Teacher Self-Efficacy as a Function of Student Engagement, Instructional Strategies and Classroom Management

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The present study was conducted to assess the teachers' self efficacy on three subscales namely as Student Engagement, Instructional Strategies and Classroom Management. The main objective of the study was to determine the teachers' self efficacy on these subscales in relation to gender, age, professional qualification, school status and nature of job. For this purpose a convenient sample of 108 male and 90 female teachers was selected from four public schools in Lahore. *Teachers' Sense of Efficacy Beliefs scale* (Moran & Hoy, 2001) was administered. Results indicated significant differences between efficacy beliefs of male and female, B.Ed. and M.Ed, permanent and temporary, elementary and secondary, younger and older teachers with regards to classroom management.

Keywords: teachers' self efficacy, student engagement, instructional strategies, classroom management

Teacher efficacy has been remained a very important variable in education over the past 25 years (Cakiroglu, 2008). This variable impacts student outcomes like students' achievement scores (Gibson & Dembo, 1984; Armor et al., 1976; Ashton, 1984). Teacher self-efficacy is meant by, "teacher's belief in his or her own ability to organize and execute courses of action essential to successfully achieving the specific teaching tasks in specific situations" (Tschannen-Moran, Hoy & Hoy, 1998, p. 207). Teacher efficacy is based on two dimensions, i.e., teaching efficacy and personal efficacy. First dimension is concerned with teaching ability and competence to encourage and stimulate students for learning by overcoming external factors like student background. Second dimension is about teachers' personal beliefs to transfer the crucial teaching behaviours to affect student learning (Ashton & Webb, 1986). Woolfolk and Hoy (1990), however, found no relationship between the two dimensions of teacher efficacy beliefs.

Teachers with greater sense of self-efficacy attempt new ideas and are more eager to test novel methods to bring about a change in students' learning (Berman, et.al., 1977; Stein & Wang, 1988;Guskey, 1984;). Self-efficacy impacts teachers' determination when things do not go smoothly and their resilience in the face of disappointment. Teachers with higher sense of self-efficacy have revealed less criticism on students' mistakes (Ashton & Webb, 1986), and exhibit more enthusiasm and commitment for teaching (Guskey, 1984; Allinder, 1994). This has been shown to apply for both in-service and middle school teachers (Coladarci, 1992) and prospective teachers (Evans & Tribble, 1986). Efficacious teachers devote more time on students' learning, support students with their aims and reinforce their intrinsic motivation (Bandura, 1997).

It is also worth mentioning that teachers with high sense of self-efficacy are more enthusiastic about teaching (Allinder, 1994; Guskey, 1984), and more dedicated to it (Coladarci, 1992; Evans & Tribble, 1986). In addition, under school reforms, these teachers also tend to be more open to new ideas and more willing to experiment and adopt teaching innovations to better meet the needs of students (Allinder, 1994; Ghaith & Yaghi, 1997; Guskey, 1984). Teacher's self-efficacy has constantly been found to relate to positive student and teacher behaviors, and has a positive effect on educational system and its improvements (Ross, 1994; Soodak & Podell, 1993). This serves as a crucial factor in improving teacher education and promoting education reforms (Ashton, 1984; Goddard, Hoy, & Hoy, 2000). Teachers with greater sense of efficacy tend to demonstrate high levels of planning, organization and passion for teaching (Allinder, 1994), and spend more time teaching in subject areas where their sense of efficacy is higher (Riggs & Enochs, 1990). High sense of efficacy enables teachers to work longer with a student who is striving hard to get high grades (Gibson & Dembo, 1984), and to be less inclined to refer a difficult student to special education (Meijer & Foster, 1988; Soodak & Podell, 1993).

Expansion of self-efficacy beliefs of people is influenced by different sources. Bandura (1977) proposed four sources of self-efficacy development: mastery experiences, vicarious experiences, social persuasion and physiological states. The significant way of building a high sense of self-efficacy is by mastery experience. Mastery experiences are the utmost powerful and direct source of information about self-efficacy (Woolfolk, 2004). Success or achievement constructs is a robust belief in individual's own self-efficacy beliefs; but failure drops it, specifically if failure takes place earlier than a sense of self efficacy is assertively established. When people try easy tasks and get quick results, they can be discouraged very soon by failure. It is presumed that fruitful experiences in teaching increase efficacy expectations and remain constant for future situations. Failure or ineffective experiences lower such efficacy beliefs. For prospective teachers, mastery experience is an imperative source of efficacy beliefs (Mulholland & Wallace, 2001).

