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Instructional Leadership: Validity and Reliability of PIMRS 22-item Instrument

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ABSTRACT

Background: Instructional leaders are responsible for organizing, creating, and ensuring a positive attitude toward change. This role is very important for ensuring the success of any reforms. **Objective:** The main objective of this paper is to establish the validity and reliability of the twenty-two item version of the 'Principal Instructional Management Rating Scale' (PIMRS-22) instrument to measure the level of instructional leadership behaviors of principals in implementing the educational policy change of School-Based Assessment (SBA). This twenty-two item instrument was developed by Hallinger (2013) and is based on the Instructional Leadership Model which included three dimensions; determine school mission, management of an instructional program, and creating a learning culture within a school. This instrument was validated by experts and its reliability tested within a pilot study conducted with a total of 60 teachers from 3 secondary schools. **Results:** The overall reliability coefficient of this instrument was determined to be .94. The determination of school mission had a coefficient of .85, the management of the instructional program .88, and the creation of a learning climate .90. **Conclusion:** Based on the Cronbach alpha coefficient results, this instrument has content validity, as well as good reliability for quantitatively measuring instructional leadership qualities of principals when implementing educational reform.

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INTRODUCTION

In recent years, educational changes have occurred around the world (Fullan, 2007). Challenges raised by globalization, liberalization, and the development of information technology have pressured education policy makers to make improvements to maintain excellence in an increasingly global context. The school organization is constantly exposed to changes in education from inside and outside of the school environment.

In response to these challenges Malaysia has made efforts to improve the education system. The Ministry of Education (MOE) has introduced a new system called School-Based Assessment (SBA), a part of the Education Transformation Program, to replace the existing examination system. SBA is a holistic system aimed at developing human capital, and focuses on the mastery of knowledge, intellectual capital, and the adoption of a progressive culture with values, ethics and high morals. SBA was implemented in 2011 for primary schools and 2012 for secondary schools. SBA is intended to assess the cognitive (intellectual), effective (emotional and spiritual), and psychomotor (physical) human aspects in accordance with the National Philosophy of Education (Ministry of Education, 2011). In comparison to the previous examination system, SBA is deemed more flexible and appropriate, and will act as a catalyst for increasingly decentralized educational reform.

Principals as instructional leaders are responsible for the successful implementation of the SBA reform through their efforts to provide a school climate that is conducive to learning (Hallinger, 2003). According to Hallinger (2000), effective instructional leadership enhances and improves the teaching and learning process in schools by involving teachers, students, parents, school planning, school management, school resources, and the culture of the school.

Instructional leaders are responsible for organizing, creating, and ensuring a positive attitude toward change and in this capacity are very important to ensuring the success of any reforms (Jainabee and Jamelaa, 2011);

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Kursunoglu and Tanriogen, 2009). This means that as leaders, instructional principals can encourage and support the process of reform among teachers in schools (Armenakis, *et al.*, 1999; Armenakis and Harris, 2002; Bernerth, *et al.*, 2007; Hallinger, 2003; Herscovitch and Meyer, 2002). The variable of instructional leadership practices was chosen for this study because principals as instructional leaders in schools are able to adopt positive attitudes to powerfully stimulate educational change.

Problem Statement:

Changes in an organization are important and necessary to compete in a rapidly evolving world. To implement changes, the role of leaders as agents of change becomes crucial as a means to groom employee commitment and willingness to change (Armenakis *et al.*, 1999; Holt, *et al.*, 2007). Reforms often fail to be implemented effectively because employees are not properly motivated to support organizational change, and may even harbor emotionally based resistance to the change (Boohene and Williams, 2012; Bernerth, 2004). Educational changes often fail to be implemented effectively because of obstacles such as negative attitudes, lack of knowledge, and teachers who are poorly prepared (Berkovich, 2011; Hallinger and Bryant, 2013; Yan, 2012).

