# Distributive Leadership and Work Commitment among Secondary School Leaders: Initial Evidence from Malaysia

**Rosliza Husin[1] and Mua'azam Mohamad[1*]**

[1]*School of Education and Modern Languages, Universiti Utara Malaysia, Malaysia.*

*Authors' contributions*

*This work was carried out in collaboration between both authors. Author RH developed the theoretical formalism, performed the analytic calculations and performed the numerical simulations. Authors RH and MM contributed to the final version of the manuscript. Author MM supervised the project. Both authors read and approved the final manuscript.*

*Original Research Article*

## ABSTRACT

Ministry of Education Malaysia is improving the quality of education by emphasising on quality of teacher's leadership and their commitment. The purpose of this study was to identify the relationship between distributive leadership practices and work commitments among the school leaders in Malaysia. In addition, the levels of distributive leadership practices and the level of work commitment among the school leaders was also studied. This study was carried out using a quantitative cross-sectional survey method using questionnaire as a research instrument of data collection. A total of 120 school leaders comprising principals, senior assistant teachers, assistant teachers and committee leaders were involved as respondents of this study. Two types of measuring tools used in this study were the Distributed Leadership Inventory (DLI) and the Teachers' Organizational Commitment Scale. The findings showed that there is a strong positive relationship between distributive leadership practice and work commitment. The findings also showed that the level of leadership of distributive leadership and work commitment are at high level. The findings also showed that there is no significant difference in distributive leadership practices and the level of commitment of school leaders based on gender factors. However there is

*Corresponding author: Email: muaazam18@gmail.com;*

a significant difference based on age and teaching experience. Thus, distributive leadership is critical to school leadership towards achieving the objectives of the Malaysian education as outlined in the Malaysian Education Blueprint (2013-2025).

## 1. INTRODUCTION

Malaysia Education Blueprint (MEB) (2013-2025), is moving towards the second wave of its implementation from 2016 to 2020 [1]. The main agenda of the Ministry of Education (MOE) is to improve the quality of education in Malaysia, by emphasising on the improvement of the quality of teacher leadership in every school in Malaysia. This foundation has been clearly stated in the MEB 2013-2025 through its fifth shift to ensure high-performing school leaders in every school. In the desire to realize this fifth shift, the ministry encourages school leaders to become high-performance instructional leaders and subsequently become distributive leaders [2].

In line with the agenda to improve education standard, the education sector in Malaysia is undergoing a rapid transformation process towards developing a world-class education system taking into account Malaysia's unique mold [3]. Hence, the Malaysia Education Blueprin (MEB) 2013 – 2025 was developed to come up with an educational framework through the high-level system of education transformation process. Quality education is essential in developing human capital to generate a highly skilled workforce. Recognizing the importance of human capital development, the Malaysian government has implemented human capital development efforts through a quality education system [4]. In addition, the increasing complexity of school leadership and teaching practices across all areas of content indicates the need for school leaders to practice unity in values and responsibilities, inspiring school climate and strong cooperation [5]. MOE believes that quality education systems would be able to produce human capital with superior personal qualities to address the challenges of the country and the flow of globalization and contribute to meet the government's desire to inculcate a lifelong learning culture. Therefore, thinking aspect and multi-frame actions among school leaders are imperative to ensure the success towards generating change in the nation educational system [6,7].

In order to produce this quality human capital, the school plays a major role in ensuring student identity. In this regard, schools are expected to play a leading role in producing quality human capital. According to Spillane, Halverson, and Diamond [8], it is vital that close inspection be done on leadership characteristics so as to cater for the needs of the millennium generation which has become more complex in the effort to increase effective schools. In addition, Duignan [9] emphasised on the need for a paradigm shift through distributive leadership which is essential as an effort to encourage positive environment in school organizations. Therefore, the role of the teacher is important because quality products are derived from the quality of teachers' teaching while the quality of teachers' teaching results from the quality of education management. Thus, the distributive leadership practice is the best leadership approach which may develop the education system, and the implementation of this leadership concept is embraced by schools [10,11,12,13]. Ever since, the Ministry of Education has focused on distributive leadership practice among school leaders towards increasing school leadership efficacy and quality as the main plan towards the success of Malaysia Education Blueprin.