The second source of increasing self-efficacy beliefs is through the vicarious experiences presented by social models (Bandura, 1994). Perceiving and observing others performing tasks is the significant aspect of vicarious experiences (Moran & Hoy, 2007). People do effort to learn from their own experiences and as well as observe the actions of others. This source of developing efficacy supports individuals to acquire new actions without practicing the trial and error process (Pajares, 2002). Vicarious experiences help individuals to modify their earlier experiences after observing them in a new situation (Lankard, 1999). The more closely the individual

observes the modelling behaviour, the stronger will be the influence on efficacy development. "When a credible model teaches well, the efficacy of the observer is improved. When the model performs poorly, the efficacy expectations of the observer reduces" (Hoy & Spero, 2005, p. 245).

Social persuasion is a third mode of developing people's self-efficacy beliefs. People with convincing style play an important part in the development of an individual's self-efficacy beliefs (Pajares, 2002). Effective persuaders must improve people's beliefs in their competency and envisage that their success is attainable (Bandura, 1994). "Optimistic persuasions may give self-confidence and stimulate people to achieve the targets and negative persuasions may work to decline the self-efficacy beliefs. In reality, self-efficacy beliefs can easily be weakened through cynical approaches than to reinforce these beliefs through optimistic approaches" (Nayak & Rao, 2000). For prospective teachers, an influential source of efficacy development is feedback from their students and from experienced teachers about their teaching performance. Guidance and encouraging comments from experienced teachers may support to increase the teaching performance (Mulholland & Wallace, 2001).

"Physiological states such as anxiety, stress, arousal and mood provide information about self-efficacy beliefs. Stress and anxiety influence performance like success or failure and self-efficacy beliefs may be weakened after facing and experiencing the pessimistic thoughts and doubts about ones abilities". These negative perceptions make the causes of their inadequate performance. Self-efficacy beliefs can be improved by plummeting the negative physiological states. Individuals have capability to modify thinking patterns and self-efficacy beliefs which in turn vigorously affect physiological states (Nayak & Rao, 2000; Pajares, 2002).

By keeping in view the importance of teacher efficacy beliefs, the present study was designed to investigate teachers' efficacy beliefs in engaging students at different tasks, imparting instructional strategies and implementing classroom management techniques in relation to gender, age, professional qualification, school status and nature of job variables.

Objective of the study

The objective of the study was to assess the teachers' sense of efficacy beliefs in relation to gender, age, professional qualifications, school status and nature of job on three subscales: Efficacy in Student Engagement, Efficacy in Instructional Strategies and Efficacy in Classroom Management.

Hypotheses

- There would be significant difference between male and female teachers' sense of efficacy beliefs on three subscales: Efficacy in student engagement, Efficacy in instructional strategies and Efficacy in classroom management.
- There would be significant mean scores difference between B.Ed. and M.Ed. teachers' sense of efficacy beliefs on three subscales: Efficacy in student engagement, Efficacy in instructional strategies and Efficacy in classroom management.
- There would be significant mean scores difference between teachers' sense of efficacy beliefs working at permanent and temporary teaching position on three subscales: Efficacy in

student engagement, Efficacy in instructional strategies and Efficacy in classroom management.
- There would be significant mean scores difference between elementary and secondary teachers' sense of efficacy beliefs on three subscales: Efficacy in student engagement, Efficacy in instructional strategies and Efficacy in classroom management.
- There would be significant mean scores difference among different age group of teachers' sense of efficacy beliefs on three subscales: Efficacy in student engagement, Efficacy in instructional strategies and Efficacy in classroom management.

Method

Sample

I conducted this study on 108 male and 90 female teachers. All teachers either had M.Ed. or B.Ed. degrees and belonged to four elementary and secondary schools. Approximately half of the teachers (50%) were permanent and the other half (49.5%) temporary. Age of the teachers ranged from 20 to 50 years. See the table below for demographic information.

Table 1
Summary of Demographic variables

No	Variables		*N*	%
1.	Gender	Men	108	54.5
		Women	90	45.5
2.	Professional qualifications	M.Ed	68	34.3
		B.Ed	130	65.7
3.	School status	Elementary	107	54.0
		Secondary	91	46.0
4.	Nature of job	Permanent	100	50.5
		Temporary	98	49.5
5.	Age	20-30 years	95	48.0
		31-40 years	64	32.3
		41-50 years	39	19.7

Instruments

Teacher Self-Efficacy Scale. Moran and Hoy (2001) developed this Likert-type scale, to determine the teacher self-efficacy beliefs with 9-points to rate from on each statement (1 indicated to nothing and 9 indicated to A great deal). I used the shorter form of this scale divided into three subscales: Efficacy in Student Engagement, Efficacy in Instructional Strategies and Efficacy in Classroom Management. Each subscale consisted of four statements, making the scale 12 statements long. The reliability for student engagement was 0.81, instructional strategies 0.86 and classroom management 0.86, with an overall reliability of the scale equalling 0 .98.

