

## **Do School Level and Years of Teaching Experience Really Matter? An Investigation of Pakistani Teachers' Self-Efficacy Beliefs**

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**Abstract:** Belief in one's capabilities to organize and execute the courses of action required to produce given attainments is known as self-efficacy. To measure teachers' self-efficacy, *TSES* was translated into Urdu and 818 school teachers from four districts of the Punjab province responded to the bilingual version of the scale. One-way *ANOVA* with post-hoc tests was used to analyze the data. The results showed that primary level teachers had significantly higher self-efficacy beliefs than their counterparts teaching in middle or high schools. All the experience groups had a significantly low overall teacher self-efficacy, efficacy in student engagement and efficacy in instructional strategies. For efficacy in classroom management, no significant difference was found among the groups.

**Key words:** Self-efficacy • Experience • School level • Pakistan

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### **INTRODUCTION**

The last three to four decades have witnessed an increasing upsurge of researchers' and theorists' interest in teachers' sense of efficacy. Since the 1970s, teacher efficacy has emerged as a powerful factor to promote positive teaching behavior [1, 2]. It has been considered the key issue for advancement of teacher education and maintenance of educational reforms [1, 3]. According to Ashton & Webb [4], innovative practices, risk taking and persistence in the face of task difficulty are closely linked to levels of efficacy. Self-efficacy also reduces anxiety and stress [5]. This growing interest is because efficacy beliefs are considered to have potential of bringing change in one's judgment, decision making, behavioral patterns and future courses of action. On the basis of this assumption, Pajares [6] suggests that a holistic approach toward understanding teacher efficacy and its related factors be adopted so that teachers' instructional practices and the desired learning outcomes may improve in return.

Teacher efficacy defined by Hoy [7] as "teachers' confidence in their ability to promote students' learning" appeared as a concept some four decades ago with studies undertaken by the Research AND Development (RAND) Corporation and its early conceptualization has

an influence of Rotter's [8] social learning theory [9]. Rotter's theory centers upon internal versus external locus of control and thus within this theoretical framework, teacher efficacy is defined as the extent to which teachers believe they have control over influencing students' outcomes or not. Another notion of self-efficacy comes from Bandura's social cognitive theory according to which the beliefs of people about their ability put an influence on their choices, expectations, degrees of effort and firmness, flexibility and resolve against diverse and difficult situations and successful completion of their tasks [10-12]. This theory relates future behavior to human agency which is a function of environmental factors, personal behavior and intrinsic factors—cognition, affection and biology. Self-efficacy beliefs according to Bandura [10] are, "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments." These beliefs are looked upon as a medium for transformation in human actions and have the potential of increasing or decreasing motivation [13].

Applying to the teaching context, teacher efficacy can be defined as teachers' way of thinking regarding their handiness in motivating the students and improving their achievement [14]. Over the past twenty years of research, findings indicate that teacher efficacy serves as

an indicator of teaching commitment [15], helps in reducing stress and burnout [16] and affects students' achievement and motivation [17-20]. Teachers' efficacy has also positive effect on teachers' orientations and behaviors regarding control, their discourse and interaction with students, their attitude toward innovation in pedagogy, their dealing with the difficult students, their job stress and job satisfaction [21-25].

There are various factors which may influence teacher efficacy, but all these can be grouped under two broad categories; contextual and demographic factors. As teacher self-efficacy is a context-specific concept which is dependent on a specific environment [26, 27], it is influenced by many factors such as leadership and school climate [28], supervision and assistance of colleagues [29], students' characteristics [30], school level, physical environment and so on. It can be inferred that teachers' working context can affect their self efficacy beliefs to a great extent. These contextual factors such as the characteristics of principal, the colleagues and the students, have a significant effect on teacher efficacy. The factors like gender, age, experience, academic degree, marital status, etc. fall in the category of demographic factors.

The huge bulk of research showing link of teacher efficacy to teachers' behaviors and learning outcomes, demands for diagnosis of the factors that may predict change in teachers' efficacy beliefs or perceptions. The reason for this demand is that such an inquiry may provide further guidelines to attempts that may result in improvement of teacher efficacy and learning outcomes [2, 22, 31-39].

Out of the above mentioned factors, two factors i.e.—school level (contextual factor) and teaching experience (demographic factor)—have been investigated for having any effect on teacher efficacy for the sake of the present study.

**Teacher Efficacy and School Level:** Teacher self-efficacy is a context-specific construct [26] which is dependant of a specific environment [27]. It is influenced by a number of factors such as principal leadership and school conditions [28]. The school conditions include school level, school repute and facilities available at the school, etc. Teachers who have access to more facilities, work in the supervision of a constructive minded principal and have a chance to get help and assistance of the senior colleagues, are more likely to have a stronger sense of efficacy [29]. Apparently, all the above stated three conditions vary across the schools on the basis of the

terminal levels of schools—primary, middle and high. Especially in Pakistan, most of the primary schools are in a lack of facilities and there are only two or three teachers in a school, one of them being the head teacher. In this case, teachers have a little chance to seek guidance from leadership and the colleagues. They don't have even enough facilities at their work place. Middle schools, as compared to primary schools, are somewhat better. There is a senior teacher working as head teacher, number of staff is comparatively large and the facilities better up to some extent. Whereas in high schools, number of staff is fairly large, the head is an experienced and high grade officer and other work place related facilities are also handsomely enough.

