

Predictor Factors for Collective Leadership: A Case of Secondary Schools

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Abstract

The purpose of this paper was to study the factors predicting collective leadership in Malaysian secondary schools in Kuala Lumpur. The survey method is used to measure the variables, which influences collective leadership practices among 402 respondents from 103 government secondary schools in Kuala Lumpur. The findings utilized the inferential analysis – regression. The results show that school culture and sources of leadership efficacy are predictors for collective leadership. This Study focused on teachers from secondary government schools therefore results of this study cannot be projected liberally. The findings of the study supports the social exchange theory, which explains the relationship between the variables, studied. In addition, the findings of the research collaborate with Bandura's (1986) theory with leadership elements. This paper introduces a new paradigm in research into sources of leadership efficacy and the concept of collective leadership.

Keywords: Collective Leadership, Source Of Leadership Efficacy, School Culture, Secondary School Teachers

Introduction

A relatively narrow but fundamental perspective on leadership because its focus is on combined effects for all stakeholders (Leithwood & Louis, 2012) – is how collective leadership is aptly described as it slowly gains popularity in educational institutions today. It is not about just the leader being a leader but it is about a leader who can distribute leadership to subordinates without losing the element of the overall leadership and garnering the dynamism of teamwork. Thus far, most research on collective leadership is focused in the context outside Asia and its development in this region is fairly recent. Rahimah and Ghavifekr (2014) in their research, found that currently, leadership is about vitality, flexibility, innovativeness, sharing of power and authority and intensifying the leadership capacity of all stakeholders. This is clearly in line with Malaysian Education Blueprint 2013-2025, which encourages teamwork, thus paving the way for collective leadership, which can enhance teamwork effectively. Rabindarang, Khuan and Khoo (2015) in their study emphasized that

good relationships among leaders and workers give a positive impact for the organization's effectiveness. Rosnarizah and Hussein (2015) quotes Harris (2002) who stated, trends in educational leadership now no longer see the principal shoulder all responsibilities (as) it is more focused on how to create a culture of accountability and learning as well developing school leadership capabilities. This is in support of research carried out by Rosnarizah and Zulkifli (2009), which found that collaborative styled leadership, prevailed in high schools in Malaysia. Thus, collective leadership creates a collectivistic belief about capability among its followers.

The first pertinent determinant to collective leadership involves the variable of sources of leadership efficacy. According to Bandura (1997), through his social cognitive theory, efficacy is the perception of teachers in a school; that the efforts of the faculty as a whole will have a positive effect on the organization. This belief is embedded in Bandura's (1997) social cognitive theory, which carries the idea that cognitive processes mediate change but that cognitive events are induced and altered most readily by experience of mastery arising from effective performance. This enables the idea of sources of leadership efficacy which is a specific form of efficacy corresponding with the level of confidence in the knowledge, skills and abilities associated with leading others (Hannah et. al., 2008).

The significance and prominence of sources leadership efficacy in the field of leadership have prompted researchers to extend their investigation into the four elements, which are performance accomplishment, vicarious experience, social persuasion and emotional arousal. Sources of leadership efficacy in teachers is pivotal in the exercise of leadership in schools. Efficacious teachers review their experiences more adaptively, plan and organize more effectively and are more resilient when faced by obstacles compared with teachers with lower sources of leadership efficacy (Tschannen-Moran et.al., 1998; Woolfolk Hoy & Davies, 2006). Sources of leadership efficacy have been found to predict the effort teachers put forward, how efficiently they stand tenacious in facing challenges, how well teachers monitor and motivate themselves to attain what they achieve and what options they choose in life; and all these point to the reasons why researchers study how efficacy influences the motivation and behaviour of individuals in an academic setting (Pjares, 2002).

The attainment of optimum collective leadership skills and sources of leadership efficacy can only be engineered through a positive school culture. The elements of leadership, efficacy and school culture must work together for improved leadership performance. Researchers have highlighted that these elements have a compounding effect on school. The 'Global Leadership and Organizational Behaviour Effectiveness' (GLOBE) report underlined that school culture influences leadership and that culture takes the place of primacy in work on leadership (House & Javidan, 2004). Further, scholars have also noted that effective school leadership is contingent on a thorough understanding of school culture (Leithwood & Jantzi, 2008; Peterson & Deal, 2002; Fullan, 2001; Sergiovanni, 2000; Deal & Peterson, 1999). The relationship between school culture and efficacy is also found to have compounding effects of positively influencing leadership (McLeod, 2012).