Instructional leadership is considered the most suitable leadership behavior when preparing teachers for change (Hallinger, 2003; Hallinger and Heck, 1998; Jainabee and Jamelaa, 2011; Jamelaa and Jainabee, 2011; Kursunoglu and Tanriogen, 2009). Thus, the impact that instructional leadership has on teacher attitudes is very important for improving the quality of education in schools (Sukarmin, 2010). Suseela and Sim (2010) report that principals who do not have the skills or knowledge to facilitate reform face an impossible battle when confronted with the need to adapt to changes being implemented in schools. This conclusion is based on teacher perceptions towards the SBA reform. When instructional leaders are not keen to implement changes in schools, teachers do not get the support and guidance that can help ensure the goals of educational reforms are achieved. Consequently, teachers are not ready to implement the desired changes with enthusiasm.

In research synthesized by Hallinger and Bryant (2013) in an Asian country, the level of instructional leadership of principals was determined to be moderate in implementing change. This result is linked to failures of educational reform. Hence, it is important that principals play an effective role as instructional leaders in schools, as they are the agents of change that stimulate reform and the strongest determinants of success. This study offers a means to more efficiently identify the level of instructional leadership practices of principals, and their ability to implement educational change, like the transition to the SBA system in Malaysian schools.

Hallinger and Murphy's Model (1985) was utilized in this study due to its three-dimensional model including leadership practices relevant to the transition to SBA. Each dimension has comprehensive functions compared to the other models of instructional leadership. In addition, this model has been used as a reference model in some 200 studies in which the instrument 'Principal Instructional Management Rating Scale' (PIMRS) developed by Professor Philip Hallinger was used (Hallinger, 2013). This is a comprehensive instrument with fifty items that has been tested for validity and reliability in relation to the instructional leadership practices of principals. The reliability values were in the range of .78 to .90 (Hallinger, 2013). This model has been widely used by researchers in Malaysia Jainabee & Jamelaa (2011), Jamelaa (2012), Jamelaa and Jainabee (2011), Latip Muhammad (2006), Mohd Nor (2004), Premavathy (2010), Sam Kit Mun (2004), as well as Sukarmin (2010); and abroad with Alig-Mielcarek (2003), Brown & Chai (2012) Lahui-Ako (2001), Lyons (2010), Mattar (2012), and Peariso (2011).

In 2013, Hallinger made some modifications to the PIMRS instrument to reduce the number of items from fifty to twenty-two. Hallinger (2013) had found that principals were reluctant to burden teachers with such a long questionnaire. The shorter questionnaire yielded an increase in the efficiency of the data collection process and the effectiveness of the instrument. Hence, it was able to produce better quality feedback from the respondents. He tested the PIMRS-22 instrument and found that the reliability of the instrument was .94, while the three dimensions of instructional leadership were ranged between .90 and .93, indicating high reliability. His analysis concluded that the PIMRS-22 instrument is more efficient and effective than the original PIMRS instrument of fifty items. Although the PIMRS instrument with fifty items has been widely used and has good validity and reliability, there are no empirical findings that support the validity and reliability of the PIMRS-22 instrument for use in the context of Malaysia. The objective of this study is to show that the PIMRS-22 instrument has good validity and reliability, and is suitable for measuring the level of instructional leadership of principals in implementing change.

Literature Review:

Leadership can be defined as the relationship between an individual and a group that is built on common goals, in which the group behaves in accordance with the instructions, regulations, and influence of the leader (Hoy and Miskel, 2008). Leadership issues have gained the attention of researchers as a catalyst for change in the management of schools (Sofa, *et al.*, 2012). Leadership is conceptualized as the process of influencing others to understand the actions necessary to achieve common goals. In addition, previous research reveals that

school leaders play an important role in school improvement efforts (Hallinger and Heck, 1996; Hallinger and Murphy, 1985).

Many studies have been conducted with the leadership model to determine the effect leadership has on the efficacy of pupil learning. Instructional, transformational, transactional, strategic, teachers, collaborative, and shared leadership, have been studied by previous researchers (Hallinger, 2011). However, based on a synthesis of studies conducted by Hallinger (2013), instructional leadership had the greatest impact on pupil learning. The concept of instructional leadership was extensively studied in the 1980s and 1990s (Hallinger, 2000, 2003). Effective schools, implementation of changes, and the school improvement research that has been conducted in various countries by Edmonds (1979), Leithwood *et al.* (1989), Heck *et al.* (1990), and Rutter *et al.* (1979) became the basis for the concept of instructional leadership (Hallinger, 2003; Hallinger, *et al.*, 1994). This further strengthened the belief among policy makers and practitioners that instructional leadership is a key factor in effective schools (Hallinger, 2011).

