

RELATIONSHIP BETWEEN PRINCIPALS' SUPERVISORY BEHAVIOURS AND TEACHERS' EFFICACY

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Abstract

This paper concerns about the relationship between principals' supervisory behaviours and teachers' efficacy. In this study, two instruments were used: *Supervisory Behaviors Survey* developed by Bulach, Boothe and Pickett (1999) to measure principals' supervisory behaviours and *Teachers' Sense of Efficacy Scale* developed by Tschannen-Moran and Woolfolk-Hoy (2001) to measure teachers' efficacy. Mixed-methods study was used for this study. The sample was chosen 238 teachers from seven selected Basic Education High Schools by using purposive sampling method. After collecting the data, descriptive statistics such as means, independent samples *t*-test, one-way analysis of variance (ANOVA), and Pearson product-moment correlation coefficient were calculated by using SPSS. Based on the research findings, there were significant differences in perception of teachers on their principals' supervisory behaviours with respect to their gender, age, positions and teaching experiences but there was no significant difference in principal's supervisory behavior according to academic qualifications of the teachers. Teachers had high levels in three dimensions of efficacy and it was found that there was no significant difference in teachers' efficacy with respect to their gender, age, academic qualifications, positions and teaching experiences. Finally, principal supervisory behaviours was positively and moderately correlated with teacher efficacy ($r=0.441$, $p<0.01$). Based on the findings, this study suggested that if the supervisory behaviours of principals were good, teachers' efficacy would improve in their teaching efficacy.

Keywords: Principals' Supervisory Behaviours, Teachers' Efficacy

Introduction

Schools should strive to produce educated students who will be able to successfully contribute to their own lives, their communities and ultimately, to their nation's growth and success in a global economy. In this end, a country must aim to create quality schools for its children. It is the principal who is one of the fundamental contributors to the school quality (Chapman & Adams, 2002). The principal, as a leader, associate with all elements of a school. A good principal is one who can balance a variety of pressures while never losing sight of his or her values and who inspires and serves the school community (Day, 2000).

To emphasize the important role of the principal, Schiff (2001, p.7, as cited in Alhajeri, 2011) stated simply, "At the heart of every good school is a good principal". The principal "is second only to classroom instruction among all school-related factors that contribute to what students learn at school" (Leithwood, Louis, Anderson, & Wahlstrom, 2004, p. 5). Principal's actions or supervisory behaviours can determine his/her effectiveness. Those foundational behaviours determine the leader's ability to fulfill his/her educational duties (Alhajeri, 2011). Principal leadership consists of having vision and articulation, ordering priorities, getting others to go with him, constantly reviewing what they are doing and holding into things they value.

Teachers as well as principals are important persons to improve their schools. Teachers' beliefs and perceptions are important to govern teachers' actions and decisions in the classroom. One important area of teachers' beliefs that has been linked to teachers' behaviours in the

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classroom is teacher sense of efficacy (Porter & Freeman, 1986, as cited in Alrefaei, 2015). Self-efficacy is defined as “beliefs in one’s capabilities to organize and execute a course of action required to produce a given attainment” (Bandura, 1997: 3, as cited in Murphy, 2013). Teacher efficacy has been a vital component of teacher effectiveness (Henson, Kogan, & Vacha-Haase, 2001, as cited in Gallante, 2015).

Therefore, principals’ supervisory behaviours and teachers’ efficacy are important variables for school effectiveness. The purpose of this study is to investigate teachers’ perceptions of their principals’ supervisory behaviours and their efficacy. The findings of this study may contribute to further studies deals with supervisory behaviours and teacher efficacy. Additionally, the results of this study will be useful and beneficial for educational fields.

Purpose of the Study

The main purpose of this study is to investigate the relationship between principals’ supervisory behaviours and teachers’ efficacy at selected Basic Education High Schools in Magway Township.

Research Questions

The following research questions guide the direction of the study.

- How do teachers perceive their principals’ supervisory behaviours at selected Basic Education High Schools in Magway Township?
- Are there any significant differences in teachers’ perceptions of principals’ supervisory behaviours based on their demographic information (gender, age, academic qualifications, positions and teaching experiences) at selected Basic Education High Schools in Magway Township?
- How do teachers perceive their efficacy at selected Basic Education High Schools in Magway Township?
- Are there any significant differences in teachers’ perceptions of their efficacy based on their demographic information (gender, age, academic qualifications, positions and teaching experiences) at selected Basic Education High Schools in Magway Township?
- Is there any significant relationship between teachers’ perceptions of principals’ supervisory behaviours and their efficacy at selected Basic Education High Schools in Magway Township?

