

The Relationship between Principals' Instructional Leadership and Teachers' Self Efficacy in Religious Private School in Alor Setar District

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Abstract

The purpose of this study is mainly on finding the relationship between Principals' Instructional Relationship and Teachers' Self-Efficacy in Alor Setar District. The study is just focusing on the religious private schools in Alor Setar District. The study uses the dimensions of Principals' Instructional Leadership theory that has been created by Hallinger and Murphy (1986). There are three dimensions for this theory which are defining the school mission, managing the instructional program, and developing a positive school climate. Moreover, the theory for Teachers' Self-Efficacy was adapted from Bandura (1997). The questionnaire has been distributed continuously to the teachers in the religious private school around Alor Setar District. Random sampling has been used to select the sample for this study. 136 samples have participated in this study. The data obtained were analysed using the SPSS version 24. The finding show that the level of Principals' Instructional Leadership and Teachers' Self-Efficacy are in the high level and it is also found that there is a significant relationship between Principals' Instructional Leadership and Teachers' Self-Efficacy ($r = 0.46$, $p < 0.01$). Thus, instructional leadership should be practice by the principal in school as the instructional leadership functions help to increase teachers' self-efficacy.

Keywords: *Principals' Instructional Leadership, Teachers' Self-Efficacy, private school*

1. Introduction

Instructional leadership is emphasizing on the teaching and learning in the school and it is also focusing on the behavior of teachers in working with students. It dimension is targeting on the school's central activities, teaching and learning (Hallinger, 1985). New approaches to teaching, learning, and evaluation is being brought by the recent curriculum reform (Al-Mahdy & Sywelem, 2016). In school, leaders that practice instructional leadership will provide an assistance to teachers in their day-to-day activities, development of collaborative groups among staffs and teachers, and curriculum development. Instructional leadership can improve the quality of education in Malaysia if communities are working together to achieve the goals that has been written in the vision and mission. Scholars, policymakers and practitioners agreed that school leadership is an important contributor to improved system performance and school operation (Fullan, 2007; Harris, 2014; Leithwood & Doris, 2005).

Hence, the implementation of instructional leadership will help in improving the education system in Malaysia regarding the National Education Objective (Harris et al., 2017). Schools in Malaysia will be more effective if the principal implements instructional leadership and achieve the common goals such as building leadership capacity, student achievement is improving, enhancing the culture and climate of the school, and increasing the family and community engagement³ (Harris, Kenny, Cheah,

Devadason, & Adams, 2017). Sergiovanni (1982) stated that the effectiveness, smoothness and efficient of management in school is depend on the leadership of the principal itself.

The number of research about teachers' self-efficacy and principals instructional program are scarce to be found. A large study program for this research has begun to explore instructional leadership within Asia, specifically in seven East Asian countries which are Thailand, Mainland China, Hong Kong, Malaysia, Singapore, Taiwan and Vietnam, (Hallinger & Bryant, 2013). Plus, it has been argued that more empirical enquiries are needed urgently in order to strengthen the research base on instructional leadership, particularly in East Asian societies especially Malaysia (Hallinger & Bryant, 2013; Jameela & Jainabee, 2011). Before the instructional leadership has been implemented in Malaysia or specifically in the education system in Malaysia, school has been implementing a traditional approach which call didactic approach. It is a "chalk and talk" session and there is no creativity in the learning and teaching process. Teacher and principal bring no improvement in school and all the learning processes are depending on the traditional approaches (Nie, Tan, Liao, Lau, & Chua, 2013).

The problem to be addressed in this study is how instructional leadership can influence on the teacher efficacy in teaching and learning in the school. Allinder (1995), stated that the teachers who have high efficacy in teaching will have higher target towards their students. Plus, they are able to receive new ideas and trying a new method of teaching (Guskey, 1988). According to Adi Fahrudin, Abdul Sani Paijo and Ahmad Rozelan (2002), instructional leadership can influence all the task implementation by principal in school.