According to Hallinger and Murphy (1985), instructional leadership refers to the behaviour principals adopt with the purpose of developing and improving teaching and learning in schools, with emphasis on involving and utilizing teachers, students, parents, school planning, school management, school resources, and school culture. And furthermore, that instructional leadership has three important leadership activities; defining the school's mission, managing the instructional program, and creating a learning climate within the school. Ten functions of instructional leadership exist; formulating the goals of the school, presenting the goals of the school, supervising and evaluating instruction, coordinating the curriculum, monitoring student progress, controlling the time of teaching, maintaining visibility, providing incentives for teachers, promoting professional development, and providing incentives for learning. The definition of instructional leadership has since been further refined as a process of influence in which the principal identifies the direction of the school, motivates staff, and coordinates strategies for the school and classroom with the aim of improving teaching and learning processes (Hallinger and Murphy, 2012). Instructional leadership can also be thought of as a dynamic and long-term process aimed at achieving excellence in teaching and learning (Weber, 1989).

Instructional leaders communicate with teachers to enhance self-reflection and encourage professional development (Blase and Blase, 2002). Effective instructional principals communicate with teachers in order to enhance self-reflection by giving suggestions, offering feedback, facilitating, asking questions and sharing ideas, and giving thanks for effective teaching. There are six strategies adopted by principals who engage in instructional effectiveness. Teachers are encouraged to participate in staff development courses that emphasize teaching and learning, teacher actions are supported, teachers are cooperated with, teacher-mentor systems are lauded, a culture of lifelong learning is implemented, and teachers are invited to engage in action research. The strategies described above can not only enhance creativity and innovation among teachers, but also have a positive impact on motivation, self-efficacy and the confidence of teachers.

A study by Southworth (2002) found that there are six themes related to instructional leadership. The themes derived from his research indicated that an effective instructional leader is hardworking, determined, optimistic, approachable, loves teamwork, and improves the quality of the school. Instructional leaders also involve teachers in the planning and preparation of teaching materials, discuss matters relating to teaching, and make visits to the classroom for the purpose of supervision (Mattar, 2012). Lahui-Ako (2001) also concluded that in dealing with the challenges and demands of reform, schools need more effective instructional principals with appropriate vision, knowledge, and skill. This includes knowledge about change and innovation, the ability to initiate a change, the ability to innovate and adapt to change, and the skills to motivate and lead with the appropriate leadership.

To ensure that improvements and progress are made in schools, the right leadership is essential. This requires an approach that focuses on enhancing teaching and learning. Thus, instructional leadership requires leaders set clear instructional missions and goals, manage the learning process to realize improvements, and create a school climate that moves in the desired direction. This is the conclusion made by Hallinger (2003) in his synthesis of concepts and the empirical study of two models of leadership, instructional leadership and transformational leadership. Due to the top-to-bottom nature of instructional leadership, which emphasizes coordination and control to move towards a set of goals, it is suitable for application in the process of change.

A study by Hazura (2009) shows that there is a relationship between instructional leadership practices and bringing about changes in schools. Both Fullan (2001) and Havlik (2007) conclude that instructional leaders are catalysts for implementing changes in schools. Principals are key determinants in enforcing change and innovation in schools (Leithwood and Day, 2008; Fullan, 2007). Principals should be prepared to face the challenges of a new vision for the success of an organization. However, any changes made must have clear goals (Azahari, 2002). According to Hallinger (2000), the element of setting clear goals can assist in defining the direction of the school principal to ensure the success of both teaching and learning. When educational change occurs, the principal, as the instructional leader of the school, must inspire teachers to achieve the academic goals of the school by exerting greater effort in their work, and to exhibit a willingness to embrace

change. This shows that the role of an instructional leader is critical to ensuring successful change (Carrier, 2011; Leithwood and Day, 2008; Sahin, 2011; Southworth, 2002).

From the above discussion, we can conclude that instructional leadership refers to the practices and behaviours of principals who clearly communicate, plan, seek to influence, provide guidance, and encourage teachers and students in efforts to improve and enhance programs related to teaching and learning. This includes ensuring successful implementation of educational reform, and means that an instructional leader is always actively involved in the constant challenges of education.

