

School Leaders' Perceptions on the Importance of Acquiring Skills in Mentoring Staffs and Engaging Parents

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Abstract

Pursuing study at the higher learning institution largely depends on the academic performance of a student. However, struggles of school community in getting their students ready for college are reported. Studies consistently show that school leadership has a great influence on students' learning, a result of quality teaching and learning. There are two main roles of school leaders that affects the teaching and learning quality: mentoring the teachers and engaging the parents in the students' learning. Studies about the school leaders' perception on acquiring these two skills are lacking. This study aims to survey the school leaders' perception towards the importance of having these two skills with regards to the gender, age group, school level (primary or secondary school), and school location using a questionnaire. It is distributed via online platform to all the school leaders of a state of which 477 had responded. The results show that the school leaders regard both skills as important. Statistically significant difference was reported in both skills by school location and in skills on mentoring staffs by the school leaders' age group.

Keywords: Academic Performance, Headmaster, Principal, Teaching and Learning, Student Outcome

INTRODUCTION

Schools play a pivot role in preparing the students for tertiary education. However, struggles of the school community in getting their students ready for tertiary education are reported (Green & Gooden, 2014). The student outcomes (Bush, 2021) which mainly refer to their academic results are always the main determinant to secure a place at the higher learning institution. Cruickshank (2017) commented that student outcomes are related to the school's teaching and learning quality, which becomes an aspect the schools always want to emphasize on. Studies show that school leadership has a strong effect on the structure of school organization that impacts the teaching and learning quality (Leithwood et al., 2020). Leithwood et al. (2008) used to report that both classroom teaching and school leadership have the most vital influences on students' learning. Bush (2021) reiterates that the relationship between successful school leadership and positive student outcomes is closely intertwined.

According to Leithwood et al. (2020), researchers claimed that successful school leaders improve and maintain a high quality of teaching and learning through seven aspects, namely; inducing positive influence on the school organization, mentoring teachers, applying leadership practices

according to the context they are in, upgrading the school learning environments and engaging parents for their child's learning at home, emphasizing teamwork, the ability to identify the best distributed leadership practices based on the context of school, and possessing personalities of especially being open-minded and ready to learn from others without compromising the core values of the education system. These key roles of school leaders are in line with the strategies the Organization for Economic Co-operation and Development (OECD) countries executed in preparing effective school leaders (Schleicher, 2012). A framework has been suggested of which the five domains of effective leaders that are defined include "setting direction; building relationships and developing people; developing the organization; leading the instructional program; and being accountable" (Schleicher, 2012, p. 14). On top of this, the Ministry of Education for our country has also aspired to ensure every school, regardless of location and performance level, will have a high-quality principal and supporting leadership team to provide instructional leadership and drive overall school performance (Ministry of Education, 2013, p.5-13). The aspiration can be achieved through transformational leadership. Transformational leadership is the process whereby a leader engages with others and creates a connection that raises the level of motivation and morality in both the leader and the follower (Northouse, 2010). These beliefs and theories subscribed by the studies have collectively laid the basis underpinning the current study.

Obviously, mentoring the teachers and engaging the parents by school leaders are important and deserve great attention because it has a significant effect on student's learning and its outcomes. Mentoring teachers improve the quality of teaching and learning in schools while engaging parents improve a child's learning both at school and home. This commensurates with the recent trend of calling for a shift of school leadership's fundamental role from the administrative leaders to the instructional leaders where the school leaders should regard the school's instructional-related matters much more important than concerns over the administrative-related matters (Gray, 2018). Mentoring involves guidance for the professional, career and psychosocial development (Mulford, 2003). In the case of mentoring teachers, professional development includes the learning of knowledge (subject content knowledge), skills and values pertaining to the teaching profession. Career development encompasses enhancement of career satisfaction and advancement, and psychosocial development draws in the personal well being and the role expectations as teachers (Mulford, 2003). Thus, school leaders who mentor should deliver leadership, vision and reasonable expectations to the teachers besides getting engaged with them and attentive towards their needs and concerns (Fletcher et al., 2021).

