

## EARLY CHILDHOOD TEACHERS' CHARACTERISTICS AND SELF-EFFICACY VARIANCES: THE CASE OF KINDERGARTEN TEACHERS IN CENTRAL REGION, GHANA

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**ABSTRACT:** *The focus of the study was to examine the self-efficacy variances of kindergarten teachers based on their background characteristics in Central Region, Ghana. A descriptive cross-sectional survey was employed. Data were gathered from 1413 KG teachers using a questionnaire adapted from the Ohio Teachers Efficacy Scale. The teachers were randomly selected from ten districts in the Central Region of Ghana. Data were analysed using MANOVA. It came to light that statistically significant differences exist between urban and rural teachers ( $p = .010$ ); young, middle aged and old teachers ( $p = .000$ ); professional and non professional teachers ( $p = .018$ ); novice, experienced and more experienced teachers' ( $p = .000$ ) level of combined self-efficacy. However, there was no difference in male and female teachers' self-efficacy. It was recommended heads of schools should develop peer assessment and mentoring models for teachers to facilitate interaction between less experienced and young KG teachers and the older and more experienced ones; qualified teachers should be posted to teach in kindergartens.*

**KEYWORDS:** Early Childhood, Self-Efficacy, Kindergarten

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## INTRODUCTION

### Background of the Study

Most instructional successes reported in educational literature have been attributed to teacher self-efficacy. Teacher self-efficacy has been generally explained as teachers' judgement about the belief in their capacity to execute certain instructional tasks that would yield desirable and intended outcomes. It is a motivational construct that derives its force from four principal sources which are enactive mastery experiences, vicarious experiences, verbal or social persuasion, and physiological and/or emotional states (Bandura, 1997). Additionally, there has been numerous studies exploring the effect of teachers' background characteristics on their self-efficacy albeit with conflicting findings (Sam, Konin, Amankwa & Aboagye, 2015). In a study conducted by Basikin (2008), gender, age, English teachers' background, teaching experience and teacher status were considered and analysed with MANOVA. It was realized that English teachers' background and teacher status did not make any significant contribution to teachers' self-efficacy. The first significant effect was found in the differences in gender. It indicated that differences in the level of teachers' efficacy beliefs had something to do with differences in gender. Relatedly, some researchers have suggested that female teachers tended to have higher self-efficacy beliefs (Shahid & Thomson, 2001).

On the other hand, other researchers have suggested that male teachers tended to show higher levels of confidence (Imants & De Brabander, 1996). Equally, Tschannen-Moran and Hoy (2002) have indicated that the effect of gender would only show up in research with a large sample (Tschannen-Moran & Hoy, 2002). Tschannen-Moran and Hoy (2007) again intimated that the inclusion of demographic variables was only to act as a control because there was no theoretical reason to suspect that they necessarily related to self-efficacy. In Basikin's study, male teachers showed higher efficacy beliefs than the females. This was attributed to the perceived control over the students in teaching. This is due to the perception that successful teaching was related to success in controlling the learners, in which male teachers tended to be more confident.

There has also been no research suggesting that differences in age have made significant contribution to teachers' self-efficacy beliefs. Although, a number of researchers have included age as one of the demographic factors (Cruz and Arias, 2007; Skaalvik and Skaalvik, 2007; Wolters and Daugherty, 2007), they have normally treated it as a control variable. Findings of these studies suggested that although differences in age contributed significantly to the differences in teachers' self-efficacy beliefs, there was no evidence that self-efficacy increased with age, or vice versa. There was evidence that teachers' self-efficacy fluctuated with age, and that self-efficacy was lower among younger teachers (younger than 30 years), and then increased among teachers between 30-40 years of age. It then decreased again among those older than 40 years of age and reached the peak when people were above 50 years of age.

