

EXPLORING DIFFERENCES AMONG MENTORS' AND MENTEES' SELF-EFFICACY BELIEFS AT PRIMARY LEVEL EDUCATION IN CHINA

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ABSTRACT

This study is conducted to explore the differences among the self-efficacy beliefs of mentees (primary student teachers) with their mentors (in-service primary teachers) and the self-efficacy of teachers concerning their experience. Ninety participants (forty-five mentors and forty-five mentees) were selected randomly from a city in the northeast province of China. Five mentors from each of the nine schools were selected where mentees (student teachers) went for practicum during pre-service training. The mentees were surveyed after the completion of their practicum period. The descriptive survey design was adopted for the study. Teachers' Sense of Efficacy Scale (long form) was used as a research instrument. There was no significant difference between the participants on the basis of experience. Further, there was no significant difference between the self-efficacy of mentors and mentees regarding sub-factors of self-efficacy; instructional strategies (IS), students' engagement (SE) and classroom management (CM).

Keywords: China, mentees, mentors, self-efficacy, teacher education.

INTRODUCTION

Self-efficacy beliefs of teachers have a vital impact on teachers' instruction and students' learning (Gencer & Cakiroglu, 2007; Tschannen-Moran & Hoy, 2001). The teachers' self-efficacy beliefs have an impact over their endeavors to confront the complexities and hurdles to persevere (Podell & Soodak, 1993), dedication to the job (Coladarci, 1992), and acceptance of innovations and constructive attitude (Ghaith & Yaghi, 1997). High level of teacher efficacy entails in high level of students' learning (Anderson, Greene, & Loewen, 1988; Ross, 1992).

Teachers' actions and behaviors are positively correlated with their views, ideas, motivational levels, beliefs, and trust level (Cerit, 2010). Teachers' efficacy is a vital factor for the teaching-learning (Chaco'n, 2005), and an important measure of teachers' effectiveness (Bandura, 1997). Study of self-efficacy may help us in developing our understanding of professionals' teaching (Manzar-Abbas & Lu, 2015). Self-efficacy has been reported to have a positive relationship with students' motivation (Pan, 2014), and emotional intelligence (Sarkhosh & Rezaee, 2014).

Two theories provide a theoretical foundation for self-efficacy; Bandura's (1997), Social Cognitive Theory and Rotter's (1966), Locus of Control (LOC) Model. Bandura propounded a positive relationship between teachers' efficacy and students' achievement (Ashton, 1985). If a teacher believes that his instruction is so compelling that the students can learn the concept and later the evaluation gives the same result, then the teacher will perceive their performance good enough (Pigge & Marso, 1993).

Bandura advocates that there are four primary sources of self-efficacy; mastery experiences, vicarious experiences or modeling, social persuasion, and psychological states (Karimvand, 2011). Mastery experience is strong among other sources (Bandura, 1986) because successful experiences increase, and failed experiences weaken self-efficacy. So, self-efficacy of in-service teachers with references to experience has been a keen interest for researchers (Penrose, Perry & Ball, 2007; Fives & Looney, 2009; Fives & Buehl, 2009; Cheung, 2008; Kotaman, 2010; Karimvand, 2011).

The findings of previous studies about the relationship between experience and self-efficacy differ and sometimes contradict with each other. Some studies report a positive correlation between teaching experience and self-efficacy (Lin & Tsai., 1999; Liu, Jack, & Chiu, 2008), and vice versa (Wolters & Daugherty, 2007). According to Dembo and Gibson (1985), general teaching efficacy (GTE) decrease with experience, while personal teaching efficacy (PTE) increase from five to ten years and then decline with more time in the teaching career. Ross, Cousins, and Gadalla (1996) conducted a study in the same year and found the mixed type of results regarding the effect of experience on self-efficacy. Ghaith and Yaghi (1997), discovered a negative impact of

teaching experience over self-efficacy. Hoy and Spero (2005), conducted a study collecting data at two time points during training programme and found sufficient increase during the training but decline at the end of the first year in teaching. However, these three studies mentioned above used a moderate sample for the survey, i.e., 52, 25, and 29 respectively. Wolters and Daugherty (2007), surveyed 1,024 participants and found a link between experience and self-efficacy. In a recent study by Hemmings (2015), the findings of Wolters and Daugherty were also endorsed, though Hemmings conducted a qualitative inquiry. Guo et al. (2010), contradicted the findings of Wolters and Daugherty, and found a negative relation between teachers' self-efficacy and teaching experience. The literature reports that novice teachers have higher self-efficacy (Weinstein, 1988), and less resistance to innovations as compared to experienced ones (Soodak & Podell, 1997).