Definitions of Key Terms

Supervisory Behaviours

Supervisory behaviours are the behaviours of principals who promote student learning and the professional growth of teachers (Fraser, 1979).

Self-Efficacy

Self-efficacy refers to an individual’s belief in his/her capacity to execute behaviours necessary to produce specific performance attainments (Bandura, 1977, as cited in Gallante, 2015).

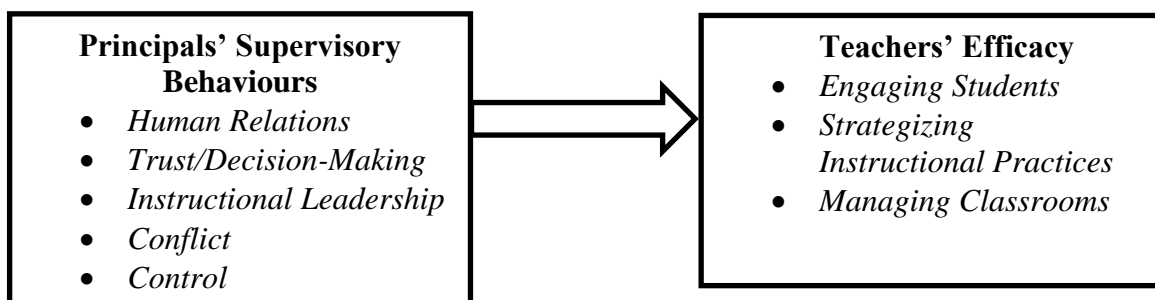
Teacher Efficacy

Teacher efficacy refers to teachers' beliefs in their ability to bring about necessary results (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 2001, as cited in Gallante, 2015).

Conceptual Framework

Supervisory Behaviors Survey developed by Bulach et al. (1999, as cited in Gallante, 2015) was based on great man, trait, transformational, transactional and situational leadership theories to measure principals' supervisory behaviours. It was comprised the following dimensions: (1) Human Relations, (2) Trust/ Decision-Making, (3) Instructional Leadership, (4) Conflict and (5) Control.

Teachers' Sense of Efficacy Scale developed by Tschannen-Moran and Woolfolk-Hoy (2001, as cited in Gallante, 2015) was based on Bandura's social cognitive theory to measure teachers' efficacy. It was constituted of the following dimensions: (1) Engaging Students, (2) Strategizing Instructional Practices and (3) Managing Classrooms.



Source: Adapted from Gallante, P.E. (2015)

Figure 1 Conceptual Framework

Review of Related Literature

Supervisory behaviours of principals fall into five major dimensions (Bulach, Boothe, & Pickett, 1999, as cited in Gallante, 2015).

1. **Human Relations** – Human relations refer to those behaviours that fulfill teachers' needs. Human relation is an area that fosters the improvement of self-assurance and openness between the leader and the follower. Positive human relations include skills such as calling people by name, using eye contact, having a caring attitude, interacting with staff and including staff in decision-making (Bulach et al., 1999, as cited in Gallante, 2015).
2. **Trust/ Decision-Making** – Trust/decision-making refers to which degree principal entrusts his/ her staff to work autonomously and his/her making-decision skills. Trust/decision-making skills include listening to both sides of a story, not gossiping, and carefully thinking through decisions (Bulach et al., 1999, as cited in Gallante, 2015).
3. **Instructional Leadership** – Instructional leadership refers to principal's ability to guide teachers pedagogically. Instructional leadership skills involve vision, knowledge of curriculum, accountability and feedback (Bulach et al., 1999, as cited in Gallante, 2015).
4. **Conflict** – Conflict refers to those behaviours that used to avoid conflict. Conflict refers to behaviours such as being afraid to question superiors, assigning responsibility elsewhere

instead of dealing with an issue, showing favouritism and having double standards (Bulach et al., 1999, as cited in Gallante, 2015).

5. **Control** – Control refers to those behaviours that control duties. Control refers to behaviours such as principals sending a message that teachers and buildings belong to them, assigning a duty during a preparation period, assigning too much paperwork and using the words I and my too often (Bulach et al., 1999, as cited in Gallante, 2015).

Teacher efficacy falls into three major dimensions (Tschannen-Moran & Woolfolk-Hoy, 2001, as cited in Gallante, 2015).