In another word, principal who implement instructional leadership in his management in school, has accomplish his task as a leader and manager in the school. According to Harris, et. al. (2017), the information and knowledge about principal's instructional leadership in Malaysia is undoubtedly still developing and the exploratory enquiry into principal's instructional leadership in Malaysia is still in the small scale. Current research on the effect of instructional leadership on teacher self-efficacy is still quite vague and not too conclusive in the religious private school sector. It is failed to include specific traits and actions that are showing positive relationship with the teacher efficacy.

2. Objectives

The objectives for this study are to identify the level of principals' instructional leadership and teachers' self-efficacy in the religious private school in Alor Setar, District and to examine the relationship between principal's instructional leadership and teachers' self-efficacy. The study about principals' instructional leadership illustrate wide information and knowledge about the dispositions, traits, and characteristics of the instructional leadership. It will help other scholar to understand this paradigm leadership style. Moreover, this research may create a niche understanding of a relationship between the principals' instructional leadership and teachers' self-efficacy in Malaysia education sector. According to Hallinger and Murphy (1985), there is not much study about the principals' role in managing curriculum and instructional. Moreover, the effort in evaluating the principals' role as an instructional leader is not too wide.

The development of the framework is based on the Principal Instructional Management Rating Scale (PIMRS) by Hallinger and Murphy (1985) and Teachers' Self-Efficacy Scale by Tschannen-Moran and Woolfolk Hoy (2001).

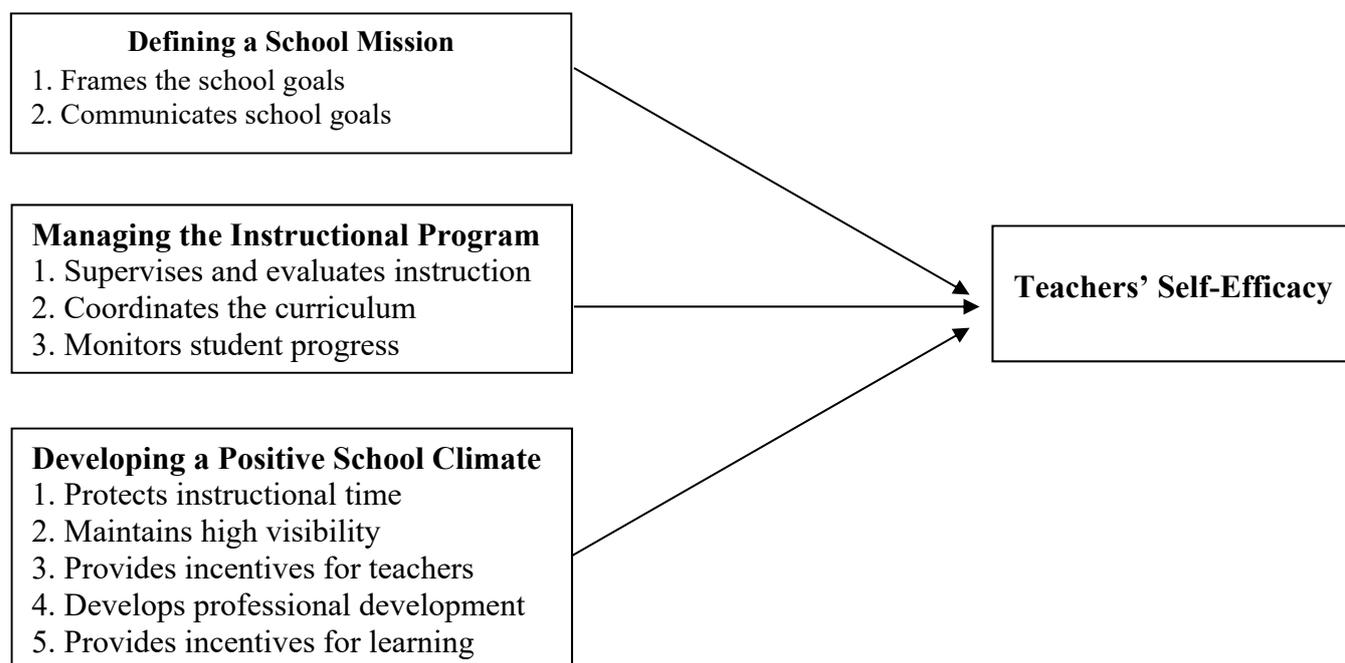


Figure 1.1: The framework of relationship between principals' instructional leadership and teachers' self-efficacy.

