



INVESTIGATING TEACHERS' SELF-EFFICACY: A CASE OF BASIC EDUCATION SCHOOL TEACHERS IN MYANMAR

Shwe Ye PHYO & Phyu Zar Zar THEINT

Abstract: The basic education system of Myanmar is in the state of transformation. Compounded by curriculum reform and Covid-19, it becomes demanding for teachers to carry out their day to day tasks successfully. This study used a quantitative descriptive approach to identify teachers' self-efficacy level and whether there is any significant variation in their self-efficacy in terms of personal factors. The instrument was comprised of statements from Teacher Self-Efficacy Scale, Teachers' Sense of Efficacy Scale, and Effective Teacher Efficacy Scale. Using cluster sampling method, 349 basic education school teachers were surveyed. Descriptive statistics, independent samples *t* test, one-way ANOVA, and post hoc tests were applied to analyze the data. Findings revealed that teachers had a moderately high level of self-efficacy. Except for age, no significant difference was found in teacher self-efficacy based on other personal factors: gender, position, academic qualification, and total service years.

Key words: teacher, self-efficacy, basic education

1. Introduction

According to OECD (2009), beliefs, practices, and attitudes of teachers are crucial to enhancing educational processes as they are related closely to the strategies they apply for coping with the challenges in their daily professional life, and they shape the learning environment of students and impact their motivation and achievement. Teaching is one of the most demanding professions as the nature of the work requires teachers to have not only special knowledge and skills but also special qualities of mind and character (Khin Zaw, 2001).

In Myanmar, the government has initiated education reform to improve education standards in the basic education sector since 2016 (Ministry of Education, 2016). Myanmar is located between India and China and bordered by Bangladesh, Lao People's Democratic Republic and Thailand. Its basic education structure is Kindergarten(KG)+ (5-4-3) structure: KG, five-year-schooling (primary level), four-year-schooling (lower secondary level), and three-year-schooling (upper secondary level) (Ministry of Education, 2016). The types of school which differ in rank are described in an ascending order: branch primary school (KG to grade-2), primary school (KG to Grade-5), post-primary school (KG to grade-7), branch middle school (KG to grade-9), middle school (KG to grade-9), branch high school (KG to grade-12), and high school (KG to grade-12) (Bhatta, 2023).

Parvez (2010) stated that even the best educational system is destined to fail if it does not have good, competent and devoted teachers while good teachers can definitely give the best result out of the worst system. This clearly highlights how important the role of the teacher is, and why effective teachers are necessary. Due to the failure to identify observable characteristics predicting effectiveness, researchers have thrown light on intangible psychological variables (Jerrim et al., 2023). Teachers' self-efficacy is one of the key factors influencing their effectiveness (Gale et al., 2021; Hussain & Khan, 2022). An increasing amount of research has demonstrated the relationship between teachers' self-efficacy and a variety of outcomes, including student motivation, academic success, and teacher well-being. (Barni et al., 2019). High efficacious teachers use instructional strategies more effectively, assuring student participation and possess better classroom management skills (Woolfolk et al., 1990) and assume more

Received August 2024.

Cite as: Phyo, S. Y.; & Theint, P. Z. Z. (2024). Investigating Teachers' Self-Efficacy: A Case of Basic Education School Teachers in Myanmar. *Acta Didactica Napocensia*, 17(2), 52-64, <https://doi.org/10.24193/adn.17.2.4>

responsibility for teaching (Coladarci, 1992). Efficacy determines the goals teachers set, the efforts they devote to their works, and the perseverance, leading to influencing their performance and student achievement (Oakes et al., 2013). To bring such outcomes at the classroom level and individual teacher level, the first and foremost step is understanding teachers' self-efficacy and how it develops (Gale et al., 2021).

Thus, this study is conducted to identify teachers' self-perception of their teaching competence (teachers' self-efficacy) with the aim of offering some important insights for understanding teachers' self-efficacy.

2. Literature review

In 1977, Bandura coined the term self-efficacy (Flammer, 2015). Bandura (1997) described self-efficacy as the person's perceived belief that he or she has the capability to perform a task. He also described that efficacy belief system is the diverse collection of self-beliefs associated with many domains of functioning rather than a universal one.

The theoretical backbone of self-efficacy is Rotter's Internal Locus of Control Theory and Bandura's Social Cognitive Theory (Hoy & Miskel, 2012). According to Rotter (1966), locus of control is the extent to which an individual believes the result depends on their own behavior or other factors; it ranges from a more internalized orientation to a more externalized orientation.

Social learning theory by Bandura (1971) focuses on the description of the involvement of mental (cognitive) factors in learning. According to this theory, "man is a thinking organism possessing capabilities that provide him with some power of self-direction" (Bandura, 1971, p.2). McLeod (2016) described that humans are active information processors and consider their behavior and its association with the consequences. To ascertain whether a new response is learned, mental elements can facilitate or interfere with the learning process.

