CHAPTER 1

1.1 Introduction

Effective student learning has always been the prominent chore of schooling. Almost all school leaders are facing this specific challenge. While many leaders are aware that increasing student achievement depends on building the teachers' capacity, some leaders may be unaware of their leadership role in ensuring this. (Todaro & Smith, 2012). Of course there are many who know that they should be tapping into teacher capacity, as it is the most essential internal construct for school improvement that relates to effective student learning (Hopkins, 2002). As school leaders, it is their obligation to provide that special attention to all teachers' unique attributes and qualities including their capacity. While teachers are considered every school's most important strength, when we build their capacity for success, we are indeed improving our schools (Hall & Semeral, 2008).

However, the range of principals who lie between total unawareness and complete awareness regarding their role in building their teachers' capacity causes different levels of principals' involvement in developing the teacher capacity in their schools. Though teachers are a whole lot of energized professionals who deliver instructions to students, many school leaders fail to tap the teacher capacity to optimize the instructional

delivery system in their schools. Further, the need to develop and tap the teacher capacity is so much necessary to sustain improved student learning. Otherwise, school improvement initiatives towards better student learning and achievement at the individual schools may remain only a dream.

Research has shown that, even in the most difficult circumstances, schools can sustain improvement through capacity building and equipping teachers to lead innovation and development (Harris, 2002; Harris, and Chapman, 2002). The clear message here is that sustaining improvement requires the leadership capability of the leader and that improvements in learning are more likely to be achieved when leadership is instructionally focused and located closest to the classroom.

As we approach closer to the classroom and the various learning activities that take place, we realize that teachers are the individuals who have the power to produce changes and improvement in student learning. However, teacher success in boosting student achievement obviously depends on the teacher's ability to implement knowledge and skills. The unique mix of students' competencies and attitudes, the unique set of social, cultural, and political conditions, a whole mix of many other factors plus teachers' own competencies and attitudes, tend to influence what teachers do with students (King

& Newmann, 2001). Of course teacher's individual learning can help build their capacity but then if there are collective efforts within the school initiated by the leadership to build the teachers' capacity in the school through some specific strategies, then teachers' knowledge, skills and dispositions can easily be expanded to accommodate even bigger challenges that are related to student learning.

Building teacher capacity and focusing that capacity upon student learning is definitely one endeavor that caters to school improvement. There are many means to do that. Capacity can be built by improving the performance of teachers, adding more resources, materials or technology and by restructuring how tasks are undertaken. However, these processes need to be undertaken by the school leadership as they are in the best position to accomplish school-wide reforms and changes. Do the schools possess the right leadership potential to make such fruitful changes? Researchers of school improvement have always argued about leadership potential to influence pupils and school performance. It is said that leadership can establish a clear and consistent vision for the school, which emphasizes teaching and learning as the prime purposes of school to both teachers and students (Harris, 2002; Sammons & Mortimore, 1997). Vision alone does not produce the outcomes. What is more needed and looked upon by the teachers in

the schools is how well the leadership is focused and involved in building the school capacity, in particular the teachers' capacity, through the many strategies that ensure success in teacher capacity building (TCB). Principals through their behaviors, practices, and high involvement in all the relevant areas can influence and impact every aspect of schools. As a consequence of this involvement, teachers can build their capacity, and students can meet the academic standards and hence attain better learning.

In the increasingly complex world of 21st century education, school leaders are continually facing new and different accountabilities as they work towards student learning. One such accountability requires them to be highly involved in building their teachers' capacity if they want to improve their schools. Capacity building, as Fullan puts it, is anything done by way of strategy and action to increase the effectiveness of a group and it is increasingly seen as an essential function of the school leadership that focuses on improving student learning (NCSL, 2006).

1.2 Problem Statement

The Malaysian government and schools plan and spend huge amounts for school improvement. However, many of these improvement initiatives including the staff development programs that the school leaders create seem less focused in building the

teacher capacity (PIPP 2006-2010). It is believed that as long as teacher capacity building remains least focused, any school improvement initiatives undertaken by the schools could not be fruitful. Further, the National Education Blueprint Malaysia 2006-2010 highlights that the school capacity is limited because every school leader practically depends on similar system, procedures and fail to consider the individual teacher capacity for school improvement.

Prominent school improvement practices carried out by the government of Malaysia are very much related to curriculum development, extra curricular activities, school leadership, teacher proffessionalism, student learning, assessments, infrastructures, school factors and internationalization since independence in 1957. The traditional subject-based, content-loaded primary school curriculum has been reviewed by the Ministry of Education to a skills-based primary school curriculum, which the Curriculum Development Centre launched in January 1982. Its innovatory aspects are manifested, amongst other features, in a reduced dependency on textbooks, more flexible teaching and learning strategies based on ability groupings, and enrichment and compensatory components as well as a more conscious awareness of the all-round development of the individual child (Mukherjee and Singh, 1983).

The Ministry Of Education Malaysia (MOE) with the collaboration of Institut Aminudin

Baki (IAB) has carried out school leadership programmes for principals and assistant principals. In the year 2007, forty four short courses on management skills for 1174 principals and simulation courses for principalship to some 7044 principals have also been carried out. Another 90 head teachers from the cluster schools were also sent overseas to attain knowledge and hands-on experience to share leadership practices (MOE, 2007). On the other hand, MOE through the Teacher Education Division (TED) has also conducted teacher professionalism courses in various disciplines in first degree, masters and doctorate levels. A total of 61 862 teachers were offered post graduate studies in different disciplines while in 2008 the number rose to 64 862.

Some of the school improvement initiatives launched at the national level by the Malaysian education system are reflected in the following: Education Act 1996 (Amendment 2002) – compulsory education at primary level; Teaching and Learning of Science and Mathematics in English (2003); Centralized Schools, Vision Schools, Special Model Schools; Tuition Voucher Scheme (2004); Introduction of Vocational Subjects for Secondary Schools (2004); Remedial programs with remedial teachers; Cooperation between MOE and Ministry of Higher Education on teacher training; Cluster schools (2006); Increasing remedial classes for mastery of 3Rs (Reading, Writing and Arithmetic).

As usual, school improvement initiatives and innovations in Malaysia have always been considered as the national mission and vision to face the challenges of strengthening institutional capacity and implementation. In analyzing the prominent school improvement practices, Sathiamoorthy, Hussein, & Rahimah (2010) found that Malaysian school principals carry out practices related to Teaching and Learning, Facilities, Teacher attitudes, and School climate. While the Excellent Schools focus on beautifying the school physically, imbedding beliefs or positive perception of teachers upon students, and developing efforts to increase the quality of teaching and learning in the classroom, the Low Performing Schools prioritize school resource development, increasing the equipments, making strategic plans together with teachers, besides beautifying the physical environment. Their study also identified that the Malaysian secondary school principals are consistently and continously putting effort in improving their schools using both tactical (short term) and school-wide development (long term). They further elaborate that Medium Performing Schools are more concerned with school improvement than schools of other typology, including the High Performing ones. However, in conclusion, their findings claim that school improvement activities basically need (i) school capacity building; (ii) student community building/learning organization, and (iii) school leadership building.

According to Massell (2000), the building of teachers' knowledge and skills is a crucial component of change and every school should provide some form of support for professional training, whether it is by offering a menu of workshops or just providing the time, salary incentives, and resources for teachers and schools to pursue professional development. Therefore it becomes clearer that building teachers' capacity in any school, without doubt, provides ample benefits to the particular school and the student learning can take place easily without much hindrance. In fact lack of understanding and implementing this key construct did not bring the necessary changes in school improvement programs. Existing school improvement strategies seem to prioritize curriculum development, physical facilities and other internal conditions only. It is now understood that without the principal involvement both the internal as well as the external conditions cannot bring about the expected change in any school. Therefore, there is an urgent need to investigate leadership concerns in terms of their involvement and strategies for TCB in schools. When a leader is able to identify and cater to the TCB in his/her school, the task of leading the school improvement becomes much easier.

This clearly has a bearing on the claim that principals are still least concerned of the need for TCB in their schools, and subsequently are less involved in such programs. On one hand TCB is very much needed and on the other hand, the principals are not that

much aware or least bothered about it. This obviously raises concerns such as: So, what are the levels of principals' involvement in building their teachers' capacity for school improvement? What are the strategies that they employ to build this capacity? Are there any specific strategies employed in relation to their level of involvement? In line with that, the purpose of this study is to identify the principals' level of involvement and their strategies to build their teachers' capacity in their respective schools.

1.3 Research Objectives

In relation to the problem stated above, this study was carried out to fulfill the following objectives:

1. Identify the extent of involvement by the principals in Teacher Capacity Building
2. Identify the dimensions that are dominant in Teacher Capacity building according to principals 'Level of Involvement
3. Identify the most prominent components in each of the Teacher Capacity Dimension according to the corresponding level of involvement
4. Identify the strategies that principals use in Teacher Capacity Building
5. Identify the most frequent strategies in each level of involvement in the Teacher Capacity dimensions
6. Investigate whether there are differences in principals' frequent strategies according

to types of school

7. Investigate whether there are differences in principals' level of involvement according to years of leadership, academic qualification and gender.

1.4 Research Questions

In order to achieve the above mentioned objectives, the following research questions are formulated.

1. What is the extent of involvement of the principals in Teacher Capacity Building?
2. What are the dimensions that are dominant in Teacher Capacity Building according to principals' Level of Involvement?
3. What are the most prominent components in each of the Teacher Capacity Dimension according to the corresponding level of involvement?
4. What are the strategies that principals use in Teacher Capacity Building?
5. What are the most frequent strategies in each level of involvement in the Teacher Capacity dimensions?
6. Are there significant differences in principals' frequent strategies according to type of school?
7. Are there significant differences in principals' level of involvement according to leadership experience, academic qualification and gender?

1.5 Significance of the Study

This study identified the extent of involvement of the school leaders and the prominent strategies they use for Teacher Capacity Building in secondary schools. The findings about the most important knowledge, skills, dispositions and views of self can help principals build their leadership capacity for leading the teacher capacity building in their schools.

The findings of the study can be of significant help to principal training institute, in particular the Institut Aminuddin Baki (IAB), in developing a more practical curriculum for leadership and principalship training for the practicing and future principals. The MOE on the other hand, can also use the findings to develop programmes that provide opportunities for professional learning among teachers as a means to enhance their capacity for better student learning in the classrooms.

The findings about the prominent components of teacher capacity domain focused by the principals can provide some directions for later researches to cast their focus on these components in detail. At the same time an investigation into prominent strategies by principals with different levels of involvement may shed some light on why such a focus may exist. Subsequently, ways to improve the implementation of these

strategies in a more creative and attractive manner can be worked out.

1.6 Limitations of the Study

This study is focused on the states from the four zones in Malaysia: Northern Zone: Perlis, Kedah and Pulau Pinang; Central Zone represented by Perak, Selangor, Wilayah Persekutuan Kuala Lumpur and Wilayah Persekutuan Putrajaya; Southern Zone: Negeri Sembilan, Melaka and Johor and Eastern Zone: Kelantan, Terengganu and Pahang in Peninsular Malaysia. Another factor that inhibited a wide selection of schools as sample is lack of fund and time as the researcher is a part time candidate and holds a responsible position in his school that does not allow him to move around quite easily.

The study only called for the principals to respond and convey their practices in TCB and no attempt to get the teachers for their perceptions on what their principals were doing to enhance the teachers' capacity was made in this study. In other words, this study only utilized the principals' responses about their involvement and the strategies they use for TCB. This was because the aim of the study was to identify the involvement and the strategies used by the principals in ensuring their leadership role towards teacher capacity building.

The qualitative data gathered through the interviews were to support the quantitative findings as supplementary rather than complementary. The main objective of the interviews was to observe variations, if any, in the way the principals employ the strategies based on their involvement levels.

1.7 Conceptual Framework of the Study

MacBeath, (1988) and Harris, (2002) have found in their studies of effective leadership, that leaders provide guidance by involving themselves within the school and among people where individuals' feel confident in their own capacity, in the capacity of their colleagues and to promote continuous professional development. This form of professional development gives much help in building the internal conditions of teacher capacity. When professional work is not focused on the internal conditions of the school, student learning will not improve. Therefore, these supporting 'conditions' need to be given priority as similar as the curriculum or other priorities the school has itself (Hopkins, 2002).

We acknowledge that the capacity to produce worthwhile and substantial student learning is a function of the interaction among these elements, and not the sole province of any single one, such as teachers' knowledge and skill, or curriculum. At the same time, the teachers' intellectual and personal resources not only influence their instructional interactions, they also shape how the teachers apprehend, interpret, and respond to materials and students.

There is considerable evidence that teachers vary in their ability to notice, interpret, and adapt to differences among students. Important teacher resources in this connection include their conceptions of knowledge, understanding of content, and flexibility of understanding; acquaintance with students' knowledge and ability to relate to, interact with, and learn about students; and their repertoire of means to represent and extend knowledge, and to establish classroom environments. All these resources mediate how teachers shape the quality of instruction. Consequently, teachers' opportunities to develop and extend their knowledge and capabilities can considerably affect the quality of their instruction that affects student learning and achievement as shown in Figure 1.1 below.

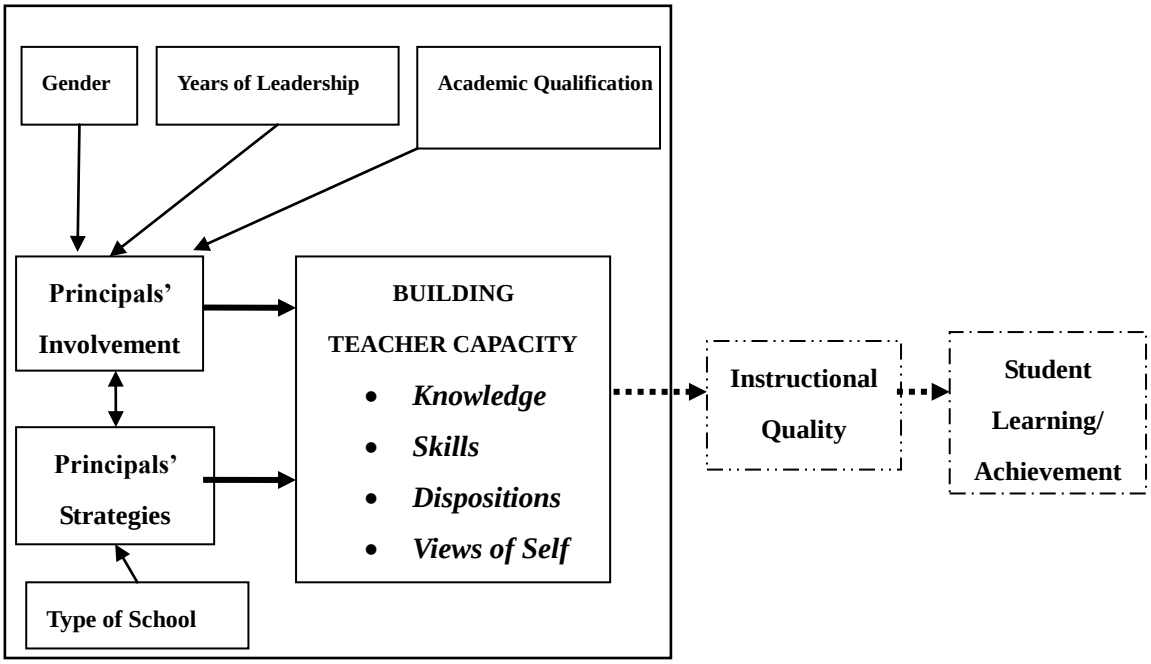


Figure 1.1: Conceptual Framework for Teacher Capacity Building adapted from Fred Newmann's (2000) Research

However, an individual teacher's capacity to accomplish the school goals and any new reform activities depends not only on his/her personal capacity, but even more importantly on the resources present within the context where they teach (O'Day, Goertz, & Floden, 1995). Hence, at the school level, the appropriate capacity for teachers in relation to the educational changes looked upon not only depends on the teachers' ability to form a community of practice but also on leadership that in large part determines the professional culture of the school. In line with that comes the argument of Smylie, Miretzky, and Konkol (2004) that teacher development is fundamentally a problem and function of the school organization, which has to manage teachers

individually and collectively as human resources.

The concerns among teachers to build their capacity for better student learning, though rest on the teachers' shoulders, the leadership is also equally accountable and responsible for ensuring that there is enough support provided in relation to the resources and availability of such resources. The leadership role in building the teachers' capacity may come in many ways. It can be manifested through their involvement in varying degrees and perhaps via many strategies that they employ according to their level of involvement.

The study utilizes the conceptual framework based on the research of Fred Newmann (2000). Figure 1.1 above indicates the framework for this study. This framework assumes that for effective student learning, school principals need to be involved in building teacher capacity. The cultural conditions and school structures influence the school capacity which comprises teachers' individual knowledge, skills, dispositions and view of self. Further, there must be opportunities for individual teachers to acquire the knowledge, skills, dispositions and views of self that are needed for quality instruction in a school. While it is claimed that teacher capacity has a direct effect on the school and classroom practices, the school conditions, especially the leadership

involvement contributes important consequences for the development of teacher capacity. Enhanced teacher capacity can clearly improve student learning but then their effectiveness is very much related to leadership involvement and strategies employed.

In order for the teachers to provide quality instruction for better student learning and achievement, it is imperative that they have the necessary resources and support for capacity building (knowledge, skills, dispositions, and views of self) within their organization. Principals who are focused on student achievement and learning continually build their teachers' capacity. As instructional leaders in their schools, these principals through their involvement may have been executing many different strategies in building their teachers' capacity. It is therefore the purpose of this study to investigate and understand their involvement and the various strategies that they employ for TCB in their schools.

In addition to identifying the involvement and strategies of principals, the involvement levels of principals was also examined according to demographic variables such as gender, academic qualifications, and years of leadership. Additionally, the choice of strategies was also investigated according to the type of schools that are prevalent in the local Malaysian context.

1.8 Operational Definitions

Teacher Capacity here refers to the multi-faceted concept comprising the following four domains:

ii. **Knowledge** refers to the required knowledge of the subject matter, knowledge of curriculum, knowledge about students, and knowledge about general and subject-specific pedagogy.

iii. **Skills** refers to the learned capacity to carry out or the ability that one possesses to carry out one's professional duties.

iv. **Dispositions** refers to teachers' attitude towards the subject matter, their students, expectations for student achievement, and attributions for student performance.

v. **Views of Self** that refers to their beliefs about their role in classroom activity, and to the persona they adopt in the classroom, and their views of themselves as learners, including what, where, and how they lear

vi. **Teacher Capacity Building** refers to any process or activity that enhances the individual teacher capacity.

vii. **Principals' Involvement** refers to the level of engagement and participation by the principals in the process of Teacher Capacity Building. Three levels of participation are suggested in this study: low, moderate, and high

viii. **Strategies** refer to specific actions taken by the principals in building their

teachers' capacity. Sixteen strategies are explored in this study.

