



ISSN: 2222-6990

Systematic Literature Review: Strategic Leadership Practices among School Leaders in Malaysia

Mariani Jaafar, Soaib Asimiran, Arnida Abdullah, Siti Noormi Alias

To Link this Article: http://dx.doi.org/10.6007/IJARBSS/v12-i3/12192

DOI:10.6007/IJARBSS/v12-i3/12192

Received: 17 January 2022, Revised: 19 February 2022, Accepted: 01 March 2022

Published Online: 16 March 2022

In-Text Citation: (Jaafar et al., 2022)

To Cite this Article: Jaafar, M., Asimiran, S., Abdullah, A., & Alias, S. N. (2022). Systematic Literature Review: Strategic Leadership Practices among School Leaders in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 12(3), 128–138.

Copyright: © 2022 The Author(s)

Published by Human Resource Management Academic Research Society (www.hrmars.com)

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non0-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: http://creativecommons.org/licences/by/4.0/legalcode

Vol. 12, No. 3, 2022, Pg. 128 – 138

http://hrmars.com/index.php/pages/detail/IJARBSS

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at http://hrmars.com/index.php/pages/detail/publication-ethics





⊗ www.hrmars.com ISSN: 2222-6990

Systematic Literature Review: Strategic Leadership Practices among School Leaders in Malaysia

Mariani Jaafar, Soaib Asimiran, Arnida Abdullah, Siti Noormi Alias

Faculty of Educational Studies, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia

Email: mariani.jaafar@yahoo.com, soaib@upm.edu.my, arnidaa@upm.edu.my, sitinoormi@upm.edu.my

Abstract

Changes in the world of education have provided an avenue for the introduction and application of various discoveries of leadership concepts, to ensure that the quality of education is in line and meets the demands of current changes. Futuristic and contemporary terminology and philosophy of strategic leadership should be practiced by school leaders to manage educational changes. Looking at the educational changes and to achieve the aspiration of Malaysian Education Blueprint (MEBP) 2013-2025, it is relevant and appropriate for school leaders to practice strategic leadership in school. Therefore, the study was conducted to identify the level and impact of strategic leadership practices on the quality and academic exellence of the schools in the last six years. This systematic literature review (SLR) allows researcher to conduct an explicitly examination of strategic leadership practices among school leaders in Malaysia. A total of 1214 articles were analysed by synthesising it through the four levels of Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA). Resources were searched through four main databases namely SCOPUS, ERIC, Science Direct and Google Scholar. 10 articles that met the criteria and conditions of the study were reviewed. The analysis found that, elements of anxiety or dissatisfaction with the status quo, strategic orientation and strategic translation are given priority. In order to achieve highquality education and sustain school academic excellence, school leaders need to coordinate all nine elements at an optimal level. Overall, the analysis shown that the strategic leadership practices of school leaders in Malaysia are at a high level and it provides positive and significant impacts on the academic performance and quality of education. The implications of the study can be leveraged for further studies. Future studies proposed to be conducted in qualitative studies or mixed methods in support of strategic leadership practiced by school leaders.

Keywords: Strategic Leadership, Practice, Education Leaders, Change, Malaysia, Systematic Literature Review

Vol. 12, No. 3, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

Introduction

The rapidly changing transition of global education with the introduction of the Industrial Revolution 4.0 (IR 4.0), demands a radical transformation in the national education system to produce a generation that can drive the country's economic development. A decision was made by the Ministry of Education Malaysia (MOE) to evaluate and review the quality of national education to be on par with the quality and standards of international education by reviewing the curriculum standard documents as well as adopting and developing 21stcentury learning. Therefore, MOE has launched and developed the MEBP (2013-2025) which includes eleven major shifts to implement changes towards transforming the national education systems. The initiatives taken by the MOE directly contribute to the achievement of the aspirations of the national education system and society in particular. However, based on the current development of the country's educational performance at the international level or even at the national level, it clearly renders a worrying accomplishment, as though it portrays failure in achieving national education quality standards from being on par with international education quality standards. Therefore, changes need to be made especially to achieve the five aspirations of national education and provide a return on investment and significant progress to the performance of national education in a more holistic manner.