On the other hand, engaging the parents refers to the efforts of school leaders to involve parents in their children learning at home and in the school. Parents as one of the education stakeholders is able to significantly contribute to the positive school climate, high teaching and learning quality and thus improves the students' achievement (Cruickshank, 2017). Getting the involvement of parents have reported promising positive influence on the students' academic achievement (Leithwood et al., 2017; Fletcher et al., 2021). This is particularly obvious among schools that encounter challenges in social and educational inclusiveness (Alinsunurin, 2020). Studies revealed that school leaders who constantly emphasize the importance of engaging parents in the students' learning will eventually get parents to involve in their children's learning (Barr & Saltmarsh, 2014; Jeynes, 2018).

The personal abilities and experiences, and beliefs of the school leaders, the school size and location, and the socio-economic status of students are the typical factors influencing the effectiveness of school leadership (Leithwood & Day, 2007; Dhuey & Smith, 2014). Studies show that the headmasters or principals of the schools with students coming from higher socio-economic status tend to execute instructional leadership more actively (Silins & Mulford, 2004). When it comes to the school type, either primary or secondary schools, studies reveal that generally, the school leaders of both types of school see the importance of collaborating with the teachers and parents (Bush, 2021). The average number of female teachers in the primary and secondary education makes up 72% of the teaching population in the OECD countries, as of 2019 (OECD, 2021). The same report shows that there are 11%, 54% and 35% of the school teachers in the age group of less than 30 year-old, at least 30 and no more than 49 year-old and 50 year-old and above, respectively (OECD, 2021). However, data for the age group of school leaders could not be found. Martínez et al. (2021) purported that female school leaders are associated with higher management quality, but the percentage of female school leaders are relatively lower than their counterpart eventhough majority of the school teachers are female (Murford, 2003). Nevertheless, studies on school leaders' perception on mentoring the staff and engaging the parents with regards to their gender and age groups could hardly be found. In addition, the findings of

previous studies on the beliefs of schools leaders, the school size, location, gender and school level may not be applicable in the context where this study is carried out due to differing cultural and social economic background. To ensure schools are helmed by effective instructional leaders, it is vital to ascertain their perceptions on these two skills and appropriate corrective initiative taken by the corresponding education departments. Consequently, this study aims to answer the following research questions (RQ):

- RQ1: Are the school leaders aware of the importance of skills on mentoring staff and engaging parents?
- RQ2: Are there any significant difference in their perceptions in skills on mentoring staffs and engaging parents by gender?
- RQ3: Are there any significant difference in their perceptions in skills on mentoring staffs and engaging parents by school level?
- RQ4: Are there any significant difference in their perceptions in skills on mentoring staffs and engaging parents by age group?
- RQ5: Are there any significant difference in their perceptions in skills on mentoring staffs and engaging parents by school location?

The content of this paper is presented as follow: Section One introduces the theme and background of this study; Section Two gives the methodology used in this study; Section Three reports the findings obtained; this is followed by Section Four which presents the discussions and conclusion; and the last section summarizes the study, besides presenting suggestions for further studies.

METHODOLOGY

This study was conducted in one of the states in Malaysia in August 2020. The population consisted of all school leaders comprising of all primary school headmasters and secondary school principals in the selected state. With the assistance from related state education department and district office, the intent of the study and the survey questionnaire were disseminated to all schools leaders and they were required to respond to questionnaire via online platform. The questionnaire consisted of two sections; five items on school leaders' demographic characteristics, and importance of skills in mentoring staff and engaging parents. The Cronbach's Alpha reliability value of the instrument was reported as 0.96, which is within the acceptable range (DeVellis, 2003 in White, 2015). Schools leaders were required to indicate their degree of agreement using a 5-point Likert scale (1-Not important at all, 2-Very little important, 3-Moderately important, 4-Important, 5-Very important) on the importance of these two skills. A total of 445 primary school headmasters and 32 secondary school principals responded.