1. **Engaging Students** – Engaging students refer to teacher behaviours that show how much the teacher is willing to do to engage students, help them think critically and motivate them to show an interest in learned (Tschannen-Moran et al., 2001, cited in Gallante, 2015).
2. **Strategizing Instructional Practices** – Strategic instructional practices refers to behaviours that show how well a teacher can respond to difficult questions, gauge student comprehension of what is being taught and craft good questions for their students (Tschannen-Moran et al., 2001, cited in Gallante, 2015).
3. **Managing Classrooms** – Managing classrooms refers to how well a teacher can control disruptive behaviour in the classroom, make clear the expectations for student behaviour and establish routines so activities run smoothly (Tschannen-Moran et al., 2001, cited in Gallante, 2015).

Methodology

Research Method

Quantitative (Questionnaires survey) research method was used in this study.

Population and Sample

This study focused on all Basic Education High Schools in Magway Township. In Magway Township, there are 21 Basic Education High Schools. Among these schools, schools in which principals have at least one year in current schools were selected as sample schools. Similarly, teachers who have at least one year in current schools were selected as participants because they can know well about principals of those schools. According to two criteria, 238 teachers from 11 high schools were used for this study. Among those schools, four selected high schools in Magway Township were chosen for the pilot testing and the remaining seven selected high schools were used for the main study. Teacher sample consists of 204 teachers at different levels (primary, junior and senior teachers) in seven selected high schools.

Research Instruments

In this study, two instruments were used: *Supervisory Behaviors Survey* developed by Bulach, et al. (1999, as cited in Gallante, 2015) and *Teachers' Sense of Efficacy Scale* developed by Tschannen-Moran and Woolfolk-Hoy (2001, as cited in Gallante, 2015). The first instrument comprised of five dimensions which represents 48 items. The second instrument constituted of three dimensions which covers 24 items. Both instruments have 5-point Likert scale which represent 1. Never, 2. Seldom, 3. Sometimes, 4. Often and 5. Always. Reliability coefficient (Cronbach alpha) of *Supervisory Behaviors Survey* was 0.73 and that of *Teachers' Sense of Efficacy Scale* was 0.79.

Data Collection

Before field testing the instrument with a sample of teachers, two instruments were revised by a panel of experts. Out of selected high schools in Magway Township, four selected high schools were chosen for the pilot testing. Questionnaire was sent to schools on October 15, 2018 and collected them after one week. The preliminary instrument was tested by 79 teachers representing four selected high schools. In the main study, questionnaires were distributed to teachers at seven selected high schools in Magway Township on November 5 and 6, 2018 and collected them after one week.

Data Analysis

The collected data were coded, categorized and analyzed by using SPSS. Both descriptive and inferential statistics were used to analyze principals' supervisory behaviours and teachers' efficacy.

Research Findings

Based on the data analysis, teachers' perception of principal supervisory behaviours and teacher efficacy and the relationship between these two concepts were explored.

Table 1 Mean Values for Principals' Supervisory Behaviours Perceived by Teachers in Selected High Schools

Schools Dimensions	S 1	S 2	S 3	S 4	S 5	S 6	S 7	All Teachers (N=204)
Human Relations	4.09	3.71	4.10	4.04	3.96	4.39	3.96	4.01
Trust/ Decision-Making	4.26	4.16	4.29	4.22	4.23	4.57	4.06	4.24
Instructional Leadership	4.39	3.94	4.31	4.24	4.16	4.40	4.01	4.21
Conflict	4.21	4.11	4.39	4.24	4.03	4.54	4.10	4.22
Control	3.60	4.04	4.03	3.95	3.82	4.14	3.76	3.89
Principals' Supervisory Behaviours	4.14	3.97	4.22	4.14	4.05	4.42	3.98	4.12

Scoring: 1.00-1.49=Never, 1.50-2.49=Seldom, 2.50-3.49=Sometimes, 3.50-4.49=Often, 4.50-5.00=Always

According to Table 1, it was found that principals from seven selected high schools (S1, S2, S3, S 4, S5, S6 and S7) **often** practiced all supervisory behaviours such as "Human Relations", "Trust/ Decision- Making", "Instructional Leadership", "Conflict ", and "Control" according to the perceptions of teachers.