The main sources of self-efficacy are mastery experience, vicarious experience, verbal persuasion and affective states/ emotional arousal (Bandura, 1977; Tschannen-Moran & Hoy, 2007). Although Bandura (1997) did not describe which sources affect self-efficacy the most, Tschannen-Moran et al. (1998) claimed that mastery experience and physiological arousal directly influences it more than the other sources. Mastery experience was the most powerful as a teacher can assess the capabilities related to the task and experience the consequences of those capabilities only in the real teaching (Tschannen-Moran et al., 1998). Watching successful teachers teach acts as the basis for the decision that teaching is a manageable task (Tschannen-Moran et al., 1998). These scholars also emphasized that in order to enhance performance, emotional arousal levels should be moderated because high levels may hinder functioning and interfere with optimizing one's skills and talents. Regarding verbal persuasion, Bandura (1997) pointed that the credibility, trustworthiness and expertise of the persuader determines the strength of this persuasion.

Bandura (1997) described teacher efficacy as the result of a cognitive process in which individuals establish beliefs related to their capacity to function well. He examined teacher efficacy with six dimensions: efficacy to influence decision making, instructional self-efficacy, disciplinary self-efficacy, efficacy to enlist parental involvement, efficacy to create a positive school climate, and efficacy to enlist community involvement. Based on these six dimensions, Bandura (1997) developed the teacher self-efficacy scale. In 2006, Bandura wrote a efficacy scales construction guide including teacher self-efficacy, parental efficacy, and perceived collective family efficacy. The teacher self-efficacy scale in that guide is also based on the old six dimensions and no changes were made. According to Hoy and Spero (2005), the amount of research using Bandura's scale is little.

Tschannen-Moran, Hoy, and Hoy (1998) reviewed almost all sources dated from 1974 to 1997 which included the term teacher efficacy to clarify the construct and improve its instrument. According to Tschannen-Moran and Hoy (2001), teacher efficacy is the belief that one is capable of organizing and carrying out the necessary actions in order to complete a specific teaching task in the particular environment and it is examined with three dimensions: efficacy for instructional strategies, efficacy for classroom management, and efficacy for student engagement. These dimensions are developed

from the nine items of instructional self-efficacy from Bandura's teacher self-efficacy scale (Hoy & Spero, 2005). The scale constructed by Tschannen-Moran and Hoy (2001) has been validated for use with pre-service and in-service teachers in many countries: United States (Fives & Buehl, 2009), Europe (Klassen et al., 2009), Singapore (Klassen et al., 2009), China, Korea, and Japan (Ruan et al., 2015). In Myanmar, Htang (2018) validated its use with in-service teachers.

Audet (2014) examined teacher efficacy using Danielson's Framework for Teaching. This framework describes "what teachers should know and be able to do in the exercise of their profession" (Danielson, 2007, p. 1). The framework has four domains: (1) planning and preparation, (2) the classroom environment, (3) instruction, and (4) professional responsibility. Danielson's Framework for Teaching reflects both empirical studies and theoretical research since 1996 and captures important aspects of effective teaching (Danielson, 2014). This framework meets the needs of teachers from novice to veterans and serves as the foundation for improving teaching practice and evaluating their performance (Danielson, 2007).

When efficacy is examined in terms of demographic factors, previous studies have shown mixed results. For example, no significant variation was found in teacher efficacy in terms of gender (Al-alwan & Mahasneh, 2014; Campbell, 1996) while the research findings by Sahile (2013) and Shazadi et al. (2011) portrayed that female teachers had significantly higher sense of efficacy than the male ones. In terms of age, older teachers had significantly higher level of efficacy than younger ones (Campbell, 1996). Regarding academic qualifications, master degree holders have significantly higher efficacy levels than bachelor degree holders and those who are still attending to earn a bachelor degree (Campbell, 1996) whereas Sahile (2013) and Shazadi et al. (2011) found no statistical significance. In terms of teaching experience, Sahile (2013) found that teachers with more than 5 years of experience had significantly higher sense of efficacy than those with less than 5 years while the findings by Shazadi et al. (2011) showed no significant differences.

Even in the different functions of a teacher, studies have proved that the level of efficacy a teacher or preservice teacher has for each function is not at the same level. For example, Audet (2014) found that elementary, secondary and K-12 teacher candidates from four universities in the United State of America believed it mostly true that they could plan and prepare, instruct, create a good environment, and perform professional responsibilities. Krizman (2013) researched teacher efficacy with secondary in-service teachers in Southern Mississippi and found that participants had high levels of efficacy score in student engagement, classroom management, and instructional strategies.

Research questions were formulated based on the theoretical background and previous studies.

3. Research questions

RQ1 What are the levels of teachers' self-efficacy in professional responsibilities, enlisting clients, colleagues, and community involvement, planning and preparation, managing classroom and gaining student engagement, and instruction?