To realize such aspiration, the leadership should be based on having strategic, systematic, futuristic and contemporary attributes. Davies & Davies (2010); Davies & Davies (2004, 2006); Ali (2012); Lahtero and Kuusilehto-Awale (2013); Pearce and Robinson (2009) previously illustrated that strategic leadership is the key driver in managing change. The combination of dimensions in organisational management ability and personal characteristics of a quality leader has established a balanced perspective on the credibility of a more systematic and organised strategic leader and has provided positive implications on the quality of national education. Quality knowledge and thinking as well as a planned and structured form of practice and action assist strategic leaders to build sound strategies as a solution to the academic achievement reform and improvement of the national education quality to a better standard.

Objective and Research Questions

Based on the reviews given, and the lack of focus and research on strategic leadership practices at the national level has attracted the attention of researcher to identify the level and impact of strategic leadership practices among school leaders in Malaysia. Therefore, two research questions were formed:

- 1) What is the level of strategic leadership practice among school leaders in Malaysia?
- 2) What is the impact of strategic leadership practices among school leaders on the quality of education in Malaysia?

Research Methods

A systematic literature review method was employed in this study to analyse the strategic leadership practices of school leaders in Malaysia. High-impact studies can be tracked systematically through the four stages of analysis of Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), the identification, screening, eligibility and inclusion (Gillath & Karantzas, 2019; Mengist et al., 2020).

Vol. 12, No. 3, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

At the identification stage, the main keywords used were "strategic leadership", "Malaysia", "principal", "educator" and "school" to identify articles related to the research objectives. In addition, other alternative terms in Malay are used, namely "kepimpinan strategik", "pengetua", "pendidik" and "sekolah". To obtain a broader finding, the word 'AND' was placed between the main keyword and 'OR' was included to support the alternative terms used (Aliyu, 2017).

According to Okoli (2015), the articles that were analysed through PRISMA were of good quality and were able to identify the gaps for further study. The identified articles will be evaluated and analysed critically and comprehensively to provide definite answers to the research questions (Brwon University Library, 2020). The evaluation and analysis results will provide a strong justification on the extent and impact of strategic leadership practices of school leaders in Malaysia and give added value to scientific research in the areas of leadership at the national level.

PRISMA Analysis Stages

Identification

The article survey and search process were initiated using four main databases namely SCOPUS, ERIC, Science Direct and Google Scholar. The details of the articles were set to the last six years of publication, 2016 to 2021. The search found 363 articles from the SCOPUS database, 336 from the ERIC database, 393 from the Science Direct database and 122 from the Google Scholar database.

Screening of Articles

Articles found at the identification level will be screened to obtain more accurate articles and in accordance with the specifications of the study. At this stage, articles that do not meet the study specifications will be removed. Of the 1214 total articles found, a total of 1197 which were published before 2016 were rejected, consisting of conference articles, review articles, dissertations, theses and articles in languages other than Malay and English. A total of 17 articles that met the selection criteria and related to strategic leadership practices in Malaysia were accepted.

Eligibility of Articles

After the initial screening process is completed, 17 articles will be analysed and screened for the second time. This screening process is conducted by reading in-depth and comprehensively on the abstract until the findings section to identify articles on strategic leadership practice that focus on principals, educators and the context of school education. This process has excluded a total of 7 articles that were related to business organisations.

Inclusion

From the readings made, a total of 10 articles were selected that discuss explicitly and indepth the standard and impact of strategic leadership practices among school leaders in Malaysia.

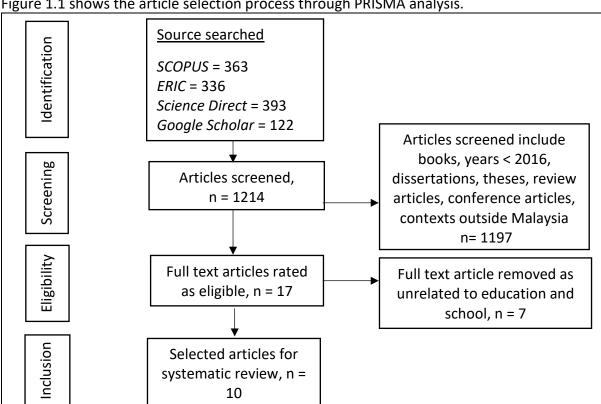


Figure 1.1 shows the article selection process through PRISMA analysis.