In a study, Basikin (2008) also found a relationship between teaching experience and teachers' self-efficacy. Differences in the amount of time spent in teaching contributed to differences in the level of self-efficacy beliefs. Teachers' self-efficacy beliefs appeared to increase up to a certain point of teaching experience and then started to decline. The data suggested that teachers' efficacy beliefs increased between five and fifteen years, then dropped again until the age of retirement. These findings suggest that the low self-efficacy among teachers with less than five year teaching experiences was predictable. This was due to their lack of mastery experiences. In addition, the first five years in teaching is a critical period when novice teachers might face reality shock (Wheatley, 2005) due to the complexity of teaching duties and are thus forced to recalibrate the meaning of good and successful teaching (Tschannen-Moran & Hoy, 2007). This early period in the teaching profession is also a time where novice teachers re-evaluate their perception of their own teaching ability to a level that is low enough for them to turn their confidence into a certain level of doubt.

In Basikin's study the lower level of efficacy beliefs reported by the most experienced teachers, with more than fifteen years of teaching, was interesting. This was because a number of studies have indicated that teachers' self-efficacy is fairly stable or plateaus once it has become set, so that it would not necessarily increase along with the increase of teaching experience (Tschannen-Moran & Hoy, 2007). Though, it did not have to be increasing with the teaching experience, the weakening of efficacy beliefs among more experienced teachers seemed to be somewhat strange. Furthermore, Ross, Cousins, and Gadalla (1996) found mixed support for the influence of experience on teachers' self-efficacy, and Ghaith and Yaghi (1997) found negative correlations between years of experience and teacher self-efficacy. Hoy and Spero (2005) also found significant rise in teachers' self-efficacy during teacher training, followed by a decline at the end of their first teaching year.

More so, a number of studies have identified an impact of qualification on early childhood programme. Generally, a teacher who does not have both the academic and the professional teacher qualification would undoubtedly have a negative influence on the teaching and learning of his/her subject (Agyeman, 1993). Additionally, a teacher who is academically and professionally qualified, but works under unfavourable conditions of service would be less dedicated to his work and thus be less productive than a teacher who is unqualified but works under favourable conditions of service. In, Whitebook (2003) and Barnett's (2003) study, they found that better qualified preschool teachers with specialized training are more effective and recommended a specialised degree in order to increase effectiveness. Siraj-Blatchford (2011) concurs that qualifications are very crucial when it comes to early childhood educator's knowledge about developmentally appropriate activities that enhances children's social-behavioural and cognitive development.

However, other schools of thought indicate that qualification must be hooked with quality, since that alone might not do the magic. OECD (2012) report lauds the abilities of qualified staff to create high quality teaching milieu rather than the qualification. Hence quality for services also depends on quality of training and the abilities and skills of teachers to provide quality early experiences for children. Though, no studies have been found yet regarding the location of school, rural or urban, and its effect on teacher self-efficacy, most studies have shown that schools in urban areas perform better than those in remote and less endowed areas since they are better resourced (Obasi, 2010). Schunk and Meece (2006) posit that self-efficacy may be influenced by ones actions and conditions in the environment. Efficacy beliefs thus may determine how environmental opportunities and impediments are perceived (Bandura, 2006) and affect choice of activities, how much effort is expended on an activity, and how long people will endure when they encounter obstacles. It is therefore possible that the environment in which early childhood centres are located and where teachers teach might have implications for their self-efficacy.

The foregoing indicates variations in the self-efficacy levels of teachers with varying characteristics. The variables of interest in these studies were learner engagement, instructional strategies and classroom management against the age, qualification, gender and experience of teachers teaching in elementary schools. However, the studies explored the differences in the self-efficacy levels of kindergarten teachers based on their characteristics. Kindergarten teacher's efficacy in parental involvement was an additional variable because it played a critical role in the education of early learners. The locale of school was also considered as a teacher characteristic since the dynamics of the environment may influence teachers' self-efficacy.

It was thus hypothesized that;

- There are no statistically significant differences between background characteristics of Early childhood teachers' (gender, age ranges, qualification, teaching experience, location of schools) and their self-efficacy levels (learner engagement, instructional strategies, classroom management and parental involvement).