In this regard, some studies, however, have mixed results. Gorrell and Dharmadasa (1994), found that in-service teachers had higher efficacy for CM and instructional organization, but STs had higher efficacy for applying new methods. Other studies reported no relationship between self-efficacy and experience (Guskey, 1987).

Pre-service teachers' beliefs and attitudes affect their teaching, perceptions, judgments, decision-making, and actions in the classroom (Johnston, 1992). In this sense, teacher training effectiveness can be considered according to the development of STs' teaching efficacy (Yeung & Watkins, 2000). Additionally, a resistance against change increases as the self-efficacy rises (Hoy & Spero, 2005). STs' efficacy is positively correlated with teachers' teaching and knowledge (Fives, Hamman, & Olivarez, 2007). STs' self-efficacy is also correlated with programme level (Cerit, 2010). Studies by Gorrell and Hwang (1995); Lin, Gorrell, and Taylor (2002); and Hoy and Spero (2005), found significant differences between the beginner STs and the STs advance in the course, while others found no impact of course duration on self-efficacy (Romi & Leyser, 2006; Wertheim & Leyser, 2002).

The researchers found conflicting results about the difference of pre-service and in-service teachers' self-efficacy. For instance, some studies showed that pre-service teachers had higher self-efficacy than in-service teachers (Gorrel & Dharmadasa, 1994; De la Torre Cruz & Arias, 2007; Camadan, 2012), while others found opposite results (Lin & Tsai, 1999;

Wenner, 2001), and some others found no difference between in-service and pre-service teachers' self-efficacy (Azar, 2010).

Teachers' self-efficacy research has two strands; RAND strand (by Research and Development Organization in 1970), which divides teacher's efficacy into personal teacher efficacy and general teacher efficacy; and Bandura strand, which takes teacher efficacy as a part of self-efficacy (Malinen, Savolainen, & Xu, 2012). This study also lies in the category of Bandura strand. The numbers of self-efficacy aspects studied by the researchers are classroom management (CM), students' engagement (SE), instructional strategies (IS), and cooperation with colleagues and parents (Chan, 2008; Klassen et al., 2009; Romi & Leyser, 2006; Skaalvik & Skaalvik, 2010).

In mainland China, there is limited research on teachers' self-efficacy, but in available studies, the researchers have followed both RAND strand (Huang, 2005; Yu, Xin, & Shen, 1995), and Bandura strand (Cheung, 2008; Chan, 2008). Literature is scarce on comparing pre-service and in-service teachers' efficacy in China particularly between the mentors and mentees. Thus, this study is meant to compare self-efficacy of pre-service teachers (mentees) and in-service teachers (mentors), who mentored the sampled mentees. Chan (2008), studied in-service and pre-service teachers' self-efficacy in Hong Kong. In mainland China, not to speak of the comparison of mentees' and mentors' self-efficacy, the researchers could not find any study comparing in-service and pre-service teachers' self-efficacy. Therefore, it was thought important to know the level of self-efficacy of mentors, who guide the STs. This study might be the first attempt to study the differences of mentors' and mentees' efficacy in mainland China.

RESEARCH OBJECTIVES

The study is designed to achieve the following objectives:

1. Compare the self-efficacy beliefs of the mentees with their mentors (in-service teachers).
2. Explore the effect of teaching experience on the self-efficacy beliefs of the mentors.

Research Hypotheses

With the intended research objectives, the following are the null hypotheses of the study:

H₀₋₁ There is no significant difference between the self-efficacy beliefs of mentors and mentees concerning students' engagement.

H₀₋₂ There is no significant difference between the self-efficacy beliefs of mentors and mentees concerning classroom management.

H₀₋₃ There is no significant difference between the self-efficacy beliefs of mentors and mentees concerning applying instructional strategies.

H₀₋₄ There is no significant difference between the self-efficacy beliefs of mentors with less experience and the mentors with more experience.