3. Literature Review

Principals' Instructional Leadership

Instructional leadership is a new paradigm of leadership theories by Phillip Hallinger. It is generally defined by the management of curriculum, pedagogy and school administration by the school principal (De Bovoise, 1984). In instructional leadership, principal provide an assistance towards the teachers in school about their day-to-day activities, curriculum development, designing effective staff development and development of collaborative groups among staffs in the school. There are three dimensions of principals' instructional leadership which are developing a school mission, managing a curriculum and instruction, and promoting a positive school climate (Hallinger & Murphy, 1985). Those dimensions are important because it targets the school's central activities and teaching and learning activities. It is also focuses on improving classroom instruction to produce student achievement gains.

According to Neumerski (2012), several studies discussed beyond the personal characteristics which is focusing on general behaviors of the principal in the effective school setting. For example, successful principals consistently monitored and supervised students' progress and were highly visible in the supervisory role (Tyack & Hansot, 1982); they were experts in curricular development and teaching and generated a common sense of vision among their staff (Adams, 1999; Tyack & Hansot, 1982); they visited classes, observed the teaching process, and then give a feedback towards those observations; (Bossert, Dwyer, Rowan & Lee, 1982; Edmonds, 1981). As the new

intrigue developed in instructionally focused role for the principal, Philip Hallinger developed one of the most widely used tools for measuring instructional leadership namely Principal Instructional Management Rating Scale (PIMRS) in the 1980s. The PIMRS includes 50 principal behaviors, assessing three dimensions and 10 functions of instructional leadership: (a) defining the school's mission (framing and communicating goals), (b) managing the instructional program (supervising instruction, coordinating curriculum, and monitoring student progress), and (c) promoting a positive school learning climate (protecting instructional time, professional development, a visible presence, promoting high expectations, and providing incentives for teachers and students; Hallinger & Murphy, 1985).

Defining the school mission

In the instructional leadership model by Hallinger and Murphy (1985), there are two functions that comprising the dimension of 'Defining the School Mission' which are *a) Frames the School Goals* and *b) Communicates School Goals*. Firstly, '*Frames the School Goals*' refers to the role by principal in determining the areas in which the school will focus on its resources during a year (Hallinger & Wang 2015). From the study that has been done by Harris et al. (2017), principals promptly sketched out their own vision and aims for the school and it is including their aspirations for its future performance. They were very clear about their expectations and personal goals. Formally, they state goals and aims for the school. But in Malaysia the formal goals for the school tend to be centrally coordinated by the Ministry of Education. The second function is '*Communicates School Goals*'. It is concerned with the ways in which the principal communicates the school's most important goals to teachers, parents, students and so on (Hallinger & Wang 2015). Principals shared the school goals towards the school communities such as parents through campaign, newsletters, events or the school web-site, and organizing a talk with parents (Harris et al., 2017).

Managing the Instructional Program

Secondly, the next dimension of the instructional leadership model is "Managing the Instructional Program", that focuses on the control and coordination of curriculum and the instruction (Hallinger & Wang 2015). It involves three functions which are: *c) Supervises and Evaluates Instruction*, *d) Co-ordinates the Curriculum* and *e) Monitors Student Progress*. This second dimension is concerned on the principal 'managing the technical core' of the school (Hallinger & Wang 2015). This dimension asks the principal or leaders to participate in supervising, enhancing, and monitoring teaching and learning process at school. According Harris et al. (2017), principals in Malaysia are involved mostly in daily activities that range from supervisory and monitoring practices. The role of evaluating and supervising teachers has been taken systematically and thoroughly and it is taken very intensely by principals in Malaysia. Teachers in Malaysia must be evaluated formally and supervised by the principal. The evaluation and supervision routines stated by principals in the sample therefore focused mainly on monitoring teachers' performance for the accountability purposes, development, and ongoing support. Zheng, Yin and Li (2018) stated that, as an instructional leader, principal can practice more interactions with the teachers by observing teacher's class and provide an advice in term of the teaching method. Principal also can discuss with the teacher about specific student regarding the performance or problem related to that student.