Table 2 Independent Samples *t*-Test Results for Principals' Supervisory Behaviours Perceived by Teachers according to Male and Female Teachers

Principals' Supervisory Behaviors	Gender	N	\bar{X}	SD	<i>t</i>	<i>df</i>	<i>p</i>	Mean Difference
Human Relations	Male	21	3.90	.739	-.787	202	.432	-.120
	Female	183	4.02	.655				
Trust/ Decision-Making	Male	21	4.11	.672	-1.149	202	.252	-.146
	Female	183	4.26	.538				
Instructional Leadership	Male	21	3.95	.778	-1.844	202	.067	-.292
	Female	183	4.24	.676				
Conflict	Male	21	3.98	.833	-1.416	22.34	.171	-.265
	Female	183	4.24	.587				
Control	Male	21	3.55	.755	-2.542	202	.012*	-.379
	Female	183	3.93	.634				
Principals' Supervisory Behaviours	Male	21	3.92	.671	-1.462	22.61	.158	-.221
	Female	183	4.14	.500				

Note: * $p < .05$

In order to study whether there was a significant difference in principals' supervisory behaviours between the perceptions of male and female teachers or not, independent samples *t*-test was employed to analyze the data (See: Table 2). According to Table 2, it was found that there was a statistically significant difference in perceptions of teachers on one of their principals' supervisory behavior, "Control". The perception of female teachers ($\bar{X} = 3.93$) was higher than male teachers ($\bar{X} = 3.55$) in their principals' ability of "Control" behaviour.

Table 3 Mean Values for Principals' Supervisory Behaviours Perceived by Teachers according to Their Age

Age	Human Relations	Trust/Decision Making	Instructional Leadership	Conflict	Control	Principals' Supervisory Behaviours
<25	4.09	4.06	4.25	4.19	4.19	4.15
25-29	4.26	4.50	4.42	4.40	3.98	4.33
30-34	4.22	4.39	4.17	4.47	3.97	4.25
35-39	3.93	4.05	4.12	4.07	3.62	3.97
40-44	4.28	4.42	4.42	4.43	3.92	4.31
45-49	4.11	4.29	4.32	4.29	3.94	4.20
50-54	3.78	4.14	3.97	4.01	3.92	3.96
55 >	3.84	4.14	4.17	4.14	3.78	4.01
Total	4.01	4.24	4.21	4.22	3.89	4.12

Scoring: 1.00-1.49=Never, 1.50-2.49=Seldom, 2.50-3.49=Sometimes, 3.50-4.49=Often, 4.50-5.00=Always

According to Table 3, it was found that principals in selected high schools **often** practiced all supervisory behaviours in their schools from the perceptions of teachers from different age levels.

In order to study whether or not there was a significant difference in principals' supervisory behaviours perceived by teachers according to their age, one-way analysis of variance (ANOVA) was employed to analyze the data (See: Table 4).

Table 4 ANOVA Results for Principals' Supervisory Behaviours Perceived by Teachers according to Their Age

Dimensions		Sum of Squares	df	Mean Square	F	p
Human Relations	Between Groups	8.001	7	1.143	2.756	.009
	Within Groups	81.285	196	.415		
	Total	89.285	203			
Trust/Decision Making	Between Groups	3.837	7	.548	1.846	.081
	Within Groups	58.199	196	.297		
	Total	62.035	203			
Instructional Leadership	Between Groups	5.558	7	.794	1.705	.110
	Within Groups	91.255	196	.466		
	Total	96.812	203			
Conflict	Between Groups	5.455	7	.779	2.105	.045
	Within Groups	72.564	196	.370		
	Total	78.019	203			
Control	Between Groups	2.319	7	.331	.765	.617
	Within Groups	84.879	196	.433		
	Total	87.198	203			
Principals' Supervisory Behaviours	Between Groups	4.249	7	.607	2.329	.026
	Within Groups	51.089	196	.261		
	Total	55.338	203			

Note: * $p < .05$

According to the findings, it was found that there were significant differences in two principals' supervisory behaviours, "Human Relations" and "Conflict", and overall "Principals' Supervisory Behaviours" from the perceptions of teachers from different age levels.

Table 5 Results of Multiple Comparison for Principals' Supervisory Behaviours Perceived by Teachers according to their Age

Principals' Supervisory Behaviours	Age (I)	Age (J)	Mean Difference (I-J)	Std. Error	p
Human Relations	40-44	50-54	0.495*	0.144	0.016
Conflict	40-44	50-54	0.419*	0.136	0.047

Note: * $p < .05$

In order to find out which particular groups had the greatest differences, Post Hoc Multiple Comparison Tests (Tukey HSD) was calculated (See: Table 5). According to Table 5, it was found that there were significant differences in perceptions of "Human Relations" and

"Conflict" behaviours between teachers who were 40-44 years old and teachers who were 50-54 years old.