The data collected were analysed using SPSS employing both descriptive and inferential statistics. Descriptive statistics using mean, standard deviation and percentage were used to determine school leaders' perceptions on the importance of acquiring skills in mentoring staffs and engaging parents. Independent sample *t*-test was used to determine whether there is any significant difference in their perceptions by gender and school levels. It involves two stages of testing. The first stage is to conduct Levene's test for equality of variance. This is followed by testing to determine whether there is difference in the value of mean between two groups. Meanwhile, one-way ANOVA was used to determine whether there is any significant difference in their perceptions by age group and school locations. The tests were conducted by using 5% level of significance ($\alpha=0.05$). The results of the analyses were as follows.

RESULTS AND DISCUSSION

This section reports the results of survey on school leaders' perception about the importance of acquiring skills on mentoring staffs and engaging parents.

The School Leaders' Perceptions on the Importance of Acquiring Skills in Mentoring

Staff and Engaging Parents

The results show that the majority of the school leaders perceived that it is important for them to acquire these two skills. For mentoring staffs, the mean score is 4.66 with standard deviation of 0.63 and standard error of mean of 0.029. The corresponding mean and standard deviation for engaging parents were 4.47 and 0.72 with standard error of mean of 0.033, respectively. For skills in mentoring staffs, 73.8% of the respondents perceive it as very important. In the case of skills on engaging parents, 57.7% of them perceive it as very important with another 33.3% of them perceive it as important. In conclusion, school leaders agreed it is important to acquire these two skills for them to be an effective school leader.

Further analyses were conducted to determine whether there is any significant difference in the respondents' perceptions on the importance of acquiring these two skills by gender, school levels, age groups and school locations.

School Leaders' Perceptions on the Importance of Acquiring Skills on Mentoring Staffs and Engaging Parents by Gender

Table 1 shows the mean and standard deviations scores for two skills by gender. There are 394 (82.60%) male school leaders and 83 (17.40%) female school leaders. For both skills, the mean score for male (4.66 for mentoring staffs, 4.49 for engaging parents) were slightly higher as compared to female (4.64 for mentoring staffs, 4.37 for engaging parents). An independent sample *t*-test was then carried out and the results is shown in Table 2.

For skills on mentoring the staffs, the *p*-value (0.248) for Levene's Test for equality of variance was greater than $\alpha=0.05$. Thus the variances of the two populations were assumed to be equal. The *p*-value (0.755) for *t*-test for equality of means is greater than $\alpha=0.05$. In conclusion, there was no significant difference in the perceptions of the school leaders on the importance of acquiring skills on mentoring staffs by gender. For skills on engaging parents, the *p*-value (0.009) for Levene's Test for equality of variance was less than $\alpha=0.05$. Thus the variances of the two populations were assumed to be not equal. The *p*-value (0.256) for *t*-test for equality of means was greater than $\alpha=0.05$. In conclusion, there was also no significant difference in the perceptions of the school leaders on the importance of acquiring skills on engaging the parents by gender.

Table 1. Mean score for school leaders' perception based on gender

	Gender	<i>N</i>	Mean \pm <i>SD</i>	<i>SEM</i>
Mentoring staffs	Male	394	4.66 \pm 0.62	0.031
	Female	83	4.64 \pm 0.69	0.076
Engaging parents	Male	394	4.49 \pm 0.69	0.035
	Female	83	4.37 \pm 0.85	0.093

Note: *SD* = standard deviation; *SEM* = standard error of mean

Table 2. Independent sample *t*-test results for school leaders' perception based on gender

		Levene's test for equality of variances		<i>t</i> -test for equality of means					
		<i>p</i> -value	<i>t</i>	<i>df</i>	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% CI <i>LL</i> <i>UL</i>	
Mentoring staffs	Equal variances assumed	0.248	0.312	475	0.755	0.024	0.077	-0.127	0.174
	Equal variances not assumed		0.291	111.713	0.772	0.024	0.082	-0.139	0.186
Engaging parents	Equal variances assumed	0.009	1.315	475	0.189	0.114	0.087	-0.056	0.284
	Equal variances not assumed		1.143	105.491	0.256	0.114	0.100	-0.084	0.311