Research Methodology:

Sampling:

A pilot study was conducted in 3 secondary schools in the district of Gombak, Selangor. These schools were not involved in the later study. A total of 60 teachers from classes of Forms 1, 2, and 3, with direct experience regarding the transition to SBA were the respondents.

Instrumentation:

The PIMRS questionnaire by Hallinger (2013) was adapted and modified in accordance with the objectives of this study to measure the level of instructional leadership among principals when implementing changes from the perspective of teachers. There were twenty-two items covering three dimensions; (1) to determine the mission of the school with 5 items, (2) to manage the instructional program with 7 items, and (3) creating a learning climate within the school with 10 items. The researchers obtained the permission from the original author via e-mail to use this questionnaire. The questionnaire used a 5-point Likert scale (Hallinger, 2013), for teachers to report the frequency of instructional leadership practices engaged in by a principal by marking 1 (Never) through 5 (Always).

Instrument Validity:

According to studies conducted by Abdul, *et al.*, (2010) and Mastini, *et al.*, (2013), the process of ensuring the validity and reliability of a research instrument involves five stages; validation of the content by an expert, instrument modification, a pilot study, analysis of reliability, and preparation of the final instrument.

1. Content Validation by an Expert:

An instrument is said to have a good validity when it is capable of measuring the data that should be measured. All items in the questionnaire that were originally in English were translated to Malay, then translated back into English using back-translation (Brislin, 1970), and modified according to the objectives of the study. By using back-translation, cross-cultural problems were reduced. This was necessary as the study relied heavily on questionnaires originally developed in Western countries. The researchers had professional help to translate the questionnaires from English to Malay. The translation from Malay to English was done by a lecturer from the Academy of Language Studies, Universiti Teknologi MARA, to ensure proper and correct use of the language. Subsequently, a total of four experts directly involved in the field of educational administration were chosen to validate the contents of the instrument. Lecturers who were experts in the field of Educational Administration from Universiti Putra Malaysia, Universiti Kebangsaan Malaysia, Universiti Malaya, and Universiti Utara Malaysia were consulted to assess and verify the validity of the content of this research questionnaire. They were asked to evaluate the instrument in terms of importance, relevance and accuracy of content, and also clarity of purpose of each statement. The experts were given two weeks to evaluate before returning the instrument to the researchers.

2. Instrument Modification:

The second stage was the modification of the instrument. After reviewing the feedback from the experts who had evaluated the instrument, and subsequent discussions, improvements were made in accuracy and appropriateness of content items associated with the research objectives. All twenty-two items were retained to be used in the next phase.

3. Pilot Study:

The next stage was the testing of the reliability of the instrument. According to Ary, *et al.*, (2010), a pilot study is important to ensure that the study is feasible and worthwhile to run. This is because the data obtained provides an opportunity for researchers to evaluate the appropriateness of the data collection methods and procedures as well as to make changes if necessary. Therefore, a pilot study using the modified questionnaire was conducted. The purpose of the pilot study was to test the reliability of the instrument developed, to ensure the smooth administration of the questionnaire, and then to do any necessary modifications to the instrument. In addition, the pilot study assessed the level of understanding of the instrument. It was important to ensure that the instrument was able to provide accurate data and reliability. The pilot study also assisted researchers in

assessing further the appropriateness of the language and format used. Information obtained from the pilot study assisted researchers to make necessary improvements before the questionnaire could be distributed in an actual survey. In this study, the pilot study was conducted in 3 secondary schools in the district of Gombak, Selangor. These schools were not involved in the actual study. A total of 60 respondents were involved in the pilot study involving all teachers in Forms 1, 2, and 3 from the 3 selected schools.