Figure 1.1: Preferred Reporting Items for Systematics Reviews and Meta-Analyses (PRISMA)

Source: Mohamed Shaffril, Samah, Samsuddin & Ali (2019); Moher, Liberati, Tetzlaff & Altman (2009)

Table 1.1 shows the list of selected articles.

Table 1.1: List of articles on strategic leadership practices among school leaders in Malaysia

Author	Year	Article Title
Zakaria et al	2021	The influence of principals' strategic leadership on
		students' outcome
Mohamad & Twontawi	2021	School teachers' strategic thinking skills: Cross- sectional survey based on demographic factors
Zakaria et al	2020	School principals strategic leadership in the implementation of 21 st -century learning
Ali	2020	Preliminary findings of correlations between school leaders' strategic leadership practice, quality assurance systems practice, and risky & non-risky Malaysian schools.
Abd Hamid	2020	Kepimpinan strategik dan hubungannya dengan kualiti pengajaran guru di sekolah kluster Tamil di daerah Pasir Gudang.
Marasam et al	2019	Kepimpinan pengetua berdasarkan atribut semula jadi dalam memartabatkan profesionalisme keguruan di SMK St Micheal Penampang, Sabah

Vol. 12, No. 3, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

Ali	2018	Validating a model of strategic leadership practices for Malaysian vocational colleges educational leaders.
Ismail et al	2018	Teacher collaboration as a mediator for strategic leadership and teaching quality.
Mohamad & Ismail	2018	Kepimpinan strategik dan hubungannya dengan kualiti pengajaran guru
Mohamad et al	2016	Kepimpinan strategik dan hubungannya dengan kesediaan perubahan warga organisasi

Findings and Discussion Level

From the systematic literature review analysis conducted, it was found that generally, the strategic leadership practice among school leaders in Malaysia is at a high level for both dimensions of organisational management ability and personal characteristics of leaders. Leaders have set clear policies and goals and share them with all members of the school community. The results of the study analysis are in line with the findings of foreign researcher Chan (2017); Deeboonmee and Ariratana (2014); Prasertcharoensuk and Tang (2017), school leaders in Thailand practice strategic leadership to determine schools' direction and goals, implementation, control and evaluation of strategies but differ in their assessments in which they do not specifically deliberate on the nine elements of strategic leadership. The analysis results found that the dimension of personal characteristics of leaders is more outstanding among leaders and provides a positive impact on the school agenda as compared to the dimension of organisational management ability. The personal characteristics exhibited by the leaders have increased the motivation and readiness of teachers in implementing change to teaching and learning activities to improve academic achievement and school excellence.

The analysis found that elements of anxiety or dissatisfaction with the status quo are given priority by school leaders who dare to face challenges and prioritize the implementation of change to achieve better results. In addition to the elements of strategic orientation and strategic translation which are also a priority in managing education and resources for student's academic excellence. Leaders are not easily satisfied with current achievements and are constantly making changes by implementing new strategies to ensure that academic achievement expectations are met. However, the element of dissatisfaction with the status quo which is the main practice of leaders is not in line with the element of making changes which is at the lowest level in strategic leadership in schools. Additionally, the element of adaptability is also given less attention. All three elements should be practiced at a high level to ensure that the goal for change can be achieved. This has formed an interpretation of the actual level of understanding and credibility of the schools' strategic leaders in enabling all the elements. Although the elements of status quo dissatisfaction, strategic orientation and strategic translation are appropriate in educational management, a wise strategic leader should balance and emphasize all nine-dimensional elements of organisational management

Vol. 12, No. 3, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

ability and the personal characteristics of leaders as designed by Davies and Davies (2004) and should not be limited to certain elements only.

School leaders need to evaluate and improve the under practiced elements and coordinate all nine elements at an optimal level to achieve high-quality education and sustain school academic excellence. Based on MEBP (2013-2025), excellent academic achievement is the best indicator of the quality of education (Ministry of Education Malaysia, 2013). Overall, the analysis concludes that school leaders in Malaysia have a high ability to lead and manage education in a structured and planned manner by enabling and practicing both dimensions of strategic leadership namely the ability to manage the organisation and personal characteristics of leaders, wisely and well.