RQ2 Is there any significant variation in teachers' self-efficacy in terms of such personal factors as gender, age, position, and total service years?

5. Method

5.1. Method

A descriptive research design was used and questionnaire survey was conducted.

5.2. Participant and setting

A total of 349 teachers from 5 Basic Education High Schools and 11 Basic Education High Schools (Branch) in Min Bu Township, Magway Region were selected as participants by using cluster sampling method. The demographic data are presented in Table 1.

Table 1. *Demographic Data of Participants*

Demographic Data	Group	Number of teachers
Gender	Male	39
	Female	310
Age	31 and below	62
	32-42	107
	43-53	88
	54 and above	92
Position	Primary Teacher (PT)	95
	Junior Teacher (JT)	138
	Senior Teacher (ST)	116
Total Service Years	8 and below	76
	9-19	114
	20-30	79
	31 and above	80

5.3. Instrumentation

All items were rated on a Five-point Likert Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA), the instrument was developed based on Teacher Self-Efficacy Scale by Bandura (1977), Teachers' Sense of Efficacy Scale by Tschannen-Moran, and Hoy (2001), and Effective Teacher Efficacy Scale by Audet (2014).

Principal component analysis (PCA) revealed 5 factors with eigenvalues exceeding 1. Then CFA was conducted to determine the existing structure of the scale and to test how the variables are related to underlying constructs. The model indicates an acceptable fit if the CMIN/DF value is lower and equal to 3 (Kline, 1998), the values of CFI, NFI, and TLI are closer to 1 (Bentler & Bonett, 1980), and RMSEA, values ranged from 0.05 to 0.08 (MacCallum et al., 1996). The CFA result revealed that CMIN/Df value was less than 3, RMSEA value was 0.075, and CFI, NFI, TLI values were 0.9, 0.8, and 0.818 respectively. The Average Variance Extracted (AVE) values ranged from 0.3 to 0.7. The Composite Reliability (CR) values ranged from 0.7 to 0.9. Fornell and Larcker (1981) claimed that if AVE values were below the minimum cutoff point (0.5), convergent validity may still be adequate as long as the latent factors had CR values above 0.7. All the square root of AVE values was found to range from 0.64 to 0.78. According to Fornell and Larcker (1981), the square root of AVE values should be greater than 0.5 to indicate discriminant validity.

The instrument consists of 49 items: efficacy for professional responsibilities (13 items), efficacy for enlisting clients, colleagues, and community involvement (8 items), efficacy for planning and preparation (12 items), efficacy for managing classroom and gaining student engagement (10 items), and efficacy for instruction (6 items). The internal consistency for each dimension ranged from 0.88 to 0.936 and the reliability of the whole instrument was 0.967.

5.4. Procedure

Pilot study was conducted with 30 teachers (7 primary teachers, 4 junior teachers, and 19 senior teachers) from Min Bu. Based on this study, item modifications such as change of wording and omission of some words were done.

For the main survey, the questionnaires were distributed to 349 teachers from 4 Basic Education High Schools and 10 Basic Education High Schools (Branch) in Min Bu. They were recollected after 3 weeks. The respondents' rate was 100%.

5.5. Data Analysis

The collected data from the questionnaires were analyzed by using the SPSS (Statistical Package for the Social Sciences) software of version 25. First, descriptive statistics was calculated for each dimension of teacher efficacy. The level of teacher efficacy was indicated by the mean values arranged in an ascending order based on (1.00-1.79 =Low, 1.80-2.59=Moderately low, 2.60-3.39=Medium, 3.40-4.19= Moderately high, 4.20-5.00= High). These intervals were argued by Pimentel (2019) with the aim of minimizing the bias which will lead to a better labelling and interpretations of the results. Then, independent samples *t* test, and one-way ANOVA were used to identify the differences in teacher efficacy in terms of their personal factors.

6. Results

Table 2 reveals that except for the mean value of efficacy for professional responsibilities which was at high level, the values for other dimensions were at moderately high level. Overall, teachers' self-efficacy was found to be moderately high.

Table 2. Descriptive Statistics of Teachers' Self-Efficacy

Variables	Mean (SD)	Remarks
Efficacy for professional responsibilities	4.21 (0.38)	High
Efficacy for enlisting clients, colleagues, and community involvement	3.81 (0.48)	Moderately High
Efficacy for planning and preparation	4.07 (0.39)	Moderately High
Efficacy for managing classroom and gaining student engagement	4.10 (0.38)	Moderately High
Efficacy for instruction	4.19 (0.44)	Moderately High
Teachers' self-efficacy	4.17 (0.35)	Moderately High

Table 3. Independent Sample *t* Test Results Showing Teachers' Self-Efficacy Grouped By Gender