Keeping in view these ground realities, it can be hypothesized that the factor of school level is likely to affect self efficacy beliefs of teachers, especially in Pakistani context. The research regarding this factor is very small. Only a few studies have been conducted to explore the relationship between teacher efficacy and school level. One such study was conducted by Wolters and Daugherty [38]. They reported that elementary school teachers had higher levels of self-efficacy for student engagement (one of the three sub-scales of teachers' sense of efficacy) than teachers in middle or high schools. Shaukat and Iqbal [40] found no difference in elementary and secondary teachers' self efficacy for Student Engagement and Instructional Strategies subscales, but there was a significant difference between elementary and secondary teachers in their efficacy in classroom management—elementary teachers having greater self efficacy.

In another study carried out by Tschannen-Moran and Woolfolk Hoy [28] to find the effects of mastery experiences and contextual factors on self efficacy beliefs of novice and experienced teachers, the authors correlation analysis and multiple regression analysis with the result that there was no significant relationship between school level and teachers' sense of efficacy for both novice and experienced teachers.

**Teacher Efficacy and Teaching Experience:** Many studies have been carried out to explore the effect of teaching experience on teacher efficacy. Dembo and Gibson [41], for example, conducted a study with a sample of pre-service and in-service teachers. They found that pre-service teachers had relatively high teaching efficacy. They also concluded that teaching efficacy decreased slightly as the experience increased. In another study by Hoy and Woolfolk [42], teachers' teaching efficacy

declined somewhat as they got more experience, whereas personal teaching efficacy of teachers increase with experience. Campbell [43] reported that teachers' beliefs of efficacy became higher after gaining experience.

Soodak and Podell [44] examined development of pre-service and experienced teachers' perceptions of their capabilities with the passage of time. They found that teachers underwent a sudden decline in their personal efficacy with the start of their first year of teaching. It means pre-service teachers, while doing filed work and student teaching, had high personal teaching efficacy (PTE), but it dropped gradually during their first year of regular teaching. The findings of this study suggest that beliefs of personal efficacy are more resistant to change in case of experienced teachers.

In a study conducted to find out relationship between teachers' self efficacy beliefs and demographic variables of Venezuelan EFL teachers, Chacón [45] concluded that there was no correlation between perceived self efficacy and years of teaching experience implying that teachers tend to be stable in their efficacy beliefs as their experience grows. There are some other researchers [46, 5] who found no effect of teaching experience on teachers' self efficacy and asserted that these beliefs remain stable for the experienced teachers.

Other attempts [28, 47] were made to find the efficacy difference between prospective and experienced teachers with the result that experienced teachers' efficacy score was significantly higher than novice teachers. This difference was explained by Tschannen-Moran and Hoy [28] on the basis of efficacy sources. Verbal persuasion, according to them predicted prospective teachers' sense of efficacy significantly because "teachers who are struggling in their early years in their careers tend to lean more heavily on the support of their colleagues" (p.953). On the other hand, experienced teachers possibly took advantage of mastery experience—the strongest source of efficacy—since they have relatively long career with the experience of success in their professional lives. Nabeel and Zafar [48] also found that experienced Pakistani teachers had greater self efficacy beliefs than inexperienced teachers.

Recognizing the need to extend efficacy research to important contextual as well as demographic variables, the present study was conducted. The following research questions were put forth for this study:

- Is there any significant difference between self-efficacy beliefs of more experienced and less experienced Pakistani school teachers?

Table 1: Distribution of Sample by Gender, Locale, School Level and Service Length

	Respondents	N	Percentage
Gender	Male	405	49.5
	Female	413	50.5
Locale	Urban	413	50.5
	Rural	405	49.5
School Level	High	348	42.5
	Middle	307	37.5
	Primary	163	19.9
Service Length	0-5 years	87	10.6
	6-10 years	98	12.0
	11-15 years	144	17.6
	16-20 years	159	19.4
	21-25 years	300	36.7
	25 and above	30	3.7

- Is there any significant difference between self-efficacy beliefs of Pakistani school teachers on the basis of school level-i.e. primary, middle and high?

#### Methods and Procedures

**Participants:** The participants of the study were 818 school teachers from four district of the Punjab province; Bahawal Nagar, Khushab, Attock and Okara. Out of total 818, 348 were teaching in high schools, 307 in middle schools and 163 in primary school. 405 were male teachers whereas 413 were female. 413 respondents belonged to schools located in the urban areas and 405 were from rural schools. Among these, 447 teachers were PSTs, 243 ESTs and 28 SSTs. Table 1 shows the distribution of the sample.

**Instrument:** Teachers' Sense of Efficacy Scale (*TSES*) developed by Tschannen-Moran and Woolfolk [49] was used in this study. This instrument consists of 24 items which are assessed on a 9-points continuum with anchors at 1—Nothing, 3—Very Little, 5—Some Influence, 7—Quite a Bit and 9—A Great Deal. The scale comprises of three subscales having eight items each; Efficacy for instructional strategies, Efficacy for classroom management and Efficacy for student engagement. *Efficacy in Student Engagement* factor contains items 1, 2, 4, 6, 9, 12, 14, 22. *Efficacy in Instructional Strategies* factor contains items 7, 10, 11, 17, 18, 20, 23, 24 and *Efficacy in Classroom Management* factor contains items 3, 5, 8, 13, 15, 16, 19, 21. Reliability for the scale is reported to be .94 for long form (24 items) and .93 for short form (12 items). Table 2 shows sub scale wise and overall reliability of the original instrument.