Summary of Chapter 1

Chapter 1 introduces the background of research and the research problem. Next, the research objectives and the research questions are stated. The significance and the limitations of the study are explained, followed by the conceptual framework of the study. Finally, the operational definitions are explained. Chapter 2 that follows is a comprehensive review of the literature in the area of educational change, educational leadership with the central theme of principal leadership for TCB.

CHAPTER 2

LITERATURE REVIEW

Organization of the Chapter

This chapter examines the organizational capacity, in particular the teacher capacity, leadership and teacher capacity building. In line with that, principals' involvement and the strategies that they employ in building their teachers capacity are also investigated.

2.1 Introduction

The interest to create an identity for Malaysian education, since independence, has designed the national curriculum where newer school improvement programs like KBSR, KBSM, Reading Literacy, Smart Schools, 'Sekolah Harapan Negara', 'PPSMI' and Cluster Schools have been strategically planned and implemented throughout the nation. Sharif and San (2001) observed the main factors that contribute to the implementation of the KBSR and KBSM Invention Curriculum and concluded that the teachers are one such critical factor where the teachers' attributes, such as competence and knowledge, as well as commitment and dedication are vital for the implementation of such programmes in Malaysian schools. Teachers' attributes guide and mould them in delivering the instructions for student learning in their schools. Day by day, these attributes build the individual teacher's capacity in order to sustain the needs of the

learners and the school. But, these teachers need some resources not only to build their capacity but also help sustain these attributes of capacity in the long run and among the resources mentioned school principals take the number one spot.

2.2 Capacity

Meyer (1992) defines capacity as readiness or staff preparedness to deal with change while Concoran and Goertz (1995) extended the definition for capacity into new areas as well by defining capacity as the maximum or optimum amount of production. Micheal and Sackney (2000) define capacity as a concept of learning community while Hopkins (2001, 2002) related capacity to internal conditions of a school that enable all functions of a school. Meanwhile, Newman, King and Youngs (2000) complement that it is not only the learning of individual teachers that needs to be looked at but also other dimensions of organizational capacity of the school. According to them, there are four components of capacity:

ii. Teacher capacity that includes knowledge, skills and dispositions of individual teachers,

iii. A professional learning community working collaboratively to set goals for student learning; assess student achievement; engage in inquiry and problem-solving,

iv. Program coherence that coordinates school programs and focuses on clear learning goals, and

v. Technical resources such as high-quality curriculum, instructional material, assessment instruments, technology, workspace and physical environment.

By adding human capital into the first component, Fullan (2000) is convinced that if the relationships within the schools are continually developing, then the skills of the individuals within the school can be easily realized. However, Hargreave's (2011) definition of capacity as the ability of teachers to enhance student learning seems more fit for this study.

2.3 School Capacity

School capacity includes the knowledge, skills, and dispositions of individual staff members. In order to advance student achievement, teachers, administrators, and other staff must be professionally competent in instruction and assessment appropriate to the curriculum for their particular students, and they must hold high expectations for all students' learning, irrespective of whether the school aims for basic skills or more authentic intellectual work (King & Newmann, 2001). In any case, this aspect of capacity definitely refers to the individual human capacity within the school.

Dinham and Crowther (2011) identified three inter-related aspects to school capacity as shown in Table 2.1 below. The first refers to material features such as students, staff (teaching, administrative, others), infrastructure and other resources including finances. Often these material features are dependent on levels of student enrolment through fees and funding arrangements. The second aspect of school capacity refers to more intangible features such as school culture and climate, staff cohesion and motivation, distributed leadership capacity, principal effectiveness, professional learning, "corporate memory", pedagogical approaches and effectiveness and teacher quality. Effective leaders seek to increase both material and intangible capacity through their decisions, strategies and actions. The third aspect refers to wider resourcing and support for schools and education at systemic, state, national and even international levels (e.g. OECD).

Table 2.1: Inter-related aspects of school capacity

School capacity	Material	Culture & climate	Resourcing & support
Aspects	Students, Staff, and Infrastructure	Staff coherence, motivation, distributed leadership, strategies and actions	Systematic, state, national and international

In each of the three aspects mentioned above, it is not unusual to see a combination of "carrots and sticks" used in an effort to lift performance and build capacity in education.

Hargreaves (2001, 2003a, 2003b) also simplifies organizational capacity into the number of concepts (resources) and the relationship (between these concepts to demonstrate how leaders build capacity). In addition to the obvious importance of material capital (financial and physical resources), he confirms that a school's organizational capacity is organized into three subsidiary forms of capital, namely, intellectual, social and organizational capital.

According to Stewart (1997, 2001), intellectual capital includes what is often called human capital, and consists of the totality of the knowledge, skills, competences and expertise of the school's members (students as well as staff) as well as the knowledge and skills of others (parents, governors, partners, etc.) that might be tapped to support the school's internal intellectual capital.

Social capital, has two sides: one is the degree of trust among members of the school and between them and any external people and the other is the extent to which the norm of reciprocity exist between those in trusted relationships. Trust and reciprocity combine in social capital to bind people into networks of various kinds (Bryk and Schneider, 2002; Tschannen-Moran, 2004; Kochanek, 2005).

While defining the organizational capacity as those resources and processes that bear directly or indirectly on what happens in classrooms, Hargreaves advocates that organizational capacity can be increased, developed or built, mainly by action taken by those with responsibility for the school's management and strategic leadership, that is, the ability to provide the direction and motivation for the organization's members lies with the leadership of the organization. With improved organizational capital, most school leaders are able to use their enhanced skills to mobilize and even to increase the organization's intellectual and social capital to support the innovation needed to create and embed the new practices in teaching and learning on which improved student performance rests (Hargreaves, 2003a).

However, Hargreaves, (2011) reveals that more pressure is being given towards improving the quality of education outputs, mainly in terms of student performances in recent years. Hence, the focus is on improving the quality of teachers towards student improvement and performance. It is this improvement process towards upgrading the quality of teachers that Hargreaves (2001, 2003) defines as teacher capacity building for schools.

2.4 Teacher Capacity

In all educational organizations, teachers are directly involved with students. When teachers receive professional-development opportunities targeted specifically to their teaching needs, and practice what they have learned, they are very likely to improve student performance on all measures significantly (Denson, 2003).

Therefore, the main discussions of capacity are often directed towards what teachers need to acquire and be able to utilize. But then we should always take heed of the nature of teacher capacity: being multidimensional and always evolving. Early investigations about knowledge base for teaching had mentioned about propositional knowledge, procedural knowledge and skills. Meanwhile, research on staff development dealt with the content learning in workshops and the methods of skills training (Joyce and Showers, 1983). More recently, scholars have broadened their attention to the other areas of teacher capacity. For the purpose of this research, definition of teacher capacity by O'Day, Goertz, and Floden (1995) that comprises four dimensions, namely, knowledge, skills, dispositions, and views of self is being referred to.

According to O'Day et al. (1995), teacher capacity dimensions are interdependent and interactive. When teachers display a strong commitment to improve student learning, then there is a sincere search for new knowledge and skills from the

teachers thus increasing their capacity. In other words, changes along one dimension leads to changes in the other dimensions.

2.4.1 The Knowledge Dimension

Knowledge refers to the ability of teachers to assist students' learning which is much dependent on the teachers' own knowledge base. Theorists have further divided it as the required knowledge of the subject matter, knowledge of curriculum, knowledge about students, and knowledge about general and subject-specific pedagogy **(**O'Day et al.,1995). Pedagogical content knowledge, on the other hand, identifies the distinctive bodies of knowledge for teaching. It represents the blending of content and pedagogy into an understanding of how particular topics, problems or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction. Pedagogical content knowledge is the category most likely to distinguish the understanding of the content specialist from that of the pedagogue (Shulman, 1987). Teachers with effective pedagogical content knowledge know the relevant disciplinary standards, and know how to teach in ways that facilitate student learning of the standards. Indeed, effective pedagogical content knowledge requires teachers to know how to teach the content of their subject in ways that can easily facilitate student learning (Ballantyne, Sanderman, & Levy, 2008).

In addition to strong subject matter knowledge, Darling-Hammond, and Bransford (2005), acknowledge that all teachers should have a basic understanding of how people learn and develop, and how children acquire that learning. Further teaching professionals must be able to apply that knowledge in developing curriculum that attends to students' needs, the demands of the content, and the social purposes of education that includes teaching specific subject matter to diverse students, in managing the classroom, assessing student performance, and using technology in the classroom.

Research has also documented the influence of such knowledge on instructional practice, including both teachers' explicit propositional knowledge and the more implicit understandings and beliefs they have developed in their experience as learners and teachers. Recent studies have also shown that the more complex thinking and problem solving abilities set forth in the new student standards require teachers to have a deeper and more flexible knowledge base than is either required of basic skills approaches or developed in teachers' undergraduate, pre-service, or in-service education (O'Day et al., 1995).

2.4.2 The Skills Dimension

Knowledge of what and how to teach need to be combined with the skills to teach. Brophy and Good (1986) and Rosenshine (1987) stated that early research on both generic and holistic teaching strategies revealed about closer relationships between teachers' pedagogical skills and student learning while Newmann, Marks, and Gamoran (1995) state that researchers were beginning to identify links between the changes in pedagogy sought by the reforms and students' performance on the more complex problems and analytical tasks recently.

2.4.3 The Dispositions Dimension

While there is a common understanding that teacher's dispositions involve teachers' attitudes toward the subject matter, attitudes toward students, expectations for student achievement, and beliefs about sources of student success, Jacobson (2011) includes passion, persistence, and commitment within the dispositions of the individual teacher. According to Lee and Oxelson (2006), teacher attitudes are more strongly influenced by training rather than by other factors such as length of experience.

However, the most often mentioned key components that evolved during interviews with teachers, according to O'Day et al. (1995), seem to be the teachers' attitudes

toward change and commitment to student learning. This component is particularly addressed as the reform goals of high performance for all students (Katz and Raths, 1986). Having the disposition to meet new standards for student learning facilitates necessary changes in practice, in addition to knowledge and skills (National Center for Research on Teacher Education, 1988).

2.4.4 The Views of Self Dimension

Teachers' views of self is connected to the capacity to teach in different ways and making attempts to change their practices. It is also connected to their beliefs about their role in classroom activity, and to the persona they adopt in the classroom. Teachers' views of themselves as learners, including what, where, and how they will learn are also important in identifying views of self (O'Day et al., 1995). Indeed teachers' beliefs about their self-efficacy has already been identified as one of the most important variables that determines teachers' performance and effectiveness in schools. Further researches on teachers' beliefs about their self-efficacy indicate that self-efficacy is closely related to student achievement (Temel, Ferudun, Ali Cagatay, & Hasan, 2012).

2.5 Teacher Capacity Building

As the teacher's role becomes more and more challenging in this modern era, the challenges upon teachers and the capacity with which they can perform excellently not only depends on school principal's wise thinking but also adds more demand for the principals' involvement and their engagement to build their teachers' capacity for better student learning. Knowing that the accomplishment of school aims and objectives depend very much on teachers as the prime movers, these teachers need to be equipped with the relevant knowledge, skills, dispositions, and views of self. This big responsibility for the principals may require them to exercise their role as instructional leaders. Effective school leaders have always been rated as those who emphasize the importance of instructional leadership. Instructional leadership is therefore a sine qua non to teacher capacity building. The principal, therefore, should accept teacher capacity building as an enormous opportunity for them to engage into fulfilling many of the educational demands. Hence his/her role as organization manager/administrator focusing largely on technical aspects needs a paradigm shift towards greater focus on human development aspects involving teacher capacity as instructional leader (Omar, Kuan, Kamaruzaman, Marinah, & Jamal, 2011).

Though small and large qualitative and quantitative studies and reviews have validated existing initiatives of capacity building literature, as claimed by Cohen (1998) and Desimon et al., (2002), the best practices in capacity building have been discussed and reported by Fullan (2010), Garet et al., (2001), and Wenglinsky (2002). Hattie (2009) even claims that meta-analyses of effects of capacity building have shown compelling findings of its impact on teacher learning and student achievement.

Among all other dimensions of organizational capacity of the school, teacher capacity is the most important internal condition that needs to be advanced for better student learning in schools if principal's focus is centered on student learning. When school leaders show high involvement in school improvement activities they are more committed to lead the learning in schools. Therefore, school leaders' high involvement in teacher capacity building will make leaders as well as the teachers more committed to improvement and sustainability of student learning (Fullan & Miles, 1992). This involvement helps leaders to change from an anxious and uncertainty state to stabilization and coherence in all their efforts towards building the school capacity including that of the teachers' in their schools.

Contemporary researches on school improvement have been focusing on the concepts of capacity (NCSL 2001). There is also a growing source of evidence within the school improvement area which heads towards the importance of teacher capacity building as a means of sustaining school improvement (Fullan, 2001; Hopkins & Jackson, 2002; Mitchell & Sackney, 2000). Building teacher knowledge and skills, in other words, building teachers' capacity has been one of the four major capacity-building strategies observed in 22 districts in California, Colorado, Florida, Kentucky, Maryland, Michigan, Minnesota, and Texas over a two-year period. The other three strategies include: interpreting and using data; aligning curriculum and instruction; and targeting interventions on low-performing students and/or schools. Although these four strategies were found to be prevalent in just about any district, some school leaders embrace these activities in a more comprehensive way and use them as major mechanisms for enacting improvement (Massell, 2000).

There is strong evidence in the research of the positive impact of teacher capacity-building on student achievement. Teachers who were offered high-quality professional development used the teaching methods that they were taught to lead to higher achievement gains in selected schools (Darling- Hammond, 1999). Further, in a

comparative analysis of highly successful schools with lower achieving schools, researchers found that the lower achieving schools had limited teacher capacity building initiatives (Cooter 2003). Therefore teacher capacity building needs to be looked at more seriously as it can affect student learning and achievement. Further, increase in teacher capacity will lead to improvements in student learning in schools. But then the need to build teacher capacity lies in the hands of the principals (King & Newmann, 2001).

Conceptual Framework of the Study

MacBeath, (1988) and Harris, (2002) have found in their studies of effective leadership, that leaders provide guidance by involving themselves within the school and among people where individuals' feel confident in their own capacity, in the capacity of their colleagues and to promote continuous professional development. This form of professional development gives much help in building the internal conditions of teacher capacity. When professional work is not focused on the internal conditions of the school, student learning will not improve. Therefore, these supporting 'conditions' need to be given priority as similar as the curriculum or other priorities the school has itself (Hopkins, 2002).

We acknowledge that the capacity to produce worthwhile and substantial student learning is a function of the interaction among these elements, and not the sole province of any single one, such as teachers' knowledge and skill, or curriculum. At the same time, the teachers' intellectual and personal resources not only influence their instructional interactions, they also shape how the teachers apprehend, interpret, and respond to materials and students.

There is considerable evidence that teachers vary in their ability to notice, interpret, and adapt to differences among students. Important teacher resources in this connection include their conceptions of knowledge, understanding of content, and flexibility of understanding; acquaintance with students' knowledge and ability to relate to, interact with, and learn about students; and their repertoire of means to represent and extend knowledge, and to establish classroom environments. All these resources mediate how teachers shape the quality of instruction. Consequently, teachers' opportunities to develop and extend their knowledge and capabilities can considerably affect the quality of their instruction that affects student learning and achievement as shown in Figure 1.1 below.

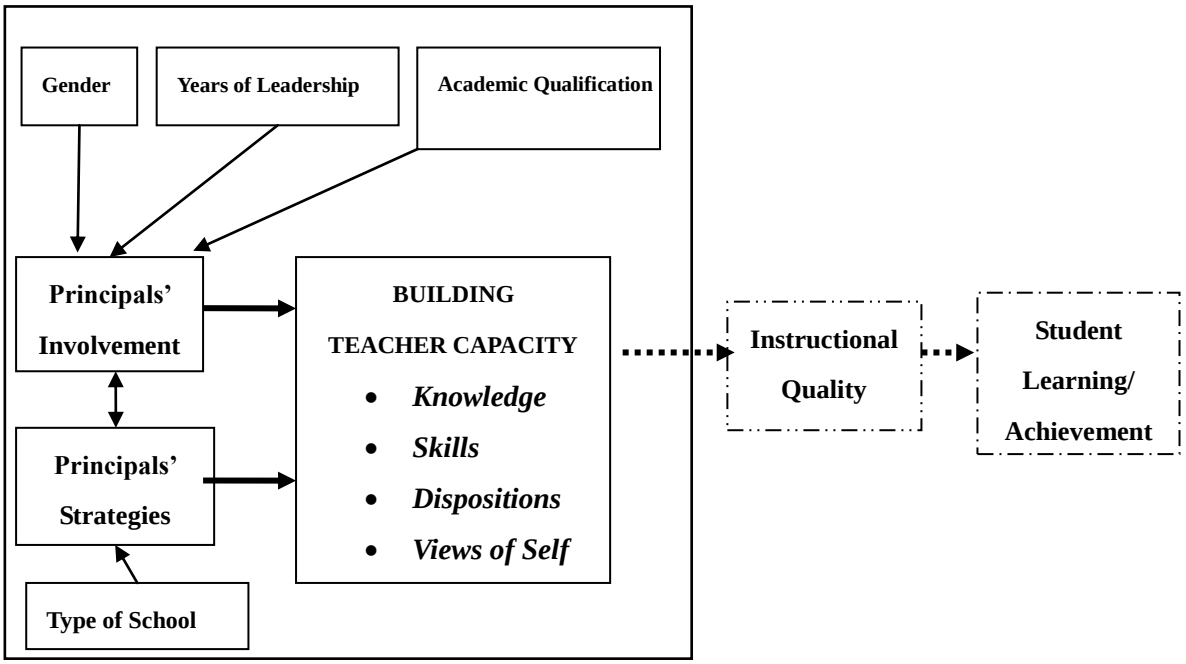


Figure 2.1: Conceptual Framework for Teacher Capacity Building adapted from Fred Newmann's (2000) Research

However, an individual teacher's capacity to accomplish the school goals and any new reform activities depends not only on his/her personal capacity, but even more importantly on the resources present within the context where they teach (O'Day, Goertz, & Floden, 1995). Hence, at the school level, the appropriate capacity for teachers in relation to the educational changes looked upon not only depends on the teachers' ability to form a community of practice but also on leadership that in large part determines the professional culture of the school. In line with that comes the argument of Smylie, Miretzky, and Konkol (2004) that teacher development is fundamentally a

problem and function of the school organization, which has to manage teachers individually and collectively as human resources.