Table 6 Mean Values for Principals' Supervisory Behaviours Perceived by Teachers according to Their Positions

Positions	Human Relations	Trust/ Decision Making	Instructional Leadership	Conflict	Control	Principals' Supervisory Behaviours
Primary	4.16	4.32	4.31	4.41	4.10	4.25
Junior	3.86	4.18	4.16	4.11	3.79	4.02
Senior	4.13	4.29	4.23	4.27	3.93	4.18
Total	4.01	4.24	4.21	4.22	3.89	4.12

Scoring: 1.00-1.49=Never, 1.50-2.49=Seldom, 2.50-3.49=Sometimes, 3.50-4.49=Often, 4.50-5.00=Always

The results shown in Table 6 pointed that principals in selected high schools **often** practiced supervisory behaviours in their schools from the perceptions of primary teachers, junior teachers and senior teachers.

In order to investigate whether or not there was a significant difference in principals' supervisory behaviours according to their positions, one-way analysis of variance (ANOVA) was used to analyze the data (See: Table 7). According to the findings, it was found that there were statistically significant differences in two principals' supervisory behaviours, "Human Relations" and "Conflict", and overall "Principals' Supervisory Behaviours" from the perceptions of teachers from different positions.

Table 7 ANOVA Results for Principals' Supervisory Behaviours Perceived by Teachers according to Their Positions

Principals' Supervisory Behaviours		Sum of Squares	df	Mean Square	F	p
Human Relations	Between Groups	3.886	2	1.943	4.573	.011
	Within Groups	85.399	201	.425		
	Total	89.285	203			
Trust/Decision Making	Between Groups	.723	2	.361	1.185	.308
	Within Groups	61.312	201	.305		
	Total	62.035	203			
Instructional Leadership	Between Groups	.555	2	.278	.580	.561
	Within Groups	96.257	201	.479		
	Total	96.812	203			
Conflict	Between Groups	2.437	2	1.218	3.240	.041
	Within Groups	75.582	201	.376		
	Total	78.019	203			
Control	Between Groups	2.272	2	1.136	2.689	.070
	Within Groups	84.926	201	.423		
	Total	87.198	203			
Principals' Supervisory Behaviours	Between Groups	1.695	2	.847	3.175	.044
	Within Groups	53.643	201	.267		
	Total	55.338	203			

Note: * $p < .05$

In order to find out which particular groups had the greatest differences, Post Hoc Multiple Comparison Tests (Tukey HSD) was calculated (See: Table 8).

Table 8 Results of Multiple Comparison for Principals' Supervisory Behaviours Perceived by Teachers according to their Positions

Principals' Supervisory Behaviours	Position (I)	Position (J)	Mean Difference (I-J)	Std. Error	<i>p</i>
Human Relations	Senior	Junior	0.269*	0.099	0.020

Note: * $p < .05$

According to Table 8, it was found that there was a significant difference between perceptions of senior teachers and junior teachers on "Human Relations" behaviour. In other words, the perceptions of senior teachers indicated that their principals more practiced "Human Relations" behaviour than the perceptions of junior teachers.

Table 9 Mean Values for Principals' Supervisory Behaviours Perceived by Teachers according to Their Teaching Experiences

Teaching Experiences	Human Relations	Trust/ Decision Making	Instructional Leadership	Conflict	Control	Principals' Supervisory Behaviours
below 5	4.16	4.39	4.34	4.30	4.04	4.25
5-9	4.26	4.45	4.32	4.49	4.13	4.33
10-14	4.28	4.39	4.36	4.44	3.98	4.30
15-19	4.07	4.23	4.39	4.30	3.72	4.16
20-24	3.99	4.26	4.31	4.30	3.92	4.15
25-29	3.90	4.16	4.06	3.96	3.84	3.99
30 and above	3.83	4.14	4.07	4.11	3.84	3.99
Total	4.01	4.24	4.21	4.22	3.89	4.12

Scoring: 1.00-1.49=Never, 1.50-2.49=Seldom, 2.50-3.49=Sometimes, 3.50-4.49=Often, 4.50-5.00=Always

Table 9 presents the mean values for principals' supervisory behaviours perceived by teachers according to their teaching experiences. The results shown in Table 9 showed that principals in selected high schools **often** practiced all supervisory behaviours from the perceptions of teachers from different groups of teaching experiences.