## METHODOLOGY

The study was a cross sectional survey that examined the characteristics of early childhood educators and their levels of self-efficacy. All kindergarten teachers of public basic schools in the Central region of Ghana constituted the target population. Teachers from 492 randomly selected kindergartens in ten selected districts were sampled for the study. In all 1489 KG teachers were used for the study. The questionnaire was a five point likert-type scale which was coded 5-a great deal; 4-much; 3-very little; 2-poorly and 1-nothing. It was an adaptation of Tschannen-Moran and Hoy's (2001) Ohio Teacher Efficacy Scale. It was pretested using 30 KG teachers in Western Region. The content validity and reliability of the instruments were determined through expert review of items and the use of the Cronbach Coefficient alpha which generated reliability indexes of .761 for items on learner engagement; .772 for instructional strategies; .779 for classroom management and .805 for parental involvement. In all data were analysed from 1413 KG teachers since 76 questionnaires could not be retrieved. MANOVA was used to analyse the data at a p-value of .05 for the combined dependent variable (self-efficacy). In considering the differences between the four variables separately, a more stringent alpha level was set to reduce the chances of a type 1 error (Pallant, 2005) by applying the Bonferroni adjustment which involves dividing the original alpha of .05 by the four variables under consideration. The Bonferroni adjustment was thus set at an alpha level of .013.

## FINDINGS AND DISCUSSION

The biographic data of kindergarten teachers have been presented in Tables 1 and 1b

**Table 1a: Background characteristics of Kindergarten Teachers**

	Qualifications	frequency	%
<b>Location of schools:</b>	Rural	584	41.3
	Urban	829	58.7
<b>Gender:</b>	Males	239	16.9
	Females	1174	83.1
<b>Professional:</b>	Cert 'A' 3year post sec	20	1.4
	Certificate in pre-school	42	3.0
	Diploma in Basic Education	701	49.6
	Diploma in Early Childhood Education	159	11.3
	Degree in Basic Education	248	17.6
	Degree in Early Childhood Education	72	5.1
	Post Graduate Diploma in Education	5	0.4
	Master in education	14	1.0
	None	152	10.8

Data in Table 1a shows that whereas 41.3% of teachers were teaching in schools located in urban communities, 58.7% were rural areas. This reflects the actual situation in Central Region. More so, with respect to gender, the data suggest that an overwhelming majority (83.1%) of the KG teachers were females. This reflects both the national and global trends. More females are found to be involved in early childhood education probably because of their nurturing and caring nature.

The data also show that KG teachers had gone through various kinds of programmes in education that qualified them as professional teachers. These ranged from certificate 'A' 3 year post-secondary teacher training to master degree in education. The data revealed that almost half of the teachers 701(49.6%) had a diploma in basic education, with another 248 (17.6%) having a degree in basic education. Therefore, about 949 (67.2%) had training in basic education and may thus be referred to as para-professionals. However, it was noted that only 273 (19.4%) of the teachers had been trained to teach early learners and possessed either a certificate in pre-school, diploma or degree in early childhood education. In all, 89.4% could be considered as professional teachers with the rest (10.6%) being non-professionals.

**Table 1b: Age Ranges and teaching experience of Kindergarten Teachers**

	Year ranges	frequency	%
<b>Age ranges:</b>	Less than 20-34years	602	42.6
	35-44 years	612	43.3
	45years and above	199	14.1
<b>Teaching experience:</b>	less than 1year	173	12.2
	1-4years	618	43.7
	5-9years	397	28.1
	10-14years	105	7.4
	15-19years	57	4.0
	20 years and above	63	4.5

It is evident from the data in Table 1b that most of the KG teachers (612) constituting about 43.3% fall within the ages 35 to 44 years and therefore middle aged. Also, as much as 42.6% may be considered young because they are between less than 20 and 34 years. This may be as a result of the fact that majority of those who complete colleges of education and are posted to teach at that level fall within that age range. Besides, most of the teachers who are recruited as nonprofessionals are those who had completed high school not long ago and are quite young. However, as few as only 199(14.0%) KG teachers were 45 years and above and as a result may ordinarily be considered matured enough to take care of children below six years.