Note: CI = confidence interval; *LL* = lower limit; *UL* = upper limit

School Leaders' Perceptions on the Importance of Acquiring Skills on Mentoring Staffs and Engaging Parents by School Level

Table 3 shows the mean and standard deviations scores for the two skills by school level – primary school and secondary school. There are a total of 30 primary school headmasters and 447 secondary school principals. For both skills, the mean score for both school levels are almost similar. The mean score for skills on mentoring staffs is 4.67 and 4.66 for the secondary school principal and primary school headmaster respectively, whereas for the skills on engaging parents, the mean score is 4.47 for both the secondary school principal and primary school headmaster. Further analysis was carried out and Table 4 shows the results of independent sample *t*-test.

Table 3. Mean score for school leaders' perception based on school level

	School level	<i>N</i>	Mean ± <i>SD</i>	<i>SEM</i>
Mentoring staffs	Secondary schools	30	4.67 ± 0.76	0.138
	Primary schools	447	4.66 ± 0.63	0.030
Engaging parents	Secondary schools	30	4.47 ± 0.68	0.124
	Primary schools	447	4.47 ± 0.72	0.034

Note: *SD* = standard deviation; *SEM* = standard error of mean

For skills on mentoring staffs, the *p*-value (0.669) for Levene's Test for equality of variance is greater than $\alpha=0.05$. Thus the variances of the two populations are assumed to be equal. The *p* value (0.940) for *t*-test for equality of means is greater than $\alpha=0.05$. In conclusion, there is no significant difference in the perceptions on the importance of acquiring skills on mentoring staffs by school level.

For skills on engaging parents, the *p*-value (0.884) for Levene's Test for equality of variance is greater than $\alpha=0.05$. Thus the variances of the two populations are assumed to be equal. The *p* value (0.995) for *t*-test for equality of means is greater than $\alpha=0.05$. In conclusion, there is also no significant difference in the perceptions on the importance of acquiring skills on engaging parents by school level.

Table 4. Independent sample *t*-test results for school leaders' perception based on school level

		Levene's test for equality of variances		t-test for equality of means					
		<i>p</i> -value	<i>t</i>	<i>df</i>	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% CI <i>LL</i> <i>UL</i>	
Mentoring staffs	Equal variances assumed	0.669	0.075	475	0.940	0.009	0.120	-0.226	0.244
	Equal variances not assumed		0.063	31.708	0.950	0.009	0.142	-0.279	0.297
Engaging parents	Equal variances assumed	0.884	-0.007	475	0.995	-0.001	0.135	-0.267	0.265
	Equal variances not assumed		-0.007	33.498	0.995	-0.001	0.129	-0.263	0.261

Note: CI = confidence interval; *LL* = lower limit; *UL* = upper limit

School Leaders' Perceptions on the Importance of Acquiring Skills on Mentoring Staffs and Engaging Parents by Age Group

The breakdown of the school leaders according to age group in this study is 11 (2.31%) school leaders in the 20 to less than 30 years old age group, 9 (1.89%) school leaders in the 30 to less than 40 years old age group, 96 (20.12%) school leaders in the 40 to less than 50 years old age group, and 361 (75.68%) school leaders in the 50 to less than 60 years old age group. Table 5 shows the descriptive statistics of the two skills by age groups. For mentoring staffs, the mean for age group 30 to less than 40 years old is the highest (mean=4.89, SD=0.333). This is followed by age group 40 to less than 50 years old (mean=4.80, SD=0.515), age group 50 to less than 60 years old (mean=4.62, SD=0.656) and lastly age group 20 to less than 30 years old (mean=4.45, SD=0.820). ANOVA test in Table 6 showed the *p*-value (0.035) is less than $\alpha=0.05$. Thus, there is significant difference in the perceptions on the importance of acquiring skills on mentoring staffs by age group.