Table 2: Descriptive Information for Each Sub Scale of TSES

Scale Name	Scale Description	Reliability Coefficient
Engagement	Measures teachers' self efficacy regarding student engagement during the class.	.87
Instruction	Evaluates teachers' self efficacy in using appropriate instructional techniques and strategies.	.91
Management	Assesses teachers' self efficacy in classroom management skill.	.90
Overall	Determines teachers' sense of efficacy	.94

Source: [28]

Table 3: Sub-Scale Wise Reliability of the Piloted Instrument

Sub Scale	Reliability
Efficacy in Student Engagement	.90
Efficacy in Instructional Strategies	.85
Efficacy in Classroom Management	.91

Long form TSES (24 items) was translated into Urdu for the purpose of this study. Content validity of the translated version was ensured through expert opinion whereas coefficient of reliability was determined through pilot testing. Cronback-alpha reliability was found to be .96 for the overall scale. Sub-scale wise reliability of the piloted instrument is given in Table 3.

A bilingual version of this instrument (English and Urdu) was used to collect data.

## RESULTS

Table 4 shows descriptive statistics of sample according to school level.

A one-way analysis of variance was conducted to explore the impact of school level on self-efficacy of teachers, as measured by Teachers' Sense of Efficacy Scale (TSES). Subjects were divided into three groups according to their school level (Group1: High; Group 2: Middle; Group 3: Primary). There was a statistically significant difference at  $p < .05$  level in TSES scores for the school level groups [ $F(2, 817) = 4.67, p = .01$ ]. As for the three subgroups of TSES, all the three subject groups showed statistically significant difference on Efficacy in Student Engagement [ $F(2, 817) = 5.93, p = .003$ ];

statistically non-significant difference on Efficacy in Instruction Strategies [ $F(2, 817) = 2.968, p = .052$ ]; and a statistically significant difference on Efficacy in Classroom Management [ $F(2, 817) = 5.152, p = .006$ ].

Follow-up tests were conducted to evaluate pair-wise differences in the means. Since Levene's test of homogeneity of variance yielded a significance value smaller than .05, we chose not to assume that the variances are homogenous and conducted post hoc comparisons using the Games-Howell test. This test revealed that for overall TSES scores, Primary level teachers' score ( $M = 146.10$ ) is significantly different from Middle level teachers' score ( $M = 137.32$ ) with a mean difference of 8.78 and a p-value .002. But Primary level teachers ( $M = 146.10$ ) and high level teachers ( $M = 139.65$ ) do not differ significantly on overall TSES score with a mean difference of 6.45 and a p-value .05.

For Efficacy in Student Engagement, Primary level teachers' score ( $M = 48.32$ ) is significantly different from Middle level teachers' score ( $M = 45.12$ ) with a mean difference of 3.2 and a p-value .001. Also Primary level teachers ( $M = 48.32$ ) and high level teachers ( $M = 45.41$ ) differ significantly on Efficacy in Student Engagement with a mean difference of 2.91 and a p-value .005.

Table 4: Descriptive Statistics of School Teachers on School Level Basis

		N	Mean	SD
Efficacy in Student Engagement	Primary	163	48.32	8.941
	Middle	307	45.12	9.071
	High	348	45.41	11.508
Efficacy in Instructional Strategies	Primary	163	49.26	8.551
	Middle	307	46.77	9.069
	High	348	47.10	13.374
Efficacy in Classroom Management	Primary	163	48.52	9.674
	Middle	307	45.43	8.988
	High	348	47.15	11.633
Teachers' Self Efficacy	Primary	163	146.10	25.972
	Middle	307	137.32	25.944
	High	348	139.65	33.376

Table 5: ANOVA Table for Self-Efficacy Beliefs of Teachers on School Level

Sources		Sum of Squares	Df	Mean Square	F	Sig.
Efficacy in Student Engagement	Between Groups	1223.681	2	611.841	5.930	.003*
	Within Groups	84088.578	815	103.176		
	Total	85312.259	817			
Efficacy in Instructional Strategies	Between Groups	721.614	2	360.807	2.968	.052
	Within Groups	99075.449	815	121.565		
	Total	99797.062	817			
Efficacy in classroom management	Between Groups	1097.924	2	548.962	5.152	.006*
	Within Groups	86833.582	815	106.544		
	Total	87931.506	817			
Teachers' Self Efficacy	Between Groups	8314.288	2	4157.144	4.671	.010*
	Within Groups	725301.532	815	889.941		
	Total	733615.820	817			