It is also evident that KG teachers had taught kindergarteners for varying number of years. Six hundred and eighteen (618) of them constituting 43.7%, who are the majority, had been teaching kindergarteners between 1 and 4 years. While as few as 57 (4.0%) had taught between 15 and 19 years. In all, more than half of the teachers (55.9%) had been teaching for less than five years. This trend may be attributed to the recruitment drive that characterized the implementation of the programme in 2007. Two year kindergarten education was added to basic education in Ghana a few years ago. This made it compulsory for all basic schools to have kindergartens attached. There was therefore the need to recruit teachers to fill spaces at that level. It is thus obvious that most of the teachers would not have taught more than the number of years the programme has been in existence.

**Table 2: Difference between KG teachers' Self-efficacy on the basis of Location of School**

Variable	location	No.	mean	Multivariate test				Test of between subjects effect		
				WL value	f	Hyp df	Error df	Sig.	Sig.	Eta square
Learner engagement	Urban	584	27.074	.991	3.33	4.00	1408	.010	.207	.001
Instructional Strategy	Rural	829	27.355						.039	.003
Classroom management	Urban	584	26.502						.613	.000
Parental Involvement	Rural	829	26.983						.924	.000
	Urban	584	30.307							
	Rural	829	30.168							
	Urban	584	28.342							
	Rural	829	28.370							

Original alpha level  $p < 0.05$  Bonferroni adjustment  $p < .013$

A one way between-groups MANOVA was performed to investigate differences in rural and urban kindergarten teachers' self-efficacy. Four dependent variables were used: learner engagement, instructional strategies, classroom management and parental involvement. The independent variable was location of schools. It was realized that there is a statistically significant difference between urban and rural early childhood educators on the combined dependent variables (self-efficacy), in that the sig. value of .010 under multivariate test was less than the conventional marker of .05:  $F(4, 1408)=3.33, p=.010$ ; Wilks' Lambda=.991; partial eta squared=.009. Therefore, the null hypothesis was rejected. When the results of the dependent variables were considered separately, none of the sig. values were statistically significant using a Bonferroni adjusted alpha level of .013. A study of the means of urban and rural KG teachers revealed only some marginal differences on the four variables.

From the above analysis it came to light that the level of self-efficacy of urban and rural early childhood educators differed significantly when all the four variables were combined. This shows that generally urban and rural KG teachers' self-efficacy differ. Though, the variance is small considering the mean differences, it confirms Schunk and Meece's (2006) conviction that self-efficacy may be influenced by conditions in the environment. This may determine how environmental opportunities and impediments are perceived and affect choice of activities, how much effort is expended on an activity, and how long teachers will endure when they encounter obstacles (Bandura, 2006). Surprisingly, it was realized that the mean of KG teachers in schools located in rural communities was slightly higher corresponding to its level of efficacy since the contrary view has been that schools in urban areas perform better than those in remote and less endowed areas because they are better resourced (Obasi, 2010). One would have expected that teachers in urban schools exude a higher level of self-efficacy since lots of studies have also established a positive relationship between teachers' self-efficacy and achievement (Abroampa and Wilson, 2013). It is however noted that with respect to the deployment of teachers and the distribution of resources, public kindergartens have similar challenges. Mostly, teachers with diploma or degrees are posted to teach at higher levels in the basic school. Most of the kindergarten classes are therefore filled with nonprofessionals who later take advantage of the distance and sandwich programmes in the two universities in the region to upgrade themselves as reflected in their background

characteristics. Besides, resources (financial and material) are woefully inadequate in most public schools in Ghana.