In addition, one-way analysis of variance (ANOVA) was used to analyze the data in order to study whether or not there were any significant differences in principals' supervisory behaviours perceived by teachers according to their teaching experiences.

Table 10 ANOVA Results for Principals' Supervisory Behaviours Perceived by Teachers according to Their Teaching Experiences

Principals' Supervisory Behaviours		Sum of Squares	df	Mean Square	F	p
Human Relations	Between Groups	6.223	6	1.037	2.460	.026
	Within Groups	83.062	197	.422		
	Total	89.285	203			
Trust/Decision Making	Between Groups	2.447	6	.408	1.349	.237
	Within Groups	59.588	197	.302		
	Total	62.035	203			
Instructional Leadership	Between Groups	4.156	6	.693	1.473	.189
	Within Groups	92.656	197	.470		
	Total	96.812	203			
Conflict	Between Groups	5.866	6	.978	2.669	.016
	Within Groups	72.153	197	.366		
	Total	78.019	203			
Control	Between Groups	2.029	6	.338	.782	.585
	Within Groups	85.169	197	.432		
	Total	87.198	203			
Principals' Supervisory Behaviours	Between Groups	3.555	6	.593	2.254	.040
	Within Groups	51.783	197	.263		
	Total	55.338	203			

Note: * $p < .05$

According to the findings, it was found that there were statistically significant differences in two principals' supervisory behaviours, "Human Relations" and "Conflict", and overall "Principals' Supervisory Behaviours" among the perceptions of teachers from different groups of teaching experiences.

In order to find out which particular groups had the greatest differences, Post Hoc Multiple Comparison Tests (Tukey HSD) was calculated (See: Table 11).

Table 11 Results of Multiple Comparison for Principals' Supervisory Behaviours Perceived by Teachers according to their Teaching Experiences

Principals' Supervisory Behaviours	TE (I)	TE (J)	Mean Difference (I-J)	Std. Error	p
Human Relations	10-14	30 and above	0.451*	0.133	0.015
Conflict	10-14	25-29	0.480*	0.146	0.020

Note: * $p < .05$

According to Table 11, it was found that there were significant differences in principals' supervisory behaviours such as "Human Relations" behaviour and "Conflict" behaviour. In the supervisory behaviour of "Human Relations", there was a significant difference between the perceptions of teachers who had 10-14 years of teaching experiences and teachers who had 30 and above years of teaching experiences. Similarly, there was a significant difference between teachers who had 10-14 years of teaching experiences and teachers who had 25-29 years of teaching experiences in the supervisory behaviour of "Conflict".

Table 12 Mean Values for Teachers’ Efficacy Perceived by Teachers in Selected High Schools

Schools Dimensions	S1	S2	S3	S4	S5	S6	S7	Teachers (N=204)
Engaging Students	4.37	3.87	4.10	4.05	4.11	4.18	3.95	4.10
Strategizing Instructional Practices	4.44	3.88	4.07	4.22	4.15	4.12	3.95	4.15
Managing Classrooms	4.51	3.83	4.04	4.25	4.02	4.02	3.39	4.10
Teachers’ Efficacy	4.44	3.86	4.07	4.18	4.10	4.11	3.77	4.12

Scoring: 1.00-2.33=Low Level, 2.34-3.67= Moderate Level, 3.68-5.00= High Level

According to Table 12, it was found that teachers in seven selected high schools (S1, S2, S3, S4, S5, S6 and S7) had high level of efficacy in “Engaging Students”, “Strategizing Instructional Practices”, “Managing Classrooms” and overall “Teachers’ Efficacy”. Among all those schools, it was found that teachers from S1 had the highest mean values for their efficacy because they were powerful and had high level of efficacy in overall “Teachers’ Efficacy”. On the other hand, teachers from S7 had the lowest mean values for their efficacy among selected schools because they had moderate level of efficacy in overall “Teachers’ Efficacy”.

In order to find out whether or not there were any significant differences in their efficacy according to their gender or not, independent samples *t*-test was employed to analyze the data. However, it was found that there were no statistically significant differences in all components of teachers’ efficacy rated by male and female teachers.