Procedure

The scale was self-administered after the researcher handed it down. It took 20 minutes to complete the scale, so all participants (teachers) completed it during their regular school hours. I used a convenient sample of teachers in this study, asking 198 teachers at four schools to complete the scale. Statements in the scale were self-explanatory, however researcher was there for

clarifications if the need arose. Participants also completed demographic information before completing the scale.

Data Analysis

t-test was used to interpret significant differences between male and female, B.Ed. and M.Ed.; permanent and temporary, and elementary and secondary school teachers. Also used one-way Analysis of Variance (ANOVA) to measure differences in three age groups of teachers with regards to their self-efficacy.

Results

The following tables present data on self-efficacy measured in terms of *Student Engagement, Instructional Strategies,* and *Classroom Management* between different kinds of teachers.

Table 2 shows no differences in male and female teachers for stu-

Table 2
Mean ±SD and t-values for Self-Efficacy Measures for Male and Female Teachers

Variables	Male (*n* = 108)		Female (*n* = 90)			
	M	*SD*	*M*	*SD*	*t*	*p*
Student Engagement	27.24	5.18	26.76	3.75	0.72	0.47
Instructional Strategies	27.75	4.88	27.72	4.57	0.04	0.96
Classroom Management	27.54	4.37	26.28	3.91	2.11	0.03

df =196.

Table 3
Mean ±SD and t-values for Self-Efficacy Measures for M.Ed. and B.Ed. Teachers

Variables	M.Ed. (*n* = 68)		B.Ed. (*n* =130)			
	M	*SD*	*M*	*SD*	*t*	*p*
Student Engagement	27.55	5.12	26.74	4.27	1.18	0.23
Instructional Strategies	28.26	4.65	27.46	4.76	1.13	0.25
Classroom Management	27.79	3.48	26.54	4.49	1.99	0.04

df = 196.

dent Engagement and Instructional Strategies subscales, but when it comes to Classroom Management, male teachers (*M* = 27.54, *SD* = 4.37) tended to have an edge over female teachers (*M* = 26.28, *SD* = 3.91).

Table 3, like data in table 2, I found no significant differences between M.Ed. and B.Ed. teachers for student engagement and instructional strategies subscales, but there was a significant

difference in M.Ed. and B.Ed. teachers when it came to classroom management subscale. M.Ed. teachers (*M* = 27.79, *SD* = 3.48) classroom management was significantly higher than B.Ed. teachers (*M* = 26.54, *SD* = 4.49).

The results also indicated that temporary teachers (*M* = 28.04, *SD* = 4.60) were significantly more likely to engage students than permanent teachers (*M* = 26.03, *SD* = 4.37) based on their self-efficacy. As table 4 shows temporary teachers (*M* = 28.20, *SD* = 3.51) were also significantly more likely to manage their classes better than permanent teachers (*M* = 25.77, *SD* = 4.49). No significant differences existed between temporary and permanent teachers when it came to instructional strategies.(Table.4)

There were no differences in elementary and secondary teachers for Student Engagement and Instructional Strategies subscales, but when it comes to Classroom management elementary teachers were significantly better *(M* = 27.67, *SD* = 3.82) than secondary teachers *(M* = 26.15, *SD* = 4.50) based on their self-efficacy.(Table.5)

Table 4
Mean ±SD and t-values for Self-Efficacy Measures for Permanent and Temporary Teachers

Variables	Permanent (*n* = 100)		Temporary (*n* = 98)			
	M	*SD*	*M*	*SD*	*t*	*p*
Student Engagement	26.03	4.37	28.04	4.60	3.15	.001
Instructional Strategies	27.46	4.80	28.02	4.67	0.83	0.40
Classroom Management	25.77	4.49	28.20	3.51	4.24	.001

df =196.

Table 5
Mean ±SD and t-values for Self-Efficacy Measures for Elementary and Secondary Teachers

Variables	Elementary (*n* = 107)		Secondary (*n* = 91)			
	M	*SD*	*M*	*SD*	*t*	*p*
Student Engagement	27.23	4.62	26.78	4.56	0.69	0.49
Instructional Strategies	27.73	4.57	27.73	4.93	0.00	0.99
Classroom Management	27.67	3.82	26.15	4.50	2.56	0.01

df = 196.