\* $p < .05$

Table 6: Games-Howell Comparison for Teachers' Self Efficacy

Dependent Variable	(I) School level of respondent	(J) School level of respondent	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Efficacy in Student Engagement	High	Middle	.281	.805	.935	-1.61	2.17
		Primary	-2.914*	.933	.005*	-5.11	-.72
	Middle	High	-.281	.805	.935	-2.17	1.61
		Primary	-3.195*	.871	.001*	-5.25	-1.14
	Primary	High	2.914*	.933	.005*	.72	5.11
		Middle	3.195*	.871	.001*	1.14	5.25
Efficacy in Instructional Strategies	High	Middle	.332	.884	.925	-1.75	2.41
		Primary	-2.166	.981	.071	-4.47	.14
	Middle	High	-.332	.884	.925	-2.41	1.75
		Primary	-2.498*	.846	.009*	-4.49	-.51
	Primary	High	2.166	.981	.071	-.14	4.47
		Middle	2.498*	.846	.009*	.51	4.49
Efficacy in classroom management	High	Middle	1.713	.807	.086	-.18	3.61
		Primary	-1.375	.981	.341	-3.68	.93
	Middle	High	-1.713	.807	.086	-3.61	.18
		Primary	-3.088*	.915	.002*	-5.24	-.93
	Primary	High	1.375	.981	.341	-.93	3.68
		Middle	3.088*	.915	.002*	.93	5.24
Teachers' Self Efficacy	High	Middle	2.327	2.364	.587	-3.23	7.88
		Primary	-6.455	2.745	.050	-12.91	.00
	Middle	High	-2.327	2.364	.587	-7.88	3.23
		Primary	-8.782*	2.516	.002*	-14.71	-2.86
	Primary	High	6.455	2.745	.050	.00	12.91
		Middle	8.782*	2.516	.002*	2.86	14.71

\* $p < .05$

For Efficacy in Instructional Strategies, Primary level teachers' score (M = 49.26) is significantly different from Middle level teachers' score (M = 46.77) with a mean difference of 2.49 and a p-value .009. But Primary level teachers (M = 49.26) and high level teachers (M = 47.10) do not differ significantly on Efficacy in Instructional Strategies with a mean difference of 2.16 and a p-value .071.

For Efficacy in Classroom Management, Primary level teachers' score (M = 48.52) is significantly different from Middle level teachers' score (M = 45.43) with a mean difference of 3.09 and a p-value .002. But Primary level teachers (M = 48.52) and high level teachers (M = 47.15)

do not differ significantly on Efficacy in Classroom Management with a mean difference of 1.37 and a p-value .341.

The means plots for overall *TSES* scores and scores on three sub-factors of *TSES* regarding school level are given for further understanding.

A one-way analysis of variance was conducted to explore the impact of teaching experience on self-efficacy of teachers, as measured by Teachers' Sense of Efficacy Scale (*TSES*). Subjects were divided into six groups according to their years of teaching experience (Group 1: 0-5 years; Group 2: 6-10 years; Group 3: 11-15 years; Group 4: 16-20 years; Group 5: 21-25 years;