On the other perspective, teachers' commitment to schools is a key factor in realizing educational aspirations as committed teachers are regarded as human capital that is the pillar for the development of a country's education [14]. Teachers who are highly committed to the school will also feel that they have a high status in the school community and are willing to contribute more than they expect from them [15]. Without the commitment of teachers not only cause the school to fail to achieve its vision and mission but is also to the detriment of the country in production of human capital that will lead the country. However, in order to achieve this goal, the role of all parties is necessary especially the role of the teachers themselves as leaders.

### 1.1 Statement of the Problem

This decade, the major conflict of management in schools has been related to efforts towards achieving the vision and mission of the school

which are still vague and difficult to define [16]. In fact, the commitment of school leaders, teachers, and students does not seem to be constantly changing direction without the assurance that each member will act according to the same decisions and standings at all times [17]. Therefore, Spillane, Halverson, and Diamond [18] stressed that there is a need for research into changes in leadership aspects in line with the demands of the millennial generation towards improving school achievement especially on shared leadership or distributive leadership [11]. Emphasis on paradigm shifts through the practice of distributive leadership is necessary in order to encourage positive environmental formation in school organizations.

Organization for Economic Co-operation and Development (OECD) [19], and Hulpia, Devos and Rossel [20], argued that research on the implementation of distributive leadership is still lacking. Similarly, studies at the local level suggest that studies on distributive leadership are still in the early stages and need to be further developed [21]. The lack of this study is also supported by Shakir, Issa and Mustafa [22] and Rosnarizah Abdul Halim and Hussein Ahmad [23] in the context of distributive leadership in education in Malaysia. The lack of studies on this type of leadership at the local level has given researchers the opportunity to fill in the gaps in the research needs of distributive leadership as well as the work commitments of the teachers themselves.

## 1.2 Purpose of the Study

The purpose of this study is to examine the practice of distributive leadership among school leaders such as principals, senior assistant teachers, senior teachers and head of school committee and their impact on their own work commitment as a teacher. Specifically, the objective of the study:

a. To identify the level of distributive leadership practices and levels of work commitment among among school leaders in Malaysian secondary schools.
b. To identify the different levels of teacher distributive leadership practices and the commitment of school leaders in secondary schools based on demographic factors (gender, age and teaching experience).
c. To examine the relationship between distributive leadership practices and the

level of work commitment among school leaders in Malaysian secondary schools.

## 1.3 Distributive Leadership and Work Commitment

Distributive leadership is an effort to focus on leaders' efforts to engage others in making decisions and improving school performance [24,25,26]. Furthermore, Humphreys [27] postulated that distrubutive leadership is an important leadership approach in the current educational lanscape. Hulpia, Devos and Keer [26] explain the concept of distributive leadership as the distribution of power in the formal leadership team. This is to ensure that their potential and participation in decision making can lead to improvement in the performance of their respective duties [28,29]. Therefore, distributive leadership practice has become the best leadership approach which can develop the education system and to improve teacher leader relationship towards enhancing teacher engagement in school [10,30].

The study conducted by Hulpia and Devos [31] proved that there is a strong relationship between the principals who practiced distributive leadership with the commitment of teachers. This finding supported the study by Hairuddin Mohd Ali and Salisu [32] who found that there is a huge impact between distributive leadership and teacher commitment to organizations in Katsina, Nigeria. In addition, contribution of distributive leadership was also proved by Nguyen Ngoc Du [33] who found a positive relationship between distributive leadership and teacher commitment in Vietnam. In summary, distributive leadership and teacher commitment are critical aspects that need to be addressed in the school organization. Based on previous studies pertaining to the relationship between distributive leadership and teacher commitment, all studies have shown that there is a significant relationship between distributive leadership variables and variable commitment of teachers.

## 2. RESEARCH METHODOLOGY

**Research Design:** The design of this study is a quantitative survey method that uses questionnaire as an instrument of data collection. Survey method is the most popular research method used in various fields, especially in the field of social science and education with the aim of obtaining views of the subjects on problems and issues [34].