Table 13 Mean Values for Teachers’ Efficacy Perceived by Teachers According to Their Age

Age	Means	Engaging Students	Strategizing Instructional Practices	Managing Classrooms	Teachers’ Efficacy
Below 25	\bar{X}	3.60	3.85	3.65	3.70
25-29	\bar{X}	4.21	4.28	4.19	4.22
30-34	\bar{X}	3.83	3.86	3.75	3.81
35-39	\bar{X}	4.16	4.31	4.14	4.20
40-44	\bar{X}	4.21	4.28	4.29	4.26
45-49	\bar{X}	4.19	4.14	4.20	4.18
50-54	\bar{X}	3.97	4.02	3.93	3.98
55 and above	\bar{X}	4.17	4.23	4.17	4.19
Total	\bar{X}	4.10	4.15	4.10	4.12

Scoring: 1.00-2.33=Low Level, 2.34-3.67= Moderate Level, 3.68-5.00= High Level

In order to study whether there was a significant difference in their efficacy according to their age or not, one-way analysis of variance (ANOVA) was employed to analyze the data, but it was found that there were no significant differences according to their age.

Table 14 Mean Values for Teachers' Efficacy Perceived by Teachers According to Their Positions

Positions	Means	Engaging Students	Strategizing Instructional Practices	Managing Classrooms	Teachers' Efficacy
Primary	\bar{X}	4.13	4.02	3.81	3.99
Junior	\bar{X}	4.03	4.13	4.10	4.08
Senior	\bar{X}	4.18	4.23	4.22	4.21
Total	\bar{X}	4.10	4.15	4.10	4.12

Scoring: 1.00-2.33=Low Level, 2.34-3.67= Moderate Level, 3.68-5.00= High Level

In addition, one-way analysis of variance (ANOVA) was employed in order to study whether there was a significant difference in teachers' efficacy according to their positions. However, it was found that there were no significant differences in all components of teachers' efficacy (Table 15).

Table 15 Mean Values for Teachers' Efficacy Perceived by Teachers According to Their Teaching Experiences

Teaching Experiences	Means	Engaging Students	Strategizing Instructional Practices	Managing Classrooms	Teachers' Efficacy
Below 5	\bar{X}	4.03	4.11	3.98	4.04
5-9	\bar{X}	3.86	3.99	3.85	3.90
10-14	\bar{X}	4.17	4.19	4.20	4.18
15-19	\bar{X}	4.21	4.28	4.33	4.28
20-24	\bar{X}	4.13	4.12	3.96	4.07
25-29	\bar{X}	3.96	4.00	3.94	3.97
30 and above	\bar{X}	4.14	4.21	4.17	4.17
Total	\bar{X}	4.10	4.15	4.10	4.12

Scoring: 1.00-2.33=Low level, 2.34-3.67= Moderate Level, 3.68-5.00= High Level

Table 15 describes mean values and standard deviations for teachers' efficacy perceived by teachers according to their teaching experiences.

In addition, one-way analysis of variance (ANOVA) was used to analyze the data in order to study whether there were significant differences in teachers' efficacy according to their teaching experiences or not, and it was found that there were no significant differences in all components of teachers' efficacy.

To investigate the relationship between teachers' perceptions of principal supervisory behaviours and teacher efficacy, the Pearson-product moment correlation coefficient was utilized (See: Table 16). Table 16 presents relationship between principal supervisory behaviours and teacher efficacy.

Table 16 Relationship between Principal Supervisory Behaviours and Teacher Efficacy

No.	Variables	1	2
1.	Overall Principals' Supervisory Behaviours	1	.441**
	Sig. (2-tailed)		.000
2.	Overall Teachers' Efficacy	.441**	1
	Sig. (2-tailed)	.000	

Note:** Correlation is significant at the level of 0.01 level (2-tailed)

According to Table 16, it was found that principals' supervisory behaviours were significantly related to teachers' efficacy ($r=0.441$, $p<0.01$). According to Gay (2003), this correlation implied that a moderate and significant relationship existed between principals' supervisory behaviours and teachers' efficacy in selected high schools. Therefore, it can be concluded that most of the sample schools had positive on principals' supervisory behaviours and it was significantly related to teachers' efficacy.

Conclusion, Discussion and Recommendation

The predictor variables were the supervisory behaviours practiced by principals: Human Relations, Trust/ Decision Making, Instructional Leadership, Conflict and Control. The criterion variables were the effect those behaviours had on teacher efficacy: Engaging Students, Strategizing Instructional Practices and Managing Classrooms at selected high schools in Magway Township.