School culture is defined as the system of basic assumptions, norms and values as well as the cultural artefacts which are shared by school members and influence their functioning at school (Bolman & Deal, 2013; Maslowski, 2006; Van Houtte, 2005; Cox, 1993). Jerald (2006)

assumed an easier understanding; to mean the relationship between the administration and the teachers, teachers and teachers, teachers and students and students and students, in addition to the school's interaction with the community and other stakeholders. How things are attained in an organization sets the order for the culture of a school, hence it facilitates or inhibits the development of teachers in a professional learning organization (Chapman & Gregory, 2013).

Statement of Problem

Leadership is the foundation to excellent management in any institution. Teachers and the administration play equal roles to manifest the leadership roles they take on, creating an ideal situation in educational institutions. However, the actual situation in educational institutions is one where teachers find difficulty to ascertain domains that are core to leadership. In addition, leadership is dismissed for yet another label of ongoing staff development. Also, in some cases, leadership capability in teachers is undermined, for insecurity issues present within the administration. Thus, studying the aspect of sources of leadership efficacy and analyzing school culture and its dominant effect on collective leadership in Kuala Lumpur secondary schools will enhance knowledge into the pertinence of having these aspects as leaders amongst the teaching fraternity.

Previous studies usually lay focus on other types of leadership but presently, the idea of leadership that is gaining momentum is collective leadership. Ni et.al. (2017) report in their research that knowledge on collective leadership is very limited.

There is also a lack of studies on collective leadership involving teachers in Malaysia. This is why this study sets out to discover the status of collective leadership and its correlation with sources of leadership efficacy and school culture.

Objectives of this Study

The research objective is to determine factors predicting collective leadership among secondary school teachers.

Methodology and Data Analysis

This study utilizes the survey method. The target population for this study is secondary government school teachers while the accessible population would be secondary school teachers in chosen locations, by zone, in Kuala Lumpur. A total of 402 secondary school teachers participated in this study. To determine the population for this study, several past studies were referred to. In the study of Kuala Lumpur teachers carried out by Iyer (2008), collegiality and cooperation were the third and fourth choices reflected in the perception of teamwork as a reflection of efficacy in effective schools. This study and a few others more, stirred an interest to study the contribution of sources of efficacy in leadership among the teachers within Kuala Lumpur schools. Since the population of teachers for this study is spread across Kuala Lumpur, a random cluster sampling method was used to select the samples for this particular study. This study was carried out among 103 government secondary schools in Kuala Lumpur. The schools selected were spread across three zones, namely Bangsar/Pudu, Keramat and Sentul.

The collective leadership instrument used in this study derived from Education leadership a survey designed by Leithwood (2012), which consists of 13-items. Meanwhile, sources of

leadership efficacy was measured using a 13-item survey that was adapted from Usher (2006) who designed the original instrument based on Bandura (1997). Finally school culture was measured using a 24-item survey that was designed by Gruenert & Valentine (1998). The constructs were later translated to Bahasa Melayu for better understanding of the subjects and were measured using the 5-point Likert scale. All items for the survey, used scales ranging from (1) Strongly Disagree (2) Disagree (3) Moderately Disagree (4) Agree (5) Strongly Agree. All three instruments were consolidated into a formal questionnaire and reviewed by the local experts as a process of instrument content validation. The pilot test was carried out in all three districts of Kuala Lumpur – Bangsar/Pudu, Keramat and Sentul, as per the actual study. A total of 30 teachers were randomly selected, 10 from each district, for the pilot test. Below are the results of the pilot test and actual study, presented in Table 1. With reference to Table 1, the Cronbach Alpha reading for each instrument was more than 0.7 for the pilot test and the actual study. Given that the reliability scales are supported sufficiently, the statistical analysis could be conducted with conviction (George & Mallery, 2003).

Table 1

Reliability Analysis of the Instrument (Alpha Coefficient) for the Actual and Pilot Study

Section	Instrument	No. of Items	Pilot Study (n = 30)	Actual Study (n = 402)
B	Collective leadership	13	0.721	0.810
C	Sources of efficacy and collective leadership	13	0.743	0.890
D	School culture and collective leadership	24	0.871	0.940

The following section synthesizes the findings of this study.