**Sample and Data Collection:** The sample involved 120 respondents consisting of principals, senior heads for administration, students' welfare and co-curriculum; and six core subject heads of Malay language, English language, Science, Geography, History and Mathematics. However after screening only 111 questionnaires were selected for analysis. Permission was obtained from respective school authority before collecting the data. Respondents were informed that their participation was voluntary and all information provided was confidential.

**Measures:** This study utilised the Distributed Leadership Inventory (DLI) questionnaire instrument produced by Hulpia and Devos [31] to measure the level of distributive leadership practices in schools. This instrument has three important elements; (1) Support, (2) Supervision, and (3) Team Cooperation Leadership. There were 23 items measured on distributive leadership based on the dimensions stated. Reliability analysis showed a high alpha cronbach value (α=.93). While the instrument on working commitment used Teachers' Organizational Commitment Scale by Celep [14] which has four dimensions namely, 1) school commitment, 2) teaching commitment, 3) work commitment, and 4) team commitment. There were 28 items on work commitment according to the four dimensions. Reliability analysis showed a high alpha cronbach value (α=.81). All questions related to distributive leadership practices and work commitments were constructed on a five-point Likert scale, ranging from '1' "Strongly Disagree" to '5' "Strongly Agree".

**Data Analysis Techniques:** In this study, descriptive statistical methods that measure mean values and standard deviations were applied to identify the level of distributive leadership practices and the level of work commitment of school leaders. Independent sample t-tests and one-way Anova were used to determine the differences in the level of distributive leadership practices and the level of work commitment according to demographic factors. In addition, Pearson correlation test analysis was used to measure the strength of the relationship between independent variables based on three dimensions of distributive leadership with dependent variables ie four dimensions of work commitment. Data obtained through a questionnaire survey were analyzed using the Statistical Package for the Social science (SPSS) version 22.0.

# 3. FINDING AND DISCUSSION

## 3.1 Distributive Leadership Practices

Descriptive statistical analysis of distributive leadership practices according to dimensions is shown in Table 1. The findings indicated that the level of distributive leadership variables among school leaders in this study were at high level (Mean=4.01, SD=0.58). This finding is in line with the findings of other distributive leadership studies in Malaysia which showed that distributive leadership practices are at high levels [35,36,37]. However this finding is different from the results of the study conducted by Siva [38] and, Bahrin and Mohd Izham [24] which found that the level of distributive leadership practices in their study were at moderate high levels.

Descriptive analysis of distributive leadership dimensions also demonstrates that cooperation in team dimension (Mean=4.26, SD=0.54) is the most dominant dimension of the distributive leadership practiced by school leaders, followed by the support dimension (Mean=4.09, SD=0.51). Obviously these two dimensions are at high level. The dimension that showed low level and less favored by school leaders is the supervisory dimension (Mean=3.68, SD=1.03) which is at a moderate high level. This result showed that school leaders are more likely to practice teamwork in practicing leadership duties at school. This finding is in line with the findings of the study by Hulpia and Devos [31] who found that school leaders tend to practice the dimensions of teamwork in distributive leadership styles and thus contributed to the high level of commitment among teachers.

## 3.2 Work Commitment Level

The findings for the variable work commitment in Table 2 indicate that school leaders in this study demonstrate high level of commitment to work (Mean=4.22, SD=0.39). The findings are consistent with local studies by Marlia and Yahya [36] who found that the level of work commitment among teachers in Malaysian National Secondary Schools is at high level.

To analyze the level of work commitment according to dimensions, there are three dimensions of work commitment which are at a high level starting with dimension of commitment to work which is at the highest

level (Mean=4.38, SD=0.48), followed by commitment to the team (Mean=4.34, SD=0.53) and then commitment to teaching (Mean 4.21, SD=0.46). Meanwhile, commitment to school practice (Mean=3.95, SD=0.42) is found at the lowest level compared to other dimensions. This finding is in line with the study findings obtained by Mat Zain Mamat [39] which found that all the dimensions of teacher commitment were at high level.