Further, when the four variables were considered separately it was evident that urban and rural teachers' levels of self-efficacy differed marginally. A close look at their means shows that rural teachers' belief in their ability to engage learners, use instructional strategies and involve parents were slightly higher than their urban counterparts. Teachers in urban communities were higher on only classroom management. This may be attributed to the relatively small class sizes they have due to competition with private schools in town. Besides, government interventions to increase enrolment such as free school feeding are implemented in the rural areas thus affecting the large numbers in public kindergartens in such areas.

**Table 3: Difference between KG teachers' Self-efficacy on the basis of Gender**

Variable	Gender	No.	mean	Multivariate test				Test of between subjects effect		
				WL value	Hyp f	Error df	Sig.	Sig.	Eta square	
Learner engagement	Male	239	27.163	.999	.349	4.0	1408	.845	.756	.000
	Female	1174	27.254							
Instructional Strategy	Male	239	26.573						.408	.000
	Female	1174	26.827							
Classroom management	Male	239	30.121						.730	.000
	Female	1174	30.246							
Parental Involvement	Male	239	28.075						.372	.001
	Female	1174	28.417							

Original alpha level  $p < 0.05$

Bonferroni adjustment  $p < .013$

A one way between-groups MANOVA was performed to examine differences in male and female ECEs self-efficacy. Four dependent variables were used: learner engagement, instructional strategies, classroom management and parental involvement. The independent variable was gender. It came to light that there is no statistically significant difference between male and female early childhood educators on the combined dependent variables (self-efficacy), in that the sig. value of .845 under multivariate test was more than the conventional marker of .05:  $F(4, 1408) = .349$ ,  $p = .845$ ; Wilks' Lambda = .999; partial eta squared = .001. The null hypothesis was therefore retained. Further, when the results of the dependent variables were considered separately, none of the sig. values were statistically significant using a Bonferroni adjusted alpha level of .013. However, a study of the means of male and female KG teachers showed only minimal differences on the four variables. Female KG teachers were slightly high in all the four variables

Various efficacy studies involving gender has yielded varying outcomes. For instance, this study endorses Sam, Konin, Amankwa and Aboagye's (2015) report that gender has no significant effect on secondary school teachers' self-efficacy. It also confirms the findings of Karimvand (2011) and Tweed (2013) that gender does not play any significant role in the efficacy of teachers. This contradicts the findings of Akkuzu and Akcay (2012) who reported significant differences of chemistry teachers on the basis of gender. Whereas Shahid and Thomson (2001) indicated that female teachers had a higher efficacy, Basikin (2008) testified that male teachers showed higher efficacy beliefs than the females.

However, the minimally high mean differences connoting slightly high self-efficacy on the part of female ECEs agrees with Klassen and Chiu's (2010) assertion that those teaching young children, in elementary grades and kindergarten, had higher levels of self-efficacy for classroom management and student engagement. This concurred with Wolters and Daugherty's (2007) view that elementary school teachers report higher levels of self-efficacy for student engagement than teachers in middle or high schools. It therefore seems self-efficacy as it relates to gender varies across various levels taught by teachers. Early childhood education is branded a highly gendered profession with practitioners being predominantly females (Sargent, 2005). The argument has been that women are naturally predisposed to caring for young children and men are not (Sanders, 2002; Kankam & Abroampa, 2016) so they will make better early childhood teachers.

**Table 4: Difference between KG teachers Self-efficacy on the basis of their Age**

Variable	Age Ranges	No	mean	Multivariate test				Test of between subjects effect	
				WL value	Hy f	Erro r df	Sig.	Sig.	Eta square
Learner engagement	Young	602	27.5	.958	7.6	8.0	2814	.000	.023
	Mid. age	612	1						
	Old	199	27.7						
			7						
			25.8						
			7						
Instructional Strategy	Young	602	26.6					.000	.011
	Mid. age	612	3						
	Old	199	27.2						
			3						
			25.8						
			7						
Classroom management	Young	602	29.7					.000	.018
	Mid. age	612	4						
	Old	199	30.9						
			9						
			29.3						
			2						
Parental Involvement	Young	602	28.1					.408	.001
	Mid. age	612	5						
	Old	199	28.4						
			7						
			28.6						
			5						