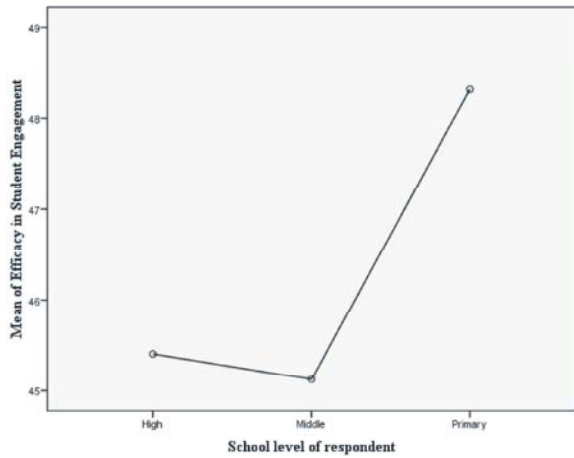


Fig. 1: Efficacy in student engagement and school level

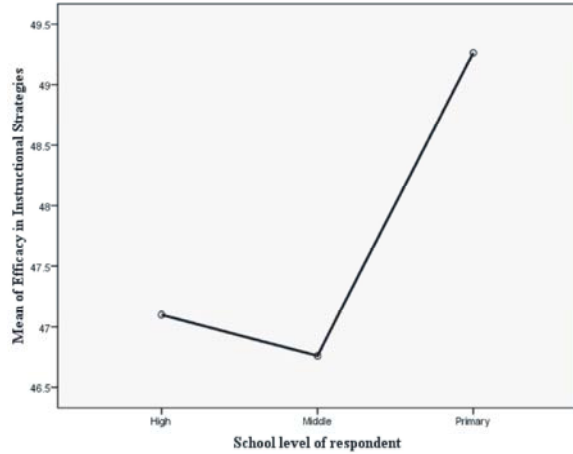


Fig. 2: Efficacy in instructional strategies and school level

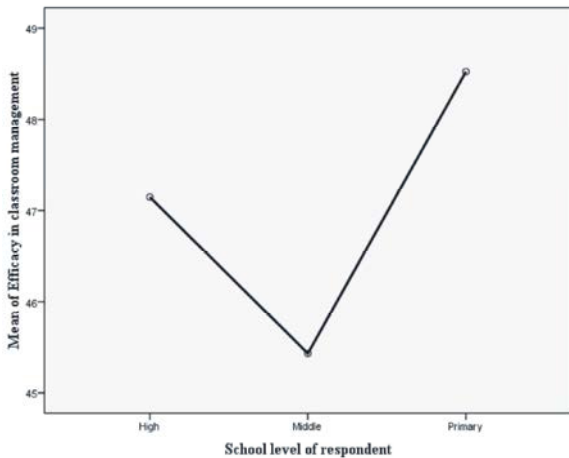


Fig. 3: Efficacy in classroom management and school level

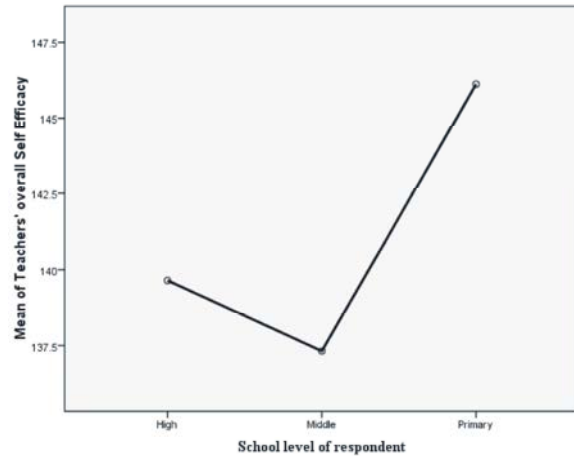


Fig. 4: Teachers' overall self efficacy and school level

Group 6: above 25 years). There was a statistically significant difference at  $p < .05$  level in overall *TSES* scores for the teaching experience groups [ $F(5, 817) = 2.914, p = .013$ ]. As for the three subgroups of *TSES*, the subject groups showed statistically significant difference on Efficacy in Student Engagement [ $F(5, 817) = 4.028, p = .001$ ]; statistically significant difference on Efficacy in Instruction Strategies [ $F(5, 817) = 2.892, p = .013$ ]; and a statistically non-significant difference on Efficacy in Classroom Management [ $F(6, 817) = 1.550, p = .172$ ].

Follow-up tests were conducted to evaluate pair-wise differences in the means. Since Levene's test of homogeneity of variance yielded a significance value greater than .05 for all the dependent variables except for Efficacy in Classroom Management, we chose to assume that the variances are homogenous and conducted post hoc comparisons using the *Tukey's HSD* test. *Games-Howell* test was also applied as the assumption of equality of variances was not met for Efficacy in

Classroom Management. These tests revealed that for overall *TSES* scores, the mean scores of groups having 0-5 years of experience ( $M = 144.30$ ) and 6-10 years of experience ( $M = 145.29$ ) were significantly higher than the group having more than 25 years' experience ( $M = 124.13$ ) with mean difference of 20.17 and 20.99 respectively. The *p*-values for both these pairs were .015 and .009 respectively. The remaining three groups did not differ significantly from any of the groups.

For Efficacy in Student Engagement, group 0-5 ( $M = 48.02$ ); group 6-10 ( $M = 47.61$ ); group 11-15 ( $M = 46.28$ ); and group 16-20 ( $M = 45.98$ ) were significantly different from group above 25 years ( $M = 39.70$ ) with mean differences 8.32, 7.91 and 6.58; *p*-values .002, .003, .016, .023 respectively. Group 21-25 ( $M = 45.05$ ) differed non-significantly from group above 25 years ( $M = 39.70$ ) with a mean difference of 5.35 and a *p*-value .064. It means that only the teachers having above 25 years of experience differed significantly from other

Table 7: Descriptive Statistics of School Teachers on Experience Basis

		N	Mean	Std. Deviation
Efficacy in Student Engagement	0-5 years	87	48.02	9.132
	6-10 years	98	47.61	9.063
	11-15 years	144	46.28	10.314
	16-20 years	159	45.98	10.217
	21-25 years	300	45.06	10.474
	above 25 years	30	39.70	11.148
Efficacy in Instructional Strategies	0-5 years	87	49.41	8.800
	6-10 years	98	49.37	9.772
	11-15 years	144	47.29	10.319
	16-20 years	159	47.30	10.009
	21-25 years	300	46.85	12.599
	above 25 years	30	41.87	11.156
Efficacy in classroom management	0-5 years	87	47.26	8.885
	6-10 years	98	48.31	10.459
	11-15 years	144	47.09	10.392
	16-20 years	159	46.35	10.044
	21-25 years	300	46.64	10.780
	above 25 years	30	42.57	11.107
Teachers' overall Self Efficacy	0-5 years	87	144.70	25.695
	6-10 years	98	145.29	27.613
	11-15 years	144	140.67	30.050
	16-20 years	159	139.62	29.156
	21-25 years	300	138.55	31.465
	above 25 years	30	124.13	32.416

Table 8: ANOVA Table for Self-Efficacy Beliefs of Teachers on the basis of Teaching Experience

		Sum of Squares	Df	Mean Square	F	Sig.
Efficacy in Student Engagement	Between Groups	2064.673	5	412.935	4.028	.001*
	Within Groups	83247.586	812	102.522		
	Total	85312.259	817			
Efficacy in Instructional Strategies	Between Groups	1745.913	5	349.183	2.892	.013*
	Within Groups	98051.149	812	120.753		
	Total	99797.062	817			
Efficacy in classroom management	Between Groups	831.206	5	166.241	1.550	.172
	Within Groups	87100.300	812	107.266		
	Total	87931.506	817			
Teachers' Self Efficacy	Between Groups	12930.419	5	2586.084	2.914	.013*
	Within Groups	720685.402	812	887.544		
	Total	733615.820	817			

\* $p < .05$

groups. Rest of the groups had no statistically significant difference from each other regarding Efficacy in Student Engagement. It also means that teachers having above 25 years' experience had lower self-efficacy than the teachers having less experience.

For Efficacy in Instructional Strategies, group 0-5 (M = 49.41) and group 6-10 (M = 49.37) were significantly different from group above 25 years (M = 41.87) with mean differences 7.54 and 7.50; and p-values .015 and

.014 respectively. Other pairs of experience groups had no statistical significance meaning that the teachers having experience of 0-10 years had higher level of self-efficacy as compared to teachers who had more than 25 years' teaching experience. Whereas the teachers having 11-25 years of experience did not differ significantly from teachers having 0-10 or above 25 years of teaching experience.