4. Analysis of Reliability:

In the fourth stage, to ensure that the instrument was reliable, a reliability analysis was conducted. Reliability of an instrument refers to the degree of consistency with which the instrument can measure variables or constructs (Hair, *et al.*, 2010). The reliability analysis is critical to ensuring that the instrument can be used to predict, and produce findings that can answer the research questions. After receiving the questionnaire from the respondents of the pilot study, a reliability analysis was performed. In this study, the researchers used Cronbach alpha reliability analysis. According to Hair *et al.* (2010), the closer the coefficient Cronbach alpha is to 1, the higher the internal reliability of the instrument. If the Cronbach alpha coefficient obtained is higher than a Cronbach alpha coefficient of 0.6, the instrument is highly reliable (Ary *et al.*, 2010). If the Cronbach alpha coefficient is less than 0.6, the instrument has low reliability and items should be modified or removed to increase this coefficient. In this study the Cronbach alpha coefficient was higher than 0.6, and therefore reflected a reliable instrument. The Cronbach alpha coefficients for the instrument are shown in the table below. Overall, the test results indicate that the Cronbach alpha values were good, and that the instrument is acceptable for use in an actual study.

Table 1: Test of Reliability (N = 60).

| Construct | No. of Items | Cronbach Alpha |
|---|--------------|----------------|
| Instructional Leadership | | |
| Dimension of Defining School Mission | 5 | .85 |
| Dimension of Managing Instructional Program | 7 | .88 |
| Dimension of Creating School Learning Climate | 10 | .90 |
| Overall Instructional Leadership | 22 | .94 |

5. Preparing the Actual Instrument:

At this stage, the instrument had been tested in a pilot study and determined to be of good reliability, and therefore available for actual research. Based on the results shown above, the overall reliability of the instrument was high at a Cronbach alpha coefficient of .94 and ranged between .85 and .90 for the three dimensions. Therefore, the instrument retained all twenty-two items without modification. At this point, the instrument had been shown to have good reliability, and the instrument was cleared for use in an actual study.

Conclusion:

In conclusion, through the five levels; validation by experts, modification of the instrument, a pilot study, reliability analysis, and provision of actual instrument, the instrument was found to have content validity and reliability. Therefore, it can be used for an actual study to measure the level of instructional leadership of principals in implementing changes in schools.

REFERENCES

- Abdul, H., H.T. Lilia, Subahan and H. Kamisah, 2010. Pembangunan Instrumen Penyelesaian Masalah Sains. *Jurnal Pendidikan Malaysia*, 35(1): 35-39.
- Alig-Mielcarek, J.M., 2003. *A Model of School Success: Instructional Leadership, Academic Press, and Student Achievement*, PhD thesis. The Ohio State University.
- Armenakis, A.A. and S.G. Harris, 2002. Crafting a change message to create transformational readiness. *Journal of Organizational Change Management*, 15(2): 169-183.
- Armenakis, A., S. Harris and H. Feild, 1999. Making Change Permanent A Model For Institutionalizing Change Interventions. *Research in Organizational Change and Development*, 12: 97-128.
- Ary, D., L.C. Jacobs and C. Sorensen, 2010. *Introduction to Research in Education*. 8th. Ed., United States of America: Wadsworth.
- Azahari, J., 2002. *Persepsi Guru Terhadap Peranan Pengetua Sebagai Agen Perubahan: Satu Kajian di Sebuah Sekolah di Jasin, Melaka*, M.S. thesis. Universiti Malaya.
- Berkovich, I., 2011. No we won't! Teachers' resistance to educational reform. *Journal of Educational Administration*, 49(5): 563-578.
- Bernerth, J., 2004. Expanding Our Understanding of the Change Message. *Human Resource Development Review*, 3(1): 36-52.