Variables	Gender	N	Mean	SD	<i>t</i>	<i>df</i>	<i>p</i>
Efficacy for professional responsibilities	Male	39	4.17	.37	-.708	48.42	.408*
	Female	310	4.22	.38			
Efficacy for enlisting clients, colleagues, and community involvement	Male	39	3.97	.58	1.905	44.04	n.s
	Female	310	3.79	.46			
Efficacy for planning and preparation	Male	39	4.04	.42	-.648	46.28	n.s
	Female	310	4.08	.39			
Efficacy for managing classroom and gaining student engagement	Male	39	4.12	.46	.109	44.42	n.s
	Female	310	4.11	.37			
Efficacy for instruction	Male	39	4.12	.56	-.798	43.75	.042*
	Female	310	4.19	.43			
Teachers' self-efficacy	Male	39	4.17	.41	.017	44.77	n.s
	Female	310	4.17	.34			
* <i>p</i> <0.05, n.s = no significance							

As presented in Table 3, there was no significant difference in teachers' self-efficacy of male and female teachers. In detail, a statistically significant difference was found in efficacy for professional responsibilities with males (Mean=4.17, SD=.37) and females (Mean=4.22, SD=.38), $t(48.42) = -0.708$, $p < 0.05$ and in efficacy for instruction with males (Mean=4.12, SD=.56) and females (Mean=4.19, SD=.43), $t(43.75) = -0.798$, $p < 0.05$.

Table 4. *One-Way ANOVA Results Showing Teachers' Self-Efficacy Grouped by Age*

Variables	Group	Mean (SD)	Source of Variation	Sum of Squares	df	Mean Square	F	p
Efficacy for professional responsibilities	31 and below	4.14 (.35)	Between Groups	.749	3	.250	2.095	n.s
	32-42	4.19 (.35)						
	43-53	4.29 (.39)	Within Groups	47.342	348	.136		
	54 and above	4.23 (.41)	Total	48.091	351			
Efficacy for enlisting clients, colleagues, and community involvement	31 and below	3.64 (.60)	Between Groups	2.147	3	.716	5.136	.002**
	32-42	3.79 (.49)						
	43-53	3.94 (.39)	Within Groups	60.689	348	.174		
	54 and above	3.80 (.40)	Total	62.836	351			
Efficacy for planning and preparation	31 and below	3.93 (.46)	Between Groups	1.747	3	.582	4.198	.006**
	32-42	4.08 (.37)						
	43-53	4.14 (.37)	Within Groups	51.580	348	.148		
	54 and above	4.12 (.35)	Total	53.327	351			
Efficacy for managing classroom and gaining student engagement	31 and below	4.03 (.41)	Between Groups	.512	3	.171	1.394	n.s
	32-42	4.10 (.36)						
	43-53	4.14 (.36)	Within Groups	46.767	348	.134		
	54 and above	4.13 (.38)	Total	47.278	351			
Efficacy for instruction	31 and below	4.08 (.39)	Between Groups	.910	3	.303	2.237	n.s
	32-42	4.17 (.45)						
	43-53	4.27 (.43)	Within Groups	57.077	348	.164		
	54 and above	4.18 (.47)	Total	57.987	351			
Teachers' self-efficacy	31 and below	4.06 (.36)	Between Groups	1.075	3	.358	3.821	.01*
	32-42	4.16 (.33)						
	43-53	4.25 (.35)	Within Groups	37.659	348	.108		
	54 and above	4.19 (.34)	Total	38.734	351			
*p<0.05. **p<0.01. n.s = no significance								

Table 4 shows that there was a significant difference among the age groups in teachers' self-efficacy, efficacy for enlisting clients, colleagues and community involvement, and efficacy for planning and preparation. Post-Hoc test was conducted to find out which specific mean values were different from the others and its outputs were shown in Table 5.

Table 5. *Post-Hoc Results Showing Teachers' Self-Efficacy Grouped by Age*

Variables	Age (I)	Age (J)	Mean Difference (I-J)	Std. Error	p
Efficacy for enlisting clients, colleagues, and community involvement	43-53	31 and below	.30265	.08698	.004**
Efficacy for planning and preparation	31 and below	43-53	-.21139	.06382	.006**
		54 and above	-.18899	.06325	.016*
Teachers' self-efficacy	31 and below	43-53	-.18964	.05672	.005*
* $p < 0.05$, ** $p < 0.01$, n.s = no significance					

As presented in Table 5, a significant mean difference was found in teachers' self-efficacy between 31 and below teacher age group (Mean=4.06) and 43-53 teacher age group (Mean=4.25) ($p < 0.05$). Regarding its dimension, a significant mean difference was found in efficacy for enlisting clients, colleagues and community involvement between 31 and below teacher age group (Mean=3.64) and 43-53 teacher age group (Mean=3.94) ($p < 0.01$). Regarding efficacy for planning and preparation, the 31 and below teacher age group (Mean=3.93) significantly differed with 43-53 teacher age group (Mean=4.14) ($p < 0.01$) and the 54 and above teacher age group (Mean=4.12) ($p < 0.05$).