## 3.3 Differences in Distributive Leadership Practice

**Gender**: To test the differences in distributive leadership practice based on gender, independent sample-t test analysis has been implemented. Test results are shown in Table 3. It is found that the t-value for comparison of distributive leadership practice level for male and female gender is t=0.94 (p>.05). These statistics show that there is no significant difference in the level of distributive leadership based on gender.

**Age Group:** On the other measure, the difference of distributive leadership practice level based on age and experience as a teacher, one-way ANOVA analysis was conducted. Referring to Table 4, One-way ANOVA test is found significant [F= 3.82, p<0.05] between the mean score of the distributive leadership practice level based on age. This result successfully rejected the null hypothesis and accepted the alternative hypothesis. The results of the analysis showed that there was significant difference in distributive leadership practices based on age factors.

**Table 1. Descriptive analysis of distributive leadership practices**

| Dimension / Variables | Mean | SD | Level |
|---|---|---|---|
| Support | 4.09 | 0.51 | High |
| Supervision | 3.68 | 1.03 | Medium High |
| Team cooperation | 4.26 | 0.54 | High |
| Averafe of Distributive Leadership Practices | 4.01 | 0.58 | High |

**Table 2. Descriptive analysis of teachers' work commitment level**

| Dimension / Variables | Mean | SD | Level |
|---|---|---|---|
| School Commitment | 3.95 | .42 | Medium High |
| Teaching Commitment | 4.21 | .46 | High |
| Work Commitment | 4.38 | .48 | High |
| Team Commitment | 4.34 | .53 | High |
| Averafe of Work Commitment Level | 4.22 | .39 | High |

**Table 3. T-test for difference in distributive leadership practice based on gender**

| Gender | N | Mean | SD | df | t | p |
|---|---|---|---|---|---|---|
| Male | 40 | 4.08 | 0.61 | 109 | .94 | .35 |
| Female | 71 | 3.97 | 0.56 | | | |
| p>.05 | | | | | | |

**Table 4. One-way ANOVA test for difference in distributive leadership practice based on age**

| Age | N | Mean | SD | df1 | df2 | F | p |
|---|---|---|---|---|---|---|---|
| 20-30 years | 2 | 3.21 | .10 | 3 | 107 | 3.82 | .01* |
| 31-40 years | 14 | 3.77 | .17 | | | | |
| 41-50 years | 59 | 3.97 | .07 | | | | |
| > 50 yrs | 36 | 4.21 | .10 | | | | |
| Total | 111 | 4.01 | .055 | | | | |

*p<.05**

The statistical analysis of distributive leadership practices according to age indicates that the older school leaders are more often practicing distributive leadership. School leaders aged 50 years and above are found to be the highest in practicing distributive leadership (M=4.21, SD=.10) followed by school leaders aged 41 to 50 years old (M= 3.97, SD=.07) then school leaders aged 31 to 40 years old (M=3.77, SD=0.17) and the lowest group practicing distributive leadership are school leaders aged 20 to 30 years old (M=3.21, SD =0.10). This finding is consistent with the results of the study by Zuraidah Juliana, Siti Noor Ismail, and Yahya Don [40], which found veteran leaders to engage more in distributive leadership practices than younger leaders. However, the results of this study were contrary to the findings of Marlia and Yahya Don [36] which found no significant difference in distributive leadership and teacher commitment to organizations based on cohort generation.

**Teaching Experience:** Table 5 shows that there is a significant difference F = 5.43, p <0.05 between the mean score of the level of distributive leadership practice according to teaching experience. The statistical analysis of distributive leadership practice according to teacher experience found that more experienced teachers are more often practicing distributive leadership. Experienced teachers over 30 years are found as the highest in practicing distributive leadership (M=4.29, SD=.64) followed by experienced teachers of 21 to 30 years of teaching (M=4.11, SD=.54) then teachers with 11 to 20 years of experience (M=3.89, SD=0.58) and the last one is experienced teachers of 1 to 10 years (M=3.35, SD=0.16).

The findings also showed that teachers who have been working for a longer period of time will gain more experience and be able to develop new skills as they have been exposed to a variety of complex and new experiences, and this ability helps them to act on their own personal and beliefs in particular when faced with a dilemma and leadership problem [41].