Developing a Positive School Climate

The third and last dimension in the instructional model includes five functions which are *a) Protects Instructional Time, b) Develops Professional Development, c) Maintains High Visibility, d) Provides Incentives for Teachers and e) Provides Incentives for Learning*. This dimension is more wider in scope and overlaps into the transformational leadership dimension frameworks' (Hallinger & Wang, 2015:33). These five functions support the idea that effective schools develop cultures of continuous improvement come through a focus on enhancing learning and teaching.

According to Harris et al., (2017), *Develops Professional Development* was most reinforce by principals and most well interpreted in the result. School principals in Malaysia have a core responsibility for communicating the professional learning and development of teachers and this is supported through their key performance indicators (KPIs). Apparently, this is a responsibility that they need to be seriously taken to ensure that it is done well. For the next function which is *h) maintaining high visibility* around the school, the principals' do monitoring and supervisory visits were considered method in which they accomplished this particular aim (Harris et al., 2017). A study founded by Harris et al., (2017) explained that, it is important to understand that principals in Malaysia public schools do not have a main responsibility for *protecting instructional time*. Apparently, it is obvious that there was very small discussion from the school leaders about this function. Lastly, in terms of *Provides Incentives for Teachers and Provides Incentives for Learning*, principals rewarded staff and students for their achievements. Even though school has limited resources that are allocated centrally by the government, some principals found and managed it in creative ways to reward teachers and students through certificates, gifts, trips or others relevant rewards. This practices by the way concerned the different way for different school.

Teachers' Self-Efficacy

Self-efficacy is the one belief about their capabilities to do something (Bandura, 1997). It is related to the confidence of teachers to organize or coordinate one new task in school. Ross and Gray (2006) also explained that teacher efficacy as a set of personal beliefs that refer to the specific function of the teacher's professional behavior. It is about how the teachers feel and the teaching methods that is communicate into students learning outcomes. Teachers can feel both efficacious and quite inefficacious in school or another. The level of expected influence the performance in school competence to meet the demands of a particular teaching task (Teh Pei Ling, Zaidatol Akmaliah, Lope Pihie, Soaib Asimirin, & Foo Say Fooi, 2015).

Principals Instructional Leadership and Teachers' Self Efficacy

Implementing a new thing can be said something that are very challenging. Instructional leadership style is one leadership style that are quite new in management world. The relationship between principals' instructional leadership and teachers' self-efficacy is how teachers can be adapting a new and challenging task such as instructional leadership in their daily activities. Teachers will feel more encouraging and motivated if the principal recognize their works and this will increase their self-efficacy (Hipp, 1997). Teachers need to find a new way to improve their teaching methods that are relevant and up-to-date according to the globalization. The study by Bellibas and Liu (2017) found that there is a significant relationship found between the perceived practices of principals' instructional leadership and teacher's self-efficacy. The study conducted by Zheng, Yin and Li (2018) that exploring the relationships among instructional leadership,

professional learning communities and teacher self-efficacy in China found that there is a positive relationship between principals' instructional leadership and teachers' self-efficacy.

4. Methodology of research

Sample and data collection

In this study, 136 respondents have been selected from the total number of teachers from selected private religious secondary schools in Alor Setar, Kedah to participate in this study. The respondents are the teachers who teaching in private religious secondary schools in Alor Setar district. Data were collected through the distribution of questionnaire. The questionnaires were adopted from the Principal Instructional Management Rating Scale (PIMRS) by Hallinger (1982) for Section B and Teachers' Sense of Efficacy Scale by Tschannen-Moran and Woolfolk Hoy (2001) for Section C. Questions were constructed clearly and directly for respondents' easy understanding. It was being prepared in Malay language format for the convenience of respondents.