Table 6. *One-Way ANOVA Results Showing Teachers' Self-Efficacy Grouped by Position*

Variables	Group	Mean (SD)	Source of Variation	Sum of Squares	df	Mean Square	F	p
Efficacy for professional responsibilities	Primary teacher	4.11 (.29)	Between Groups	1.459	2	.729	5.460	.006**
	Junior teacher	4.23 (.37)	Within Groups	46.632	349	.134		
	Senior teacher	4.27 (.42)	Total	48.091	351			
Efficacy for enlisting clients, colleagues, and community involvement	Primary teacher	3.84 (.45)	Between Groups	.756	2	.378	2.126	n.s
	Junior teacher	3.93 (.39)	Within Groups	62.080	349	.178		
	Senior teacher	3.82 (.43)	Total	62.836	351			
Efficacy for planning and preparation	Primary teacher	4.02 (.27)	Between Groups	.714	2	.357	2.368	n.s
	Junior teacher	4.07 (.38)	Within Groups	52.613	349	.151		
	Senior teacher	4.13 (.47)	Total	53.327	351			
Efficacy for managing classroom and gaining student engagement	Primary teacher	4.08 (.26)	Between Groups	.118	2	.059	.436	n.s
	Junior teacher	4.13 (.37)	Within Groups	47.160	349	.135		
	Senior teacher	4.11 (.44)	Total	47.278	351			
Efficacy for instruction	Primary teacher	4.10 (.35)	Between Groups	.866	2	.433	3.397	.035*
	Junior teacher	4.21 (.42)	Within Groups	57.121	349	.164		
	Senior teacher	4.22 (.43)	Total	57.987	351			
Teachers' self-efficacy	Primary teacher	4.03 (.27)	Between Groups	.470	2	.241	2.021	n.s
	Junior	4.11	Within	38.264	349	.119		

	teacher	(.33)	Groups				
	Senior teacher	4.11 (.37)	Total	38.734	351		

**p<0.05, **p<0.01, n.s = no significance*

As shown in Table 6, a significant difference was found only in efficacy for professional responsibilities and efficacy for instruction. Post-Hoc test was conducted, and its results were described in Table 7.

Table 7. Post-Hoc Results Showing Teachers' Self-Efficacy Grouped by Position

Variables	Position (I)	Position (J)	Mean Difference (I-J)	Std. Error	p
Efficacy for professional responsibilities	Primary Teacher	Junior Teacher	-.11959	.04428	.02*
		Senior Teacher	-.16412	.05035	.004**
Efficacy for instruction	Primary Teacher	Senior Teacher	-.15222	.05951	.03*

**p<0.05, **p<0.01, n.s = no significance*

As presented in Table 7, regarding efficacy for professional responsibilities, the primary teacher group (Mean=4.11) significantly differed with junior teacher group (Mean=4.23) ($p < 0.05$) and with the senior teacher group (Mean=4.27) ($p < 0.01$). The primary teacher group (Mean=4.10) also differed significantly with senior teacher group (Mean=4.22) ($p < 0.05$) in terms of efficacy for instruction.

Table 8. One-Way ANOVA Results Showing Teachers' Self-Efficacy Grouped by Total Service Years

Variables	Group	Mean (SD)	Source of Variation	Sum of Squares	df	Mean Square	F	p
Efficacy for professional responsibilities	8 and below	4.14 (.33)	Between Groups	.589	3	.196	1.370	n.s
	9-19	4.23 (.37)						
	20-30	4.24 (.40)	Within Groups	49.438	345	.143		
	31 and above	4.24 (.41)	Total	50.027	348			
Efficacy for enlisting clients, colleagues, and community involvement	8 and below	3.69 (.57)	Between Groups	2.024	3	.675	3.039	.029*
	9-19	3.79 (.49)						
	20-30	3.91 (.39)	Within Groups	76.579	345	.222		
	31 and above	3.84 (.40)	Total	78.603	348			
Efficacy for planning and preparation	8 and below	3.96 (.43)	Between Groups	1.383	3	.461	3.083	.027*
	9-19	4.11 (.39)						
	20-30	4.12 (.38)	Within Groups	51.598	345	.150		
	31 and above	4.11 (.34)	Total	52.981	348			
Efficacy for managing classroom and gaining student engagement	8 and below	4.02 (.38)	Between Groups	.910	3	.303	2.136	n.s
	9-19	4.14 (.38)						
	20-30	4.09	Within	48.987	345	.142		

		(.38)	Groups					
	31 and above	4.16 (.37)	Total	49.898	348			
Efficacy for instruction	8 and below	4.09 (.44)	Between Groups	.863	3	.288	1.474	n.s
	9-19	4.22 (.42)						
	20-30	4.21 (.43)	Within Groups	67.322	345	.195		
	31 and above	4.18 (.48)	Total	68.184	348			
	Teachers' self-efficacy	8 and below	4.07 (.34)	Between Groups	.950	3		
9-19		4.19 (.35)						
20-30		4.20 (.35)	Within Groups	40.758	345	.118		
31 and above		4.19 (.33)	Total	41.708	348			
* <i>p</i> <0.05. n.s = no significance								

As shown in Table 8, a significant difference was found only in efficacy for enlisting clients, colleagues and community involvement, and efficacy for planning and preparation while there was no significant difference in the rest dimensions, Post-Hoc test was conducted to find out which specific mean values were different from the other ones. The results were described in Table 9.