### 3.4 Differences in Work Commitment

**Gender:** To test teachers' work commitment based on gender, independent sample-t test was performed and findings are shown in Table 6. This result clearly shows that there is no significant difference between the mean commitment of the male leaders and the mean commitment of the female leaders (t = - .32, p> 0.05). This test shows that male and female leadership per gender does not have different levels of work commitment. It is found that the mean score of the commitment level for female school leaders (M = 4.23, SD = 0.35) was greater than the mean score of the commitment level for male school leaders (M=4.21, SD=0.46). This finding is in line with the study by Nurulaim and Suhaida [12] who found that there was no significant difference in the mean score of female teachers compared to male teachers in terms of teacher's commitment.

**Age Group:** Based on Table 7, one-way ANOVA test result is significant (F= 2.71, p<0.05) between the mean score of work commitment level by age. The mean score of work commitment recorded by respondents over the age of 50 is the highest (M=4.31, SD = 0.39) followed by the mean score of the 41-50 years old (M=4.24, SD=0.36) then the commitment of the leaders between 31 and 40 year olds (M=4.01, SD=0.54) and the last is a mean score recorded by a 20-30 year old leaders (M=3.84, SD=0.19). The results of the analysis showed that there were significant differences in the level of work commitment based on age. This finding is in line with previous studies such as studies of Ilham Ismail [42] and, Meyer and Allen [43], which stated that older workers have higher work commitments to organizations than younger workers. The difference based on age group may be due to the fact that adult teachers are more familiar and know more about the organization's environment. Therefore, they are more experienced, skilled and mature in facing and overcoming various organizational tribulations. This is in line with the statement by Meyer and Allen [44] who have concluded that older people have a strong affective commitment towards their organization as they are more mature and have longer experience in the organization.

**Teaching Experience:** Based on Table 8, one-way ANOVA test is significant F= 6.49, p<0.05 between the mean score of the work commitment level according to teaching experience. The result of the analysis shows that there is a significant difference in the level of work commitment based on teaching experience. These results demonstrate that the commitment of school leaders depends on their wide experience than those who are inexperienced. This analysis is shown in Table 10 which shows that school leaders with over 30

years of experience have the highest working commitment (M= 4.43, SD=.39) followed by the commitment of school leaders who have 21 to 30 years of working experience (M= 4.26, SD=.35), then the commitment of school leaders who have experienced of 11 to 20 years (M=4.21, SD=0.40) and that the lowest level of school work commitment is from teachers with 1 to 10 years of experience. This finding is in line with the study conducted by Ilham Ismail [42], which found the difference between teacher commitment to organization according to teaching experience but not in line with Nurulaim and Suhaida [12] which shows that there is no significant difference in the commitment of the teacher's work based on the teaching experience. This means that the longer a teacher serves, the more their experience and

the more knowledge gained through learning from personal experiences and from conversations with colleagues at work. In this regard, it will further increase the level of loyalty and commitment of teachers towards the organization as they are well-acquainted and comfortable with the organization [43].

## 3.5 Relationship between Distributive Leadership Practices and Work Commitments

The relationship between distributive leadership practices and work commitments among schools leaders were analysed using Pearson correlation test. The results showed that there is significant positive correlation as stated in Table 9.

**Table 5. One-Way ANOVA test for difference in distributive leadership practice based on teaching experience**

| Experience | N | Mean | SD | dk1 | dk2 | F | p |
|---|---|---|---|---|---|---|---|
| 1-10 years | 7 | 3.35 | .16 | 3 | 107 | 5.43 | .00 |
| 11-20 years | 35 | 3.89 | .58 | | | | |
| 21-30 years | 60 | 4.11 | .54 | | | | |
| > 30 years | 9 | 4.29 | .64 | | | | |
| Total | 111 | 4.01 | .58 | | | | |

*p<.05*

**Table 6. T-test for difference in level of teachers' work commitment based on gender**

| Gender | N | Mean | S.P | Df | t | p |
|---|---|---|---|---|---|---|
| Male | 40 | 4.21 | 0.46 | 65.39 | -.32 | .75 |
| Female | 71 | 4.23 | 0.35 | | | |