Original alpha level  $p < 0.05$

Bonferroni adjustment  $p < .013$

A one way between-groups MANOVA was performed to examine differences on ECEs self-efficacy on the basis of their age ranges (less than 20-29years for young; 30-44years for middle aged; 45-59years for old). Four dependent variables were used: learner engagement, instructional strategies, classroom management and parental involvement. The independent



variable was age ranges. The analysis showed that there is a statistically significant difference between the ages of KG teachers on the combined dependent variables (self-efficacy), in that the sig. value of .000 under multivariate test was less than the conventional marker of .05:  $F(8, 2814)=.764$ ,  $p= .000$ ; Wilks' Lambda= .958; partial eta squared= .021. The null hypothesis was thus rejected. Additionally, when the results of the dependent variables were considered separately, there were statistically significant differences between the ages of KG teachers on learner engagement, instructional strategies and classroom management since their sig. values (.000, .000 and .000) were less than the Bonferroni adjusted alpha level of .013.

A post hoc analysis on the three variables, firstly, indicated a significant difference between the old and young teachers; and the old and middle aged teachers' self-efficacy on engaging learners. However, the self-efficacy of young and middle aged teachers did not differ. The effect size of the differences computed is 0.02 which according to Pallant (2005) is small. Secondly, the post hoc on the differences of self-efficacy on instructional strategies showed a significant difference between middle aged and old teachers with a small effect size of 0.01. Lastly, a significant difference was also noticed between young and middle aged teachers; and the old and middle aged teachers on their efficacy to manage KG classrooms with a small effect size of 0.02. Nonetheless, no difference was found between young and old teachers self-efficacy. A study of the means of the age ranges of KG teachers revealed that middle aged teachers had higher self- efficacy in learner engagement ( $\bar{x} = 27.77$ ,  $SD=3.93$ ); instructional strategies ( $\bar{x} = 27.23$ ,  $SD=4.35$ ) and classroom management ( $\bar{x} = 30.99$ ,  $SD=5.02$ ) than the young and old teachers.

This finding agrees with most studies that generally showed significant differences in age but did not indicate how differences in age have made significant contribution to teachers' self-efficacy beliefs (Cruz & Arias, 2007; Skaalvik & Skaalvik, 2007; Wolters & Daugherty, 2007, Sam, Konin, Amankwah and Aboagye, 2015). Teachers' self-efficacy fluctuated as a function of age. The findings of this investigation reflected similar patterns. It was realized that a separate consideration of the four variables revealed that KG teachers' self-efficacy on learner engagement, instructional strategies and classroom management was lower among young teachers (less than 30 years), it increased among middle aged teachers (30-44years) and dropped among older teachers (45-59years). This confirms the findings of Basakin's (2008). It is however inconsistent with his assertion that self-efficacy reached its peak when people were above 50 years of age. With respect to self-efficacy on parental involvement this argument can be sustained since teachers' belief in their ability to involve parents in their wards education increased steadily with age. Kindergarten teachers' increase in their self-efficacy to involve parents as they advance in age, may be attribute to their role as parents as they grow up. This places them in a better position, as parents and teachers at the same time, to appreciate the relevance of getting involved in the education of their own children. This dual persona may help teachers in developing ways through which parents can be involved.

Based on the findings it was assumed that teachers' self-efficacy increased in the early age period and then remained stable once teachers were above thirty years of age probably as a result of the enthusiasm younger people have when they start teaching or get a job, which increases as they gain experience and upgrade themselves as shown in this study. Teachers in the middle age range had the highest number of professional teachers. This finding again validates earlier findings that self-efficacy beliefs were fairly stable once established (Tschannen-Moran & Hoy, 2007).