Research Finding

Contribution of Sources of Leadership and School Culture Efficacy towards Collective Leadership

A multiple regression was performed to answer the objective of the research which is to determine the most dominant factor influencing collective leadership among the respondents. From the regression analysis, it was found that both variables were significantly found to predict collective leadership since the p value for those variables were less than α value 0.05. Those variables are sources of leadership efficacy and school culture. Since the two variables values are positive, this indicates that there are positive relationships between the variables and outcome.

The R^2 obtained was 0.372 which indicates 37.2% variation in collective leadership which is explained by the independent variables. From this result, it can be concluded that sources of leadership efficacy and school culture contribute 37.2% towards the collective leadership.

The regression model fits the data since the ANOVA result shows that F value was large ($F = 27.167$, $p < 0.000$). This shows that the slope for estimate linear regression line was not equal to zero. This confirmed that there was a linear relationship between the predictors and the dependent variables.

Thus, when source of leadership efficacy is exercised in schools, it will increase the level of collaborative leadership in that school. If the effects of all the other variables were held constant, the b-value show that Sources of Leadership Efficacy ($\beta = 0.332$, $t = 7.250$, $p < 0.05$) and School Culture ($\beta = 0.372$, $t = 8.134$, $p < 0.05$) equally contribute in explaining collective leadership. It also can be seen that, if one unit increases in Sources of Leadership Efficacy, it will contribute 0.332 of the unit to collective leadership. Likewise, School Culture will contribute 0.372 of the unit for collective leadership.

Therefore the regression analysis is summarized into the following,

$$\hat{Y} = 0.332 x_1 + 0.372 x_2 + 1.672$$

Table 2

*Regression Analysis***Regression Result**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.610 ^a	.372	.369	.303

a. Predictors: (Constant), sources of leadership efficacy, school culture

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.665	2	10.833	118.077	.000 ^b
	Residual	36.605	399	.092		
	Total	58.271	401			

a. Dependent Variable: Collective Leadership

b. Predictors: (Constant), sources of leadership efficacy, school culture

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.672	.143		11.710	.000

Sources of leadership efficacy	.280	.039	.332	7.250	.000
School Culture	.307	.038	.372	8.134	.000

a. Dependent Variable: Collective Leadership

Contribution of Sources of Leadership Efficacy Dimensions and School Culture Dimensions towards Collective Leadership

A nine variable MLR model was proposed to explain the variation of collective leadership. The variables involved were Performance accomplishment (X_1), Vicarious experience (X_2), Social persuasion (X_3), Emotional arousal (X_4), Participative Leadership (X_5), Teacher collaboration (X_6), Professional development (X_7), Unity of purpose (X_8), Learning partnership (X_9). The equation of proposed MLR model was as follows:

Equation 1: $Y(\text{OCB}) = b_0 + b_1(X_1) + b_2(X_2) + b_3(X_3) + b_4(X_4) + b_5(X_5) + b_6(X_6) + b_7(X_7) + b_8(X_8) + b_9(X_9) + e$

Table 3

Regression Analysis Based on Independent Variable Dimensions

	β	SE	Beta	t	p
Constant	1.594	.153		10.413	.000
Performance accomplishment	.124	.044	.182	2.778	.006
Vicarious experience	.120	.054	.145	2.225	.027
Social persuasion	-.006	.052	-.009	-.124	.901
Emotional arousal	.056	.031	.091	1.823	.069
Participative Leadership	.129	.043	.187	2.983	.003
Teacher collaboration	-.044	.035	-.075	-1.252	.211
Professional development	.074	.044	.099	1.694	.091
Unity of purpose	.104	.039	.153	2.649	.008
Learning partnership	.048	.032	.076	1.494	.136

Notes: $R = 0.620$; $R^2 = 0.384$; $\text{Adj. } R^2 = 0.370$ $F = 27.167$; $p = 0.000$

From the regression analysis, it was found that among all the variables, only four dimensions were significantly found to predict collective leadership since the p value for those variables were less than α value 0.05. Those variables are **performance accomplishment, vicarious experience, participative leadership, and unity of purpose**. Since all the four dimensions are positive, this indicates that there are positive relationships between the variables and outcome. Thus, when the collective leadership is exercised in school, it is justified that the most powerful of dimensions in sources of leadership efficacy, which is performance accomplishment, is exercised. Experiencing personal triumph, does have transforming effects on teachers. Vicarious experience, which simply means that good role models are pertinent, is further reinforced while participative leadership and unity of purpose serve to show that leadership roles out to be shared with a mission in frame.