The concerns among teachers to build their capacity for better student learning, though rest on the teachers' shoulders, the leadership is also equally accountable and responsible for ensuring that there is enough support provided in relation to the resources and availability of such resources. The leadership role in building the teachers' capacity may come in many ways. It can be manifested through their involvement in varying degrees and perhaps via many strategies that they employ according to their level of involvement.

The study utilizes the conceptual framework based on the research of Fred Newmann (2000). Figure 1.1 above indicates the framework for this study. This framework assumes that for effective student learning, school principals need to be involved in building teacher capacity. The cultural conditions and school structures influence the school capacity which comprises teachers' individual knowledge, skills, dispositions and view of self. Further, there must be opportunities for individual teachers to acquire the knowledge, skills, dispositions and views of self that are needed for quality instruction in a school. While it is claimed that teacher capacity has a direct effect on the

school and classroom practices, the school conditions, especially the leadership involvement contributes important consequences for the development of teacher capacity. Enhanced teacher capacity can clearly improve student learning but then their effectiveness is very much related to leadership involvement and strategies employed.

In order for the teachers to provide quality instruction for better student learning and achievement, it is imperative that they have the necessary resources and support for capacity building (knowledge, skills, dispositions, and views of self) within their organization. Principals who are focused on student achievement and learning continually build their teachers' capacity. As instructional leaders in their schools, these principals through their involvement may have been executing many different strategies in building their teachers' capacity. It is therefore the purpose of this study to investigate and understand their involvement and the various strategies that they employ for TCB in their schools.

In addition to identifying the involvement and strategies of principals, the involvement levels of principals was also examined according to demographic variables such as gender, academic qualifications, and years of leadership. Additionally, the choice of strategies was also investigated according to the type of schools that are prevalent in the

local Malaysian context.

2.6 Leadership and Teacher Capacity Building

Four sets of leadership qualities and practices in different contexts have been identified in literature: building vision and setting directions; understanding and developing people; redesigning the organisation; and managing the teaching and learning programme. Leaders do not seem to do all these things all the time and if they do, they go about doing each set of practices in ways that certainly vary by context (Leithwood, Harris, & Hopkins, 2008). In the practice of understanding and developing people, it is important that leadership improves staff performance that includes staff members' motivations, commitments, capacities (skills and knowledge) and the conditions in which they work. Considerable emphasis on school leaders' contributions to building staff capacity, has already been reflected in their role as 'instructional leaders' in many countries.

In their report on "seven strong claims about successful school leadership", Leithwood et al., (2008), highlighted that when the school leaders enacted the core leadership practices, the greater was their influence on teachers' capacities, motivation and beliefs regarding the supportiveness of their working conditions which in turn had a significant

influence on classroom practices and strong effects of leadership practices on teachers' emotion can shape their motivations (levels of commitment, sense of efficacy, morale, job satisfaction, stress and the like) and subsequently the effects on their pupils' learning.

While there is a strong agreement between studies that teacher learning is crucial for improving instructional practices, and the available evidence points to important conditions associated with school organization, the task, and the individual, school organizational conditions beginning from transformational leadership practices, participative decision-making, teaming, teacher collaboration, an open and trustful climate, cultures which value shared responsibilities and values, can foster this teacher learning in schools and hence their overall capacity (Thoonen, Sleegers et al. 2012).

Fullan (2010a) suggests that capacity building concerns competencies, resources and motivation. Individuals and groups are high in capacity if they possess and continue to develop the knowledge and skills and committed to putting the energy to get important things done collectively and continuously. In essence, capacity building implies that people take the opportunity to do things differently, to learn new skills and to generate more effective practice. In order to make a performance difference for the entire school,

capacity building must be systemic, argues Sharrat and Fullan (2009). They also note that capacity building is a highly complex, dynamic, knowledge-building process, intended to lead to increased student achievement in every school. To achieve that goal, consideration must be given to the approaches that will result in systemic capacity building.

In the United States, schools had recognized the importance of teacher capacity building as a lever of school improvement, and were sharing good practice as a matter of routine. Teacher capacity building is also explicitly linked to targets which are set in consultation with staff and other stakeholders. Emphasis has been put on the education departments working closely with school boards, building capacity by creating leadership teams at all levels and creating more professional learning opportunities for educators (NCSL, 2006).

As we talk more and more of individual teacher's capacity to accomplish the prescribed goals, we tend to forget that the leadership that takes responsibility and provide the necessary and relevant support for TCB requires a strong leadership capacity. Research in Hong Kong and North America, has shown that the influence of principals' leadership capacity on teachers' sense of efficacy is shown to be significant (Albright & Masturah,

2006). As advocated by Smylie, Miretzky, and Konkol (2004), teacher development is fundamentally a function of school organization, and therefore school leadership has to build their teachers' capacity individually and collectively to ensure that there exist a continuous and dynamic internal human resource.

The importance of interaction between principals and teachers that are consequential for quality instruction, has drawn much attention from Printy (2008) who confirms that by providing formal leadership, principals were able to encourage science and mathematics teachers to focus on their core responsibilities of teaching and learning. Indeed, she reasserts that leadership involvement by principals influences the high school teachers to build their knowledge dimensions in the dimensions of pedagogy and assessments in her study on integrated leadership on instructional improvement for better student learning.

Meanwhile, in their quantitative studies among principals' identified leadership influence on decisions in the instructional and supervisory domains in their schools, Marks and Nance (2007) explored how principals' involvement makes a difference with regards to instructional activities like establishing curriculum, setting performance

standards, and choosing professional development. The results indicate that principals perceive that they have high influence in instructional and supervisory activities when the teachers in their schools actively participate in decision-making. This finding suggests that principals' involvement in teachers' tasks in classrooms help build the teachers' capacity with regards to new skills development for student learning.

In formal organization such as school, the leadership is in a position to determine the capacity of its teachers to a considerable degree. The principals' involvement in building their teachers' capacity affect the attitude, climate, progress, co-operation and direction of efforts of the school. A school's mission and vision can be achieved by principals' involvement in the school matters and many effective leaders fail to build their school capacity because these leaders fail to involve themselves seriously in TCB (Farahbakhsh 2007).

Indeed, educational leadership has been called the "bridge" that can bring together the many different reform efforts in teaching and learning. Teachers are on the front lines of teaching and learning, close to the children. But principals at the school level, are uniquely positioned to provide a climate of high expectations, a clear vision for better teaching and learning, and the means for everyone in the system to realize the vision.

Patterson (2001) complemented that when the principal directs task of teachers holding high expectations with aligned curriculum then the teachers would work cooperatively and this makes the school an effective institution. Smith and Andrews (1989) further advocated that when principals function as instructional leaders, they were able to define the school mission, promote positive learning environment, observe and give feedback to teachers, manage curriculum and instruction, and assess the instructional program. It is the principal with an instructional leadership position that facilitates teacher growth and not one with the traditional leadership (Marks & Printy, 2003).

To ensure teachers implement effective teaching and learning, Hallinger (2005) emphasized that, principals are required to be deeply engaged in the school instructional programs. Principals who take the role of instructional leader seriously, will focus their efforts toward improving teaching and learning (Jenkins, 2009). The role of principal as more an administrator in many schools are attributed to lack of training for the principals, time constraint, too much paper work and community perception towards them (Fullan, 1991). Generally, principals do not see themselves as instructional leaders and many are of the belief that anything that has to do with teaching and learning is best

assigned to teachers (Phillips, 2003). The latest study by Grigsby et al. (2010) indicated that the level of change in instructional leadership experiences has not been fully achieved even though there has been an increase in the accountability for principals.

Different definitions of instructional leadership has been given and could be found in the latest literature. Originally, (1980s) instructional leadership involved traditional tasks such as setting clear goals, allocating resources to instruction, managing the curriculum, monitoring lesson plans, and evaluating teachers (Lashway, 2000). Today instructional leadership includes much deeper involvement in the "core technology" of teaching and learning, carries more sophisticated views of professional development, and emphasizes the use of data to make decisions (Deborah, 2002). The National Association of Elementary School Principals (NAESPS) frames instructional leadership in term of "leading learning communities". In NAESPS's view, an instructional leader has six roles: making student and adult learning the priority; setting high expectation for performance; gearing content and instruction to standard; creating culture of continuous learning for adult; using multiple sources of data to access learning; and activating the community's support for school success (National Association of Elementary School Principals, 2001).

In addition, there are several specific behavior of instructional leadership such as making suggestions, giving feedback, modeling effective instruction, soliciting opinion, supporting collaboration, providing professional development opportunities, and giving praise for effective teaching. In short, deep appreciation and wide practice of instructional leadership can enable principals to successfully develop teacher capacity in aspects of teaching and learning.

Recent research initiatives, and implications for leadership development have recognized some basic claim that the central task for leadership is to help improve employee performance, and such performance is a function of employees' beliefs, values, motivations, skills and knowledge and the conditions in which they work. Considerable evidence based on the recent syntheses, collected from both school and non-school contexts consistently insist on four sets of leadership qualities and practices: building vision and setting directions; understanding and developing people; redesigning the organisation; and managing the teaching and learning programme. It is through the lens of *understanding and developing people*, the principals can make a significant contribution to build their teachers' motivation, and dispositions

(commitment, capacity and resilience) other than knowledge and skills that teachers and other staff need in order to accomplish organisational goals (Leithwood, Harris, & Hopkins, 2008).

Within schools, Harris (2010) says that the social exchange theory of leadership still prevails where leaders provide services to a group in exchange for the group's approval or compliance with the leader's demands. She continues that the maintenance of the leader's power and authority rests on his or her continuing ability to fulfill follower obligations. On the other hand when leaders are seen as manipulators using resource distribution, administrative assignments, appointments, and advancement opportunities as rewards, a majority of them also used control tactics associated with materials, resources, work factors within and outside the classroom, and opportunities to gain teacher input. These tactics substantially affected the teachers' morale. Furthermore, teacher involvement in school-wide activities significantly decreased. Teachers' low self-esteem was attributed to the fact that the principal made them feel as if their thoughts and opinions were not valid or important. As a result, teachers felt anger, depression, and anxiety, which hindered their input and leadership (Blasé, 2001).

Principals are also held more accountable for their student learning. They are being called on to lead in the redesign of their schools and school systems. In an

outcome-based and accountability driven era, principals have to lead their schools in the rethinking of goals, priorities, finances, staffing, curriculum, pedagogies, learning resources, assessment methods, technology, and use of time and space. They have to recruit and retain top staff members and educate newcomers and veterans alike to understand and become comfortable with an education system undergoing dramatic and continuing change (Levine, 2005). As Glatthorn (2000) puts it, principals can best discharge their leadership role if only they develop a deep and broad knowledge base (with respect to curriculum).

In Hong Kong, research has shown that the influence of principals' leadership behaviors on teachers' sense of efficacy is shown to be significant (Hipp, 1997; Yu, Leithwood, & Jantzi, 2002). Lines of communication between them need to remain open. Without such close interdependence between individual and organizational/school capacities, an all-encompassing capacity may be limited in its tendency to locate the problem within the individual. In the U.S. these are emerging as the central elements of state and national policies to build teacher quality (National Commission on Teaching and America's Future, 1997; Wilson, 2002; Berry, 2002; Meadows and Knapp, 2002). Alternatively, in developing countries there are conceptual and contextual problems inhibiting teachers' dispositions towards capacity for development, revealed as a gap between theory and practices in teacher education (Mohammad, 2004).

Research in the area of school leadership advocates that principal's leadership is the main factor of school success and greater gains in student academic achievement in schools with strong principal leadership have been reported (Andrew & Soder, 1987; Barth, 1990). They said that the school principal is critical in ensuring academic achievement, especially for low income students.

According to Barth (1990), the principal is the most important reason why teachers grow or are stifled on the job and staff development was found to be a key to success. Successful principals empowered their staff through collaboration and shared leadership. They also encouraged risk taking and problem solving (Davenport & Anderson, 2002).

Bell (2001), in a report from a symposium of High-Performing, High-Poverty Schools in Sacramento, California in December 2000 discussed reasons for the high performances of the schools. A dialogue between nationally known researchers, such as Joyce Epstein from Johns Hopkins University and Patricia Davenport from the American Productivity and Quality Center, and the school participants concluded the session with lessons learned for future work. In addition to restating the value of strong principal leadership, they said, effective site leadership also meant shared leadership. They also said this shared leadership was an integral part of how schools conducted

business. The staff could be trusted to make academic and instructional decisions.

Among the claims that contributed to student learning, successful school leadership that enacts practices to promote school quality, equity and social justice through building powerful forms of teaching and learning; creating strong communities in school; nurturing the development of educational cultures in families; expanding the amount of students' social capital valued by the schools remains the most important one (Leithwood and Riehl, 2003). However, one can conclude here that it is particularly important that the school principals have the leadership capacity to focus on issues of leadership including building the capacity for teachers so as to instill confidence that motivates teachers into a common vision of the future or to achieve their common objectives in schools, without forgetting special attention on the 'softer' aspects of capacity development (Ahmed & Hanson, 2011).

Adam and Kranot (2006) believe that positive job experiences can promote teachers' satisfaction on the job which is a significant factor in explaining their perceived capacity. Further they emphasize that it is transformational leadership that is more likely to increase teachers' on-the-job challenge and support their initiatives and, in so doing, increase their job satisfaction. In other words, they contribute it to the transformational

leadership style for the shaping of these experiences.

2.7 Leadership and Involvement

The principal's involvement is instrumental in setting the tone of the school, helping to decide on instructional strategies, organizing and distributing the school's resources. Principals show their direct involvement with the innovation and in their facilitation of teacher interaction and other key sub process that happen in schools (Hord, 1987). In one of his major study conducted, while looking at the reading achievement in four instructionally effective inner-city elementary schools, Weber (1971) found that common to the four schools was strong leadership embodied in the principal's involvement.

Principals' high involvement, seen in his personal commitment to change, could make other members in a school to be highly involved. This eventually can influence the families, students, and community members to be highly involved. This change process creates a positive working relationship among teachers and the principal.

In successful schools there is a culture that shows everyone is focused around learning. Connell (1999) described these schools as where everyone was involved in the work of

the school. In her study of high performing and high poverty schools, she found that a staff focused on engagement in the school is an important aspect of school success. She elaborated, “The primary thing is for the principal to be engaged in his school. There is a not a high achieving school where the staff isn’t serious about their work and where they’re not focused. You can sense that people in a building are moving in the same direction. Everybody knows their job and why they’re there, even the lunch-room aide. In low achieving schools, everyone is an island unto themselves”. (p. 17). In summary by showing high involvement, the leader is able to influence the mission of the school and create a culture of learning and success for all students.

Lavine and Lezotte (1990) identified seven outstanding characteristics in unusually effective schools. They are productive school climate and culture, focus on student acquisition of central learning skills, appropriate monitoring of student progress, outstanding leadership, salient parent involvement, effective instructional arrangements and implementation and high operationalised expectations and requirements for students. Among those seven outstanding characteristics all seven characteristics demonstrated the need for leadership involvement.

Yet, the pertinent involvement of leadership is highly expected in outstanding leadership where a leader needs to involve in frequent and personal monitoring of school activities and sense making; high expenditure of time and energy for school improvement actions and teacher support; acquisition of resources; superior leadership and availability and effective utilization of instructional support personnel. Therefore the need for personal involvement which consumes high expenditure of leaders time as well as energy for school improvement actions is needed to support the teachers.

In successful schools, principals are not fixtures in the front office. They show high involvement in the instructional program of the school (Lomotey, 1989; Whitaker, 1997). They know what is going on instructionally because they are visible in every classroom. They make frequent classroom visitations, most visiting daily (Davenport & Anderson, 2002; Papalewis & Fortune, 2002; Whitaker, 1997).

2.7.1 Level of Involvement

Level of involvement is a measure of how personally and emotionally an individual is involved in an activity or process relevant to him/her (Grunig & Hunt, 1984). Involvement increases the likelihood of individuals attending to and comprehending

messages (Pavlik, 1988). In general, persons with high involvement analyze issues more often, prefer messages that contain more and better arguments (Heath, Liao, & Douglas, 1995; Petty & Cacioppo, 1981, 1986), and attain greater knowledge levels (Chaffee & Roser, 1986; Engelberg, Flora, & Nass, 1995).

2.7.2 High Involvement

High involvement places substantial demands on all participants in terms of their ability to solve problems, contribute to group discussions, and perform a wide array of technical work-related activities that contribute to the organization's basic effectiveness (Lawler, 1992, p. 53). Further, high involvement and collaboration leads to much patience, perseverance, and learning, in addition to a moral commitment to group decision-making.

Lawler (1992) studied the organizational and performance characteristics of management systems and found that regardless of area, the best performing groups leaned toward the participative end of his scale, which extended across a continuum from exploitive-authoritative to participative practices. He found that the more participative the group, the more successful it was. Characteristics such as group involvement, mutual trust, information sharing, high degrees of teamwork, and group

decision-making were evident in the most successful groups he studied. Lawler (1992, 1986) proposed that high involvement or participative organizations can be developed and that choices about information, power, knowledge, and rewards are critical. He equates involvement for participation, in his earlier works.

The principal is in an excellent position to initiate, encourage, or block any change or reform that comes along. It is no longer desirable for principals to simply act as "middle managers" who take someone else's plans and ensure compliance by the school faculty and staff (Barth, 1990). Many school boards and superintendents encourage principals to take on the responsibilities of school improvement, initiating change, and empowering teachers by showing greater involvement.

Perhaps one of the most crucial factors in the development of high involvement in a school is the principal's relationship with teachers, staff, and other stakeholders. Barth (1990) proposed that there is no relationship in the school that has a greater effect on life within the school than the teacher-principal relationship. He contended that if the teacher-principal relationship is helpful, trusting, and supportive, then relationships with other stakeholders would be the same. There are other researchers who have also found the relationship between teachers and their principals to be extremely significant. Fullan

(1991) found that the principal was the key to the continuous professional development of teachers. He stated, “Probably the most powerful potential source of help or hindrance to the teacher is the school principal” (Fullan, p. 143).

The professional development of teachers can be greatly enhanced by a supportive principal. Leithwood (1992) summarized three areas of teacher development that the principal can influence: “the development of professional expertise, psychological development, and career-cycle development” (p. 87). Leithwood explained that the contemporary view of teaching is “[teaching] is a non-routine activity drawing on a reliable body of technical knowledge and conducted in collaboration with other professional colleagues” (p. 100). Instead, the development of the teacher as a whole person should be considered. The principal is the “lead teacher” who guides the school to create a feeling of community (Boyer, 1995). Developing attitudes, character, morale, self-esteem, and a sense of belonging in teachers, as well as in students, can be just as important as developing knowledge and skills.