**Table 5: Difference between KG teachers Self-efficacy on the basis of Professional Qualification**

Variable	Qualification	No.	mean	Multivariate test				Test of between subjects effect		
				WL value	f	Hyp df	Error df	Sig.	Sig.	Eta square
Learner engagement	Prof	1261	27.34	.992	2.978	4.0	1408	.018	.009	.005
	Non	152	26.41							
Instructional Strategy	Prof	1261	26.86						.061	.002
	Non	152	26.14							
Classroom management	Prof	1261	30.32						.004	.006
	Non	152	29.09							
Parental Involvement	Prof	1261	28.42						.007	.005
	Non	152	27.25							

Original alpha level  $p < 0.05$  Bonferroni adjustment  $p < .013$

A one way between-groups MANOVA was performed to examine differences in the self-efficacy of professional and non-professional KG teachers. Four dependent variables were used: learner engagement, instructional strategies, classroom management and parental involvement. The independent variable was professional qualification. It was evident that there is a statistically significant difference between professional and non professional early childhood educators on the combined dependent variables (self-efficacy), in that the sig. value of .018 under multivariate test was less than the conventional marker of .05:  $F(4, 1408) = 2.978, p = .018$ ; Wilks' Lambda = .992; partial eta squared = .008. The null hypothesis was thus rejected. Further, when the results of the dependent variables were considered separately, the teachers showed statistically significant differences on learner engagement, classroom management and parental involvement since their sig. values (.009, .004 and .007) were less than the Bonferroni adjusted alpha level of .013. The means of professional KG teachers were found to be higher suggesting that they had a slightly higher efficacy in learner engagement ( $\bar{x} = 27.34, SD = 4.129$ ), classroom management ( $\bar{x} = 30.32, SD = 5.089$ ) and parental involvement ( $\bar{x} = 28.42, SD = 5.381$ ) than the non professional teachers.

This finding is in consonance with that of Sam *et al* (2015); Brian and Kay (2009). They reported that teachers with higher educational qualification demonstrated higher self-efficacy beliefs than those with lower qualifications. It appears the high number of professional KG teachers in the Central Region may be the reason for this. This confirms the findings of Whitebook (2003) and Barnett's (2003) that better qualified preschool teachers are more effective. It also concurs with Siraj-Blatchford's (2011) notion that qualifications are very crucial when it comes to early childhood educator's knowledge about developmentally appropriate activities that enhances children's social-behavioural and cognitive development. The OECD (2012) further elucidates that the abilities of qualified staff is requires to create high quality teaching milieu rather than the qualification. Hence quality for services also depends on quality of training and the abilities and skills of teachers to provide quality early experiences for children.

**Table 6: Difference between KG teachers' Self-efficacy on the basis of their Experience**

Variable	Teaching Experience	No.	mean	Multivariate test				Test of between subjects effect		
				WL value	f	Hyp. df	Error df	Sig.	Sig.	Eta square
Learner engagement	Novice	791	27.57	.973	4.80	8.0	2814	.000	.000	.016
	Exp.	502	27.08							
	More exp	120	25.74							
Instructional Strategy	Novice	791	26.88						.174	.002
	Exp.	502	26.79							
	More exp	120	26.09							
Classroom management	Novice	791	30.45						.087	.003
	Exp.	502	30.06							
	More exp	120	29.44							
Parental Involvement	Novice	791	28.57						.064	.004
	Exp.	502	27.92							
	More exp	120	28.84							

A one way between-groups MANOVA was performed to explore differences in the self-efficacy of teaching experience of early childhood educators. Four dependent variables were involved: learner engagement, instructional strategies, classroom management and parental involvement. The independent variable was teaching experience. It was evident that there is a statistically significant difference between novice (less than 1-4years), experienced (5-14years) and more experienced (15-20years and above) early childhood educators on the combined dependent variables (self efficacy), in that the sig. value of .000 under multivariate test was less than the conventional marker of .05:  $F(8, 2814) = 4.802$ ,  $p = .000$ ; Wilks' Lambda = .973; partial eta squared = .013. The null hypothesis was therefore rejected. Also, when the results of the dependent variables were considered separately, KG teachers showed statistically significant differences on only learner engagement with respect to their teaching experience, with a sig. value of .000 which is less than the Bonferroni adjusted alpha level of .013. A post hoc analysis revealed that novice and more experiences KG teachers differed significantly on their self efficacy to engage learners albeit a small effect size of 0.02. Review of the means indicates that novice teachers had marginally higher means on learner engagement, instructional strategies and classroom management while more experienced teachers had slightly high mean on parental involvement.