- Bernerth, J.B., A.A. Armenakis, H.S. Feild and H.J. Walker, 2007. Justice, Cynicism, and Commitment: A Study of Important Organizational Change Variables. *The Journal of Applied Behavioral Science*, 43(3): 303-326.
- Blasé, J. and J. Blasé, 2002. Teachers' Perception of Principals' Instructional Leadership and Implications. *Leadership and Policy in Schools*, 1(3): 256-264.
- Boohene, R. and A.A. Williams, 2012. Resistance to Organisational Change : A Case Study of Oti Yeboah Complex Limited. *International Business and Management*, 4(1): 135-145.
- Brislin, R., 1970. Back-Translation for Cross-Cultural Research. *Journal of Cross-Cultural Psychology*, 1(3): 185-216.
- Brown, G.T.L. and C. Chai, 2012. Assessing instructional leadership: a longitudinal study of new principals. *Journal of Educational Administration*, 50(6): 753-772.
- Carrier, L., 2011. *What Is Instructional Leadership And What Does It Look Like In Practice ? A Multi-Case Case Study Of Elementary School Principals Who Have Led Schools From Being Identified As Under Performing To Performing*, PhD thesis. University of Massachusetts Amherst.
- Cohen, L., L. Manion and K. Morrison, 2011. *Research Methods In Education*, London: Routledge.
- Fullan, M., 2001. *The new meaning of educational change. 3rd Ed.*, New York: Teachers College Press.
- Fullan, M., 2007. *The Jossey-Bass reader on educational leadership second edition*, San Francisco: John Wiley & Sons Inc.
- Hair, J.F., W.C. Black, B.J. Babin and R.E. Anderson, 2010. *Multivariate Data Analysis (7th Ed.)*, Englewood Cliffs, NJ: Prentice Hall.
- Hallinger, P., 2012. A Data-Driven Approach to Assess and Develop Instructional Leadership with the PIMRS. In J. Shen (Ed.), *Tools for improving the principalship*. pp. 47-69. Oxford, UK: Peter Lang
- Hallinger, P., 2003. Leading Educational Change: reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, 33(3): 329-352.
- Hallinger, P., 2011. Leadership for learning: lessons from 40 years of empirical research. *Journal of Educational Administration*, 49-2: 125-142.
- Hallinger, P., 2013. *Measurement Properties of the Principal Instructional Management Rating Scale*.
- Hallinger, P. and D.A. Bryant, 2013. Review of research publications on educational leadership and management in Asia: a comparative analysis of three regions, *Oxford Review of Education*, 39(3): 307-328.
- Hallinger, P. and R.H. Heck, 1996. Reassessing the Principal's Role in School Effectiveness: A Review of Empirical Research, 1980-1995. *Educational Administration Quarterly*, 32(1): 5-44.
- Hallinger, P. and R.H. Heck, 1998. Exploring the Principal's Contribution to School Effectiveness: 1980-1995. *School Effectiveness and School Improvement*, 9(2): 157-191.
- Hallinger, P. and J. Murphy, 1985. Assessing the Instructional Management Behavior of Principals. *The Elementary School Journal*, 86-2: 217-247.
- Hallinger, P. and J.F. Murphy, 2012. Running on Empty? Finding the Time and Capacity to Lead Learning. *NASSP Bulletin*, 55(5): 1-17.
- Hallinger, P., P. Taraseina and J. Miller, 1994. Assessing the Instructional Leadership of Secondary School Principals in Thailand. *School Effectiveness and School Improvement*, 5(4): 321-348.
- Havlik, K.M., 2007. *Leadership, learning and school change: The elementary principal's role in teacher professional development*, PhD thesis. University of Wincosin.
- Hazura Wan Husain, 2009. *Kepimpinan pengetua sebagai agen perubahan di sebuah sekolah di Kelantan*, M. S. thesis. Institut Pengajian Kependidikan. Universiti Malaya.
- Herscovitch, L. and J.P. Meyer, 2002. Commitment to organizational change: Extension of a three-component model. *Journal of Applied Psychology*, 87(3): 474-487.
- Holt, D.T., A.A. Armenakis, S.G. Harris and H.S. Feild, 2007. Toward a Comprehensive Definition of Readiness for Change: A Review of Research and Instrumentation. *Research in Organizational Change and Development*, 16: 289-336.
- Hoy, W. and C. Miskel, 2008. *Educational administration: Theory, research and practice. (8th Ed.)*, New York. NY: McGraw Hill.
- Jainabee, M.K. and B.A. Jamelaa, 2011. Promoting Learning Environment and Attitude towards Change among Secondary School Principals in Pahang Malaysia: Teachers' Perceptions. *Procedia - Social and Behavioral Sciences*, 28: 45-49.
- Jamelaa, B.A., 2012. *Amalan Kepimpinan Instruksional Dan Sikap Terhadap Perubahan dalam Kalangan Pengetua Sek. Men. di Negeri Pahang*, PhD thesis. Universiti Kebangsaan Malaysia.
- Jamelaa, B.A. and M.K. Jainabee, 2011. Instructional leadership and attitude towards organizational change among secondary schools principal in Pahang, Malaysia. *Procedia - Social and Behavioral Sciences*, 15: 3304-3309.