The mean values for skills on engaging parents followed a trend that is similar to the means for skills on mentoring staffs. The mean for age group 30 to less than 40 years old is also the highest (mean=4.67, SD=0.500). This is also followed by age group 40 to less than 50 years old (mean=4.54, SD=0.631), age group 50 to less than 60 years old (mean=4.45, SD=0.718) and lastly age group 20 to less than 30 years old (mean=4.18, SD=1.328). However, the *p*-value (0.303) is greater than $\alpha=0.05$, indicating there is no significant difference in the perceptions on the importance of acquiring skills on engaging parents by age group.

Table 5. Mean score for school leaders' perception based on age group

		<i>N</i>	Mean ± <i>SD</i>	<i>SEM</i>
Mentoring staffs	20 to less than 30 years old	11	4.45 ± 0.82	0.247
	30 to less than 40 years old	9	4.89 ± 0.33	0.111
	40 to less than 50 years old	96	4.80 ± 0.52	0.053
	50 to less than 60 years old	361	4.62 ± 0.66	0.035
	Total	477	4.66 ± 0.63	0.029
Engaging parents	20 to less than 30 years old	11	4.18 ± 1.33	0.400
	30 to less than 40 years old	9	4.67 ± 0.50	0.167
	40 to less than 50 years old	96	4.54 ± 0.63	0.064
	50 to less than 60 years old	361	4.45 ± 0.72	0.038
	Total	477	4.47 ± 0.72	0.033

Note: *SD* = standard deviation; *SEM* = standard error of mean

Table 6. One-way ANOVA results for school leaders' perception based on age group

		Sum of Squares	df	Mean Square	F	p-value
Mentoring staffs	Between Groups	3.436	3	1.145	2.883	0.035
	Within Groups	187.864	473	0.397		
	Total	191.300	476			
Engaging parents	Between Groups	1.875	3	0.625	1.217	0.303
	Within Groups	242.871	473	0.513		
	Total	244.746	476			

School Leaders' Perceptions on the Importance of Acquiring Skills on Mentoring Staffs and Engaging Parents by School Location

Table 7 shows the descriptive statistics of the two skills by school locations. There are 151 (31.66%) school leaders from the interior schools, 274 (57.44%) school leaders from the rural schools, and 52 (10.90%) school leaders from the urban schools. For mentoring staffs, the mean for the urban school leaders is the highest (mean=4.77, SD=0.425). This is followed by the rural (mean=4.69, SD=0.642) and interior (mean=4.56, SD=0.669) school leaders. ANOVA test in Table 8 showed the p value (0.058) is greater than $\alpha=0.05$. Thus, there is no significant difference in the perceptions on the importance of acquiring skills on mentoring staffs by school location.

For engaging parents, the mean for the school leaders from the urban schools is also the highest (mean=4.67, SD=0.474). This is also followed by school leaders from the rural (mean=4.49, SD=0.747) and interior schools (mean=4.36, SD=0.716). ANOVA test in Table 8 showed the p-value (0.022) is less than $\alpha=0.05$. Thus, there is significant difference in the perceptions on the importance of acquiring skills on engaging parents by school location.

Table 7. Mean score for school leaders' perception based on school location

		N	Mean \pm SD	SEM
Mentoring staffs	Interior	151	4.56 \pm 0.67	0.054
	Rural	274	4.69 \pm 0.64	0.039
	Urban	52	4.77 \pm 0.43	0.059
	Total	477	4.66 \pm 0.43	0.029
Engaging parents	Interior	151	4.36 \pm 0.72	0.058
	Rural	274	4.49 \pm 0.75	0.045
	Urban	52	4.67 \pm 0.47	0.066
	Total	477	4.47 \pm 0.72	0.033

Note: SD = standard deviation; SEM = standard error of mean

Table 8. One-way ANOVA results for school leaders' perception based on school location