Table 9: Tukey HSD Comparisons for Efficacy in Student Engagement

Dependent Variable	(I) Total teaching experience	(J) Total teaching experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Efficacy in Student Engagement	0-5 years	6-10 years	.411	1.491	1.000	-3.85	4.67
		11-15 years	1.738	1.375	.804	-2.19	5.67
		16-20 years	2.042	1.350	.657	-1.82	5.90
		21-25 years	2.960	1.233	.157	-.56	6.48
		above 25 years	8.323*	2.144	.002*	2.20	14.45
	6-10 years	0-5 years	-.411	1.491	1.000	-4.67	3.85
		11-15 years	1.328	1.326	.918	-2.46	5.12
		16-20 years	1.631	1.300	.810	-2.08	5.35
		21-25 years	2.549	1.178	.256	-.82	5.91
		above 25 years	7.912*	2.113	.003*	1.88	13.95
	11-15 years	0-5 years	-1.738	1.375	.804	-5.67	2.19
		6-10 years	-1.328	1.326	.918	-5.12	2.46
		16-20 years	.304	1.165	1.000	-3.02	3.63
		21-25 years	1.221	1.026	.842	-1.71	4.15
		above 25 years	6.585*	2.032	.016*	.78	12.39
	16-20 years	0-5 years	-2.042	1.350	.657	-5.90	1.82
		6-10 years	-1.631	1.300	.810	-5.35	2.08
		11-15 years	-.304	1.165	1.000	-3.63	3.02
		21-25 years	.918	.993	.940	-1.92	3.76
		above 25 years	6.281*	2.015	.023*	.52	12.04
	21-25 years	0-5 years	-2.960	1.233	.157	-6.48	.56
		6-10 years	-2.549	1.178	.256	-5.91	.82
		11-15 years	-1.221	1.026	.842	-4.15	1.71
		16-20 years	-.918	.993	.940	-3.76	1.92
		above 25 years	5.363	1.939	.064	-.18	10.90
	above 25 years	0-5 years	-8.323*	2.144	.002*	-14.45	-2.20
		6-10 years	-7.912*	2.113	.003*	-13.95	-1.88
		11-15 years	-6.585*	2.032	.016*	-12.39	-.78
16-20 years		-6.281*	2.015	.023*	-12.04	-.52	
21-25 years		-5.363	1.939	.064	-10.90	.18	

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

Table 10: Tukey HSD Comparisons for Efficacy in Instructional Strategies

Dependent Variable	(I) Total teaching experience	(J) Total teaching experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Efficacy in Instructional Strategies	0-5 years	6-10 years	.046	1.619	1.000	-4.58	4.67
		11-15 years	2.122	1.492	.714	-2.14	6.38
		16-20 years	2.118	1.465	.699	-2.07	6.30
		21-25 years	2.567	1.338	.391	-1.26	6.39
		above 25 years	7.547*	2.327	.015*	.90	14.19
	6-10 years	0-5 years	-.046	1.619	1.000	-4.67	4.58
		11-15 years	2.076	1.439	.701	-2.03	6.19
		16-20 years	2.072	1.411	.685	-1.96	6.10
		21-25 years	2.521	1.279	.360	-1.13	6.17
		above 25 years	7.501*	2.293	.014*	.95	14.05
	11-15 years	0-5 years	-2.122	1.492	.714	-6.38	2.14
		6-10 years	-2.076	1.439	.701	-6.19	2.03
		16-20 years	-.004	1.264	1.000	-3.61	3.61
		21-25 years	.445	1.114	.999	-2.74	3.63
		above 25 years	5.425	2.205	.137	-.87	11.72
	16-20 years	0-5 years	-2.118	1.465	.699	-6.30	2.07
		6-10 years	-2.072	1.411	.685	-6.10	1.96
		11-15 years	.004	1.264	1.000	-3.61	3.61
		21-25 years	.449	1.078	.998	-2.63	3.53
		above 25 years	5.429	2.187	.131	-.82	11.68
	21-25 years	0-5 years	-2.567	1.338	.391	-6.39	1.26
		6-10 years	-2.521	1.279	.360	-6.17	1.13
		11-15 years	-.445	1.114	.999	-3.63	2.74
		16-20 years	-.449	1.078	.998	-3.53	2.63
		above 25 years	4.980	2.104	.169	-1.03	10.99
	above 25 years	0-5 years	-7.547*	2.327	.015*	-14.19	-.90
		6-10 years	-7.501*	2.293	.014*	-14.05	-.95
		11-15 years	-5.425	2.205	.137	-11.72	.87
16-20 years		-5.429	2.187	.131	-11.68	.82	
21-25 years		-4.980	2.104	.169	-10.99	1.03	