Instruments and procedure

The instrument that has been used to collect the data is questionnaires. The questionnaire that was used in this research was adopting from the other research. The questionnaire will be divided into three sections which are Demographic, Principal Instructional Management Rating Scale (PIMRS) and Teachers' Sense of Efficacy Scale. Hallinger's (1985) Principal Instructional Management Rating Scale (PIMRS) was one of the two questionnaires administered to the sample. The PIMRS assesses three dimensions of the instructional leadership construct: defining the schools' mission, managing the instructional program, and promoting a positive school learning climate (Hallinger & Murphy, 1985). The three dimensions include 10 instructional leadership functions divided amongst the three dimensions. The survey consists of 5 Likert type questions ranging from one to five. Five meaning a teacher perceives that the principal "almost always" behaves in the manner indicated by the survey item and one meaning a teacher perceives that the principal "almost never" behaves in the manner indicated by the survey item. The teacher self-efficacy questionnaires (TSES) by Tschannen-Moran and Woolfolk Hoy (2001) were used to investigate the level of teacher efficacy. Subject measures for efficacy were assessed by five-point interval scale. The respondents were required to indicate their degree of agreement or disagreement ranging from: 1 = Strongly disagree (SD) to 5 = Strongly agree (SA).

5. Data analysis

Descriptive statistic was used in presenting the main characteristic of the respondent such as gender, age and another respondents' information. Meanwhile, the level of Principals' Instructional Leadership and Teachers' Self-Efficacy will be evaluated using the mean and standard deviation. At inferential stage, Pearson Product-Moment Correlation Coefficient will be applied as this study is interested in examining the relationship of the Principals' Instructional Leadership and Teachers' Self-Efficacy. This study used Statistical package for Social Science (SPSS) version 24 in order to analyze the data that are gathered from the respondents.

6. Results

The mean value for Principal Instructional Leadership is 3.67. The highest mean value in the Principals' Instructional Leadership is "provides incentives for learning" with the mean value of 3.83 and followed by 3.76 and 3.75 for "protects instructional time" and "communicates the school goals". "Monitor student progress" and "develops professional development" have the same mean value which is 3.70. Next, "supervises and evaluates instruction", "coordinates the curriculum" and "frames the school goals" have the mean value of 3.68, 3.64 and 3.61 consecutively. The variables that have the lowest mean are "maintains high visibility" and "provides incentives for teachers" with the mean value of 3.52 and 3.48. In short, all the level of principals' instructional leadership variables is high. The mean value for the Teachers' Self-Efficacy is 3.89. The level for the Teachers' Self-Efficacy for the religious private school in Alor Setar District is high. The result of the level for Principals' Instructional Leadership and Teachers' Self-Efficacy are shown in Table 4.1.

Table 4.1 The level of Principals' Instructional Leadership

Items	Mean	SD	Level
Frames the school goals	3.61	.736	High
Communicates school goals	3.75	.731	High
Supervises and evaluates instruction	3.68	.715	High
Coordinates the curriculum	3.64	.893	High
Monitors student progress	3.70	.678	High
Protects instructional time	3.76	1.00	High
Maintains high visibility	3.52	.726	High
Provides incentives for teachers	3.48	.909	High
Develops professional development	3.70	.718	High
Provides incentives for learning	3.83	.778	High
Principals' Instructional Leadership	3.67	.623	High
Teachers' Self-Efficacy	3.89	.577	High

The finding for the correlation analysis between Principal's Instructional Leadership and Teachers' Self-Efficacy was shown in Table 4.2. Pearson Correlation Analysis shows there is a significant relationship between Principal's Instructional Leadership and Teachers' Self-Efficacy ($r = 0.46$, $p < 0.01$). Result show that there is a significant relationship between Principal's Instructional Leadership and Teachers' Self-Efficacy dimensions which are Defining a School Mission ($r = 0.35$, $p < 0.01$), Managing an Instructional Program ($r = 0.37$, $p < 0.01$), and Developing a Positive School Climate ($r = 0.43$, $p < 0.01$).