Impacts

Strategic leadership among school leaders in Malaysia is also assessed in terms of the impact of the practice. Analysis by synthesis conducted through systematic literature review had found answers and provided clear justification of the resulting impact of leaders' strategic leadership practices and also brought about other perspectives. From the analysis conducted, it was found that strategic leadership practices clearly gave a positive effect and have a significant relationship with school effectiveness, especially to the quality of teachers' teaching, although other factors also contribute to the quality of teaching. However, the analysis found that the strategic leadership of school leaders was not the dominant factor contributing to the quality of teachers' teaching.

The organisational management ability and personal characteristics leveraged by school leaders have developed commitment and confidence as well as increased the teachers' motivation and willingness to change. This has resulted in them to implement change by improving the quality of teaching while building good relationships and cooperation with school leaders and fellow teachers in performing tasks. Quality teaching results in improved academic achievements, due to the effective strategic leadership practices of leaders even if indirectly. Summaries from the overall analysis provided a clear understanding that leadership and strategic thinking are able to help leaders make sound considerations and decisions accurately and quickly, execute change in a more organised manner and improve the academic excellence and effectiveness of schools. The analysis results also found that strategic leadership practices by school leaders not only have a positive impact on leaders' leadership skills, teachers' teaching quality and students' academic achievement, they also have the ability to influence teachers' psychology and develop better working relationships. Therefore, it is relevant and appropriate for school leaders to practice strategic leadership in managing educational change to improve the quality and academic excellence of schools.

However, researchers also suggest an evaluation of the impact of strategic leadership practices on the level of teacher involvement, which is an important mechanism in school academic excellence that can be assessed in future studies. Will the organisation management ability and personal characteristics of school strategic leaders influence teachers' involvement in implementing school planning? Further research is required to obtain justification on the total impact of leaders' strategic leadership practices on teacher engagement as a whole, apart from only assessing the relationship of strategic leadership

Vol. 12, No. 3, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

practices with teachers' motivation, commitment and readiness to make changes. According to Barrick et al (2015); Martins and Nienaber (2018); Nienaber (2017, 2019); Nienaber and Martins (2020); Reijseger et al (2017) staff involvement contributes to the effectiveness of planning and achievement of organisational goals. Bakker and Demerouti (2014) explained that staff engagement is influenced by job resources and job demands managed and provided by organisational leaders. How school strategic leaders balance employment resources and job demands so as to affect the teachers' engagement is an important element which requires further study. Strong strategic leadership and high teacher involvement provide strengths to the school in managing better planning of educational change so as to have positive implications for the school's academic excellence.

Implications

The findings of this systematic literature review have successfully unravelled the level and impact of strategic leadership practices among school strategic leaders in Malaysia. The analysis found that the level of strategic leadership practices of school leaders is high and has provided a positive impact on the quality of teaching, which contributed to better academic achievement. However, based on mediocre achievement in the public examination of Malaysia Certificate of Education (Sijil Pelajaran Malaysia, SPM) with a very small percentage increase (Ministry of Education Malaysia, 2018); failure to achieve the average international minimum score for the assessment of Trends in International Mathematics and Science Study (TIMMS) and Programme for International Student Assessment (PISA) since 1999 (Ministry of Education Malaysia, 2020; Organisation for Economic Co-Operation and Development, 2019) and only 5.4 per cent of students achieved excellent academic achievement in 553 high-performing schools and cluster schools out of the total number of 10152 schools (Ministry of Education Malaysia, 2018); has raised questions regarding the findings of previous studies on the standard of strategic leadership practices of school leaders and the extent to which strategic leadership practices affect the quality of teaching and academic achievement. Has the explanation of the concept and disclosure of strategic leadership practices been communicated adequately to school leaders?

Serious and due attention need to be accorded by policy makers and school leaderships to strengthen and cultivate strategic leadership practices among school leaders to bring about radical change, by managing school education in a more organised and meticulous approach. The strategic leadership of less effective leaders will typically hinder the goal of good academic achievement (Hitt & Ireland, 2002; Zakaria et al., 2021). Meanwhile, Ali and Zulkipli (2017) explained the existence of gaps due to the lack of studies on strategic leadership practices in education at the national level, especially at the school level, as compared to other leadership practices that have been studied extensively. Therefore, a more comprehensively further research is required to identify the level of understanding and practice of strategic leadership of school leaders and its impact on academic achievement. Such factors are the determinants of the quality of national education. It is essential to identify and disclose the impact of strategic leadership of school leaders on co-curricular achievement and student personality in order to provide added-value in leadership.