Kursunoglu, A. and A. Tanriogen, 2009. The relationship between teachers' perceptions towards instructional leadership behaviors of their principals and teachers' attitudes towards change. *Procedia - Social and Behavioral Sciences*, 1(1): 252–258.

Lahui-Ako, B., 2001. The instructional leadership behaviour of Papua New Guinea high school principals - A provincial case study. *Journal of Educational Administration*, 39(3): 233–265.

Leithwood, K. and C. Day, 2008. The impact of school leadership on pupil outcomes: Editorial. *School Leadership & Management*, 28(1): 1-4.

Laporan Kementerian Pelajaran Malaysia, 2011.

Latip, M., 2006. *Pelaksanaan Kepemimpinan Pengajaran di kalangan pengetua sekolah di Negeri Selangor Darul Ehsan*, PhD thesis. Universiti Kebangsaan Malaysia.

Lyons, B.J., 2010. *Principal Instructional Leadership Behavior, As Perceived By Teachers and Principals, At New York State Recognized and Non-Recognized Middle Schools*, PhD thesis. Seton Hall University.

Mastini, M., M. Rosnaini, W.A. Wan Zah and N. Mokhtar, 2013. *Validity and Reliability of Ict Utilization and Technological Beliefs Instrument for Teachers*. In the Graduate Research in Education Seminar, 270-276.

Mattar, D., 2012. Instructional Leadership in Lebanese Public Schools. *Educational Management Administration & Leadership*, 40(4): 509-531.

Mohd Nor, J., 2004. *Kepemimpinan Pengajaran Guru Besar*, PhD thesis. Universiti Utara Malaysia.

Peariso, J.F., 2011. *A study of principals' instructional leadership behaviors and beliefs of good pedagogical practice among effective California high schools serving socioeconomically disadvantaged and English learners*, PhD thesis. Liberty University.

Pelan Pembangunan Pendidikan Malaysia, 2013-2025. (Pendidikan Prasekolah hingga Lepas Menengah). 2013. Putrajaya: Kementerian Pelajaran Malaysia.

Premavathy, P., 2010. *The Relationship of Instructional Leadership, Teachers' Organizational Commitment and Students' Achievement in Small Schools*, M. S. thesis. Universiti Sains Malaysia.

Sahin, S., 2011. Instructional Leadership In Turkey And The United States: Teachers' Perspectives. *Problems of Education In The 21st Century*, 34: 122-137.

Sam, K.M., 2004. *Peranan Guru Besar Sebagai Pemimpin Pengajaran Di Sekolah Berkesan: Persepsi Guru Di Sebuah Sekolah Rendah Kepong*, M. S. thesis. Universiti Malaya.

Sofo, F., R. Fitzgerald and U. Jawas, 2012. Instructional leadership in Indonesian school reform: overcoming the problems to move forward. *School Leadership & Management: Formerly School Organisation*, 32(5): 503-522.

Southworth, G., 2002. Instructional Leadership in Schools: Reflections and empirical evidence. *School Leadership & Management: Formerly School Organisation*, 22(1): 73–91.

Standard Kualiti Pendidikan Malaysia 2010, 2010. Putrajaya: Jemaah Nazir dan Jaminan Kualiti.

Sukarmin, 2010. *Hubungan Tingkah Laku Kepimpinan Pengajaran Guru Besar dengan Keafiatan Sekolah, Komitmen Organisasi, Efikasi dan Kepuasan Guru Sekolah Rendah di Surakarta*, PhD tesis. Universiti Utara Malaysia.

Suseela, M. and K.H. Sim, 2010. Teacher perspectives of school-based assessment in a secondary school in Kuala Lumpur. *Procedia-Social and Behavioural Sciences*, 9: 1170-1176.

Weber, J.R., 1998. *Leading the instructional program in Smith, S. C. and Piele, P. K. (Eds), School Leadership: Handbook for Excellence, 3rds ed.*, Educational Resources Information Centre, Clearing House of Educational Management, Eugene, OR, 191-224.

Yan, C., 2012. "We can only change in a small way": A study of secondary English teachers' implementation of curriculum reform in China. *Journal Educational Change*.13(4): 431-447.