Table 4.2 Correlation between Principal's Instructional Leadership and Teachers' Self-Efficacy

Principals' Instructional Leadership	<i>r</i>	Significant Value
Teachers' Self-Efficacy	0.46	.001
Defining a School Mission	0.35	.001
Managing an Instructional Program	0.37	.001
Developing a Positive School Climate	0.43	.001

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

From the analysis of the hypotheses, all the hypotheses for the relationship between principals' instructional leadership variables and teachers' self-efficacy have been

accepted. This is shown that principals' instructional leadership and its dimensions that has been implemented by the principal have a significant relationship with teachers' self-efficacy.

7. Discussion and Conclusion

In the findings analysis for the study of the level of Principals' Instructional Leadership, it is found that the value of mean for each item that has been evaluated was at the high level which is 3.67. This shows that the principals in the religious private schools in Alor Setar district are implementing the Instructional Leadership practice in their school. This finding has been supported by the study by Jefri (2004) that has been conducted to find the implementation of Instructional Leadership functions and the level of teachers' satisfaction towards the implementation of Instructional Leadership functions. According to Bennet (1995), leadership is guiding a direction towards others, helping people in any situations and achieving every goal. Instructional leadership is the important leadership that should be implemented in every organization. From the study by Nguyen, Hallinger and Chen (2018), the feedback from the principals and teachers stated that they want the instructional leadership to be articulated explicitly as a principals' role as one of the instructional leadership function is focusing on the professional development. Hence, from this finding, principals in the religious private schools absolutely practicing instructional leadership and this matter has been agreed by the teachers in their school. On the other hand, Bellibas and Liu (2017) stated that the principals can influence teachers' perceptions of self-efficacy by engaging in activities aimed to improve teaching and learning in their schools. From that, this finding shows that the level of teachers' self-efficacy is at the high level and all teachers are encouraging to have high level of self-efficacy.

From the analysis of Pearson Correlation, it is found that there is significant relationship between Principals' Instructional Leadership and Teachers' Self-Efficacy. However, the relationship for both variables are just on the moderate relationship. Still, the Principals' Instructional Leadership and Teachers' Self-Efficacy are importance to each other. This finding is parallel with the study by Clark (2009) that has conducted a study to identify the relationship between the behavior of principals' instructional leadership and self-efficacy towards the teachers that teaching Science in primary schools. In addition, Zheng, Yin and Li (2018) also found that all the Instructional Leadership dimension that has been evaluated with the Teachers' Self-Efficacy have a significant relationship since the practice of instructional leadership by the principal really help the teachers for teaching in the classroom.

This study is supported by the study conducted by Al-Mahdy, Emam and Hallinger (2018) shows that there is a significant relationship between Defining a School Mission and Teachers' Self-Efficacy ($r = 0.93, p < 0.01$). From the finding it is show that they are very strong relationship from this dimension. By the practice of "Defining a school Mission", principals can impact teacher commitment by creating a sense of shared purpose among stakeholders in the school which communicate the school goal to the school communities. They implement this by giving a courage to the teacher and the teacher feel more confidence with the task (Al-Mahdy, Emam, & Hallinger, 2018). Sammons, Hillman and Mortimore (1995) stated that the effective school has a both mission and vision. The vision and mission should be understood and implemented by the school communities to ensure that vision and mission can be achieved in the short and long-term period. He also stated that all the task and target that need to be achieved should has a clear objective.

Al-Mahdy, Emam and Hallinger (2018) also found that there is a significant relationship between the dimension of managing an instructional program with teachers' commitment and teachers' efficacy. From the study by Ahmad Kamaruzaman (2012), He stated that the principal will supervise the curriculum that will be used by the teachers in the instructional time in order to make sure that the curriculum that the teachers will use is parallel to the curriculum that has been prepared by the Ministry of Education. Moreover, Zheng, Yin and Li (2018) stated that the principal that practicing the instructional leadership should participate in more interactions with the teachers by do monitoring and supervising teachers while teacher is giving the lesson, talking about the students' performance and simulating the new teaching method in the classroom. Moreover, instructional principal can shorten the distance between the school communities by breakdown the superficial harmony and having meaningful conversations.