*p>.05*

**Table 7. One-Way ANOVA test for Difference in Level of Commitment based on Age**

| Age | N | Mean | SD | F | p |
|---|---|---|---|---|---|
| 20-30 yrs | 2 | 3.84 | .19 | 2.71 | .049 |
| 31-40 yrs | 14 | 4.01 | .54 | | |
| 41-50 yrs | 59 | 4.24 | .36 | | |
| > 50 yrs | 36 | 4.31 | .36 | | |
| Total | 111 | 4.22 | .39 | | |

*p<.05*

**Table 8. One-Way ANOVA test for Difference in Level of Teachers' Work Commitment based on Teaching Experience**

| Experience | N | Mean | SD | F | p |
|---|---|---|---|---|---|
| 1-10 years | 7 | 3.67 | .35 | 6.49 | .00 |
| 11-20 years | 35 | 4.21 | .40 | | |
| 21-30 years | 60 | 4.26 | .35 | | |
| > 30 years | 9 | 4.43 | .39 | | |
| Total | 111 | 4.22 | .39 | | |

*p<.05*

**Table 9. Pearson correlation test for distibutive leadership practice and work commitment**

| Variables | (1) | (2) |
|---|---|---|
| Distributive leadership practice (1) | 1 | .71** |
| Work commitment (2) | .71** | 1 |

*\*\*Significant at level 0.01 (2 tailed)*

The Pearson correlation test shows a strong and significant positive relationship (r= .71, p<0.01) between distributive leadership practices and commitment of school leaders. Through this relationship, Ho3 which states that there is no significant relationship between distributive leadership practice and work commitment is rejected. This shows as a whole the respondents think that there is a significant relationship between the distributive leadership practices and the commitment of the school leaders. In this regard, this study has proven that there is a relationship between distributive leadership practices and the commitment of school leaders. This finding is supported by other scholars' findings that also support the findings of Elmore [45] and Spillane [28] that distributive leadership affects the school environment and the attitude of teachers. The finding of this study is in line with the study by Hairudin and Salisu [32] who conducted the study in schools in Nigeria as well as a study by Siva and Khuan [46] that found significant relationships with organizational commitment but not significant with working pressure in vocational colleges. A study by Siva [38] found that distributive leadership relationship with organizational commitment was significant and positive direction while the distributive leadership relationship with work pressure was significant in the negative direction. A study by Marlia and Yahya Don [36] found that there was a significant relationship between distributive leadership practices as well as teacher commitment to the organization regardless of the generation cohort as well as the gender of the teacher.

## 4. CONCLUSION

Recent studies show that distributive leadership practices has a great impact on school improvement and teachers' competency development [47]. In line with the previous research, the results of this study point to at least one contribution to this scenario which is that the distributive leadership practices among Malaysian high school leaders has a positive relationship with work commitment in their daily working routine. Hence, it is hoped that in moving to the future it will be important to all school leaders to equip themselves with distributive leadership skills to meet the increasing demands of teacher duties that require high level of competency to ensure the smooth running of the daily school activities.

## 5. RECOMMENDATIONS

Based on the evidence of revealed from this study, it is highly recommended that it can be used as a guide for all school leaders in implementing the distributive leadership practices in their schools to meet the increasing demands of teachers' responsibility that require more than one administrator to ensure the smooth running of the school system. In addition, changing leadership practices to distributive leadership practices can also ensure that school leadership remains relevant to be practiced today as well as ensuring that teachers' needs and wants are fulfilled thus creating an excellent work culture as a result of leadership and work commitments demonstrated by leaders. Thus, it is essential that all school leaders to practice each aspect of distributive leadership and school organizational commitment in the effort to increase the standard and effectiveness of schools in Malaysia.

## CONSENT

As per international standard Informed and written participant consent has been collected and preserved by the authors.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. Ministry of Education Malaysia. Annual report: Malaysia education blueprint. Putrajaya; Kuala Lumpur; 2013.
2. Ministry of Education Malaysia. Annual Report 2016: Malaysia education blueprint. Putrajaya; Kuala Lumpur; 2017.