It was evident that novice/less experienced (less than 1-4years), experienced (5-14years) and more experienced (15-20years and above) early childhood educators differed significantly on the combined dependent variables (self-efficacy). A further analysis of the individual dependent variables revealed that KG teachers differed on only learner engagement with respect to their teaching experience. A review of the means indicates that novice or less experienced early childhood educators, who had spent less than five years teaching, had high self-efficacy on learner engagement, instructional strategies and classroom management. This dropped as they spent more years in teaching, contrary to the assumption that self-efficacy should be influenced by mastery experience (Tschannen-Moran & McMaster, 2009).With

regard to KG teachers' self-efficacy on parental involvement, beginning teachers start with a high efficacy which declines when they have spent between 5 and 14 years, after which it picks up again among more experienced teachers who have spent 15 years and above, agreeing with Tschannen-Moran and Mcmaster's (2009) contention.

Further, the findings disagreed with Wheatley (2005) and Basikin's report of lower self-efficacy among teachers with less than five year teaching experiences, which may be due to their lack of mastery experiences, and still lower among experienced teachers. The evidence from this study also contradicted Hoy and Spero's (2005) results that showed a significant rise in teachers' self-efficacy during teacher training, followed by a decline at the end of their first teaching year. An increase in less experienced or novice KG teachers' self-efficacy may be due to the majority of them being professional teachers and perhaps the enthusiasm beginners normally start with (Hicks, 2012), which rather declines when their expectations are not met and they are not getting the needed support such as inadequate resources, lack of parental support (Tschannen-Moran and Hoy, 2002) and pressure from school supervisors. Schunk & Meece (2006) posit that self-efficacy may be influenced by one's actions and conditions in the environment. Agyeman (1993) also underscores this by asserting that a teacher who is academically and professionally qualified, but works under unfavourable conditions would be less dedicated to his work and thus be less productive.

## **CONCLUSION AND IMPLICATIONS FOR PRACTICE**

Generally, kindergarten teachers teaching in rural areas in the Central Region of Ghana have higher self-efficacy. Moreover, professional, middle aged (34-44 years) and novice (1-4 years) KG teachers possess higher self-efficacy. It may be concluded that these characteristics of KG teachers in Central Region play a significant role in developing their self-efficacy. The implication therefore is that, since self-efficacy is a strong determinant of teacher performance, it is imperative that early childhood teacher education programmes provide teachers with the requisite competencies and attitudes to develop the belief in their ability to facilitate learning among early grade learners in diverse learning contexts. Furthermore, district education directorates and headteachers would have to adopt various measures (suggested below) to prop up the ability of kindergarten teachers with varying characteristics to function effectively at the early grade level.

### **Recommendations**

- The District Education Directorates of the Ghana Education Service should endeavour to provide relevant and appropriate resources and attendants for kindergarten teachers to enable them teach and manage their classrooms effectively.
- Since self-efficacy, to some extent is a function of age and experience, it is proposed that headteachers should develop a mentorship and peer assessment programmes in their schools to enable young and less experienced KG teachers learn from the older and more experienced and vice versa to help consolidate their strengths and moderate their weaknesses. This may also enhance their self-efficacy.
- More qualified teachers with the requisite expertise should be deployed to teach kindergarteners since they may have a higher self-efficacy and will be in a better

position to deal with the challenges and stress associated with teaching children. More so, they will help build a formidable foundation for early learners.

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