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



Table11: Games-Howell Comparisons for Efficacy in Classroom Management

Dependent Variable	(I) Total teaching experience	(J) Total teaching experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Efficacy in classroom management	0-5 years	6-10 years	-1.042	1.423	.978	-5.14	3.06
		11-15 years	.174	1.287	1.000	-3.53	3.88
		16-20 years	.918	1.242	.977	-2.66	4.49
		21-25 years	.628	1.138	.994	-2.65	3.91
		above 25 years	4.698	2.240	.308	-1.99	11.38
	6-10 years	0-5 years	1.042	1.423	.978	-3.06	5.14
		11-15 years	1.216	1.366	.949	-2.71	5.15
		16-20 years	1.960	1.323	.676	-1.85	5.77
		21-25 years	1.669	1.226	.750	-1.87	5.20
		above 25 years	5.739	2.287	.142	-1.06	12.54
	11-15 years	0-5 years	-.174	1.287	1.000	-3.88	3.53
		6-10 years	-1.216	1.366	.949	-5.15	2.71
		16-20 years	.744	1.177	.988	-2.63	4.12
		21-25 years	.454	1.066	.998	-2.61	3.51
		above 25 years	4.524	2.205	.333	-2.07	11.12
	16-20 years	0-5 years	-.918	1.242	.977	-4.49	2.66
		6-10 years	-1.960	1.323	.676	-5.77	1.85
		11-15 years	-.744	1.177	.988	-4.12	2.63
		21-25 years	-.291	1.011	1.000	-3.19	2.61
		above 25 years	3.779	2.179	.518	-2.75	10.31
21-25 years	0-5 years	-.628	1.138	.994	-3.91	2.65	
	6-10 years	-1.669	1.226	.750	-5.20	1.87	
	11-15 years	-.454	1.066	.998	-3.51	2.61	
	16-20 years	.291	1.011	1.000	-2.61	3.19	
	above 25 years	4.070	2.121	.408	-2.32	10.46	
above 25 years	0-5 years	-4.698	2.240	.308	-11.38	1.99	
	6-10 years	-5.739	2.287	.142	-12.54	1.06	
	11-15 years	-4.524	2.205	.333	-11.12	2.07	
	16-20 years	-3.779	2.179	.518	-10.31	2.75	
	21-25 years	-4.070	2.121	.408	-10.46	2.32	

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

Table12: Tukey HSD Comparisons for Teachers' overall Self-Efficacy

Dependent Variable	(I) Total teaching experience	(J) Total teaching experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Teachers' Self Efficacy	0-5 years	6-10 years	-.585	4.388	1.000	-13.12	11.95
		11-15 years	4.034	4.045	.919	-7.52	15.59
		16-20 years	5.079	3.973	.797	-6.27	16.43
		21-25 years	6.154	3.628	.534	-4.21	16.52
		above 25 years	20.568*	6.308	.015*	2.55	38.59
	6-10 years	0-5 years	.585	4.388	1.000	-11.95	13.12
		11-15 years	4.619	3.901	.845	-6.53	15.76
		16-20 years	5.663	3.826	.677	-5.27	16.59
		21-25 years	6.739	3.466	.376	-3.16	16.64
		above 25 years	21.152*	6.216	.009*	3.40	38.91
	11-15 years	0-5 years	-4.034	4.045	.919	-15.59	7.52
		6-10 years	-4.619	3.901	.845	-15.76	6.53
		16-20 years	1.044	3.427	1.000	-8.75	10.83
		21-25 years	2.120	3.020	.982	-6.51	10.75
		above 25 years	16.533	5.979	.064	-.55	33.61
	16-20 years	0-5 years	-5.079	3.973	.797	-16.43	6.27
		6-10 years	-5.663	3.826	.677	-16.59	5.27
		11-15 years	-1.044	3.427	1.000	-10.83	8.75
		21-25 years	1.076	2.922	.999	-7.27	9.42
		above 25 years	15.489	5.930	.095	-1.45	32.43
21-25 years	0-5 years	-6.154	3.628	.534	-16.52	4.21	
	6-10 years	-6.739	3.466	.376	-16.64	3.16	
	11-15 years	-2.120	3.020	.982	-10.75	6.51	
	16-20 years	-1.076	2.922	.999	-9.42	7.27	
	above 25 years	14.413	5.705	.118	-1.88	30.71	
above 25 years	0-5 years	-20.568*	6.308	.015*	-38.59	-2.55	
	6-10 years	-21.152*	6.216	.009*	-38.91	-3.40	
	11-15 years	-16.533	5.979	.064	-33.61	.55	
	16-20 years	-15.489	5.930	.095	-32.43	1.45	
	21-25 years	-14.413	5.705	.118	-30.71	1.88	