Principals must be willing to make the personal changes necessary to bring their behavior into line with the vision of high involvement which is being developed. In other words, they must be consistently highly involved and must be willing to become

one of the group, an equal partner with teachers and staff members, walking the talk. Actions speak louder than words. Principals must step out of the limelight and into the trenches. Principals must model what all relationships will be and make conscious efforts to develop positive, trusting relationships throughout the school. It is important that the teachers trust each other as well as trust the principal.

In brief, principals must be a source of recognition and encouragement, giving credit where due, investing in the development of teachers, always looking for opportunities to promote any and all members of the school family, in other words, become the school's change master.

When we talk about the many things that principals must do to help the teachers grow, the school reach a certain standard, one question seems to be hitting hard in our mind. Are there any payoffs to these leaders in being highly involved? What makes them continue to be engaged for better student learning? Ann Howard (1997) clarifies that leaders with high involvement naturally accrue the following positive outcomes that are considered payoffs to themselves. Through their high involvement these leaders gain greater commitment to the organization, more job satisfaction, more clarity about what they were supposed to do, and relief from routine work and decision making, although

greater effort was needed for more challenging roles such as creating a vision, inspiring others, or forming cross-organizational partnerships. In addition, other payoffs to the organization come in the form of quality output, other outcomes, and even more projected improvement.

2.8 Strategies for Teacher Capacity Building

Leithwood, Day, Sammons, Harris and Hopkins (2006) explain that principals in schools have great opportunity to influence their teachers towards achieving their aims in school improvements. Although the effects of school leadership on students are mostly indirect but the effects through their actions are great among teachers both direct and indirect. Usually, the leaders use some forms of actions which are called strategies.

Strategy, the word derived from Greek, means a plan of action designed to achieve particular aim, goal or vision. It is concerned with how different engagements are linked in order to attain success. There are many strategies identified and utilized by principals for school improvement. The principal applies these strategies to improve their teachers' capacity for school improvements which enables teachers to teach collectively, purposefully in order to achieve the organizational needs. Implicit in this framework of strategies, the principal is actually allowing teachers to develop professionally, while

the school becomes a dynamic setting for teaching and learning. In other words, the principal is building the teacher's capacity through these powerful strategies known in literature.

2.8.1 Supervision

In the education and organizational theory literature, supervision is the process of directing or guiding people to accomplish the goals of the organization in which they work (Daresh, 1989), the ultimate objective of supervision is offering the agency's service to the consumer in the most efficient and effective manner possible (Kadushin, 1985). Effective supervision, Mentoring, and Coaching accomplishes three broad purposes: 1) quality control in which the supervisor is responsible for monitoring employee performance; 2) personnel development in which the supervisor is responsible for helping practitioners refine their skills and elaborate both their discipline-specific knowledge and their technical competencies; and 3) promoting commitment to the field and position, which, in turn, enhances motivation (Sergiovanni, 1991).

Glatthorn (1984) defines supervision as a set of comprehensive services provided and process used to help teachers facilitate their own professional development to lead improved instruction. Pajak (1990) reviews supervision into categories such as communication, staff development, instructional program, planning and change, motivating and organizing, observation and conferencing, curriculum, problem solving and decision making, service to teachers, personal development, community relations and research and program evaluation. These twelve dimensions represent the complex duties of instructional leaders which principals employ in this strategy as instructional supervision.

2.8.2: Role models

The term role modeling refers to an act of continuous social learning. This takes place when an individual observes someone and learns from him/her. It is a process that allows teachers to learn new behaviors without the trial and error of doing things for themselves (Bandura, 1977). The role model principals usually help facilitate teaching practices in the school so that they can emulate their behaviors in teaching. The principal observes teaching, spends time in the classroom to know what is going on and helps teachers with their instructional efforts. Role Model can be used to share or learn about teaching where it usually occurs through team-teaching activities in the

same school, also described as ‘working together’ and involving ‘hands on activity’.

2.8.3 Coaching/Mentoring

Coaching by leaders is regarded as one of the teacher capacity building strategies because it has the potential to promote teacher professional development. It enhances new instructional techniques and curriculum knowledge and skills to improve the quality of teaching (NCLB, 2001) It has been noted in literature that several teacher quality organizations have identified a consistent set of effective components for professional development programs, which include the concept of teacher peer coaching. Showers and Joyce (1996) have reiterated that early research showed that teachers with coaches shared knowledge, teaching skills by planning together, and pooling their experiences frequently and coaching has been used as a process of collaborative planning, observation, and feedback in order to increase the level of implementation of instructional techniques and curriculum.

The strategy, coaching addresses performance in some aspect of an individual's work or life while mentoring is more often associated with much broader, holistic development and with career progress of the individual (Clutterbuck, 2008). Coaching focuses on the interaction with a purpose of enhancing performance, by providing goals, techniques, practice and feedback. The coach helps the person increase competence and the

probability of success without giving much importance to the relationship. On the other hand, mentoring achieves its purposes primarily through building a relationship. The mentor is usually someone “higher” up in the organization, someone who has experience and knowledge about “who’s who”, “what’s what”, and “how” things get done. It is a formal relationship structured around the developmental needs of the “mentee” (Veale & Wachtel, 1996).

With the right sense of understanding the strategies of coaching/mentoring and the related skills, school principals can easily engage themselves as curricular and pedagogical coaches/mentors. These principals can watch individual teacher’s lessons, prepare and give instructional presentations; and speak on one-to-one about classroom methods. Teachers observe one another regularly and provide feedback in an internal, critical friends’ format. In addition to this one-to-one approach, for teacher capacity building, larger peer-directed efforts are also carried out. Teachers are encouraged to give presentations to their colleagues on technique projects or subjects that one may have learned from previous experience. This may even build a professional community where educators feel more comfortable instituting new pedagogical approaches in a supportive and collaborative environment.

Through good coaching, principals can dig deep to find out what makes their teachers' heart beat by using a variety of coaching techniques that elicit what gives individuals meaning and significance and to explore their personal purposes. Coaching is all about enabling others (Sparrow, 2013). This strategy can be used to build teachers' capacity and at the same time keeps them away from being undervalued, under-developed or start looking elsewhere for the opportunities and stimulus they need.

In Malaysia, School Improvement Programme (SIP) by Institut Aminuddin Baki is suggesting for coaching/mentoring courses to be provided to school leaders in the low achievement schools to help build the teacher potential and hence student achievement (Noraini & Hamidon, 2011).

2.8.4 Continuous Learning Opportunities

It is a process whereby an individual teacher and the teacher community in a school grow together. There seemed to be a shared vision among the community of learners. The practice of shared vision involves the skills of unearthing shared 'pictures of the future' that foster genuine commitment and enrollment rather than compliance. It also involves collaborative efforts in small groups working together within a larger group of

teachers in schools to organize academic, and social accomplishments (Norwood, 2007).

Through collaboration and commitment teachers are empowered to work together and achieve goals. In this process top-down and bottom-up management styles will help teachers to share diverse ideas and compromise for one vision and one mission.

Principals need to lead all teachers from the center rather than the top whereby the principal as an instructional leader is changing to one that reflects the principal's role within a community of learners and leaders. In mastering this discipline, leaders learn the counter-productiveness of trying to dictate a vision, no matter how heartfelt.

2.8.5 Collegial Conversation

A Collegial Conversation is useful for its suggestion of five steps to guide professional conversations, particularly as a way to get teachers thinking about making changes to their current teaching practice. The process begins with the teacher giving a reasonably detailed description of a lesson carried out, what students did, and how they were

assessed. Then colleagues ask clarifying questions, which the teacher responds to in step three. In step four the colleagues offer feedback and suggestions. Step five is the teacher's opportunity to respond and conclude the session. The process guides effective sharing, reflection and professional conversations with trust and openness.

Teacher leadership literature has provided evidence to believe that collegial conversations among leaders and teachers promote inquiry-orientated practice. By doing so, it generates an environment of continuous improvement for capacity among teachers. In general collegial conversation effectively empowers teachers for better teaching in schools. (Lambert, 1998).

2.8.6 Staff meeting

A staff meeting is a great time to publicly recognize teachers who have gone above and beyond or modeled the school's values in a particular way. By describing the teacher's good work, a principal can help everyone understand what matters most to them. Staff meetings are also a good time to share positive teacher's feedback with the team. (Youngwirth, 2012). Several activities within a staff meeting, as shown below, can fetch far reaching objectives in building the teachers' capacity

(a) Updating the Status of School's Goals

Principals can discuss how the school is doing in terms of its learning goals. This can be especially valuable if the goals are tied to a teaching and learning programs. When different staff members share responsibility for goals, it is also a rich opportunity for reinforcing accountability and enhancing communication throughout the school. Principals should also consider discussing schools' plan updates on a quarterly basis.

(b) Presenting Mini Case Studies

Principal can invite staff members to present new things, they have learned about the teaching profession during the previous week.

(c) Sharing Reports and Presentations

After teachers return from meetings, conferences or other educational events, principals can use some time in the next staff meeting to share key takeaways. Besides spreading the knowledge beyond the individual attendee, this gives team members better opportunities to work on their presentation skills. Inviting an outside speaker to present at a staff meeting may also be a valuable event.

.

(d) Discussing Process Improvement

The staff meeting is an excellent forum for addressing ways to improve the school's instructional processes and procedures. Using tools such as flowcharts and checklists, the team can take a closer look at daily instructional processes, pinpoint areas for improvement and discuss possible solutions. From there, principals can decide together which changes should be made, how those changes can be implemented and how the resulting process will be evaluated. Assessing a new instructional process provides yet another opportunity for team members to take an active role in the school's ongoing development.

By engaging in discussions of this nature, a staff meeting can go above and beyond operational details, and act as organizational glue, strengthening the school's culture and keep every teacher focused on a common vision and goals. Principals conduct closed door discussion in the areas of needed and identified instruction methods. Schools can also use trainers model for the use of effective instructional practice. Staff meeting topics are specifically targeted to address teacher burnout such as stress management, time management, student discipline problems, extra curricular activities as well as instructional practices.

2.8.7 Table talk

This is a casual conversation about teaching and student learning. Teachers' staff rooms or lunch rooms are used as conveniently as they wish to talk about what happens in the classroom on the day. Table Talk is a low-pressure way to discuss subject matters on instruction to strengthen relationships among teachers and to exercise some professionalism of their work. By organizing these focused table talks, principal can help participants gain professional knowledge and vocabularies in different professional areas during this one hour program. Experts agree that people need broader knowledge to build a good life, and a better career.

In a study on Building Teacher Capacity: Orienting Patterns of Practice to focus on student learning , one teacher said, "Because I am enthusiastic and have a good working relationship with my peers, I have influence. I tell my colleagues that 'once you try a lesson and have success, you build your confidence and understanding.'"

In one school piloting teachers used lunch room "table talk" to tell their peers about what was happening in their classrooms: "I make it a practice to come down to lunch and say what fun we just had in math class. Then I tell the teachers there what we did during the lesson and how the kids responded," said one teacher. As her principal noted,

the tone of conversation in his building had changed. Instead of the grumbling about "this kid" or "that form," teachers were talking about their practice. With attention refocused on the reason they were teachers, their sense of commitment and satisfaction increased.(Cox, 2003)

2.8.8 Face to face

This strategy involves teacher leaders who are close to teachers and classroom management and move refinements along principals. They support the teachers individually with close care for learning improvement. Teachers would want the principals to provide information one-on-one or in small group meetings and this strategy allows for two way communication in its best form. It is also considered by many as an interesting and effective relationship building technique.

2.8.9 Net working

Networking is beyond the four walls of the classroom and by locating information from worldwide sources wherever these may be located. The implications for teachers as they assist their students in collaborating with other learning groups and using networks to research assignment topics is that they cease to be the main source of knowledge in the classroom. Instead, teachers' roles change from being "a sage on the stage" to becoming

“a guide on the side”. Through collaboration and networking, professional teachers promote democratic learning within the classroom and draw upon expertise both locally and globally.

Yukl (1989) includes ‘networking’ in his Multiple Linkage model of leadership as one of eleven critical managerial practices. He describes this practice as “Socializing informally, developing contacts with people who are a source of information and support, and maintaining contacts through periodic interaction, including visits, telephone calls, correspondence, and attendance at meetings and social events.

In recent educational research, networking has emerged as a strategy for teacher capacity building focused on teacher’ professional development. In a study to investigate and analyze the pros and cons of network activities for improving teacher capacity building focusing on teachers’ individual practice, the concept of Network Learning Communities strategy was used. It was found that a characteristic feature of successful and sustainable networks is that the knowledge base balance between the private knowledge of the teachers and the public knowledge that informs the teachers practice through collaborative activities in the network (Jackson & Temperley, 2007).

2.8.10 Team building

Team building refers to a wide range of activities, in schools, which is designed for improving team performance. Team building is pursued via a variety of practices, and can range from simple bonding exercises to complex simulations and multi-day team building retreats designed to develop a team usually falling somewhere in between. It generally sits within the theory and practice of organizational development of school groups. Team building can also be seen in day-to-day operations of the school organization and team dynamic can be improved through successful leadership. Team building is an important factor in any environment, its focus is to specialize in bringing out the best in a team to ensure self development, positive communication, leadership skills and the ability to work closely together as a team to problem solve.

A team leader, the principal, is usually goal-oriented to keep the team on track. The principal must promote a safe environment where members can openly discuss issues. The principal must build confidence amongst teachers by building and maintaining trust and offering the teachers responsibilities. A leader should be technically competent in matters relating to team tasks and goals. It is important for a principal to set a manageable list of priorities for the team to keep members focused. Bowers (1991)

contends that when the principal was involved more with the personal and professional welfare of the instructional staff, teacher satisfaction with development programmes was usually high. Further, the more supportive the principal seemed to be, the more likely were the teachers to view development as group-based and hence become a more cohesive staff and individual teachers felt less isolated about their own roles in development programmes.

2.8.11 Professional membership

Professional membership is usually a membership seeking to further teaching profession, the interests of individuals engaged in that profession. A group of people in a teaching profession entrusted with maintaining control or oversight of the legitimate teaching. This body acts "to safeguard the public interest;" organizations which "represent the interest of the professional practitioners," and so "act to maintain their own privileged and powerful position as a controlling body."

Many professional bodies related to teaching profession are involved in the development and monitoring of professional educational programs, and the updating of

skills, and thus perform professional certification to indicate that a person possesses qualifications in the subject area. Sometimes membership of a professional body is synonymous with certification, though not always. Membership of a professional body, as a legal requirement, can in some professions form the primary formal basis for gaining entry to and setting up practice within the profession

2.8.12 Professional development

Dall'Alba and Sandberg (2006) view professional development as a capacity building strategy. Professional development refers to skills and knowledge attained for both teachers personal development and career advancement. Professional development encompasses all types of facilitated learning opportunities, ranging from college degrees to formal coursework, conferences and informal learning opportunities situated in teaching practice. It has been described as intensive and collaborative, ideally incorporating an evaluative stage. There are a variety of approaches to professional development, including consultation, coaching, lesson study, mentoring, reflective supervision and technical assistance.

These programs may be formal, or informal, group or individualized. Individuals may pursue professional development independently, or programs may be offered by human resource departments. Professional development on the job may develop or enhance process skills, sometimes referred to as leadership skills, as well as teaching skills.

Professional development opportunities in school range from a single workshop to a day-long academic course, to services offered by a medley of different professional development providers and varying widely with respect to the philosophy, content, and format of the learning experiences. Some examples of approaches to professional development include:

- Case Study Method - The case method is a teaching approach that consists in presenting the teachers with a case, putting them in the role of a decision maker facing a problem (Hammond 1976) - see also Case method.
- Consultation - to assist teachers to clarify and address immediate concerns by following a systematic problem-solving process.
- Coaching - to enhance teacher competencies in a specific skill area by providing a process of observation, reflection, and action.

- Communities of Practice - to improve professional practice by engaging in shared inquiry and learning with other teachers who have a common goal
- Lesson Study - to solve practical dilemmas related to intervention or instruction through participation with other professionals in systematically examining practice
- Mentoring - to promote an individual's awareness and refinement of his or her own professional development by providing and recommending structured opportunities for reflection and observation
- Reflective Supervision - to support, develop, and ultimately evaluate the performance of teachers through a process of inquiry that encourages their understanding and articulation of the rationale for their own practices
- Technical Assistance - to assist teachers and the organization to improve by offering resources and information, supporting networking and change efforts.

On one hand, researchers content that professional development for teachers is often recommended as a strategy for school improvement. On the other, they stress that in order for professional development to succeed, it should concentrate on instruction and student outcomes in teachers' specific schools; provide opportunities for collegial inquiry, help, and feedback; and connect teachers to external expertise while also respecting teachers' discretion and creativity (Newmann, King, & Youngs, 2001).

Similar criticisms regarding professional development were found in the writings of Massell (2000) which found professional development being practised as the traditional "one-shot" workshop/staff training that lacks sustained follow-up support for teachers to apply new ideas in their classrooms. Professional development enhances teacher capacity by strengthening the knowledge and skills in several key areas by: introducing a differentiated unit structure to teacher planning; emphasizing student-centered classroom instruction; and encouraging the use of systematic formative assessments and differentiated summative assessments.

2.8.13 Teacher's teacher

Teacher's teachers are teacher consultants who organize avenues for teachers with difficulties in teaching and learning and to guide those teachers to face challenges. These teacher consultants outline the different ways that these teachers can share expertise in staff meetings, team teaching, improvement program planning, supervising and evaluation. They help to put this information on a website, along with a link to information about the teacher consultants, their areas of expertise, and the areas that they are interested in developing. Each teacher consultant plans to set up set up meetings with interested teachers to explore their area of difficulty and involve in improvement strategies.

2.8.14 Staffing -mix

This is a strategy where principals manage curriculum leaders and teachers resources in teaching which involves organizing groups of teachers with different professional backgrounds, skills, grades, qualifications, expertise and experience in order to achieve optimal student learning. This distinctive feature of educational care has become more prominent during recent decades with the emergence of numerous new professions, specialties and occupations. In a school a principal organizes the teacher's expertise to meet in groups to improve student learning. This conceptualization focuses on the proportion of highly qualified staff members in the overall pool of professional resources.

2.8.15 Teacher Leader

Teacher leaders help teachers generate instructional resources such as knowledge, skills, and commitments for teaching. These include content knowledge, a better understanding of the subjects they teach; pedagogical content knowledge, insights into how to help children grasp that subject; knowledge about how to manage the classroom; and appreciations of the problems children as well as beliefs about who can learn what (Shulman, 1987). However, according to Lord and Miller (2002), the current trend in

teacher leader strategy is mostly used in science, mathematics, and technology education, where teacher leaders are engaged as supported systemic reform which has greater potential for a positive impact on instruction.

Lambert (2003) defines a teacher leader as a person who makes a difference by keeping alive, or has been reawakened by engaging colleagues and a professional culture. Further, she contends that these teacher leaders are reflective, inquisitive, focused on improving other teachers' capacity. They accept responsibility for student learning and have a strong sense of self, are open to learning and understand the major dimensions of learning in schools, learning of students, learning of colleagues, learning of self, and the learning of the community.