3.  Mohd. Najib Abdul Razak. Note from the prime minister. Annual report of the government transformation program. Prime Minister's Department of Malaysia; 2013.

4.  Muhyiddin Mohd Yassin. Note from the deputy prime minister. Annual Report of the Government Transformation program. Prime Minister's Department of Malaysia; 2013.

5.  DeMatthews D. Principal and teacher collaboration: An exploration of distributed leadership in professional learning communities. International Journal of Educational Leadership and Management. 2014;2(2):176-206.

6.  Fullan M. All systems go: The change imperative for whole system reform. California: Corwin Press; 2010.

7.  Izani Ibrahim, Yahya Don. Servant leadership and effective changes management in schools. International Journal of Scientific and Research Publications. 2014;4(1):1-9.

8.  Spillane JP, Halverson R, Diamond JB. Towards a theory of leadership practice: A distributed perspective. Journal of Curriculum Studies. 2004;36(1):3-34.

9.  Duignan P. SOLR Project: Contemporary challenges and implications for leaders in frontline service organizations, Sydney: Flagship for creative and authentic leadership, ACU National; 2003.

10. Coleman M, Earley P. Leadership and Management in Education. New York, Oxford University Press; 2005.

11. Harris A. Distributed leadership matters. Corwin Press; 2013.

12. Nurulaim Asyikin Zakaria, Suhaida Abdul Kadir. High school distributive leadership in Kangar district, Perlis. In: Graduate Research in Education Seminar (GREduc), Faculty of Educational Studies, Universiti Putra Malaysia. 2013;131-136.

13. Yukl G. Leadership in organizations. (8th Ed.). Upper Saddle River, N.J: Pearson Education; 2013.

14. Celep C. Teachers' organizational commitment in educational organizations. National Forum of Teacher Educational Journal. 2000;10(3):1999-2000.

15. Bogler R, Somech A. Influence of teacher empowerment on teachers' organizational commitment, professional commitment and organizational citizenship behavior in schools. Teaching and Teacher Education. 2004;20:277-289.

16. Abdul Shukor Abdullah. Is cluster school a good school? Keynote address of National Faculty of Education Seminar on Education. University of Malaya; 2007.

17. Yahya Don, Yaakob Daud. School culture, transformational leadership and student academic achievement. Malaysia Journal of Learning and Instruction. 2012;9:111-138.

18. Spillane JP, Harvenson R, Diamond JB. Towards a theory of leadership practice: A Distributed Perspective. Chicago: Northwest University; 2004.

19. OECD. Education and training policy, improving school leadership. Policy and Practice, Summary in English. Paris: OECD. 2008;1.

20. Hulpia H, Devos G, Rosseel Y. The relationship between the perception of distributed leadership in secondary schools and teachers' and teachers leaders' job satisfaction and organizational commitment. Educational and Psychological Measurement. 2009;20:291-317.

21. Jamallulail Abdul Wahab, Aida Hanim A. Hamid, Surayati Zainal, Md Fuad Md Rafik. The relationship between headteachers' distributed leadership practices and teachers' motivation in national primary schools. Asian Social Science. 2013; 9(16):161-167.

22. Shakir Firas Jalal, Issa Jinan Hatem, Mustafa Paiman Omer. Perception towards distributed leadership in school improvement. International Journal of Business and Management. 2011; 6(10):256-264.

23. Rosnarizah Abdul Halim, Zulkifli Abdul Manaf. Distributed leadership exploration study in Malaysia. Research paper proceedings of the 16th National Seminar on Management and Educational Leadership. Aminuddin Baki Institute, Genting Highlands; 2009.

24. Bahrin Mohd. Kassim, Mohd Izham Mohd Hamzah. The practice of distributed leadership among school administrators. 6th International Seminar on Regional Education UKM-UR; 2013.

25. Bolden R. Distributed leadership in organizations: A review of theory and

research. International Journal of Management Reviews. 2011;13(3):251-269.