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

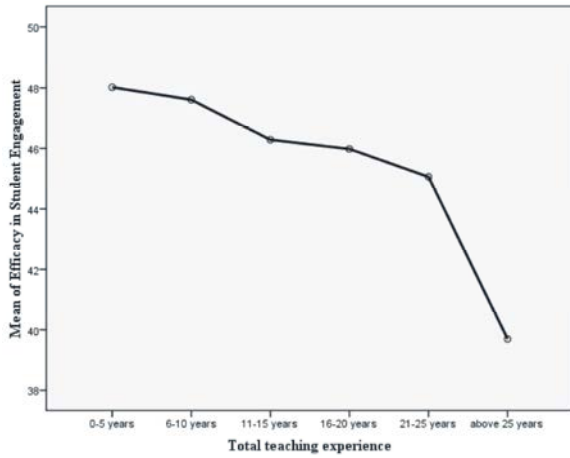


Fig. 5: Efficacy in student engagement and teaching experience

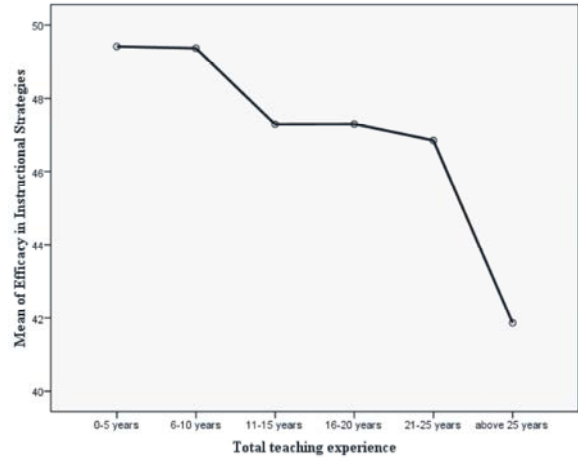


Fig. 6: Efficacy in instructional strategies and teaching experience

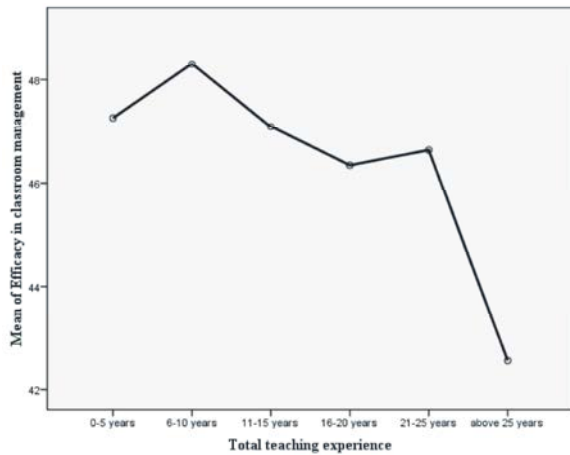


Fig. 7: Efficacy in classroom management and teaching experience

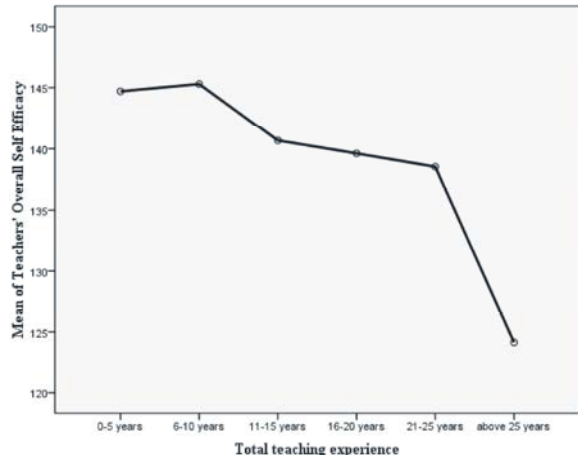


Fig. 8: Teachers' overall self efficacy and teaching experience

For Efficacy in Classroom Management, Games-Howell test was run as post-hoc as the assumption of equality of variance was not met for this sub-factor. This test revealed that all the six pairs of groups on experience basis had not statistically different significance. In other words, the groups; 0-5 (M = 47.26), 6-10 (M = 48.31), 11-15 (M = 47.09), 16-20 (M = 46.35), 21-25 (M = 46.64) and above 25 years (M = 42.57) were almost the same on their self-efficacy scores regarding Efficacy in Classroom Management.

The means plots for overall *TSES* scores and scores on three sub-factors of *TSES* regarding teaching experience are given for further understanding.

### DISCUSSION

This study sets out to determine whether Pakistani school teachers differ significantly on their self-efficacy

beliefs on the basis of their school levels and years of teaching experience. As far as the school level variable is concerned, the analysis revealed that primary level teachers had significantly higher self-efficacy beliefs than their counterparts teaching in middle or high schools. These results are generally consistent with the findings gathered by Wolters and Daugherty [38] who reported that primary school teachers had higher levels of self-efficacy for student engagement (one of the three sub-scales of teachers' sense of efficacy) than teachers who are teaching in middle or high schools. Our study also revealed that primary teachers' efficacy in student engagement was higher than middle or high school teachers. Primary school teachers also had greater level of efficacy in instructional strategies and classroom management than middle school teachers which is a result incongruent to the above mentioned study. Another study carried out by Tschannen-Moran and Woolfolk

Hoy [28], however, yielded somewhat different results than the study at hand. They found no significant relationship between school level and teachers' sense of efficacy for both novice and experienced teachers.

The other variable under study was teaching experience. The analysis showed that of all the experience groups, group having 25 and above years of experience had a significantly low overall teacher self-efficacy than the rest of the groups, the same '25 and above' group was low in efficacy in student engagement as well as in efficacy in instructional strategies, whereas, for efficacy in classroom management, no significant difference was found among the groups. These results are partly in consistence with the findings of Dembo and Gibson [41] who concluded that teaching efficacy was inversely linked with teaching experience, i.e. it decreased as the experience increased. Hoy and Woolfolk [42] also found the same results with the addition that personal teaching efficacy increased with experience. Soodak and Podell [44] also came up with finding that personal teaching efficacy dropped slightly but gradually with the growing experience. Contrary to the result of our study, Campbell [43] reported that teachers' efficacy beliefs increased with the gain in experience. His sample was from Scotland and America. Tschannen-Moran and Hoy [28] and Chan [47] also concluded that experienced teachers showed significantly higher self efficacy than inexperienced teachers. There are some other researchers (45, 6) who found no correlation between teacher self efficacy and teaching experience.

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