According to the Ahmad Kamaruzaman (2012), the function of "protecting the instructional time" is where the principal plays a role to control the students instructional time so that the student will not be disturbed by the other activities in school. The affirmation in the instructional time also has been focusing on. Other than that, principal will give a support and acts as reference to the teachers in instructional time in order to maintain the high visibility (visible presence) in the instructional time. This is consisting the activity of the readiness of the principal to discuss, monitoring the class, involving in the other activities and teaching in specific time.

According to Al-Mahdy, Emam and Hallinger (2018) functions associated with the third dimension, which is develops a Positive School Climate, encouraged teacher commitment by providing 'tangible support' to teachers and by reinforcing the collective efficacy of teachers. Principal will recognize the performance of the teacher and give a reward towards teacher. From that, this practice can increase the teachers' commitment and can increase their courage.

From the finding and result of the study, the purpose of the study has been achieved. In this study, it can be concluded that the principals' instructional leadership behavior is important towards teachers' self-efficacy. This is because the behaviors in this leadership are not focusing on the individual only by practicing autocracy, but it is more towards the leadership activity in a group. The qualities in the individual itself is completing each other through several responsibilities that have been delegated to be shared together. This kind of leadership pattern is not only make the higher position as a leader, but if the leader is practicing the instructional leadership, the leader will get the support from the senior colleague. From that, it can decrease the individual's workload by sharing the leadership task. Findings shows clearly that the common goal for instructional leadership is to fix and improve the situation related to students' lesson and instructional.

Conclusion, instructional leadership refer to the administrator that focusing or emphasizing on the effort to guide teachers towards achieving the excellent of the programs that related to instructional. Instructional leadership also consists of both management and instructional, teacher and student evaluation, school climate, curriculum, source and teaching aids, community support and school, an intellectual in making a decision, short and long term academic goals, communication and positive interaction between principal and teachers. Moreover, finding shown that the importance of teachers' self-efficacy is the belief of one's towards his or her own self in doing something that him or her wants effectively. When someone has a high confidence to

complete the task, so the confidence will bring the success towards oneself. The belief towards self-efficacy is really useful in order to understand and interpret the situation. From that, the principals' instructional leadership and teachers' self-efficacy are really important in interpreting and understanding any situations that happened in school.

8. References

Adams, J. P. (1999). Good principals, good schools. *Thrust for Educational Leadership*, 29(1), 8-11.

Adi Fahrudin, Abdul Sani Paijo, & Ahmad Rozelan Yunus. (2002). *Tingkah laku kepemimpinan pengajaran pengetua: Satu kajian terhadap persepsi guru-guru kanan di beberapa buah sekolah menengah di Kota Kinabalu, Sabah*. Project paper has been presented in the Prosiding Seminar Kebangsaan Profesyen Perguruan, on 3-4 June 2002, UKM, Bangi.

Ahmad Kamaruzaman Mohamed Zan. (2012). *Kepimpinan Instruksional Guru Besar dan Pencapaian Akademik Sekolah di Daerah Petaling*. Tidak diterbitkan. Institut Kepimpinan Pendidikan, Universiti Malaya.

Al-Mahdy, Y. F., & Sywelem, M. M. G. (2016). Teachers' perspectives on professional learning communities in some Arab countries. *International Journal of Research Studies in Education*, 5(4), 45-57.

Allinder, R. M. (1995). The relationship between efficacy and the instructional practice of special education teachers and consultants. *Teacher Education and Special Education*, 17, 86-95.

Bandura, A. (1997). *Self-efficacy. The exercise of control*. New York: W. H. Freeman and Comp.

Bellibas, M. S., & Liu, Y. (2017). Multilevel analysis of the relationship between principals' perceived practices of instructional leadership and teachers' self-efficacy perceptions. *Journal of Educational Administration*, 55(1), 49-69.

Clark, I. (2009). *An analysis of the relationship between K-5 elementary school teachers' perception of principal instructional leadership and their science teaching efficacy*. Unpublished doctoral dissertation, University of Minnesota, Minneapolis-St. Paul, MN.