All principals in seven selected high schools (S 1, S 2, S 3, S 4, S 5, S 6 and S 7) often practiced supervisory behaviours: Human Relations, Trust/ Decision-Making, Instructional Leadership, Conflict and Control from the perspectives of teachers. Among all these schools, principal of S 6 more practiced supervisory behaviours because teachers in S 6 had the highest mean values in all dimensions of supervisory behaviours. But principal of S 2 least practiced supervisory behaviours among all these schools because teachers in S 2 had the lowest mean values in Human Relations and Instructional Leadership.

Again, when analyzing whether there were any significant differences in principals' supervisory behaviours perceived by teachers according to their demographic information (gender, age, academic qualifications, positions and teaching experiences), it was found that there were significant differences in gender, age, positions and teaching experiences from the perceptions of teachers. But, it was found that there was no significant difference according to academic qualifications of teachers.

Teachers had high level of efficacy such as Engaging Students, Strategizing Instructional Practices and Managing Classrooms in the perceptions of teachers themselves in seven selected high schools (S 1, S 2, S 3, S 4, S 5, S 6 and S 7). Among all these schools, it was found that teachers in S 1 had the highest mean values for their efficacy because teachers in S 1 were powerful and had high level of efficacy in all dimensions such as engaging students, strategizing instructional practices and managing classrooms. But teachers in S 7 had the lowest mean values for their efficacy because teachers in S 7 had moderate level of efficacy in Managing Classrooms. The responses of the participants on teacher efficacy indicated that they perceived themselves as having high levels of efficacy. The fact teachers' efficacy was found to be high. So, they had a high efficacy that adequate knowledge and skills of effective teaching behaviours with respect to student engagement, instructional strategies and classroom management.

When investigating whether there were significant differences in teacher efficacy perceived by themselves according to their demographic information (gender, age, academic qualifications, positions and teaching experiences), it was found that there were no significant differences according to gender, age, positions, academic qualifications and teaching experiences.

It was found that there was a moderate and significant relationship ($r=0.441$, $p<0.01$) between principals' supervisory behaviours and teachers' efficacy in selected high schools. According to Calik et al. (2012, as cited in Gallante, 2015), more inquiry about teachers' self-efficacy, and principals' leadership behaviours that affect teacher efficacy is needed. Apart from being, teacher efficacy is one of the most important roles of the principal (Walker & Slear, 2011, as cited in Gallante, 2015).

Additionally, open-ended questions and interview questions to get the most specific information of principals' supervisory behaviours and teachers' efficacy were asked in selected high schools. Qualitative results regarding principals' supervisory behaviours and teachers' efficacy, principals in selected high schools practiced various types of supervisory behaviours according to different situations. But some principals had less effort in practicing control behaviour. And then, teachers had a high sense of efficacy within their daily practice. Similarly, teachers expressed a high sense of efficacy in their daily teaching. Teachers felt most confident in their instructional strategies.

Therefore, findings of principals' supervisory behaviours and teachers' efficacy were in line with the findings of quantitative study.

According to this research, these findings showed the importance of supervision in education. Principals must know that their behaviours impact teachers' efficacy. Principals have to believe that they play a significant role in their school's success or failure and must realize their behaviours can influence teachers' efficacy. The educational community must focus on supervisory behaviours that may increase teacher efficacy.

If the level of teacher efficacy becomes one of the standards for teacher accreditation, it would be helpful for leaders to develop behaviours that support to create the teacher efficacy.

The opinions of teachers about their principals' behaviours are very important. This will enhance the relationship between teachers and principals and improve the behaviours of principals. These findings pointed that principals' supervisory behaviours and teachers' efficacy were significant even with a small sample. Using these findings to better prepare future educators and educational leaders will create better educational community for students.

Therefore, it can be concluded that if the supervisory behaviours of principals were good, teachers' efficacy would improve in their teaching. These findings suggested that supervisory behaviours in the leadership model proposed by Bulach et al. (1999, as cited in Gallante, 2015) are useful in identifying behaviours that influence teacher efficacy and it should be used as a basis for further research as well as practical application.

Recommendation for Further Research

According to the findings of the study, the following recommendations may be advised for further research.

1. More research concerned with principals' supervisory behaviours and teachers' efficacy should be further conducted in basic education primary schools and middle schools, other Townships, States or Regions and Colleges and University of our country, Myanmar.

2. Replicating this study with larger sample size would increase the statistical data of the results. The number of teachers that are included in the study should be increased and could include participants from a larger geographical area.
3. Further research should explore differences in teachers' perceptions based on a variety of demographic factors than those used in this study.
4. Educators have to aware that the educational process depends on multiple factors. So, further research should be conducted similar studies with different variables.

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