		Sum of Squares	df	Mean Square	F	p-value
Mentoring staff	Between Groups	2.285	2	1.143	2.865	0.058
	Within Groups	189.014	474	0.399		
	Total	191.300	476			
Engaging parents	Between Groups	3.896	2	1.948	3.833	0.022
	Within Groups	240.851	474	0.508		
	Total	244.746	476			

DISCUSSION

School leaders in this study generally agreed it is important to acquire skills on mentoring staffs and engaging parents. This is pertinent because both skills are closely related to the school's teaching and learning quality. The quality of teaching and learning in a school is well accepted by the research community as a significant contributor to good academic performance of the students (Bush, 2021; Cruickshank, 2017; Leithwood et al., 2020; Leithwood et al., 2017). There is no significant difference in the perceptions on the importance of acquiring skills on mentoring staffs and engaging parents by

gender, and by school level. This is consistent with the findings from Bush (2021) where generally, school leaders of both levels of school see the importance of collaborating with both the teachers and parents in managing the schools. Although Martínez et al. (2021) reported that female school leaders possess higher management quality, this study showed that there is no difference between the perceptions of the male and female school leaders on the mentoring staffs and engaging parents skills acquirement.

However, there is significant difference in their perceptions on the importance of acquiring skills on mentoring staffs by age group. The young (20 to less and 30 years) and older (50 to less than 60 years) school leaders were found to perceive acquiring skills on mentoring staffs as a little less important when compared to their colleagues of age range 30 to less than 50 years old. The difference in perceptions among different age groups need to be addressed especially for older school leaders which form the majority of the school leaders. Staffs will not gain from their leaders' vast experience and knowledge if they perceive skills in mentoring staffs as less important which may result in little or ineffective mentoring sessions. For young school leaders, their term as leaders are longer and it is vital for them to have the right perception on mentoring skills to effectively lead their schools. For skills on engaging parents, there is no significant difference in terms of their perception on the importance of this group regardless of their age group.

There is also significant difference in their perception on the importance of acquiring skills in engaging parents by school location. Urban school leaders perceive acquiring skills on engaging parents as more important when compared to their colleagues particularly in the interior area. Comparatively, students in urban schools commonly from families with higher social economic status. This correlates with findings by Silins and Mulford (2004) where school leaders of schools with students of higher socio-economic status tend to execute instructional leadership more actively. Generally, parents in interior areas look up to school leaders for assistance in educating their children and school leaders should take advantage by actively engaging them. However, the results shows otherwise and need to be ratified so that parents in the interior areas can actively participate and contribute meaningfully toward uplifting the quality of education in their area. For skills on mentoring staffs, there is no significant difference by school location, implying that school leaders across school locations generally perceive the skill of mentoring staffs as a vital leadership skill.

As a conclusion, the principals and headmasters agreed that skills on mentoring staffs and engaging parents are important for them to function as an effective school leader. The perception of school leaders on the importance of acquiring the skill of mentoring staffs shows statistical significant difference by school locations and age group while the opposite is noticed for analyses done by gender and school level. On the other hand, statistical significant difference is reported for the perception of school leaders on the importance of acquiring the skill of engaging parents by school locations but not for the analyses carried out by gender, school level and age group.

CONCLUSION AND RECOMMENDATION

This study provides insight on school leaders' perceptions on the importance of acquiring skills in mentoring staffs and engaging parents in Malaysian context. It serves as an input for the Education Department to implement plans to ensure school leaders having the right priority and skills. Further study need to be conducted to understand why school leaders especially in the age range of 50 to less than 60 years old perceive acquiring skills on mentoring staffs as a little less important when compared to their colleagues of other age ranges. This is especially important because based on this study; this group form the majority of the school leaders (75.7%) in the state. It is equally important for the relevant authority to take note and find out the reasons school leaders in the interior areas view engaging parents as less important as compared to those in urban and rural area. This is to ensure interior schools are not lagging behind in terms of education.