De Bevoise, W. (1984). Synthesis of research on the principal as instructional leader. *Educational Leadership*, 41, 14-20.

Fullan, M. (2007), *The new meaning of educational change*. New York: Teachers College Press.

Guskey, T. R. (1982). Difference in teacher's perceptions of personal control of positive versus negative student learning outcomes. *Contemporary Psychology*, 7, 70-80.

Hallinger, P., and Bryant, D.A. (2013), Mapping the terrain of research on educational leadership and management in East Asia. *Journal of Educational Administration*, 51(5),

618-637.

Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. *Elementary School Journal*, 85(4).

Hallinger, P., & Murphy, J. (1986). The social context of effective schools. *American Journal of Education*, 94(3), 328-355.

Hallinger, P., & Wang, W. C. (2015). *Assessing instructional leadership with the principal instructional management rating scale*. US: Springer Science Press.

Harris, A. (2014), *Distributed leadership matters*. USA: Corwin Press.

Harris, A., Kenny, M. K., Soon Lee Cheah, Devadason, E., & Adams, D. (2017). Exploring principals' instructional leadership practices in Malaysia: Insights and implications. *Journal of Education Administration*, 55 (2), 207-221.

Hipp, K. A. (1997). *Teacher Efficacy: Influence of principal leadership behavior*. Paper presented at the annual meeting of the American Educational Research Association, New York City.

Jamelaa, B. A. and Jainabee, M. K. (2012). *An Overview in Qualitative Study: Practices as Instructional Leaders among Secondary Schools Principals in The State of Pahang, Malaysia*. Paper presented in the Asian Conference on Education.

Jefri Abdul Ahrnad (2004). *Kepimpinan pengajaran pengetua/guru besar dan kepuasan kerja guru*. Tesis Sarjana Pendidikan, Universiti Teknologi Malaysia.

Leithwood, K., & Doris, J. (2005). A review of transformational school leadership research 1996–2005. *Leadership and Policy in Schools*, 4(3), 177-199.

Neumerski, C. M. (2012). Rethinking Instructional Leadership, a Review: What Do We Know About Principal, Teacher, and Coach Instructional Leadership, and Where Should We Go From Here? *Educational Administration Quarterly*, 49(2), 310-347.

Nguyen, H. T., Hallinger, P., & Chen, C. W. (2018). Assessing and strengthening patterns of instructional leadership among primary school principals in Vietnam. *International Journal of Educational Management*, 32 (3), 396-415. doi.org/10.1108/IJEM-02-2017-0046

Nie, Y., Tan, G. H., Liao, A.K., Lau, S., & Chua, B. L. (2013). The roles of teacher efficacy in instructional innovation: its predictive relations to constructivist and didactic instruction. *Educ Res Policy Prac.*, 12, 67–77.

Ross, J.A., & Gray, P. (2006). Transformational leadership and teacher commitment to organizational values: The mediating effects of collective teacher efficacy. *School Effectiveness and School Improvement*, 17(2), 179-199.

Sammons, P., Hillman, J., & Mortimore, P. (1995). *Key characteristics of effective schools: A review of school effectiveness research*. International School Effectiveness and Improvement Centre, Institute of Education, London, UK.

Sergiovanni, T. J. (1984). Leadership and excellent in schooling. *Educational Leadership*, 41(5), 45-53.

Teh Pei Ling, Zaidatul Akmaliah, Lope Pihie, Soaib Asimirin, & Foo Say Fook. (2015). The influence of transformational school leadership on teacher efficacy in Malaysian secondary school teachers. *International Journal of Social Science research*, 3(2), 73-85.

Tschannen-Moran, M. & Woolfolk-Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805.

Tyack, D., & Hansot, E. (1982). *Managers of virtue: Public school leadership in America, 1820–1980*. New York, NY: Basic Books.

Zheng, X., Yin, H., & Li, Z. (2018). Exploring the relationships among instructional leadership, professional learning communities and teacher self-efficacy in China. *Educational Management, Administration and Leadership*, xx(x), 1-17.
<https://doi.org/10.1177/1741143218764176>