Many good things are being mentioned about teacher leaders. Gigante & Firestone (2008) explored how teacher leaders help teachers improve mathematics and science teaching. Their research focused on a purposive sample of seven teacher leaders selected to vary in their time allocated to teacher leader work and their content knowledge. Each teacher leader was interviewed subjected to a mix of deductive and inductive coding before a case study was written for each teacher leader. The findings revealed that teacher leaders helped to provide teachers with more developmental

assistance for teaching and therefore help teachers' deepen their knowledge about instruction.

Teacher leadership has been characterized as one in which teachers develop expertise by working collaboratively. It can bring beneficial effects on school improvement, school and teacher effectiveness and teacher motivation and retention, only if the right conditions are in place in order for teacher leadership to flourish (Muijs & Harris, 2003). In claiming the importance of teachers' commitment to change for school improvement, Gurcharan Singh (2012), regards teacher leadership as an important strategy that allows teacher leaders to share their understanding and develop teacher commitments for meaningful change in improving schools.

Though there seem to be many activities in which teacher leaders engage (Lord and Miller, 2002; Silva et al., 2000), some of them include being a coach or consultant to individual teachers, managing the curriculum, serving as department chair, developing curriculum or materials, mentoring new teachers, coordinating professional development, facilitating action research, managing the distribution of materials needed for teaching, and participating in decision making (Harris & Muijs, 2005).

Teacher leaders may engage in any of these activities, but they often engage in the latter by helping their colleagues improve their practice. These practice-improvement roles are the focus of teacher leaders who will help teachers generate human resources – i.e. specific qualities, most notably, knowledge, skills, and commitments (Gamoran et al., 2003). These resources will be about teaching. They are likely to include content knowledge, a better understanding of the subjects they teach; pedagogical content knowledge, insights into how to help children grasp that subject; knowledge about how to manage the classroom; and appreciations of the problems children (or specific sets of children) will have with different aspects of the subject taught, as well as beliefs about who can learn what (Shulman, 1987).

Leadership practices of teachers as formal leaders usually prevail when they take roles such as department heads, subject heads, coordinators for special program, teacher mentors. These teacher leaders help other teachers to embrace goals to understand the changes that are needed to strengthen teaching and learning and to work together for their school improvement. There is research literature to suggest that teacher leaders have been empowered to help other teachers in order to build capacity for curricular change (Harris, 2004; Muijs and Harris, 2003; Rinehart et al., 1998; Spillane et al., 2001, 2004).

2.8.16 Teacher Researcher

Teacher researcher is defined as a teacher who carries out research as systematic investigations of how teaching influences student learning over time in a single classroom or learning community. It is inquiry that is systematic, intentional, contextual, ethical and above all responsive to the learners' strengths and challenges. The model of teacher research involves action research, the case study and instructional interventions. Teacher Researchers begin their inquiry by first studying their students, their learning, and their context in systematic ways. Based on preliminary analyses of the data they have gathered, Teacher Researchers justify an area of inquiry or question they want to pursue to respond to their students' needs. Then they explore the literature systematically to identify promising approaches, instructional strategies and procedures for implementation, data collection and analysis. Teacher Researchers are mentored in this process of development by facilitators from universities.

Teacher research is valued in preparing teacher leaders as teachers are able to advocate, speak, and take action, on behalf of the students they serve. To take action in informed, ethical, and responsive ways, teachers must be skilled in the tools of instruction and the habits of inquiry essential to understand how to promote student learning. Teacher

research is important because it is a powerful experience that develops a richer understanding of teaching and learning. The steps of teacher research—asking questions about students' learning needs, designing an intervention around a set of instructional strategies to address these needs, planning systematic ways to gather and analyze data in order to investigate the effects of the intervention—develop habits of mind that enable teacher leaders to make instructional decisions that further their students' academic achievement.

One of the most common claims is that teachers will become better at what they do by conducting research and that the quality of learning for their pupils will be higher. It has also been asserted that teacher researchers will stimulate positive changes in the culture and productivity of schools and raise the status of the occupation of teaching in the society. Additionally, it has been declared that teacher research will produce knowledge about teaching and learning that will be useful to policy-makers, academic researchers, and teacher educators (Zeichner 2003).

2.9 Gender and Leadership

Women are slowly gaining ground in leadership positions across all fields. Women's participation in the workforce and in leadership roles has undergone a dramatic change

in the past 20 to 25 years. Schools in Malaysia are beginning to be led by women principals in an increasingly greater pace than before.

Further, women ascribed more importance to relational leadership, leadership for social justice, spiritual leadership, leadership for learning, and balanced leadership, in contrast to the traditional literature on leadership that was developed around men's lived experiences as principals (Grogan, 2010). We believe that a diverse collective leadership of this nature is more likely to frame problems and solutions very differently from the traditional approach. It is said that women have learned to work in relationship with others collaboratively. In addition, women often bring a social justice orientation to their work.

While women have been found to be more transformational in their leadership styles, institutions that favor or require transformational leadership styles may provide women leaders with an advantage. Further it is noted that men conform more toward being more task oriented, self-assertive and motivated to master their environment while women conformed more toward being more interpersonal, selfless and concerned with others. This is often distinguished as an advantage to women for being more person orientation over task-orientation unlike the men (Bass & Avolio, 1994).

Women may identify them as not only as leaders, but also as women, as racial/ethnic individuals, as mothers, etc., all of which intersect with one another. Together with the challenges of work-family balance, caretaking responsibilities, gender role expectations, connectedness and affiliation with multiple communities while exercising their leadership, they may make good leaders in environments that seek such an approach. Besides, there is also strong evidence to support the tendency for women to adopt a more collaborative, cooperative, or democratic leadership style than men who adopt a more directive, competitive, or autocratic style; this emerged in all types of studies (Chin, 2011).

As compared to the men, Brunner and Grogan (2007) found that women have spent more time in the classroom learning effective teaching methods before they take on leadership positions. Therefore, it may not be wrong to say that women could have a slight advantage in their leadership stakes, in particular their instructional leadership tasks.

Hence, it is now believed that these gendered approaches to leadership could result in better addressing of teacher development issues and women principals may have an edge over their male counterparts in terms of the selection and practices of strategies for

teacher capacity building in their schools. It is possible that the women principals may choose different strategies for different reasons and may even practice them very differently than their male counterparts in building their teacher capacity.

2.10 Summary of Chapter 2

This chapter describes the related literature on capacity, school capacity, teacher capacity building, leadership and teacher capacity building. In addition to that the leadership involvement towards teacher capacity building and the strategies of teacher capacity building that were already present in the literature, and some comparisons between women and men leaders that were reported in earlier studies.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter describes the research design, population and sample characteristics, data collection procedures, data analysis procedures, and issues of validity and reliability. The aim of this study is to identify the principals' involvement and their strategies for Teacher Capacity Building (TCB) in Malaysian secondary schools. Hence, this study is guided by the following research questions:

1. What is the extent of involvement of the principals in Teacher Capacity Building?
2. What are the dimensions that are dominant in Teacher Capacity Building according to principals' Level of Involvement?
3. What are the most prominent components in each of the Teacher Capacity Dimension according to the corresponding level of involvement?
4. What are the strategies that principals use in Teacher Capacity Building?
5. What are the most frequent strategies in each level of involvement in the Teacher Capacity dimensions?
6. Are there significant differences in principals' frequent strategies according to type of school?

7. Are there significant differences in principals' level of involvement according to leadership experience, academic qualification and gender?

3.2 Research Design

A sequential mixed method approach was used in this study as the researcher intended to look at both quantitative and qualitative data to understand the research problem. This methodology was employed so that the strengths of both quantitative and qualitative data can be utilized to seek better understanding of the whole study. According to Miles and Huberman (1994), the combination of quantitative and qualitative data usually provides "a very powerful mix" to study the research problem. While each method has its own strengths, the combination of methods serves to build upon those specific strengths. This mixed-method approach also serves as a method of cross-validation using a concurrent triangulation strategy (Creswell, 2003). It is believed that the mix of quantitative and qualitative methods can offset the weaknesses of one another.

The researcher decided to conduct the study in two phases where phase 1 comprised the quantitative method followed by phase 2 which constituted interviews (qualitative method) with some thirteen principals.

Phase 1 involved a survey, the quantitative means of data collection. A stratified random sampling was used to choose principals from the four zones in Peninsular Malaysia: Northern Zone represented by Perlis, Kedah and Penang; Central Zone represented by Perak, Selangor, Federal Territory Kuala Lumpur and Federal Territory Putrajaya; Southern Zone represented by Negeri Sembilan, Melaka and Johor and Eastern Zone represented by Kelantan, Terengganu and Pahang. Such a stratification based on geographical location usually increases the representativeness in terms of SES, ethnicity, and also a broad range of attitudes (Babbie, 2005). A sample of principals from all four zones participated in the survey.

The quantitative data scores from Instrument 1 yielded specific numbers that were statistically analyzed and provided measures of the principal's level of involvement for TCB. The quantitative data also yielded useful information about the strategies that principals used for TCB, and patterns of the strategies in relation to level of involvement in Malaysian secondary schools.

Based on the analysis of quantitative data, the principals were grouped into three levels of involvement. From these three groups of principals, some thirteen principals were identified as sub-sample. Subsequently, open-ended interviews were conducted upon

this sub-sample consisting of thirteen principals. These interviews helped to capture actual words of principals about their involvement and the strategies used for TCB in their schools. The interview data also offered many different perspectives on the variables studied and enabled the researcher to obtain a more comprehensive picture of the level of involvement, the strategies used, leading to their prominent strategies for TCB in the various dimensions of TC in their schools.

3.3 Population and Sample

The population of the study included all secondary school principals of Government and Government-Aided Schools in Peninsular Malaysia. There are approximately one thousand eight hundred and forty eight (1848) public secondary schools in the four zones of Peninsular Malaysia as shown in Table 3.1. The sample for the study was drawn through a stratified random sampling technique. All schools were stratified into the four zones: Northern Zone: Perlis, Kedah and Pulau Pinang; Central Zone represented by Perak, Selangor, Wilayah Persekutuan Kuala Lumpur and Wilayah Persekutuan Putrajaya; Southern Zone: Negeri Sembilan, Melaka and Johor. (Source EPRD, KPM 2010), and Eastern Zone: Kelantan, Terengganu and Pahang.

Table 3.1 : Number of schools according to Zones

Zone	Schools	Number of Schools	Total
Northern	Perlis	27	
	Pulau Pinang	125	
	Kedah	177	**329**
Central	Perak	238	
	Selangor	261	
	WP Kuala Lumpur	96	
	WP Putrajaya	9	**604**
Eastern	Kelantan	159	
	Terengganu	136	
	Pahang	187	**482**
Southern	Negeri Sembilan	117	
	Melaka	74	
	Johor	242	**433**
Total		**1848**	**1848**

Of the 1848 principals in Peninsular Malaysia, the northern zone had 329 principals, the central zone had 604 principals, the southern zone had 433 principals while the eastern zone had 482 principals. Using the table for determining the right sample size for a finite population of 1848, it was concluded that a sample of 319 suffice with a 95 percent confidence interval (Krejcie & Morgan, 1970). The percentage of population of principals in each zone (Northern: Central: Eastern: Southern) was determined to be 18:33:26:23. Using this ratio and the sample size of 319 as reference, a random selection of corresponding number of principals for the sample was decided to be 57:105: 83:74 and this made up a total of 319 principals for the study as shown in Table 3.2 below.

Table 3.2: Percentage and sample of principals for each zone

Zone	Number of Schools/Principals	Percentage of Principals	Number of Principals in the sample
Northern	329	18	57
Central	604	33	105
Eastern	482	26	83
Southern	433	23	74
Total	**1848**	**100**	**319**

3.4 Instrumentation

The instruments used in this study were developed by the researcher for the sole purpose of this study based on the comprehensive review of the literature. The literature provided strong grounds to believe that the items inserted in each of the dimensions are truly representative. There were 2 instruments: 1) a quantitative instrument, and 2) a qualitative one. The quantitative instrument (Instrument 1) was meant for the principals to respond, whereas the second qualitative instrument (Instrument 2) was used by the researcher during the interview with some 13 principals from the sub-sample.

Section A of Instrument 1 requested for demographic information including gender, name of school, type of school, years of leadership and highest academic qualification while Section B of the instrument consisted of items representing the four dimensions of

Teacher Capacity: Knowledge (22 items), Skills (18 items), Dispositions (14 items) and Views of Self (12 items). Each dimension was further delved into its sub dimensions.

Table 3.3: Dimensions, Sub-dimensions and Number of Items

Dimension	Sub-dimension	No of items
1. Knowledge	*Pedagogy*	7
	Curriculum	6
	Student	5
	Assessment	4
	Total	22
2. Skills	*Planning & Management,*	6
	Pedagogy & Assessment	7
	Student	3
	Curriculum	2
	Total	18
3. Dispositions	*Student*	4
	Teaching & Learning	7
	Assessment	3
	Total	14
4. Views of self	*Student*	4
	Teaching & Learning	4
	Assessment	4
	Total	12
	Total Items in the Instrument	**66**

The Knowledge dimension had four sub-dimensions: *Pedagogy, Curriculum, Student, and Assessment* while the Skills dimension also had four sub-dimensions, *Planning & Management, Pedagogy & Assessment, Student, and Curriculum* but varies in its texture or application as the skills dimension is supposed to support the application of the prescribed knowledge. The third dimension of Dispositions, a variable very much related to the attitudes comprised three sub-dimensions: *Student, Teaching & Learning,*

and Assessment. The last dimension of Views of Self also comprised three sub-dimensions: *Student, Teaching & Learning, and Assessment.* Each sub-dimension was represented by at least two items for principals to rate their involvement level in building it for TCB. The number of items in each sub-dimension is shown in Table 3.3 above.

A three (3) point Rating scale, with descriptions as indicated in Table 3.4 below was used to assist the principals to self rate their level of involvement. Though the options look more categorical superficially, the actions in each option was deliberately selected by the researcher to mean a hierarchy in terms of level of involvement. Therefore, it is understood as depicting different level of involvement where 1 is lower than 2, and 2 is lower than 3. Hence, level of involvement in this study is an ordinal measure.

Table 3.4: Rating Scale for Principals' Level of Involvement

1.	Indicates your involvement is usually in the form of actions such as: just informing; showing interaction; being authoritative; being highly bureaucratic and control oriented.
2.	Indicates your involvement is usually in the form of actions such as: organizing training; giving rewards; providing opportunity and empowering teachers to make related decisions.
3.	Indicates your involvement is usually in the form of actions such as: solving related problems; contributing to group discussions; performing a wide array of technical work-related activities; showing much patience; showing perseverance; considering any actions as my learning opportunity; showing moral commitment to group decision-making.

Section C of the instrument presented some 16 strategies and invited the respondents to indicate their frequency of use of these strategies, based on a five (5) point Rating scale in relation to TCB.

Meanwhile, Instrument 2 (Interview protocol) contained the interview protocol for use by the researcher during interviews with some 13 principals to collect qualitative data in order to gain some in-depth details about their level of involvement and strategies used for TCB.

The researcher conducted two reliability tests using Cronbach Alpha, one for the pilot and another for the real one, to measure the reliability of the instrument. The reliability indices for both the pilot and the real study are shown in Table 3.5 below.

Table 3.5: Reliability of the Instrument

Dimensions	**Reliability Index of Pilot Test**	**Reliability Index of Actual study**
Knowledge (22 items)	.958	.958
Skills (18 items)	.959	.958
Disposition (14 items)	.955	.881
View of Self (12 items)	.942	.943
Strategies (14 items)	.960	.961
Overall Instrument	.980	.983

The Cronbach reliability index for each of the four dimensions of TC for the pilot test ranged between .942 and .960 while the index for the whole instrument was determined to be .980. The knowledge dimension gave an alpha equal to .958, while the alpha value for the skills dimension was .959. The alpha index for the dispositions dimension was .955 and for the views of self .942 respectively.

As for the actual study, the Cronbach Alpha value for the four dimensions ranged from .881 to .961. Among the four dimensions, the highest value of Cronbach Alpha .958 was obtained for knowledge and skills dimension respectively while that for the views of self dimension was .943 and that of the dispositions dimension was .881. The Cronbach Alpha value for strategies was determined to be .961 while that of the whole instrument in this actual study was found to be .983. This value of 0.983 is more than adequate to claim that the instrument is reliable for use (Chua, 2010).

3.5 Validity of the Instrument

Since the instrument was developed by the researcher himself, therefore care was taken to ensure it went through some strong validation process in terms of its content. With the data from the pilot test the researcher performed a confirmatory factor analysis

(CFA) to determine the number of factors (sub-dimensions) within each dimension of teacher capacity. Four factors (sub-dimensions) were extracted for the knowledge dimension using Principal Component Analysis with Varimax Rotation and Kaiser Normalization. They were then named as *Pedagogy, Curriculum, Student, and Assessment* based on the items that were loading on to these factors. In a similar manner, four factors (*Planning & Management, Pedagogy & Assessment, Student, and Curriculum*) for skills, three factors (*Student, Teaching & Learning, and Assessment*) for dispositions, and three factors (*Student, Teaching & Learning, and Assessment)* for views of self dimensions were also extracted using the same procedure. (See Appendix E). The sub dimensions used in this instrument and its number also coincided quite well with earlier mention of sub-dimensions of teacher capacity in the literature by O'Day, Goertz, and Floden (1995).

Following that, the researcher presented drafts of the instrument to three experts, an expert from Institut Aminuddin Baki, another a senior practitioner at a secondary school, and a senior lecturer at the faculty to scrutinize the items and provide comments based on their expertise and experience (See Appendix G). After about three weeks, the experts returned the drafts with comments and suggestions to improve the instrument.

The comments from Expert 1 (from Institut Aminuddin Baki) was centered around the knowledge and skills dimensions. His comments may be attributed to the present concerns of Institut Aminuddin Baki when equipping the practitioners with basic knowledge and skills to be school managers. He reiterated that the items in the knowledge and skills dimensions needed simple sentence creations for more clarity and understanding. On the other hand, Expert 2 (the practitioner) stressed on his comments based on real situations where he felt that the dispositions together with knowledge related skills need to be the essence in TCB. Therefore his comments were pointing towards item clarity with respect to capturing the dispositions of the respondents. The third Expert (the senior lecturer at the faculty), being a curriculum leader, voiced his concerns for all the dimensions and items representing them. However, his primary concern was that the instrument should regard all dimensions as relevant and important without neglecting the comprehensiveness in capturing all that is needed from the respondents. In total, all their diverse comments gave some fuel for the researcher to rebuild his items in response to their demands as either experts or practitioners without swinging far away from what the literature keeps buzzing all along.