Table 9. Post-Hoc Results Showing Teachers' Self-Efficacy Grouped by Total Service Years

Variables	Service (I)	Service (J)	Mean Difference (I-J)	Std. Error	<i>p</i>
Efficacy for enlisting clients, colleagues, and community involvement	8 and below	20-30	-.22237	.07878	.028*
Efficacy for planning and preparation	8 and below	9-19	-.14912	.05727	.047*
* $p < 0.05$, ** $p < 0.01$, n.s = no significance					

As presented in Table 9, regarding efficacy for enlisting clients, colleagues and community involvement, teachers with total service years of 8 and below (Mean=3.69) significantly differed with teachers with total service years of 20-30 range (Mean=3.91) ($p < 0.05$). The lowest total service year group (Mean=4.09) also differed significantly with teachers with 9-19 total service years (Mean=4.22) ($p < 0.05$) in terms of efficacy for planning and preparation.

7. Discussion

Regarding the first research question, teachers were found to have moderately high level of teachers' self-efficacy. Specifically, although nearly the same mean value was found in four dimensions: efficacy for professional responsibilities (4.21), efficacy for planning and preparation (4.07), efficacy for managing classroom and gaining student engagement (4.10), and efficacy for instruction (4.19), that of efficacy for enlisting clients, colleagues, and community involvement was lower than the others which was at 3.81.

These mean values revealed that teachers who participated in this study believed that they were capable of performing professional responsibilities, enlisting clients, colleagues, and community involvement, planning, preparing, managing classroom, gaining student engagement, and instructing. This finding shared similar result with Audet (2014) and Krizman (2013). As self-efficacy is self-judged, Hoy and Spero (2005) pointed out that there can be biases (overestimation or underestimation). Thus, this finding should be interpreted with caution.

The second research question was concerned with investigating whether there were any significant variations in teachers' self-efficacy in terms of their personal factors (gender, age, position, total service years).

The current study found no statistically significant difference in teacher efficacy among groups of teachers categorized according to gender. The results echoed the findings by Al-alwan and Mahasneh (2014) and Campbell (1996) but contrasts with the studies by Sahile (2013) and Shazadi et al. (2011) in which female teachers had significantly higher sense of efficacy than the male ones. However, gender showed a significant difference in efficacy for professional responsibilities and efficacy for instruction. Female teachers believed that they were capable of performing professional responsibilities and instructing more than their male counterparts. This can be explained by Eccles (1987, as cited in Shazadi et al., 2011) who described that teaching is considered as a female profession, and females found teaching more secure, strengthening the belief that they could perform well if they chose teaching profession.

A statistically significant difference was found in teacher efficacy in terms of age. This result matches with the earlier study by Campbell (1996) who stated that older teachers had higher efficacy levels than the younger ones. Specifically, teachers in 43-53 age group were found to have a higher sense of self-efficacy in enlisting clients, colleagues, and community involvement, planning and preparation, and professional responsibilities than the youngest one (31 and below). In terms of academic qualifications and positions, there was no significant variation in teacher efficacy. Though this finding contrasts with Campbell (1996), it is concurred by Sahile (2013) and Shazadi et al. (2011) whose results showed that education levels and professional training did not make a significant variation in teacher efficacy. Having said so, significant variations are found in some dimensions. Junior teachers and senior teachers believed in themselves more than primary ones when it comes to professional responsibilities and senior teachers believed that they were capable of instructing more than primary ones did.

Regarding total service years, there was no significant variation in teacher efficacy. This finding matches with the findings of Sahile (2013) but contrasts with the findings of Shazadi et al. (2011). Looking at each dimension in detail, the finding revealed that teachers whose service is 8 years and below and teachers with 20-30 service years differed significantly in efficacy for enlisting clients, colleagues, and community involvement. It might be related to their age. Generally, the higher the number of service years teachers have, the older and more experienced they become. Besides, teacher group with 8 and below service years had lower efficacy for planning and preparation than teachers with 9-19 service years and lower one for enlisting clients, colleagues, and community involvement than those with 20-30 service years.