The findings of the analysis explain that strategic leadership practices are the best practices and are a priority in making changes to uplift the quality of school education. Undoubtedly it proves that the practice of strategic leadership is the best career path for school leaders. It

Vol. 12, No. 3, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

provides the opportunity for school leaders to receive rewards and incentives as part of the stimulus of the Principal's Career Package based on the seriousness and commitment given by them. Additionally, strategic leadership shall improve their existing leadership skills. In the meantime, the revision of MEBP (2013-2025) on the fifth shift should be performed by policy makers by setting strategic leadership practices as one of the high-performance leadership that should be practiced by every school leader with regards to the current educational changes and new demands of the 4th industrial revolution era. Therefore, strategic leadership should be practiced by school leaders to implement change as a remedial effort to better quality education. Subsequently, such practice shall produce innovative and highly skilled students to meet the demands of society and industry and ultimately achieve national educational goals.

Conclusion

The results of the study have been able to identify the level and impact of strategic leadership practices among strategic school leaders in Malaysia which is the basis for academic excellence and the quality of education in the country. This analysis should be carried out to provide an avenue for the Education Planning and Research Division (EPRD) of the Ministry of Education Malaysia to design a new action plan to enable strategic leadership practices among school leaders. At the same time, the Aminuddin Baki Institute (IAB) has the opportunity to plan and provide professional development courses and training to school leaders to provide exposure to other forms of alternative leadership practices that can be put into practice to improve the quality of school education. In addition, this analysis is also able to increase understanding, build caring values by sharing information and provide awareness on the importance of strategic leadership practices to school leaders to change the paradigm of existing leadership practices to a form of strategic leadership practices that can provide balance in managing school curriculum and human resources better and planned in line with the demands of current educational change.

References

- Muhammad, A. M. (2013). Amalan kepimpinan strategik pengetua dan kelestarian kecemerlangan akademik Sekolah Berasrama Penuh (SBP) di Malaysia. Universiti Kebangsaan Malaysia.
- Bakker, A. B., & Demerouti, E. (2014). Job Demands-Resources Theory. In *Wellbeing: Vol. III* (pp. 1–28). John Wiley & Sons, Inc.
- Barrick, M. R., Thurgood, G. R., Smith, T. A., & Courtright, S. H. (2015). Collective organizational engagement: Linking motivational antecedents, strategic implementation, and firm performance. *Academy of Management Journal*, 58(1), 111–135.
- Aliyu, B. M. (2017). Efficiency of boolean search strings for information retrieval. *American Journal of Engineering Research (AJER)*, 6(11), 216–222.
- Chan, C. W. (2017). Leading today's kindergartens: Practices of strategic leadership in Hong Kong's early childhood education. *Educational Management Administration and Leadership*, 46(4), 679–691.
- Davies, B., & Davies, B. J. (2010). Strategic Leadership. In *International Encyclopedia of Education* (pp. 13–36).
- Davies, B. J., & Davies, B. (2004). Strategic leadership. *School Leadership & Management*, 24(1), 29–38