In terms of rebuilding the items, the researcher had several aspects to look into with respect to the comments from the pilot test. The main aspect was on the simplicity of the wording of item and its clarity. For example, an item which read " The level of involvement that I show in developing my teacher's knowledge *base*" drew the suggestion that it is vague and do not show clarity in what is the knowledge base that is being talked about here. Hence, this item was then refined as "The level of involvement that I show in developing my teacher's knowledge *base that covers the content for better teaching and learning of the objectives".*

One other aspect that drew some suggestions from the pilot test respondents that the terminology used for items, especially that which differentiates between knowledge and skills dimensions are quite vague. For example, an item in the skills dimension that read as, " The level of involvement that I show in developing my teacher's skill in *general pedagogy*" was refined as, "… skill in *general pedagogy that is basic and has been serving the teacher in his teaching-learning process*" with the hope of giving more clarity and meaning to the term *general pedagogy.*

Another aspect that was pointed out by some respondents in the pilot test was that the initial scale provided (1 through 3) clearly indicated that 1 represents low, 2 represents

moderate and 3 represents high involvement. Collectively, they all agreed that the scale used should not reveal openly the level of participation as they fear that this could result in many respondents not telling the truth about their real involvement if they already know that 1 is low, 2 is moderate, etc. Hence the improved scale only mentioned the kind of activities and actions performed by principals and nothing about the levels.

Another interesting yet important suggestion by these respondents include the request for descriptors for all the 16 strategies enlisted in Section C of the questionnaire. For example, " *I implement the strategies below to help build my teacher's capacity: Teaching Role Model*" was refined and improved as , "… *Teaching Role Model (observing teaching, spending time in the classroom to know what is going on and helping teachers with their instructional efforts)*" which is more descriptive than before. Similarly all the 16 strategies that were included in the questionnaire were refined and improved by adding more descriptions to each of them. For full amendments done on the initial questionnaire to improve it into a more valid instrument, please refer to (Appendix D).

3.6 Determining the Level of Involvement

This study suggested three levels for the depth of principals' involvement based on the kind of activities that they perform in developing their teachers' capacity. Each item in the teacher capacity dimension requested for a response from the principals as to what kind of activity they are involved with, when developing the respective dimension of the teacher capacity. A score of 1 meant that the principal's involvement is usually in the form of actions such as: just informing; showing interaction; being authoritative; being highly bureaucratic and control oriented: while a score of 2 represented principal's involvement in the form of actions such as: organizing training; giving rewards; providing opportunity and empowering teachers to make related decisions. Finally a score of 3 meant that the principal's involvement is usually in the form of actions such as: solving related problems; contributing to group discussions; performing a wide array of technical work-related activities; showing much patience; showing perseverance; considering any actions as my learning opportunity; showing moral commitment to group decision-making.

Depending on the number of items representing each dimension (knowledge, skills, dispositions, and views of self), the level of involvement of principals varied in its cut of point. The knowledge dimension having 22 items would enable a respondent to have

a summed score between 22 and 66. The range of summed scores (66 – 22 = 44) was then divided into three parts to provide three different categories. Hence, a respondent with a summed score between 22 and 36.9 was defined to be at a low level of involvement, while another with a summed score between 37 and 51.9 is considered to be at moderate level of involvement and one with a summed score between 52 and 66.0 is at the high level of involvement in developing the teacher's knowledge. Similarly, for the skills dimension that comprised 18 items, the low level of involvement was determined for a range of summed scores between 18 and 29.9, moderate level of involvement was between 30 and 41.9, and the high involvement was between 42 and 54.0. The dispositions dimension represented by a total of 14 items determined its low level of involvement for a range of summed scores between 14 and 22.9, moderate level of involvement between 23 and 31.9 while its high level of involvement was between 32 and 42.0. Finally, for the views of self dimension that comprised 12 items, the low level of involvement was defined for the range of summed scores between 12 and 19.9, while moderate level of involvement was defined for the range of scores between 20 and 27.9, and the high level of involved was for the scores ranging between 28 and 36.0. This kind of summing the scores for each individual to provide a single score for the variable representing a specific number of items in the questionnaire and determining the levels based on some cut off points is a common procedure by researchers (Creswell,

2005). The table below summarizes this classification for more clarity.

Table 3.6: Determining the Level of Involvement in each dimension

Level of Involvement	Teacher Capacity Dimensions			
	Summed scores for **Knowledge** between	Summed scores for **Skills** between	Summed scores for **Dispositions** between	Summed scores for **Views of Self** between
Low	22 and 36.9	18 and 29.9	14 and 22.9	12 and 19.9
Moderate	37 and 51.9	30 and 41.9	23 and 31.9	20 and 27.9
High	52 and 66.0	42 and 54.0	32 and 42.0	28 and 36.0

3.7 Data Collection

This research utilized a mixed-method study, where quantitative method was followed by a qualitative one. Initially, permission to conduct this research was sought from the Ministry of Education; EPRD and State Education Departments in Peninsular Malaysia. The authorities were informed about the sequence of data collection that involved interviews with principals at selected schools. A list of schools selected for the survey was sent to the authorities concerned.

During the process of approval from the relevant authorities, the researcher downloaded

and compiled the list of secondary schools with their addresses, telephone numbers. Upon getting the permission, Instrument 1 was sent to 400 secondary schools randomly

selected, as in the procedure for sample selection mentioned in (See Appendix C), in all the thirteen (13) states by post. The questionnaire was attached with the approval letters from both EPRD and the respective state department and a letter that clearly explained the purpose of the study and how to return the filled questionnaire.

In the first phase of data collection, about 200 (62.5%) questionnaires were returned. After some waiting for the non returned questionnaires in the first phase, the researcher then followed up by making telephone calls to make sure these principals received the mail and pleaded with them to return the filled questionnaires in the self addressed envelope enclosed back to the researcher.

In the second phase, the researcher managed to collect an additional 80 (25%) questionnaires from the respondents. This made a total return of 280 (87.5%) questionnaires, still short of 40 questionnaires compared to the target of 320. Follow up calls were then made almost every other week to more principals and further waiting of about three more weeks ended up with another 40 returned and filled questionnaires that

finally made up the total of 320.

Once the quantitative data was fully collected back, it was analyzed using spss version 17 to identify the principals' level of involvement for teacher capacity building. After analyzing, principals were categorized under the three levels of involvement. A mathematical ratio representing the actual number of principals in each level was determined. The ratio was found to be 7(high): 5(moderate): 1(low). Subsequently, a quota sampling technique was engaged to draw a total of thirteen (7 + 5 + 1) principals who represented the different level of involvement and also volunteered to be participants in the sub-sample. These respondents were then informed about the interview protocol and appointments were then made by the researcher.

During the interview, the respondent's individual quantitative questionnaire was identified and given to the respondent to refer and to recall before answering the interview questions. A 45-minute interview was carried out to elicit in-depth information about the respondents' dominant dimensions and the prominent strategies they employed in building their teachers' knowledge, skills, dispositions, and views of self.

As the primary measuring instrument in this qualitative measurement, the researcher maintained uniformity and consistency by carrying out all the interviews upon the 13 selected respondents by himself. By interviewing the participants, the researcher was able to compare the survey findings and the interview data to see if the principals' level of involvement and their strategies for teacher capacity building matched. This process was part of the triangulation measure to help improve the validity of the data collection.

During the interviews the researcher seek for more information on whether the respondents had employed the strategies as they indicated in the quantitative instrument and if so, how and to what extent they used them in building their teachers' capacity. The questions emphasized on reasons for such activities carried out in their schools in order to identify if there existed any pattern among the strategies according to their level of involvement. Along this search, it was also anticipated that there could be some other strategies employed by these principals that are not accounted yet in the literature, in particular, some local strategies, manifested from the principals' own ideas or a blend of other principals' strategies. However, no such new strategies were accounted for by the principals.

The interviews conducted used both open and specific questioning techniques around the framework that emerged in the quantitative measurement. This more focused questioning technique was employed to clarify and validate the classification of levels of involvement; develop, refine and/or expand the type of strategies they used in school for school improvement from the quantitative data and extrapolate more fully to identify successful strategies for TCB.

Both the survey and interview data helped the researcher to strengthen the knowledge claims and the validity of data collection in the study. This type of summative data was believed to serve the purpose of rendering an overall picture about the effectiveness of the principal leadership for teacher capacity building.

3.8 The Interview Protocol

The following protocol consisting of relevant questions that seek for more clarity and understanding of the actions by the principals interviewed was used by the researcher.

1. Tell me about your experience(s) with the strategies for TCB. What is the most prominent strategy that you use in your school for TCB?
2. Describe how this strategy is used in your school.
3. Describe how the use of this strategy has helped in TCB.

4. Where have you learnt about this strategy?

5. What barriers do you see to the implementation of utilizing this strategy for TCB?

6. Do you have any additional comments?.

All the interviewees had no personal or professional association with the researcher. This was done to prevent respondent bias in the interview process. Selections of the sample were based on the availability of the interviewee to participate in the interview.

3.9 Data Analysis

The researcher employed sequential mixed method design involving a quantitative approach followed by a qualitative one. The data collected was coded and analyzed using SPSS Version 17. Descriptive and inferential analysis rendered some information for the researcher to address the research questions. The data obtained in Section B of the questionnaire focused on the levels of involvement for teacher capacity building in each of the four dimensions, respectively knowledge, skills, dispositions and views of self. Percentage distribution, ranked percentage distribution, and Kruskal Wallis H test were carried out to analyze the levels, strategies, and to identify differences in the level of involvement for the demographic variables. Table 3.7 below informs all the tests and methods of data analysis that were carried for each research question in this study.

Table 3.7: Research Questions and the Statistical Test Performed

Research question	**Statistical Analysis**
1. What is the extent of involvement by the principals in Teacher Capacity Building?	Percentage distribution of the responses (Quantitative data) in relation to low, moderate, and high categories
2. What are the dominant dimensions of Teacher Capacity Building according to their Level of Involvement?	A Kruskal Wallis test to compare the mean rank of the four dimensions against different level of involvement The level of involvement is an **ordinal scale.**
3. What are the most prominent components in each of the Teacher capacity Dimension according to the corresponding level of involvement?	Ranking of relative percentage of teacher capacity dimensions according to level of involvement in each of the four dimensions
4. What are the strategies that principals use in Teacher Capacity Building?	Relative Percentage distribution of the responses (Quantitative data) in relation to the frequency of use
5. What are the most frequent strategies in each level of involvement in the Teacher Capacity dimensions?	1)Percentage distribution of responses in a cross tabulation of Level of Involvement vs Frequency of use of Strategy, followed by: 2) Rank Order of these percentages that correspond to the high use (always and frequent), plus 3) Data extracted from the Interviews
6. Are there significant differences in principals' frequent strategies according to type of school?	Kruskal Wallis H Test of Frequency of Strategy Use against level of involvement with further post hoc analysis Both the frequency of Strategy Use and the level of involvement were **ordinal scales**
7. Are there significant differences in principals' level of involvement according to years of leadership, academic qualification and gender?	1)Kruskal Wallis H Test with further post hoc analysis for years of leadership 2)Mann-Whitney Test for academic qualification and gender. The level of involvement is an **ordinal scale**.

3.10 Summary of Chapter 3

This chapter explained the research design with extra focus upon the procedure of both quantitative and qualitative methods used for the study. It also described the data collection procedure, the validation as well as reliability of the instrument. Finally, the data analysis that was carried out for each of the research question is presented as in Table 3.7 above.

CHAPTER 4

DATA ANALYSES AND FINDINGS

4.0 Introduction

This chapter describes the demographic information, which is followed by the descriptive analysis, as well as the inferential analysis of the data set. The findings of the in-depth interviews are also presented while attempting to answer the research questions. As proposed in Chapter 1, the purpose of this study is to explore and describe the principals' involvement and their strategies in TCB in Malaysian secondary schools. Specifically the study was undertaken to:

1. Identify the extent of involvement of the principals in Teacher Capacity Building
2. Identify the dimensions that are dominant in Teacher Capacity Building according to Principals' Level of Involvement
3. Identify the most prominent components in each of the Teacher Capacity Dimension according to level of involvement
4. Identify the strategies that principals use in Teacher Capacity Building
5. Identify the most frequent strategies in each level of involvement in the Teacher Capacity dimensions

6. Investigate whether there are differences in principals' frequent strategies according to types of school.

7. Investigate whether there are differences in principals' level of involvement according to years of leadership, academic qualification and gender.

4.1 Research Question 1:

What is the extent of involvement of the principals in Teacher Capacity Building?

In order to find out the extent of principals' involvement in TCB, their involvement in building each of the four dimensions was identified first, using the percentage distribution as in Table 4.1 below. In the knowledge dimension, it was found that 4.7% principals showed low involvement, while 32.2 % principals indicated moderate level of involvement. A much bigger proportion of 63.1 % indicated their high involvement in building teachers' knowledge. As for the skill dimension, 5.6% principals showed their low involvement, while 30.0% principals indicated their moderate involvement, and the rest, 64.4% showed their high involvement in building the teachers' skills.

Next, in building the teachers' disposition, it was found that 4.7% principals showed low involvement while 23.4 % indicated their moderate level of involvement with even bigger portion (71.9%) principals indicating their high involvement in building their

teachers' disposition. Finally, in the view of self dimension, it was found that 4.7% principals indicated low involvement while another 26.9% showed their moderate involvement as compared to 68.4% principals who have shown their high level involvement in building their teachers' view of self.

As a whole, Table 4.1 below reveals a distribution where 4.7% principals showed low involvement, another 26.9% moderate involvement with the remaining 68.4% principals showing high involvement in building their teacher capacity in all dimensions for school improvement.

Table 4.1: Percentage distribution of Level of Involvement within TC Dimensions

Dimensions Within TC	**Low Level Involvement (%)**	**Moderate level Involvement (%)**	**High Level Involvement (%)**
Knowledge	4.7	32.2	63.1
Skill	5.6	30.0	64.4
Disposition	4.7	23.4	71.9
View of Self	4.7	26.9	68.4
Teacher Capacity	4.7	26.9	68.4

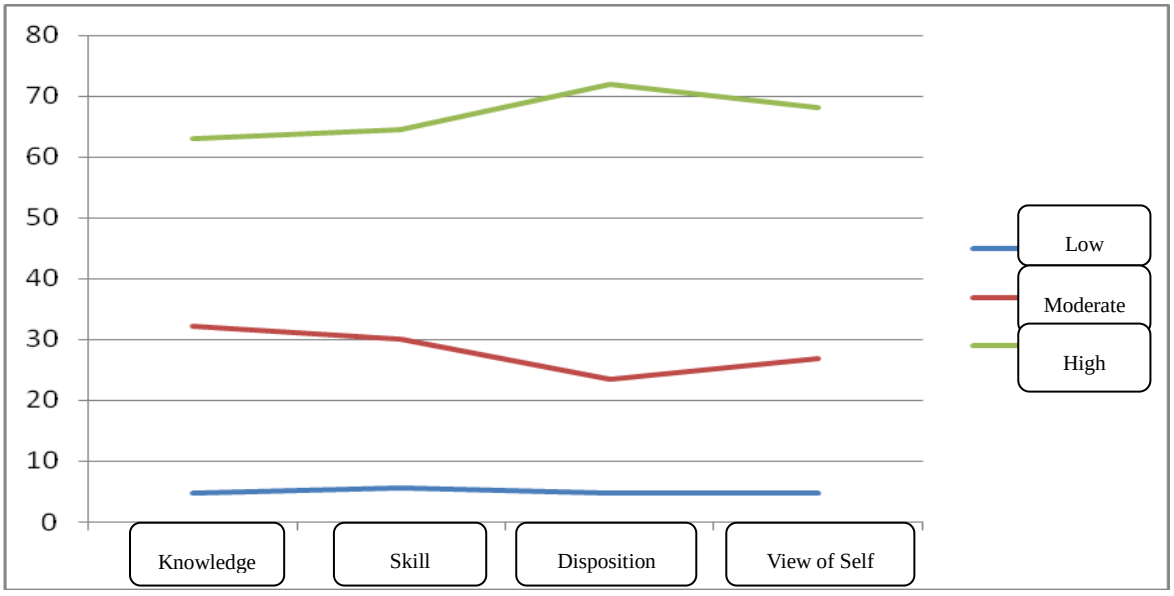


Figure 4.1: Percentage distribution of Level of Involvement within TC Dimensions

Figure 4.1 depicts the line graphs for each of the level of involvement (low, moderate, and high) in relation to Knowledge, Skill, Disposition, and View of Self Dimensions. It is quite evident from the figure that the involvement and concerns of low involvement principals upon the four dimensions of TC are not only lower than the other two involvement groups in terms of the percentage values but also do not vary much among the four dimensions of Knowledge, Skill, Disposition, and View of Self within the group percentage values. Unlike to this, the moderate and the high involvement principals do show a clear variation in their concerns and involvement upon the four dimensions of TC, besides higher values of percentage within the group percentage values. What is interesting here is that the moderate involvement principals indicate a low disposition concern as compared to the other three dimensions. This, in particular,

is in contrast to that of the high involvement principals who show a high disposition concern.

In summary, it is found that principals do indicate a variation in their level of involvement towards teacher capacity building. As teacher capacity comprises four dimensions, namely knowledge, skill, disposition, and view of self, it was found that each dimension had a different distribution of principals' involvement. Among the high involvement principals, it was disposition that drew more concern followed by view of self, skill and then knowledge. On the contrary, the moderate involvement principals indicate a decline in their disposition level as compared to the other three dimensions. Instead, for the low involvement principals it was the skill dimension that drew more concern followed by knowledge, disposition, and view of self.

4.2 Research Question 2:

What are the dimensions that are dominant in Teacher Capacity Building according to principals' Level of Involvement?

Since each dimension of the teacher capacity elicited a distinctive and a separate distribution for principal's involvement, it was decided that separate analysis be done to indicate the dominant dimensions in TC according to each of the levels of involvement.

A Kruskal Wallis test to compare the mean rank of the different level of involvement was performed and the analysis is shown in Table 4.2 below.