8. Conclusion

There are several important implications. First, teachers' efficacy level was found to be moderately high but efficacy for enlisting clients, colleagues and community involvement is lower than the rest. This study does not cover tracing the reason by considering multiple perspectives such as the current status of profession, the role of private education organizations, and the perspectives of the stakeholders regarding new curriculum, school, and the curriculum contents of teacher education program. It will be worthwhile if future researchers focus on this area. Teacher education programs should make sure that the coursework includes some contents emphasizing on this area and the student teachers have the opportunity to learn how to enlist clients, colleagues, and community involvement and engage in this process during practicum. In-service professional development activities should also have a space for this area. The contrast between some of the current study's findings and those of the previous studies can relate to the context. Moreover, the instrument may have limitations as self-efficacy is context specific. Future research should be carried out in other geographical areas and other types of schools: primary and middle public schools and private schools since the study is restricted to high schools in Min Bu Township, Magway Region. As all participated teachers had moderately high level of efficacy regardless of gender, position, academic qualifications, and total years of service, it would be interesting to study their sources of efficacy and other factors affecting teacher efficacy.

Conducting a longitudinal study will be worthy to highlight how efficacy develops or changes over time.

References

- Al-alwan, A. F., & Mahasneh, A. M. (2014). Teachers' Self-efficacy as Determinant of Students' Attitudes toward School: A study at the School Level. *Review of European Studies*, 6(1), 171. <http://dx.doi.org/10.5539/res.v6n1p171>
- Audet, K. K. (2014). *Assessing pre-service teacher beliefs: development of the effective teacher efficacy survey* (Doctoral dissertation, Montana State University-Bozeman, College of Education, Health & Human Development). Retrieved on 1st October 2024 from <https://scholarworks.montana.edu/xmlui/bitstream/handle/1/8769/AudetK1214.pdf;sequence=1>
- Bandura, A. (1971) Social Learning Theory. General Learning Press.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1997) *Self-Efficacy: The Exercise of Control*. W.H. Freeman and Company.
- Barni, D., Danion, F., & Benevene, P. (2019). Teachers' Self-Efficacy: The Role of Personal Values and Motivations for Teaching, *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.01645>
- Bhatta, S. D., S. Katwal, S. Sinha Roy, R. Van der Weide, U. Sharma, A. P. Kyaw, & M. M. Thwin. (2023). *Education in Myanmar: Where are We Now?* World Bank.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588–606. <https://doi.org/10.1037/0033-2909.88.3.588>
- Campbell, J. (1996). A Comparison of Teacher Efficacy for Pre and In-Service Teachers in Scotland and America. *Education*, 117(1), 2-11.
- Coladarci, T. (1992). Teachers' sense of efficacy and commitment to teaching. *Journal of Experimental Education*, 60(4), 323–337. <https://doi.org/10.1080/00220973.1992.9943869>
- Danielson, C. (2007). *Enhancing professional practice: A framework for teaching*. VA: Association for Supervision and Curriculum Development. <https://www.jstor.org/stable/43156451>
- Danielson, C. (2014). *The framework for teaching: Evaluation instrument* (2013 ed.). Danielson Group.
- Fives, H., & Buehl, M. M. (2009). Examining the factor structure of the teachers' sense of efficacy scale. *Journal of Experimental Education*, 78(1):118-13. <https://doi.org/10.1080/00220970903224461>
- Flammer, A. (2015). Self-Efficacy. In *International Encyclopedia of the Social & Behavioral Sciences* (second edition, pp. 504-508). Elsevier. <https://doi.org/10.1016/B978-0-08-097086-8.25033-2>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Gale, J., Alemdar, M., Cappelli, C., & Morris, D. (2021). A Mixed Methods Study of Self-Efficacy, the Sources of Self-Efficacy, and Teaching Experience. *Frontiers in Education*, 6. <https://doi.org/10.3389/educ.2021.750599>
- Hoy, A. W., & Spero, R. B. (2005). Changes in teacher efficacy during the early years of teaching: A comparison of four measures. *Teaching and Teacher Education*, 21(4), 343–356. <https://doi.org/10.1016/j.tate.2005.01.007>
- Hoy, W. K., & Miskel, C. G. (2012). *Educational Administration: Theory, Research and Practice* (9th ed.). McGraw-Hill.