- Davies, B. J., & Davies, B. (2006). Developing a model for strategic leadership in schools. Educational Management Administration & Leadership, 34(1), 121–139.
- Deeboonmee, W., & Ariratana, W. (2014). Relationship between strategic leadership and school efffectiveness. *Procedia Social and Behavioral Sciences*, 112, 982–985.
- Mohamad, F., & Ismail, S. N. (2018). Kepimpinan strategik dan hubungannya dengan kualiti pengajaran guru. *Jurnal Kepimpinan Pendidikan*, *5*(2), 14–25.
- Gillath, O., & Karantzas, G. (2019). Attachment security priming: a systematic review. *Current Opinion in Psychology*, 25, 86–95.
- Hairuddin Mohd Ali. (2012). The quest for strategic Malaysian quality national primary school leaders. *International Journal of Educational Management*, 26(1), 83–98.
- Ali, H. M. (2019). Validating a model of strategic leadership practices for Malaysian vocational college educational leaders: A structural equation modeling approach. *European Journal of Training and Development*, 43(1–2), 21–38.
- Ali, H. M., & Zulkipli, I. (2017). Strategic leadership practices and students' aspiration outcomes: What works in Malaysian Vocational Colleges? *Journal of Islamic Thought and Civilization of The International Islamic University Malaysia (IIUM)*, 77–95.
- Kunalan, H., & Ali, H. M. (2020). Preliminary findings of correlations between school leaders' strategic leadership practice, quality assurance system practice, and risky & non-risky Malaysian schools. *Arabian Journal of Business and Management Review (Kuwait Chapter)*, 9(4), 188–197.
- Hitt, M. A., & Ireland, R. D. (2002). The essence of strategic leadership: Managing human and social capital. *Journal of Leadership & Organizational Studies*, 9(1), 3–14.
- Ramakrishnan, K., & Abd Hamid, A. H. (2020). Kepimpinan strategik dan hubungannya dengan kualiti pengajaran guru di sekolah kluster tamil daerah Pasir Gudang. *Jurnal Dunia Pendidikan*, 2(2), 57–64.
- Lahtero, T. J., & Kuusilehto-Awale, L. (2013). Realisation of strategic leadership in leadership teams' work as experienced by the leadership team members of basic education schools. *School Leadership and Management*, 33(5), 457–472.
- Martins, N., & Nienaber, H. (2018). The influence of time on employee engagement in the SA business environment. *International Journal of Productivity and Performance Management*, 67(9), 1682–1702.
- Mengist, W., Soromessa, T., & Legese, G. (2020). Method for conducting systematic literature review and meta-analysis for environmental science research.
- Ministry of Education Malaysia. (2013). Pelan Pembangunan Pendidikan Malaysia 2013 2025 In *Education*.
- Ministry of Education Malaysia. (2018). Malaysia Educational Statistics 2018. In *Educational Planning and Research Division*.
- Ministry of Education Malaysia. (2020). *Laporan Analisis Keputusan Peperiksaan SPM Tahun 2020*.
- Shaffril, M. H. A., Samah, A. A., Samsuddin, S. F., & Ali, Z. (2019). Mirror-mirror on the wall, what climate change adaptation strategies are practiced by the Asian's fishermen of all? *Journal of Cleaner Production*, 232, 104–117.
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *BMJ* (Online), 339(7716), 332–336.
- Mohamad, M., Don, Y., & Ismail, S. N. (2016). Kepimpinan strategik dan hubungannya dengan kesediaan perubahan warga organisasi. *Jurnal Kepimpinan Pendidikan*, 3(2), 1–14.

Vol. 12, No. 3, 2022, E-ISSN: 2222-6990 © 2022 HRMARS

- Nienaber, H. (2017). Immediate manager, performance evaluation and employee engagement: Game changer for organizational performance? *Global Business and Teachnology Association*, 584–595.
- Nienaber, H. (2019). Employee engagement: Driving strategy implementation through dimensions of organisation. *Journal of Management and Organization*, 1–21.
- Nienaber, H., & Martins, N. (2020). Exploratory study: Determine which dimensions enhance the levels of employee engagement to improve organisational effectiveness. *TQM Journal*, 32(3), 475–495.
- Okoli, C. (2015). A guide to conducting a standalone systematic literature review. *Communications of the Association for Information Systems*, *37*(1), 879–910.
- Organisation for Economic Co-Operation and Development (OECD). (2019). *Laporan PISA* 2018.
- Pearce, J. A., & Robinson, R. B. (2009). *Strategic Management: Formulation, Implementation and Control* (11th ed.). McGraw-Hill.
- Prasertcharoensuk, T., & Tang, K. N. (2017). The effect of strategic leadership factors of administrators on school effectiveness under the Office of Maha Sarakham Primary Educational Service Area 3. *Kasetsart Journal of Social Sciences*, 38(3), 316–323.
- Reijseger, G., Peeters, M. C. W., Taris, T. W., & Schaufeli, W. B. (2017). From motivation to activation: Why engaged workers are better performers. *Journal of Business and Psychology*, 32(2), 117–130.
- Siti Noor Ismail Duplicate. (2018). Teacher collaboration as a mediator for strategic leadership and teaching quality. *International Journal of Instruction*, 11(4), 485–498.