If the effects of all the other variables were held constant, the b-value shows that participative leadership ($\beta = 0.129$, $t(401) = 2.983$) makes the strongest contribution in explaining the

collective leadership. It also can be seen that, if one unit increases in participative leadership it will contribute 0.129 unit for collective leadership. The R^2 obtained was 0.384 which means the all the dimensions studied explained 38.4% of variance occur in collective leadership. The ANOVA result shows that F value was large ($F = 27.167$, $p < 0.000$). This shows that the slope for estimate linear regression line was not equal to zero. This confirmed that there was a linear relationship between the predictors and the dependent variables. If all the nine dimension of variables are taken as whole, only four variables were the most important determinants for collective leadership, while others do not influence collective leadership as significantly. However, when studied individually, each variable does significantly relate to collective leadership. Perhaps, future studies in other variables such as teacher commitment can be further explored to obtain similar kind of results as this research.

Discussion

Researchers in the field of education all across the globe would agree that leadership is one of the handful of issues demanding attention. This research is yet another manifestation of how leadership captured the researcher's attention. The point set out in this study is not just about the leadership concept but the investigation of leadership in teachers. In Malaysia, there is a dramatic transition, in symbiosis with the unprecedented change in culture and social change in the local community. Adopting collective leadership is an approach responding to these changes, enabling contributions through efforts as a team. This echoes findings from research done by Ni et. al. (2017) who say that improving collective leadership and maintaining the right balance of decision influence among stakeholders have the potential to create a harmonious and high-functioning school environment. Also, Friedrich et. al. (2009) have concluded that championing responsibilities is beneficial to team outcomes. This is the paradigm shift brought forth through collective leadership, which was confirmed through this study. Collective leadership is highly practiced by teachers involved in this study. Related literature highlights the coordinated and engaged efforts by administrators and teachers working and learning together as central to the culture of a winning school environment (Collinson & Cook, 2007; Muijs & Harris, 2003; Murphy, 2005 as cited in Browne-Ferrigno, 2016).

Key predictors to collective leadership in this study are sources of leadership efficacy and school culture, which implies that teachers are able to display a higher level of confidence in their leadership capability as they feel valued in their work and are professionally satisfied. This finding is further reciprocated by Walumba et.al. (2004) who found a positive effect of interaction between leadership and confidence, which can greatly contribute to employee productivity. This sentiment of interaction and confidence provides cohesion and convergence among teachers, the administration of the school and the students, which contribute to a positive school culture. Past studies have found positive and significant relationships between school culture and leadership practices (Turan & Bektas, 2013; Ngang, 2012; Ali et. al., 2016; Mohd Yussoff, 2011).

Within sources of leadership efficacy, the most powerful dimensions turned out to be performance accomplishment and vicarious experience. Performance accomplishment is the belief that when tasks are easily mastered, it strengthens efficacy. This makes performance accomplishment the most crucial of source of leadership efficacy (Williams, 2015; Morris, 2010). In addition to being able to master tasks, a role model is equally central to boosting esteem. Also, research on effective schools enumerates the characteristics of exemplary

schools, which serves to assist other organizations build themselves positively (Goddard, Hoy & Hoy, 2000; Huh, Reigeluth & Lee, 2014; Hannah et. al., 2008).

Lasting school improvement is achieved through school culture within which through this research the interplay between participative leadership and unity of purpose have been found to be dominant. This further reinforces the importance of collective leadership through collaboration and teamwork. A further powerful lever of focused goals can propel the belief in the generative power of collective leadership (Leithwood and Massey in Davies & Brundrett, 2010). Therefore, leadership development should be key part of any comprehensive reform strategy, carefully aligned with elements of sources of leadership efficacy and school culture to realize its potential.

The school systems in Malaysia and globally are fast changing, propelling leaders to be alert to adjustments thrust upon them at micro and macro levels vis-à-vis, school and national context. This study is also hoped to cultivate awareness and intensify the involvement of principal and teachers in the management of the educational institution. The District Education Office, Department of Education, Institut Aminuddin Baki, Institute of Malaysian Teachers Education, National Institut of Public Administration (INTAN) and those assigned with developing leaders and leadership should take heed to provide awareness and knowledge of the importance to build teachers' esteem to school administrators and teachers alike.

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