- Htang, L. K. (2018). Measurement of Teacher Sense of Efficacy: A Study with Myanmar In-service Teachers. *Journal of Education and Practice*, 9(35), 39-48. Retrieved on 16th January from <https://www.iiste.org/Journals/index.php/JEP/article/download/45765/47248>
- Hussain, M. S., & Khan, D. S. A. (2022). Self-Efficacy of Teachers: A Review. *Jamshedpur Research Review*, 1(50), 110–116.
- Jerrim, J., Sims, S., & Oliver, M. (2023). Teacher self-efficacy and pupil achievement: Much ado about nothing? International evidence from TIMSS. *Teachers and Teaching*, 29(2), 220-240. <https://doi.org/10.1080/13540602.2022.2159365>
- Khin Zaw, Dr. (2001). *Professional Ethics in PhD Program Course Material*.
- Klassen, R. M., Bong, M., Usher, E. L., Chong, W. H., Huan, V. S., Wong, I. Y. F., & Georgiou, T. (2009). Exploring the validity of a teachers' self-efficacy scale in five countries. *Contemporary Educational Psychology*, 34(1), 67–76. <https://doi.org/10.1016/j.cedpsych.2008.08.001>
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. Guilford Press.
- Krizman, C. (2013). *The Relationship between Teachers' Self-Efficacy Beliefs and Parental Involvement Practices: A Multi-Method Study*. Texas Tech University Library. (Doctoral Dissertation, Texas Tech University) Retrieved on 14th October 2024 from <http://hdl.handle.net/2346/50638>
- McLeod, S. A. (2016). *Bandura - social learning theory*. Retrieved on 2nd October from www.simplypsychology.org/bandura.html2.
- MacCallum, R.C., Browne, M.W., and Sugawara, H., M. (1996), "Power Analysis and Determination of Sample Size for Covariance Structure Modeling," *Psychological Methods*, 1(2), 130-49. Retrieved on 22nd July from <http://people.cehd.tamu.edu/~okwok/epsy651R/Articles/MacCallum1996.pdf>
- Ministry of Education. (2016). *National Education Strategic Plan 2016-2021*. Retrieved on 7th August, 2020 from <https://www.unicef.org/myanmar/media/1771/file/National%20Education%20Strategic%20Plan%202016%E2%80%932021.pdf>
- Oakes, W. P., Lane, K. L., Jenkins, A., & Booker, B. B. (2013). Three-tiered models of prevention: Teacher efficacy and burnout. *Education and Treatment of Children*, 36(4), 95–126.
- OECD. (2009). *Creating effective teaching and learning environments: First results from TALIS*. OECD.
- Parvez, M. (2010). *School Administration*. Three Way Printers.
- Pimentel, J. (2019). Some Biases in Likert Scaling Usage and its Correction. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, 45, 183-191.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *The Psychological Monographs*, 80(1), 1–28. <http://dx.doi.org/10.1037/h0092976>
- Ruan, J., Nie, Y., Hong, J., Monobe, G., Zheng, G., Kambara, H., & You, S. (2015). Cross-Cultural Validation of Teachers' Sense of Efficacy Scale in Three Asian Countries: Test of Measurement Invariance. *Journal of Psychoeducational Assessment*, 33(8), 769–779. <https://doi.org/10.1177/0734282915574021>
- Sahile, A. (2013). Relationships among Teachers Sense of Efficacy, Self- Perceptions of the Teaching Roles and Selected Background Characteristics. *Ethiopian Journal of Education and Science*, 9(1), 61-79.
- Shazadi, T., Khatoon, M., Aziz, S., & Hassan, H. (2011). Determining Factors Affecting Teachers' Self-Efficacy at Secondary School Level. *LANGUAGE IN INDIA: Strength for Today and Bright Hope for Tomorrow*, 11(10). 386-395.
- Tschannen-Moran, M., & Hoy, A. W. (2001). *Teacher efficacy: Capturing an elusive construct*. *Teaching and Teacher Education*, 17(7), 783–805. [https://doi.org/10.1016/S0742-051X\(01\)00036-1](https://doi.org/10.1016/S0742-051X(01)00036-1)

Tschannen-Moran, M., & Hoy, A. W. (2007). The differential antecedents of self-efficacy beliefs of novice and experienced teachers. *Teaching and Teacher Education*, 23(6), 944–956. <https://doi.org/10.1016/j.tate.2006.05.003>

Tschannen-Moran, M., Hoy, A. W., & Hoy, W. K. (1998). Teacher Efficacy: Its Meaning and Measure. *Review of Educational Research*, 68(2), 202–248. <http://dx.doi.org/10.3102/00346543068002202>

Woolfolk, A. E., Rosoff, B., & Hoy, W. K. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education*, 6(2), 137–148. [https://doi.org/10.1016/0742-051X\(90\)90031-Y](https://doi.org/10.1016/0742-051X(90)90031-Y)

Authors

Shwe Ye PHYO, Eotvos Lorand University, Budapest (Hungary). E-mail: syp196@student.elte.hu

Phyu Zar Zar THEINT, Yangon University of Education, Yangon (Myanmar). E-mail: phyuzar178@gmail.com

Acknowledgement

Our heartfelt acknowledgements go to all of those who help to complete this work.

Ethical statement

The research was conducted in accordance with ethical principles for medical research involving human subjects at the same time following national and international standards. Furthermore, this study is our own original work, and it is not under consideration anywhere. We agree on the order of the authors and the current manuscript format.

Disclosure

We report no conflict of interest.