RESEARCH METHODOLOGY

The study aimed to investigate the differences in the self-efficacy beliefs of mentors (in-service primary teachers) and mentees (student teachers). For this purpose, 90 participants were selected; 45 mentees and 45 mentors. Mentees were selected randomly from the last semester of the undergraduate students of education department who recently completed practicum experience of eight weeks. Five mentors were selected from each of nine schools in which the mentees conducted their practicum experience. These schools were situated in a district of the northeast area of China. All the mentors were teaching to primary level classes; from class one to grade six.

The mean age of the sampled mentees was 22 ($SD = 2.14$). Most of the mentors were between 30-40 years ($SD = 0.86$). Eight mentors aged 26-30 years and only three were above forty. Almost 67% (30) mentors had teaching experience of above ten years, nine (20%) had 7-10 years, and six (13%) had 4-6 years of teaching experience.

Measures

Teachers' Sense of Efficacy Scale (long form) developed by Tschannen-Moren and Hoy (2001), was used as research instrument which has three subscales; Students' Engagement (SE), Classroom Management (CM), and Instructional Strategies (IS). A translated instrument, validated by two expert translators was administered along with its original English version. The reliability coefficient for the instrument was Cronbach's Alpha 0.91 and 0.92 for mentors and mentees respectively, the detail of which is given in Table 1.

Table 1. Reliability of Sense of Efficacy Scale

Cronbach's Alpha For	Engagement	Instruction	Management	Overall
Mentees	.80	.85	.77	.92
Mentors	.75	.85	.77	.91
Overall	.71	.80	.71	.88

Research Procedure

After piloting and calculating internal consistency of the instrument, it was deemed appropriate to administer the instrument for final study. The respondents were asked for informed consent while participating in the study. They were also assured of their anonymity and confidentiality of the data provided by them. The instrument was distributed to the participants by one of the researchers with the guidance of Chinese [students] friends to the mentees and with the direction of university teachers to the mentors. After a few follow-ups, the questionnaires were received by the researchers. Because of the cooperation of university teachers and students, the response rate was 100% by the respondents. The respondents were ensured that the information given by them would only be used for research purposes.

RESULTS

For analyzing data collected through questionnaire, inferential statistics were applied. Conducting data analysis for differences between the levels of mentors and mentees, independent sample t-test was employed using SPSS version 21. For exploring differences in the efficacy levels of mentors on the basis of their teaching experiences, one-way ANOVA was calculated.

Analyses were done both on factor level and on item level. First of all, factor level analysis has been reported using independent sample t-test (Table 2).

Table 2. Difference between Self-Efficacy Levels of Mentors and Mentees on Students' Engagement, Classroom Management, and Instructional Strategies

	Status	N	M	SD*	t	p	95% CI	Cohen's d
Engagement	Mentors	45	29.69	4.17	1.85	.07	[-0.11,3.22]	0.39
	Mentees	45	28.13	3.79				
Management	Mentors	45	28.67	4.13	.58	.56	[-1.97,1.08]	
	Mentees	45	29.11	3.07				
Instruction	Mentors	45	30.62	4.51	.81	.42	[-1.03,2.45]	
	Mentees	45	29.91	3.76				

*SD = Standard Deviation

Overall study results disclosed that mentors might have higher level of self-efficacy beliefs for SE than that of mentees because the difference between self-efficacy levels of mentees ($M = 28.13$; $SD = 3.79$) and mentors ($M = 29.69$; $SD = 4.17$) was marginally significant for the SE, $t(88) = 1.85$; $P = .07$, 95% CI [-0.11, 3.22], $d = .39$. Cohen's d was small. The difference between the perceptions of mentors ($M = 30.65$; $SD = 4.51$) and mentees ($M = 29.91$; $SD = 3.76$) was not significant for IS, $t(88) = 0.81$; $P = .42$, 95% CI [-1.03, 2.45] and classroom management, $t(88) = 0.58$; $P = .56$, 95% CI [-1.97, 1.08].

For investigating the difference on the basis of experience, one-way ANOVA was calculated using SPSS version 21. Among the participants, almost two-thirds had more than ten years of teaching experience (67%), about 20% had 7-10 years, and 13% had 4-6 years of teaching experience. No significant difference was found between the participants' level of self-efficacy by their teaching experience (Table 3).

