-efficacy beliefs of PGDT trainees tend to be fairly stable once set, years of teaching experience would not necessarily improve the perceptions of those teachers toward their teaching abilities. Trainees who start teaching without prior theoretical and practical exposure to particulars of the profession tend to develop low self-efficacy.

□ Teacher collaboration in secondary schools positively contributes to self-efficacy beliefs of trainees. This indicates that, as the level of professional collaboration among secondary school teachers improves, it significantly contributes to novice teachers' self-

efficacy. This might be because in schools where teachers collaborate and help each other, novice teachers may feel free to learn from seasoned teachers of the school. Adding to the point, teachers' professional collaboration was stronger predictor as compared to in-campus training. This coupled with the negative relationship of teaching experience before PGDT with teacher-efficacy belief hints a more pronounced effort should be exerted to improve the organizational climate of secondary schools through strengthening professional collaboration and instructional support by school principals. It should also be noted that producing efficacious teachers demands the coordination of concerned stakeholders and close communication among the University, secondary schools and Regional Education Bureaus (REBs), Zonal Education Bureaus (ZEBs) and district (Woreda) Education Bureaus (WEBs) .

□ Finally, it should be noted that only content knowledge and courses were not sufficient in teacher training and that the ideas, expectations and attitudes of teacher candidates should be determined at the stage of enrollment in the program and that how these evolved during teacher training should be analyzed..

## **6. Recommendations**

Based on the above listed conclusions, the following recommendations were forwarded:

□ Graduates should be provided with follow up trainings through collaboration of the MoE, Regional Education Bureaus (REBs) and the University.

□ Course contents on classroom management, student engagement and other affective aspects of the profession should be emphasized during in-campus training.

□ The MoE, REBs and Universities need to consolidate support programs such as mentoring and induction to support novice teachers' professional growth. Induction programs should provide participants with learning opportunities that best emulate authentic classroom experiences.

□ The university in collaboration with Zonal, Woreda and REBs should assign mentors to summer PGDT trainees and mentors need to be selected based on standard. Their skill, attitude to the profession, and their commitment should be considered during the selection process. Their capacity should also be further developed through trainings.

□ REBs, ZEBs and WEBs should give emphasis to create a culture of collaboration and collegiality among teachers of secondary schools.

□ The assignment of secondary school principals needs to be based on their competences as a teacher and transformational leadership qualities. Those who are



already in position should be given trainings on transformational leadership by the University in cooperation with REBs, ZEBs and WEBs.

□ To recruit, support and retain competent secondary school teachers, it is critical that regional, Zonal and woreda level education officials need to have a working knowledge of effective recruitment. Accordingly, the university in cooperation with REBs should offer trainings to stakeholders on the issue.

□ Due to shortage of secondary school teachers, most trainees of the summer modality start PGDT training only after they started the teaching career. Providing short term training before they start teaching may help them to start teaching with good knowledge.

□ So as to minimize the factors that adversely affect the satisfaction and attitude of PGDT trainees towards the program and/or the profession, the university needs to devise strategies to meet the expectations of trainees.

□ Teacher Educators should participate in the selection process of PGDT trainees through preparation of instruments that can help identify suitable candidates. The motivation and attitude, as well as competence of trainees should be determined during the selection process. To this effect close collaboration should be created between regional, zonal, woreda education offices and the University.

□ The University needs to work on increasing the number of female teacher educators.

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