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REFERENCES

- Alinsunurin, J. (2020). School learning climate in the lens of parental involvement and school leadership: lessons for inclusiveness among public schools. *Smart Learning Environments*, 7, 25. <https://doi.org/10.1186/s40561-020-00139-2>
- Barr, S., & Saltmarsh, S. (2014). It all comes down to the leadership: The role of the school principal in fostering parent-school engagement. *Educational Management Administration & Leadership*, 42(4), 491-505.
- Bush, T. (2021). Assessing successful school leadership: What do we know? *Educational Management Administration & Leadership*, 49(5), 687–689. <https://doi.org/10.1177/17411432211034675>
- Cruikshank, V. (2017) The influence of school leadership on student outcomes. *Open Journal of Social Sciences*, 5, 115-123. <https://doi.org/10.4236/jss.2017.59009>
- Dhuey, E., & Smith, J. (2014) How important are school principals in the production of student achievement? *Canadian Journal of Economics*, 47, 634-663. <https://doi.org/10.1111/caje.12086>
- Fletcher, E. C., Jr., Smith, C. A. S., & Hernandez-Gantes, V. M. (2021). IT takes a village: A case study of internal and external supports of an urban high school magnet career academy. *Urban Review*, 53(4), 681-707. <https://doi.org/10.1007/s11256-020-00593-9>
- Gray, J. A. (2018). Leadership-focused coaching: A research-based approach for supporting aspiring leaders. *International Journal of Educational Leadership Preparation*, 13(1), 100-120.
- Green, T., & Gooden, M. (2014). Transforming out-of-school challenges into opportunities: Community school reform in the urban Midwest. *Urban Education*, 49, 930-954.
- Jeynes, W. H. (2018). A practical model for school leaders to encourage parental involvement and parental engagement. *School Leadership and Management*, 38(2), 147-163. <https://doi.org/10.1080/13632434.2018.1434767>.
- Leithwood, K., & Day, C. (2007). Starting with what we know. In C. Day and K. Leithwood (Eds.), *Successful principal leadership in times of change* (pp. 1-15). Dordrecht: Springer. https://doi.org/10.1007/1-4020-5516-1_1
- Leithwood, K., Harris, A., & Hopkins, D. (2008). Seven strong claims about successful school leadership. *School Leadership and Management*, 28(1), 27-42.
- Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School Leadership and Management*, 40(1), 5-22. doi:10.1080/13632434.2019.1596077
- Leithwood, K., Sun, J., & Pollock, K. (Eds.) (2017). How school leaders contribute to student success: The four paths framework. New York: Springer. <https://doi.org/10.1007/978-3-319-50980-8>
- Martínez, M. M., Molina-López, M. M., & de Cabo, R. M. (2021). Explaining the gender gap in school principalship: A tale of two sides. *Educational Management Administration & Leadership*, 49(6), 863-882. <https://doi.org/10.1177/1741143220918258>
- Ministry of Education Malaysia (2013). *Malaysia education blueprint 2013–2025*. <https://www.moe.gov.my/en/muat-turun/penerbitan-dan-jurnal/pppm-2013-2025-pendidikan-prasekolah-hingga-lepas-menengah/1207-malaysia-education-blueprint-2013-2025/file>
- Mulford, B. (2003). *School leaders: Challenging roles and impact on teacher and school effectiveness* (OECD commissioned paper). Faculty of Education, University of Tasmania.
- Northouse, P. G. (2010). *Leadership theory and practice* (5th ed.). Sage.
- OECD (2021). *Education at a glance 2016: OECD indicators*. OECD Publishing.
- Schleicher, A. (Ed.) (2012), *Preparing teachers and developing school leaders for the 21st century: Lessons from around the world*. OECD Publishing. <https://doi.org/10.1787/9789264174559-en>
- Silins, H. and Mulford, B. (2004). Schools as learning organizations: Effects on teacher leadership and student outcomes. *School Effectiveness and School Improvement*, 15, 443-466. <https://doi.org/10.1080/09243450512331383272>
- White, C. (2015). *The creation and validation of an instrument to measure school STEM culture*. (Doctorate Dissertation). Clemson University, South Carolina, United States.