Younger teachers between (20-30 years) teachers were likely to engage students and manage their classrooms better than older teachers between (31-40, and 41-50 years). Post-hoc tests revealed that younger teachers (20-30 years; *M* = 28.05, *SD* = 4.41) were significantly better at engaging students than older teachers (31-40; (*M* = 26.68, *SD* = 4.27), and 41-50; (*M* = 25.07, *SD* = 4.90)). As table shows the same was true for Classroom Management where

Table 6
Mean ±SD and one-way ANOVA for Self-Efficacy Measures Across Three Age Group Teachers

Variables	20-30 Years (*n* = 95)		31-40 Years (*n* = 64)		41-50 Years (*n* = 39)			
	M	*SD*	*M*	*SD*	*M*	*SD*	*F*	*p*
Student Engagement	28.05	4.41	26.68	4.27	25.07	4.90	6.40	.001
Instructional Strategies	27.91	4.41	27.68	4.84	27.38	5.37	0.17	0.83
Classroom Management	28.08	3.55	26.35	3.89	25.28	5.36	7.61	.001

df =196.

younger teachers (20-30 years; $M = 28.08$, $SD = 3.55$) were significantly likely to manage their classrooms better than older teachers (31-40; ($M = 26.35$, $SD =3.89$), and 41-50; ($M = 25.28$, $SD = 5.36$)). No significant differences existed across young and older teachers for Instructional Strategies.(Table.6)

Discussion

The present study examined teachers' self-efficacy as a function of student engagement, by use of instructional strategies and classroom management over a number of parameters. Findings show no significant difference between male and female teachers on student engagement and instructional strategies, but male teachers were likely to be significantly better in classroom management than female teachers. A possible reason for this finding may stem from the fact that male teachers usually maintain stricter discipline in the classroom and control disruptive behaviours of students than female teachers do (Shaukat, Abiodullah, & Rashid, 2011). This result carries on with teachers who were more qualified (M.Ed.) than less qualified (B.Ed.) as well. More qualified teachers managed their classrooms better than less qualified teachers however no significant differences were detected across student engagement and instructional strategies as a function of teacher qualification. Professional qualification is a significant variable for teaching profession as teachers participate in professional trainings, workshops and get further professional education to become more competent and knowledgeable to handle classroom discipline (Shah, 2006).

Temporary teachers were more likely to engage students and manage their classrooms better based on their self-efficacy than permanent teachers. There is also evidence from previous researches that the only non-significant similarity between the two groups existed for instructional strategies. In Pakistani context, it is assumed that permanent teachers are confirmed employees and have more job security rather than those teachers who are working at temporary teaching basis (Shaukat, 2011). So those teachers who are working on temporary basis strive to show a better performance at their work (school and classroom) than permanent teachers.

Elementary teachers were likely to express significantly better classroom management than secondary teachers, showing no differences when student engagement and instructional strategies were taken into consideration. One may assume that secondary teachers tend to have more job responsibilities (administrative, and extracurricular) and often remain busy not spending enough time to manage their classroom discipline (Pell, Iqbal, & Sohail, 2010). It is likely that elementary teachers because of more time at their hands may pay more attention to classroom management strategies and handle disruptive students effectively.

Finally, younger teachers were more likely to engage students and manage classrooms better than older teachers although no differences were revealed across all age groups for instructional strategies.

Conclusions

The present study compared the self efficacy of male and female, permenant and temporary, B.ED and M.ED, elementary and secondary younger and older teachers on Class room Management. It concludes that a male, more qualified, temporary, elementary and a young teacher, is more likely to manage his classroom better than teachers at the other end of these parameters. Classroom management and student engagement go hand in hand. If the students are engaged, classrooms are more disciplined and disruption decreases (Shaukat et al., 2011).

Limitations and Suggestions

One limitations of this study is that although it selects teacher parameters and ascertains associations between them and effective classroom learning and management, no causal relationship can be established. Although the sample size of this study was adequate it limits generalization of findings, because only school teachers were selected and those were only from public schools in Lahore only. Thus self-efficacy of teachers at private schools and in broader environment remains unknown.

Since self-efficacy and teacher expectations are interlinked, it can be propose that future studies should carry out interviews of teachers to affirm how high self-efficacy can effect classroom learning. Also designing experiments with manipulation of parameters would be an effective way to ascertain effects of self efficacy on classroom learning.

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