Table 4.2: Mean Rank of knowledge, skill, disposition, and view of self-according to level of involvement

		Low	Moderate	High	χ^2	Sig
		(Mean Rank)				
Level of Involvement according to **knowledge** dimension	K	8.0	67.0	219.5	228.7	$p < 0.01$
	S	10.0	74.0	215.8	202.7	$p < 0.01$
	D	8.0	93.9	205.8	143.8	$p < 0.01$
	V	8.0	92.8	206.4	146.9	$p < 0.01$
Level of Involvement according to **skills** dimension	K	11.3	69.2	216.1	215.3	$p < 0.01$
	S	9.5	66.5	217.5	22.6.5	$p < 0.01$
	D	11.0	86.8	207.9	163.7	$p < 0.01$
	V	21.3	76.6	211.8	184.7	$p < 0.01$
Level of Involvement according to **disposition** dimension	K	8.0	86.3	194.6	120.6	$p < 0.01$
	S	10.3	79.3	196.8	133.3	$p < 0.01$
	D	8.0	53.0	205.5	198.3	$p < 0.01$
	V	8.0	67.8	200.7	160.8	$p < 0.01$
Level of Involvement according to **view of self**-dimension	K	8.0	83.7	201.1	142.5	$p < 0.01$
	S	10.3	76.2	203.3	160.1	$p < 0.01$
	D	8.0	83.2	201.3	144.7	$p < 0.01$
	V	8.0	58.5	211.0	212.4	$p < 0.01$

K- Knowledge; S – Skills; D- Dispositions; V- Views of Self

Among principals who showed different levels of involvement in the **knowledge dimension**, the low involvement group indicated a higher mean rank (10.3) for skills to be their dominant dimension with the rest of the dimensions all at the same ranking(8.0). The moderate involvement principals indicated a higher mean rank (93.9) for

disposition, followed by VoS (92.8), skills (74.0), and knowledge (67.0). These moderate involvement principals do indicate a variation in their concern for dominant dimension. Similarly the high involvement principals do indicate a high mean rank (219.5) for knowledge, followed by skills (215.8), VoS (206.4), and disposition (205.8) as shown in table 4.2 above. All differences in mean rank with respect to the level of involvement are significant (p = < 0.01). The little arrow within Figure 4.2 below shows the most dominant dimension (in this case, it is knowledge) focused by high involvement principals while they build the teachers' knowledge. The other level principals are indicating their dominant focus elsewhere (the moderate involvement principals at disposition while low involvement principals with no clear indication).

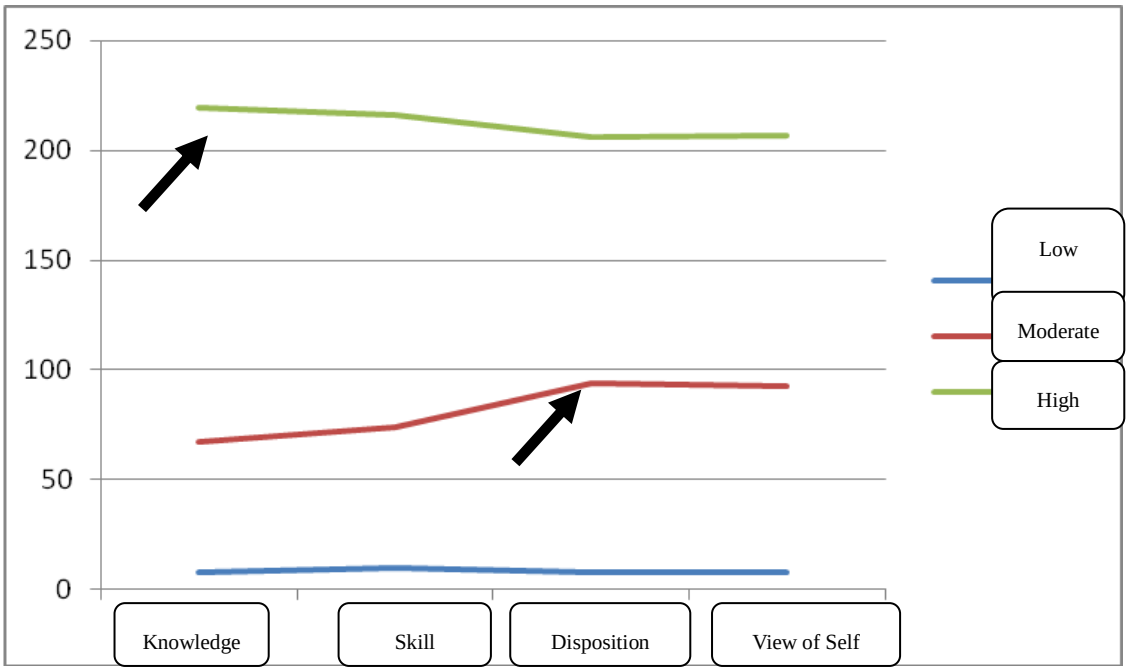


Figure 4.2: Mean Rank of TC dimensions according to level of involvement in Knowledge

Among principals who showed different levels of involvement in the **skill dimension**, the low involvement group indicated a higher mean rank (21.3) for VoS to be their dominant dimension followed by knowledge (11.3), disposition (11.0), and skills (9.5). The moderate involvement principals indicated a higher mean rank (86.8) for disposition, followed by VoS (76.6), knowledge (69.2), and skills (74.0). Similarly the high involvement principals do indicate a higher mean rank (217.5) for skills, followed by knowledge (216.1), VoS (211.8), and disposition (207.9) as shown in table 4.2 above. This indicates that all three levels do indicate variation in their dominant dimension. All differences in the mean rank with respect to the level of involvement are significant ($p < 0.01$). The little arrow within Figure 4.3 below shows the most dominant dimension (in this case, it is skill) focused by high involvement principals while they build the teachers' skill. The other level principals are indicating their dominant focus elsewhere (the moderate involvement principals at disposition while the low involvement principals at view of self).

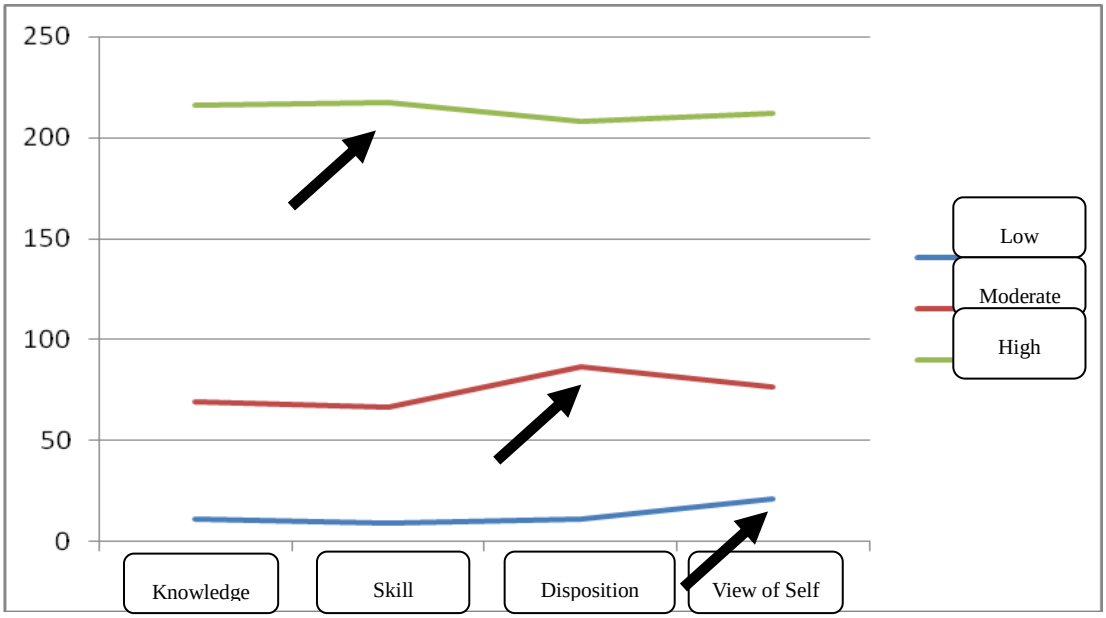


Figure 4.3: Mean Rank of TC dimensions according to level of involvement in Skill

Next, principals who showed different level of involvement in their **disposition dimension** are investigated. The low involvement group indicate a higher mean rank (10.3) for skills to be their dominant dimension with the rest of the dimensions all at the same ranking(8.0). The moderate involvement principals indicate a higher mean rank (86.3) for knowledge, followed by skills (79.3), VoS (67.8), and disposition (53.0). Similarly the high involvement principals do indicate a higher mean rank (205.5) for disposition, followed by VoS (200.7), skills (196.8), and knowledge (196.8) as shown in table 4.3 above. Again, it is noted that all three levels do indicate variation in their dominant dimension and all differences in the mean rank with respect to the level of involvement are significant ($p < 0.01$). The Figure 4.4 below shows the most dominant dimension (in this case, it is disposition) focused by high involvement principals while

they build the teachers' disposition. The other level principals are indicating their dominant focus elsewhere (the moderate involvement principals at knowledge while the low involvement principals with no clear indication).

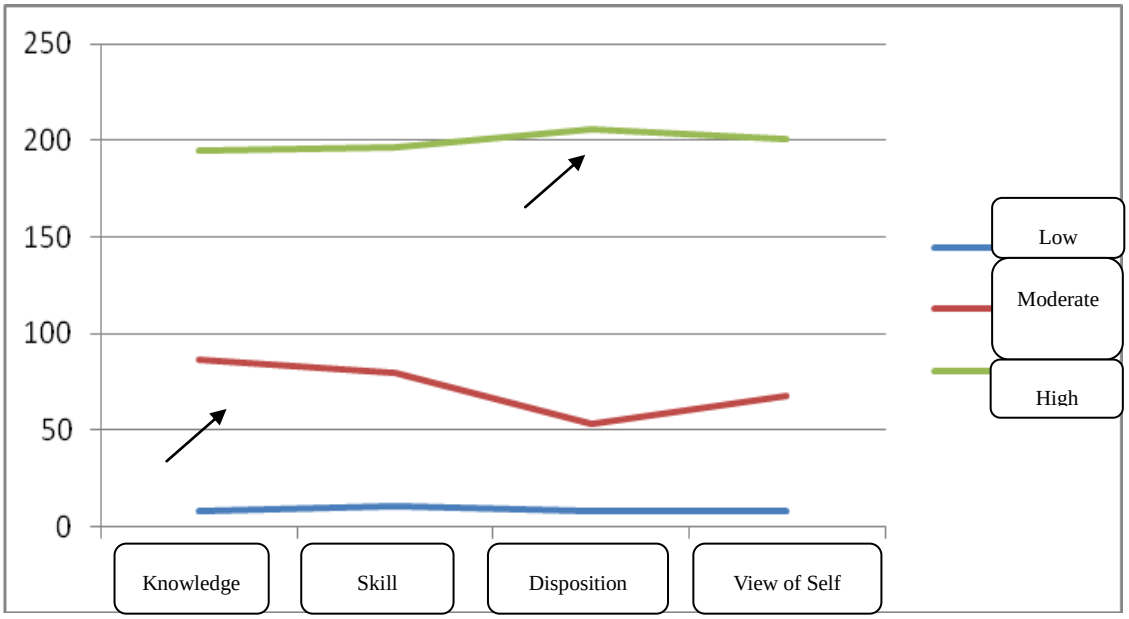


Figure 4.4: Mean Rank of TC dimensions according to level of involvement in Disposition

Among principals who showed different levels of involvement in the **VoS dimension**, the low involvement group, again and again, indicate a higher mean rank (10.3) for skills to be their dominant dimension with the rest of the dimensions all at the same ranking(8.0). On the other hand, the moderate involvement principals indicate a variation in their dominant dimension. Knowledge with mean rank (83.7) is the most dominant dimension followed by disposition (83.2), skills (76.2), and VoS (58.5). As before, the high involvement principals do indicate a high mean rank (211.0) for VoS,

followed by skills (203.3), disposition (201.3), and knowledge (201.1) as shown in table 4.3 above. All differences in mean rank with respect to the level of involvement are significant (p = < 0.01). The Figure 4.4 below shows the most dominant dimension (in this case, it is view of self) focused by high involvement principals while they build the teachers' view of self. The other level principals are indicating their dominant focus elsewhere.

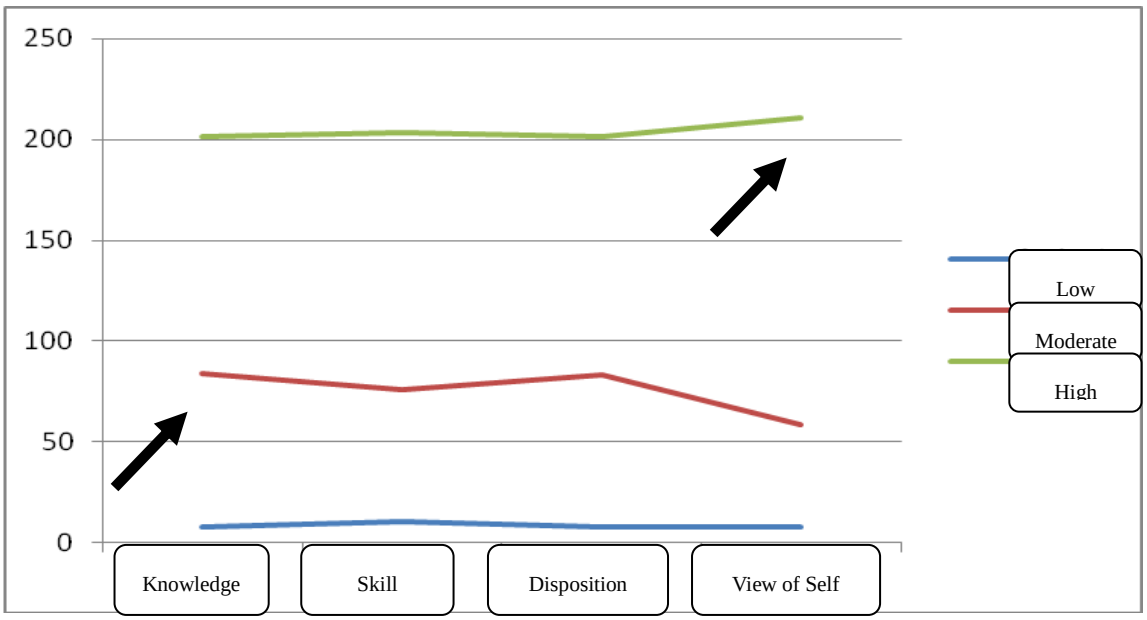


Figure 4.5: Mean Rank of TC dimensions according to level of involvement in View of Self

In summary, the low involvement principals did not show much clearly their preference or dominant dimensions while building their teachers' capacity in the various dimensions. On the average, they showed their highest concern for the skills dimension only. However, the moderate and the high involvement principals quite clearly indicated their dominant dimensions. But then, only the high involvement principals are aware of

the dimension they are focusing. And they give preference to that particular dimension where they are building the teachers' capacity. For example, when they are building the teachers' knowledge, then they are very much concerned about and focused upon knowledge dimension as compared to the other dimensions.

4.3 Research Question 3:

What are the most prominent components in each of the Teacher Capacity Dimension according to level of involvement?

This question is answered using the ranked means of the components that represent each of the teacher capacity dimensions. In doing so, the most and least prominent components in the respective dimensions were able to be sorted out as described below. The interpretation starts with the components of knowledge dimension across the three levels of involvement followed by similar interpretations on the skills, disposition and view of self-dimensions respectively.

4.3.1 Knowledge

The knowledge dimension involves twenty two (22) components. Principals in different level have different focus upon these components. Principals who show high level of involvement prefer to develop teachers' knowledge about their role in school as the

most important component. Besides that, high involvement principals choose to develop teachers' knowledge to analyze students' achievement, students' performance, plan effectively and manage classrooms effectively.

Table 4.3 Most prominent components of Knowledge Dimension according to level of Involvement

	Level of involvement		
	Low	**Medium**	**High**
Most Prominent components	Yearly scheme of work	subject specific pedagogy	role as teacher
	daily lesson plans	Effective assessment	Analyze students' achievement
	Base	about students' differences	Improve students' performance
	ICT for teaching and lea	about subject matter	effective planning
	general pedagogy	about learning styles	Classroom management

On the other hand, principals who show low involvement did show a different focus upon their knowledge components. These principals prefer to develop teachers' knowledge about yearly scheme of work and daily lesson plans. Besides that, they also prefer to develop teachers' basic knowledge, the use of ICT and general pedagogy and curriculum integration in their daily teaching and learning. Principals who show medium level of involvement prefer to develop teachers' knowledge in subject specific

pedagogy. Further, these principals prefer to develop teachers' knowledge about effective assessment, about students' differences, subject matter and about learning styles as shown in Table 4.3.

In summary, most prominent components of knowledge dimension by principals with high level of involvement seem to be parallel to the least prominent components of knowledge dimension by principals with low and medium level of involvement. The analysis reveals that principals with different levels of involvement seem to have different preference in terms of knowledge components and display different intensity of focus.

4.3.2 Skills

The Skills dimension involves eighteen (18) components. Once again, principals in different level seem to have different focus upon these components. Principals who show high level of involvement prefer to develop teachers' skills on improving students' performance and achievements. Besides that, high involvement principals choose to develop teachers' classroom management, effective planning and understanding of students' abilities. On the other hand, principals who show low involvement did show a different focus upon their skills components. These principals prefer to develop

teachers' skills on planning yearly and daily scheme of work. Besides that, they also prefer to develop teachers' skills on integrating curriculum across and within discipline, preparing daily lesson plans and utilizing subject matter.

Principals who show medium level of involvement prefer to develop teachers' skills such as utilizing thinking skills. Further, these principals prefer to develop teachers' skills on utilizing subject pedagogy, preparing lesson plans effective assessment and utilizing subject matter as shown in Table 4.4 below.

Table 4.4 Most prominent components of Skills Dimension according to level of Involvement

	Level of involvement		
	Low	**Medium**	**High**
Most Prominent Components	planning yearly scheme of work	utilizing thinking skills	**improving students' performance**
	integrating curriculum across discipline	utilizing subject pedagogy	**improving students' achievement**
	preparing daily lesson plans	preparing lessons to cater	classroom management
	utilizing subject matter	effective assessment	effective planning
	integrating curriculum within discipline	utilizing subject matter knowledge	understanding students' ability

In summary, principals' most prominent components in the skills dimension differ greatly in all the three levels of involvement. This shows that principals from different levels of involvement choose to develop different components in skills among their teachers for TCB.

4.3.3 Disposition

The Disposition dimension involves fourteen (14) components. Principals who show high level of involvement seem to focus on developing teachers' disposition in their school. High involvement principals choose to develop teachers' disposition components such as high expectations towards students' performance and high expectations towards students' achievement, as an effective teacher, high expectations for student achievement and towards effective planning.

On the other hand, principals who show low involvement did show a different focus upon their disposition components. These principals prefer to develop teachers' disposition towards effective use of ICT. Besides that, they also prefer to develop teachers' disposition towards effective evaluation, attitudes towards the subject matter, towards student learning and as an effective teacher. Principals who show medium level of involvement prefer to develop teachers' disposition towards students learning styles,

towards effective use of ICT, as a facilitator for student learning, towards student learning and towards effective assessment as shown in Table 4.5 below.