Table 3. Differences among Efficacy level of Mentors on the Basis of Experience

		Sum of Squares	df	Mean Square	F	p
Students' Engagement	Between Groups	48.59	2	24.29		
	Within Groups	715.06	42	17.03	1.427	0.25
	Total	763.64	44			
Classroom Management	Between Groups	21.80	2	10.90		
	Within Groups	728.20	42	17.34	.629	0.54
	Total	750.00	44			
Instructional Strategies	Between Groups	7.74	2	3.87		
	Within Groups	888.83	42	21.16	.183	0.83
	Total	896.58	44			

The Table 3. illustrates that there was no significant difference among the self-efficacy levels of mentors on the basis of their experience in teaching for all the three factors. For all factors of self-efficacy, the p -value of F test was less than the alpha level 0.05.

Students' Engagement (SE)

The item-wise analysis for students' engagement disclosed that apparently, mentors were more confident than mentees in engaging students during the lesson. However, the t -test showed no significant difference between the groups except for one item "help students think critically" (Table 4).

Table 4. Comparison between Mentors' and Mentees' Perceived Students' Engagement

Items	Status	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>	Cohen's <i>d</i>	95% CI UL-LL																																																																								
Dealing difficult students	Mentors	3.40	.92	1.83	.07	.39	[-0.03,0.74]																																																																								
	Mentees	3.04	.93					Helping think critically	Mentors	4.18	.61	2.22	.03*	.48	[0.04,0.63]	Mentees	3.84	.80	Motivation ability	Mentors	4.04	.67	1.48	.14		[-0.08,0.52]	Mentees	3.82	.75	Ensuring students' improvement	Mentors	4.02	.78	1.5	.14		[-0.08,0.57]	Mentees	3.78	.77	Helping for value learning	Mentors	3.76	.88	1.64	.11		[-0.07,0.69]	Mentees	3.44	.92	Ability to foster creativity	Mentors	3.89	.89	1.35	.18		[-0.12,0.60]	Mentees	3.64	.83	Assisting families for guidance	Mentors	3.51	.87	.87	.39		[-0.49,0.49]	Mentees	3.67	.83	Helping the failing students	Mentors	2.89	1.17	.00	1
Helping think critically	Mentors	4.18	.61	2.22	.03*	.48	[0.04,0.63]																																																																								
	Mentees	3.84	.80					Motivation ability	Mentors	4.04	.67	1.48	.14		[-0.08,0.52]	Mentees	3.82	.75	Ensuring students' improvement	Mentors	4.02	.78	1.5	.14		[-0.08,0.57]	Mentees	3.78	.77	Helping for value learning	Mentors	3.76	.88	1.64	.11		[-0.07,0.69]	Mentees	3.44	.92	Ability to foster creativity	Mentors	3.89	.89	1.35	.18		[-0.12,0.60]	Mentees	3.64	.83	Assisting families for guidance	Mentors	3.51	.87	.87	.39		[-0.49,0.49]	Mentees	3.67	.83	Helping the failing students	Mentors	2.89	1.17	.00	1		[-0.51,0.20]	Mentees	2.89	1.17						
Motivation ability	Mentors	4.04	.67	1.48	.14		[-0.08,0.52]																																																																								
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*Significant at the 0.05 level (2-tailed).

SD= Standard Deviation

The table reflects that there was no significant difference between the self-efficacy level of mentors and mentees except for the item “helping think critically”, whereas difference was statistically significant, $t(88) = 1.83$, $p = .03$, 95% CI [0.04, 0.63], $d = .48$, at alpha level .05. The d value was medium for this item. For ‘dealing difficult students’ the difference was marginally significant, $t(88) = 1.83$; $P = .07$, 95% CI [-0.03, 0.74], $d = .39$. Moreover, d value was small. For all other items, there was no significant difference between the groups.

Classroom Management (CM)

The factor of classroom management consisted of eight items. Item-level analysis for classroom management was done calculating independent sample t -test. The result revealed that the difference between the groups was found significant for only two items; “running activities smoothly” and “managing different groups.” For the other six items, there was no significant difference between the levels of self-efficacy of mentors and mentees. The detail may be seen in Table 5.