26. Hulpia H, Devos G, Keer HV. The influence of distributed leadership on teacher's organizational commitment: A multilevel approach. The Journal of Educational Research. 2010;103(1):40-52.

27. Humphreys E. Distributed leadership and its impact on teaching and learning. PhD thesis, National University of Ireland Maynooth; 2010.

28. Spillane JP. Distributed Leadership. San Francisco: Jossey-Bass; 2006.

29. William CG. Distributed leadership in South African schools: Possibilities and constraints. South African Journal of Education. 2011;31(2):190-200.

30. Yusof Boon, Yahzanon Tahir. Distributive leadership and its relationship with work stress and commitment. 2nd International Seminar on Quality and Affordable Education. ISQAE; 2013.

31. Hulpia H, Devos G. Exploring the link between distributed leadership and job satisfaction of school leaders. Educational Studies. 2009;35(2):153-171.

32. Hairuddin Mohd Ali, Salisu AY. Distributed leadership and empowerment influences on teachers' organizational commitment. Academic Journal of Interdisicplinary Studies MCSER Publishing. 2015;4(1):163-174.

33. Nguyen Ngoc Du. The influence of distributed leadership on teacher organizational commitment: Initial evidence from Vietnam. Annual Review of Education, Communication, and Language Sciences (ARECLS). 2013;10:69-90.

34. Creswell JW. Educational research: Planning, conducting and evaluating quantitative and qualitative research (4th Ed.). Pearson new international edition. Harlow, Essex: Pearson Education Limited; 2014.

35. Azian, Mohd Izham. The practice of distributed leadership by the headmaster and its relationship with teacher job satisfaction in low-cluster SABK in Sarawak. Educational Research Seminar. IPBL, Kuching, Sarawak; 2017.

36. Marlia Jamail, Yahya Don. Distributive leadership practice and organiza-tional commitment based on teacher generation cohorts. Proceeding of ICECRS, International seminar on generating knowledge through research, UUM-UMSIDA, Universiti Utara Malaysia: 2016.

37. Norasmah Othman, Rofilah Md. Said. Daily high school teachers' readiness level practicing distributive leadership. Journal Teknologi (Social Sciences). 2013;64(1): 93–100.

38. Siva Rabindarang. Distributive leadership, organizational commitment and work stress at vocational colleges, Malaysia. (Unpublished Doctoral Thesis). Universiti Pendidikan Sultan Idris, Malaysia; 2014.

39. Mat Zain Mamat. The relationship between the transformational leadership style of head teachers and the commitment of primary school teachers in Machang, Kelantan. (Unpublished Post Graduate Academic Paper): Universiti Utara Malaysia; 2013.

40. Zuraidah Juliana Mohamad Yusoff, Siti Noor Ismail, Yahya Don. The influence of distributive leadership on school environment. The Asean Journal of Knowledge Contribution. 2015;4(4):9-1.

41. Goldman A, Tabak N. Perception of ethical climate and its relationship to nurses' demographic characteristics and job satisfaction. Nursing Ethics. 2010;17(2):233-46.

42. Ilham Ismail. The influence of ethical leadership and job satisfaction on organizational commitment in schools. (Unpublished Doctoral Theses): Universiti Utara Malaysia; 2015.

43. Meyer JP, Allen NJ. TCM employee commitment survey academic users guide; 2004.
Available:http://employeecommitment.com/TCM-Employee-Commitment-Survey-Academic-Package-2004.pdf

44. Meyer JP, Allen NJ. A three component model conceptualization of organiza-tional commitment. Human Resource Management Review. 1991;1(1):61-89.

45. Elmore R. Building a new structure for school leadership. Washington: The Albert Shanker Institute; 2000.

46. Siva Rabindarang, Khuan WB. Theoretical framework of the influence of distributive

leadership on organizational commitment and work stress in technical and vocational organizations. Proceedings of 5th UPSI-UPI Conference on Education. Hotel Concorde Shah Alam, Malaysia; 2012.

47. Dampson DG, Havor FM, Laryea P. Distributed leadership an instrument for school improvement: The study of public senior high schools in Ghana. Journal of Education and e-Learning Research. 2018; 5(2):79-85.

---