Table 5. Comparison of Mentors' and Mentees' Perceived Classroom Management

Items	Status	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>	Cohen's <i>d</i>	UL-LL (95% CI)
Controlling disruptive behavior	Mentors	3.80	.63	1.52	.13		[-0.07,0.51]
	Mentees	3.58	.75				
Clarity of expectations	Mentors	3.82	.78	1.55	.88		[-0.31,0.26]
	Mentees	3.84	.56				
Running activities smoothly	Mentors	3.24	1.03	2.57	.01*	.54	[-0.83, -0.11]
	Mentees	3.71	.66				
Making children follow rules	Mentors	4.04	.74	.90	.37		[-0.16,0.43]
	Mentees	3.91	.69				
Calming a disruptive student	Mentors	3.53	.82	.40	.69		[-0.26,0.40]
	Mentees	3.47	.76				
Managing different groups	Mentors	3.27	.94	2.12	.03*	.44	[-0.73,0.02]
	Mentees	3.64	.74				
Protecting from problem students	Mentors	3.38	.91	.00	1		[-0.38,0.38]
	Mentees	3.38	.91				
Responding defiant students	Mentors	3.58	.78	.00	1		[-0.33,0.33]
	Mentees	3.58	.78				

*Correlation is significant at the 0.05 level (2-tailed).
SD=Standard Deviation

Table 5. reveals the mentees showed higher self-efficacy for two items; “establishing routines to keep activities smoothly” and “establishing a CM system with each student’ group?” For ‘establishing smooth routines’, difference between efficacy levels of mentors ($M = 3.24$; $SD = 1.03$) and mentees ($M = 3.71$; $SD = .66$) was significant, $t(88) = 2.57$; $P = .01$, 95% CI [-0.83, -0.11], $d = .54$, at alpha level .01 with medium effect size. For ‘establishing CM system’ difference between mentors ($M = 3.27$; $SD = .94$) and mentees ($M = 3.64$; $SD = .74$) was significant, $t(88) = 2.12$; $P = .03$, 95% CI [-0.73, 0.02], $d = .44$, at alpha level .05 having small effect size. For the other six items of classroom management, there was no significant difference between the self- efficacy levels of the groups.

Instructional Strategies (IS)

Analysis for IS revealed that there was no significant difference between mentors’ and mentees’ perceived competence in applying instructional strategies except for only one item; responding difficult questions, where the difference was statistically significant. The detail of the analysis has been given in Table 6.

Table 6. Comparison of Mentors' and Mentees' Perceived Instructional Strategies

Items	Status	<i>M</i>	<i>SD</i>	<i>t</i>	<i>p</i>	Cohen's <i>d</i>	95% CI UL-LL
Responding difficult questions	Mentors	4.09	.56	2.55*	.013	.53	[0.07, 0.59]
	Mentees	3.76	.68				
Assessment ability	Mentors	3.98	.75	.43	.67		[-0.24, 0.37]
	Mentees	3.91	.70				
Questioning ability	Mentors	4.04	.82	1.87	.07		[-0.02, 0.64]
	Mentees	3.73	.75				
Addressing individual differences	Mentors	3.71	.82	.00	1		[-0.34, 0.34]
	Mentees	3.71	.82				
Using assessment strategies	Mentors	3.64	.98	.00	1		[-0.41, 0.41]
	Mentees	3.64	.98				
Confused students' clarity	Mentors	3.93	.72	.00	1		[-0.30, 0.30]
	Mentees	3.93	.72				
Using classroom strategies	Mentors	3.64	.80	.00	1		[-0.34, 0.34]
	Mentees	3.64	.80				
Challenging intelligent students	Mentors	3.58	.92	.00	1		[-0.38, 0.38]
	Mentees	3.58	.92				

Note: * $p < 0.05$ (2-tailed)

The table shows that the difference between the self-efficacy levels of groups was significant only for one item, 'Responding difficult questions,' which was statistically significant, $t(88) = 2.55$; $P = .01$, 95% CI [0.07, 0.59], $d = .53$, at alpha level .01. For the item, 'questioning ability' difference was marginally significant. Moreover, for remaining items, the difference was not statistically significant at alpha level 0.05.

DISCUSSION AND CONCLUSION

The findings of the study revealed that there is no significant difference between the self-efficacy beliefs of mentors and mentees. There was the marginally significant difference between self-efficacy levels of the groups concerning students' engagement. Hence, the finding demands a further investigation for the issue. The study of Azar (2010), found no difference between the levels of self-efficacy but there are two points to consider. First, Azar conducted his research at the secondary level, and the mentors considered for this study were from primary level (Grade 1 to Grade 6). Second, he tried to find the differences between

pre-service and in-service teachers not between mentors and the mentees. Here, the case is different because the in-service teachers of this study are the mentors, who mentored the sampled mentees during the practicum. Only for engaging students in the lesson, mentors had a higher level of self-efficacy than that of mentees. The mentees need particular attention for developing the strategies to engage students during the lesson. Among eight variables of self-efficacy, the mentors had a higher level of SE for helping students think critically and for dealing with challenging students. Mentors are experienced teachers who have learned through their experience how to engage students. Their experience of teaching might be the critical factor which gives them the confidence to engage students (Hemmings, 2015).

For classroom management, the mentees had higher self-efficacy beliefs only for two items; running class routine smoothly and managing different groups. This finding is critical because the mentors were much experienced, and the mentees had no experience at all. This may be because of mentees' motivation. It has been studied that self-efficacy decreases after ten years of experience and the sampled teachers had mostly (67%) more than ten years of teaching experience (Dembo & Gibson, 1985). The mentees had a higher sense of self-efficacy for managing different groups. It might be because in universities group work is assigned to them and they know the importance of group making technique, and they know how to make and manage groups. Further, usually in schools, group strategy is less employed in teaching. However, it is important for the school heads and teacher trainers to train the teachers how to make groups and convince them about the importance of group making. The mentees had higher self-efficacy for 'running activities smoothly' which is an essential finding because mentors have a lot of practical experience and mentees have no practical experience of teaching and running daily activities. One reason may be the sense that mentees are being observed and evaluated, so they are more conscious and have a focus on smooth running of activities. Gorrell and Dharmadasa (1994), also reported higher self-efficacy of mentees for CM.

For applying instructional strategies, in most of the cases, there was no difference at all between the cohorts. The only difference found significant was for only one variable, responding difficult questions, where mentors reported a higher level of self-perceived self-efficacy. For the variable

‘questioning ability’, there was the slightly significant difference between the groups. The mentors showed self-perceived higher efficacy for questioning ability. This finding is noteworthy and has strong implication for teacher education institutions (TEIs). The TEIs might not give prospective teachers (mentees) sufficient training of phrasing good questions and responding difficult questions. For mentors, their experience might have given them confidence in tackling difficult questions and phrasing good questions.

On the basis of experience, there was no significant difference between mentors. On the one hand, this finding is endorsed by the literature (Guskey, 1987). The findings of this study support the study by Guskey (1987) but contradict to the studies of Wolters and Daugherty (2007), Lin and Tsai (1999), and Liu et al. (2007), who found positive correlation between efficacy and teaching experience, and to the studies by Ghaith and Yaghi (1997), and Guo et al. (2010), who found negative correlation. However, in a study by Hemmings (2015), experience increases self-efficacy, although his study was for early years of teaching. On the other hand, it might be a point for further exploration, because among the sampled mentors 30 had more than ten years of experience, nine had 7-10 years, while only six had 4-6 years range of experience. It is suggested that this finding may be further verified and explored taking a sufficient sample.

RESEARCH IMPLICATIONS

The study has implications for in-service teachers’ development programmes and also for the mentees’ training programmes. In-service teacher educators can consider the CM aspect in their content for the development of teachers. The teacher educators may focus on developing questioning ability in the prospective teachers.

The administrators of the teacher education faculties and curriculum developers can incorporate more experiences and activities in practicum for the enhancement of student teachers’ (mentees’) IS and SE. The education faculties should focus especially on the practical experiences for SE in lessons, like putting hard questions and phrasing good and interesting questions. The heads of schools and teacher trainers should focus on classroom management because teachers reflected lower efficacy for running routine activities and formulating groups for activities among students.

FUTURE RECOMMENDATIONS

The results are significant and have implications for TE institutions. Education faculties may bring improvements taking advantage of the findings of the study.

The findings imply that there is need to study the in-service teachers' management problems with a more substantial sample over a broader area. The results also call for exploring the issues of IS and SE faced by mentees.

To verify the findings of the study, the researchers recommend large-scale research including more participants and a vast area for studying self-efficacy of in-service and STs separately or in comparison. The case studies can also be administered in different education faculties of the universities of other cities.

In the Pakistani context, such investigations may also be carried out to examine the self-efficacy of in-service teachers and trainee/pre-service teachers which will be helpful in improving the national academia in general and the teaching quality in particular. This study can provide stimulus and guideline for such kind of researches in the local setting.

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