Table 4.5 Most prominent components of Disposition Dimension according to level of Involvement

	Level of involvement		
	Low	**Medium**	**High**
Most Prominent Components	towards effective use of ICT	towards students learning styles	with high expectations towards students' performance
	towards effective evaluation	towards effective use of ICT	with high expectations towards students' achievement
	attitudes towards the subject matter	as a facilitator for student learning	As an effective teacher
	towards student learning	towards student learning	high expectations for student achievement
	as an effective teacher	towards effective assessment	towards effective planning

In summary, the analysis reveals that principals with different levels of involvement seem to have different preference in terms of components in the disposition dimension and display different intensity of focus.

4.3.4 View of Self

The View of self-dimension involves twelve (12) components. Principals who show high level of involvement prefer to develop their teachers' belief about teachers' ability to improve my students' performances and ability to improve their students' achievements. Besides that, principals in high involvement show their preference in developing their teachers' belief in their role in school, ability to improve their students' abilities and also the capacity to teach in different ways.

On the other hand, principals who show low involvement did show a different focus upon their views of self components. These principals prefer to develop teachers' belief about better use of ICT for teaching and learning. Besides that, they also prefer to develop teachers' ability as a learner, the persona that they adopt in the classroom and their role in classroom activities as shown in Table 4.6 below.

Principals who show medium level of involvement prefer to develop teachers' belief about effective assessment and the persona that they adopt in the classroom. Further, these principals prefer to develop teachers' belief about effective evaluation, ability as a learner and better use of ICT for teaching and learning.

Table 4.6 Most prominent components of View of self Dimension according to level of Involvement

	Level of involvement		
	Low	**Medium**	**High**
Most Prominent components	better use of ICT for teaching and learning	effective assessment	ability to improve my students performances
	ability as a learner	persona that I adopt in the classroom	ability to improve my students achievement
	persona that I adopt in the classroom	effective evaluation	Role in school
	role in classroom activity	ability as a learner	ability to improve my students abilities
	capacity to teach in different ways	better use of ICT for teaching and learning	capacity to teach in different ways

In summary, principals in different levels of involvement have different focus upon components in all four dimensions identified in this survey. Analysis on all four dimensions reveals that principals who show high level of involvement generally **prefer** to develop teacher's ability to improve students' performances and achievements. On the other hand, principals who show low and medium level of involvements prefer to develop subject matter, and yearly/daily schemes of work. Similarly, there is a reverse pattern in terms of the least prominent components of the teacher capacity dimensions.

4.4 Research Question 4:

What are the strategies that principals use in Teacher Capacity Building?

Sixteen strategies were enlisted in the questionnaire under the list of strategies. It has been noted from the data that all sixteen strategies received some response from the principals in this study. This indicates that the principals use all the sixteen strategies but at varying degree in terms of the frequency of use.

Table 4.7 below shows the strategies with the percentage of frequency of use, varying from 'never' to 'always'. However, the ranking that is observed in Table 4.6 is based on the percentage values obtained for principals who say that they "always" use.

Staff Meeting seems to be the number one strategy in this ranking. Specific data analysis on the frequency of use shows that 44.7 % principals *always* use *Staff Meeting* while 36.3 % frequently use and 15.3 % more occasionally use this strategy for TCB in their schools. Only 1.6 % principals seldom use it and the remaining 2.2 % principals never used Staff *Meeting* for TCB.

Table 4.7: Percentage of Principals using Strategies

	Never	Seldom	Occasional	Frequent	Always
Staff Meeting	2.2	1.6	15.3	36.3	44.7
Supervision	1.3	9	16.2	34.5	39
Table Talk	3.1	5.6	17.8	42.2	31.3
Face to Face	2.2	5	24.7	41.3	26.9
Continuous Learning	1.3	5.6	26.9	41.9	24.4
Coaching/Mentoring	1.3	7.8	20.4	46.2	24.3
Team Building	1.3	2.5	22.8	50.3	23.1
Staffing Mix	1.3	4.4	25	46.3	23.1
Prof. Membership	2.5	6.9	23.1	44.4	23.1
Continuous Prof. Dev	2.8	4.7	35.3	34.7	22.5
Teacher Leader	1.3	5.3	25.9	45.9	21.6
Teacher's Teacher	1.3	5.3	25.9	45.9	21.6
Teacher Researcher	2.2	13.1	23.4	45.6	15.6
Teacher Networking	1.3	9.1	27.8	48.1	13.8
Role Model	2.2	4.4	29.1	53.1	11.3
Collegial Conversation	2.5	11.9	34.1	40.5	10.6

Supervision, an instructional observation, a service to teachers, a personal development to refine teachers' skills, an elaborate discipline-specific knowledge, technical competencies to promote commitment to the profession and position, while enhancing motivation, stands at number two in the ranking. Specifically, 39.0% principals *always* use this strategy for TCB, 34.5 % frequently use it, while another 16.2 % occasionally

use it for TCB. About 9.0 %principals seldom use it and mere 1.3 % principals say that they never used this strategy for their TCB in their schools.

Table Talk Strategy which involves casual conversations about teaching and learning anywhere in school inspired by the principal comes next in the ranking based on the percentage values obtained for principals who say that they "always" use. This informal talk can take place either in canteen, classroom corridor or staffroom. Further analysis into the percentages reveal that 31.3 % respondents *always* use, 42.2 % frequently use, 17.8 % occasionally use, 5.6 % seldom use and 3.1 never use this strategy in their schools for TCB.

The next strategy at the fourth position in the ranking is the *Face to Face* strategy. As can be seen from the data presented in Table 4.6, 26.9% principals *always* use *Face to Face Strategy,* with another 41.3% using it frequently and 24.7% more using it occasionally. Only 5.0% principals reported they seldom use it with another 2.2% never having used it for TCB in their schools.

Continuous Learning Opportunity is the fifth strategy in the ranking. Almost 24% principals *always* use it, while another 41.9% frequently use, with a further 26.9%

principals using it occasionally. Again, it is found that only a small percentage of principals say that they either seldom use (5.6%) or never use this strategy (1.3%). This strategy involves principals' effort to invite teachers to reflect on the instructions that the teachers have used while teaching and learning. This strategy can also be merged with Team Building as they meet in study groups.

Coaching /Mentoring Strategy involves principals to watch teacher's lessons, prepare and give instructional presentations, speak on one-to-one about classroom methods, observe one another regularly and provide feedback as an internal, critical friend. Detailed analysis shows that 24.3 % principals always use, while 46.2 % principals frequently use, 20.8 % occasionally use. Only a small percentage of principals either seldom use (7.8%) or never use (1.3%) this strategy for TCB.

Team Building Strategy involves principals inviting teachers to continue to meet in study groups and reflect on the teaching and learning instructions in the classroom. Usually, this is done after utilizing the Role Model strategy. Detailed analysis shows that 23.1 % principals *always* use, while 50.3 % principals frequently use, 22.8 % occasionally use. Only a small percentage of principals either seldom use (2.5%) or never use (1.3%) this strategy for TCB.

The next strategy in the ranking that involves principals blending personality, expertise, experience of senior teachers in their schools with new teachers, is called *Staffing Mix Strategy*. Further analysis into frequency use shows that 23.1 % principals *always* use, 46.3 % frequently use, and another 25.0 % occasionally use this strategy for TCB. A small percentage, 4.4 % principals say that they seldom use and another 1.3 % says they never use this strategy for TCB in their schools.

Professional Membership strategy comes next at the ninth place. Further analysis shows that 23.1 % principals *always* use this strategy, another 44.4 % frequently use it, while 23.1 % more use it occasionally. About 7% principals seldom use it and the remaining 2.5 % principals never use this strategy for TCB in their schools.

Continuous Professional Development (CPD) Strategy that involves creating a culture of adult learning among school teachers comes at the tenth place. Further analysis indicates that 22.5 % principals *always* use CPD while 34.7 % frequently use it, and 35.3% principals use it occasionally for TCB. Among the rest who do not fall into the above categories, 4.7 % principals seldom use CPD and another 2.8 % never use this strategy in their schools for TCB.

The *Teacher Leader Strategy* is one other strategy that has been used by the respondent principals. However, to implement this strategy, principals need to create opportunities for teachers to become excellent teachers in their schools. Teachers will be promoted to excellent teachers in their discipline. Specifically, 32.2% principals *always* use this strategy for TCB, 36.9 % frequently use it, while another 23.8 % occasionally use it for TCB. About 6 %principals seldom use it and mere 1.3 % principals say that they never use this strategy for their TCB in their schools.

The next strategy, at the twelfth position in the ranking is the Teacher's *Teacher Strategy.* Table 4.6 shows that 21.6% principals *always* use it while another 45.9% principals say that they frequently use it and another 25.9% principals confirm that they use it occasionally for TCB in their schools. Only 6.6 % principals either seldom or never use this strategy for TCB in their schools.

The next strategy in the list is *Teacher Researcher*. This strategy requires the principals to motivate teachers to do action research and other relevant research for improved teaching and learning. It is believed that this will help teachers to identify teaching and learning problems in their schools and find ways to overcome them for improved

learning to take place. The frequency of use analysis shows that 15.6 % principals *always* use this strategy, while another 45.6 % principals use it frequently, and 23.4 % more principals use it occasionally. Some 13.1% principals say that they seldom use and the remaining 2.2 % principals say that they never use this strategy for TCB in their schools.

Teacher Networking Strategy, is found to be at the fourteenth position in the ranking. In this strategy, the principals assist teachers in collaborating with other learning groups and using networks as the main source of improvement competencies. Table 4.6 shows that 13.8% principals *always* use it while another 48.1% principals say that they frequently use it and another 27.8% principals confirm that they use it occasionally for TCB in their schools. Only 10.4 % principals either seldom or never use this strategy for TCB in their schools.

Role Model Strategy which involves principal's teaching observation, spending time in the classrooms to know what is going on and helping teachers in their instructional efforts, comes next in line. Specific analysis shows that 11.3 % principals *always* use this strategy while 53.1 % principals frequently use, another 29.1 % occasionally use, 4.4 % seldom use and the remaining 2.2 % principals never use this strategy for teacher

capacity building in their schools.

The final strategy involves principals organizing their teachers to explain situations in class on particular days of what their students did, and how teachers handled them. Principals invite the colleagues to respond by giving feedback and suggestions to reflect on situations for better teaching and learning instructions in the classroom. This strategy is called *Collegial Conversation.* Detailed analysis into the frequency of use specifically indicates 10.6 % principals *always* using this strategy, another 40.9 % frequently using and 34.1 % occasionally using this strategy. This leaves another 11.9% who seldom use it and 2.5 % more who never use this strategy for TCB in their schools.

In summary, it is noted that the frequency of use of strategies by principals varies from principal to principal. However, it can be concluded, from the data, that most schools do use all these strategies for TCB and many principals are using these strategies with somewhat different understanding and subsequently different form of practices. The percentage of principals who say that they always use one or more of these sixteen strategies falls between 10.6 and 44.7, while that of principals who say that they never use one or more of these strategies falls between 1.3 and 3.1. The six most prominent strategies that are being used by high user principals (those who say they always use)

include staff meeting, supervising, table talk, face to face, continuous learning, coaching/mentoring.

Table 4.8: Strategy Ranking according to Frequency of Use

1- Never	**2, 3 – Seldom & Occasional**	**4, 5 – Frequent & Always**
Table Talk (3.1)	Collegial Conversation(46.6)	Staff Meeting(83.1)
Prof. Membership (2.8)	Professional Development(40.6)	Supervision(75.9)
Prof. Development (2.8)	Teacher Networking(37.8)	Coaching/mentoring(73.4)
Collegial Conversation (2.8)	Teacher Researcher(36.3)	Table Talk(73.1)
Teacher researcher(2.2)	Role Model(33.1)	Team Building(72.5)
Staff Meeting(2.2)	Continuous Learning(33.1)	Teacher Leader(70.6)
Face to Face(2.2)	Teacher's Teacher(30.9)	Staffing Mix(69.1)
Role Model(2.2)	Face to Face(30.0)	Prof. Membership(67.8)
Supervision (1.6)	Staffing Mix(29.7)	Face to Face(67.8)
Team Building (1.3)	Professional Membership(29.4)	Teacher's Teacher(67.8)
Continuous learning(1.3)	Teacher Leaders(28.1)	Continuous Learning(65.6)
Staffing Mix(1.3)	Team Building(26.3)	Role Model(64.7)
Teacher networking(1.3)	Coaching/mentoring(25.3)	Teacher Researcher(61.6)
Teacher leader(1.3)	Table Talk(23.8)	Teacher Networking(60.9)
Coaching/mentoring (1.3)	Supervision(22.5)	Prof. Development(56.6)
Teacher's Teacher(1.3)	Staff Meeting(14.7)	Collegial Conversation(50.6)

Those who have indicated a 4 (frequent) and a 5(always) as their responses to the frequency of use of the strategies are considered *high users* of the strategies concerned. Similarly, those who have responded by ticking a 2 (seldom) and a 3 (occasionally) for the frequency of use are the *moderate users*. The percentage of principals from the high

users choosing a particular strategy determines the ranking of the strategy for the high user category of principals. Similarly, the percentage of principals from the moderate users choosing a particular strategy determines the ranking of the strategy for the moderate user category of principals. In this manner, the strategies are ranked in descending order of the percentage values for both the high users as well as the moderate users as shown in the Table 4.8 above.

4.5 Research Question 5:

What are the most frequent strategies in each of the level of involvement in Teacher Capacity dimensions?

This question investigates the most prominent strategies in the frequency of strategy use by principals in each of the three levels of involvement. For that, percentage distribution of strategy use (always and frequent; occasional and seldom; never) was calculated. Following that, the percentage of principals from each level of involvement who use a particular strategy the most in terms of frequency is arranged in descending order to obtain.

Table 4.9: Percentage Rank order of frequency of strategy use according to level of involvement in Knowledge dimension

	% principals who use most from:				
Strategy	**Low involvement**	**Strategy**	**Moderate involvement**	**Strategy**	**High involvement**
Staff Meeting	40	Staff Meeting	73.8	Staff Meeting	91.1
Supervision	33.3	Supervision	66	Table Talk	85.6
Role Model	20	Coaching/ mentoring	58.3	Coaching/ mentoring	85.1
Team Building	20	Teacher Leader	57.3	Team Building	84.7
Continuous Learning	20	Teacher's Teacher	57.3	Professional Membership	84.2

From Table 4.9, it can be deduced that principals from different level of involvement in the knowledge dimension do show a difference in their use of strategies in terms of frequency and these differences were identified as significant by the Chi Square values. (see appendix).

According to the level of involvement in the knowledge dimension, the low involvement principals prefer to use staff meeting the most (40.0%) followed by supervision (33.3%). All the other strategies, for this group, do not show any trend in terms of frequency of use. As for the moderate involvement principals, staff meeting

still accounts for the most used strategy (73.8%), followed by supervision (66.0%), coaching/mentoring (58.3%), teacher leader (57.3%) and teacher's teacher (57.3%). Finally, for the high involvement principals, it is staff meeting again as their number one choice for use (91.1%), followed by table talk (85.6%), coaching/mentoring (85.1%), team building (84.7%), and professional membership (84.2%). It can be seen from table 4.9 above that there is no definite pattern of strategies for all the three groups, each one is exhibiting a different set of strategies.

Table 4.10: Percentage Rank order of frequency of strategy use according to level of involvement in Skill dimension

% principals who use most from:					
Staff Meeting	50	Staff Meeting	75	Staff Meeting	90
Role Model	33	Supervision	69	Coaching/mentoring	87
Face to face	33	Teacher leader	58	Team Building	86
Teacher's teacher	33	Table Talk	57	Professional Membership	85
Teacher researcher	33	Teacher's teacher	55	Table Talk	85

According to the level of involvement in the skill dimension, the low involvement principals prefer to use staff meeting the most (50.0%) followed by all the other strategies which do not show any trend in terms of frequency of use. As for the

moderate involvement principals, staff meeting still accounts for the most used strategy (75%), followed by supervision (68.8%), teacher leader (58.3%), table talk (57.3%) and teacher's teacher (55.2%). Finally, for the high involvement principals, it is staff meeting again as their number one choice for use (89.8%), followed by coaching/mentoring (86.9%), team building (85.9%) professional membership (85.4%) and table talk 85.4 %. It can be seen from table 4.10 that there is no definite pattern of strategies for all the three groups, each one is exhibiting a different set of strategies.

Table 4.11: Percentage Rank order of frequency of strategy use according to level of involvement in Disposition dimension

% principals who use most from:					
Staff Meeting	40	Staff Meeting	76	Staff Meeting	88
Role Model	33	Supervision	67	Coaching/mentoring	85
Face to face	20	Teacher leader	60	Team Building	84
Teacher's teacher	20	Table Talk	56	Professional Membership	83
Teacher researcher	20	Teacher's teacher	56	Table Talk	80

According to the level of involvement in the disposition dimension, the low involvement principals prefer to use staff meeting the most (40.0%) followed by supervision (33.3%). All the other strategies, for this group, do not show any trend in

terms of frequency of use. As for the moderate involvement principals, staff meeting still accounts for the most used strategy (76.0%), followed by supervision (66.7%), teachers teacher (60.0%) role model (56.0%) and face to face (56.0%). Finally, for the high involvement principals, it is staff meeting again as their number one choice for use (88.3%), followed by table talk (85.2%), coaching/mentoring (84.3%), table talk (83.3%), and professional membership (80.4%). It can be seen from table 4.11 that there is no definite pattern of strategies for all the three groups, each one is exhibiting a different set of strategies.

Table 4.12: Percentage Rank order of frequency of strategy use according to level of involvement in VoS dimension

% principals who use most from:					
Staff Meeting	40	Staff Meeting	69	Staff Meeting	92
Role Model	33	Supervision	57	Coaching/mentoring	90
Face to face	20	Teacher leader	42	Team Building	90
Teacher's teacher	20	Table Talk	42	Professional Membership	90
Teacher researcher	20	Teacher's teacher	41	Table Talk	87

According to the level of involvement in the knowledge dimension, the low involvement principals prefer to use staff meeting the most (40.0%) followed by supervision (33.3%). All the other strategies, for this group, do not show any trend in terms of frequency of use. As for the moderate involvement principals, staff meeting still accounts for the most used strategy (68.6%), followed by supervision (57.0%), teacher's teacher and coaching/mentoring (41.9%) and table talk (40.7%). Finally, for the high involvement principals, it is staff meeting again as their number one choice for use (91.8%), followed by team building (90.0%), table talk (89.5%), coaching/mentoring (89.5%) and professional membership (86.8%). It can be seen from table 4.12 that there is no definite pattern of strategies for all the three groups, each one is exhibiting a different set of strategies.

In summary, it is clear that there is no definite pattern in the prominent strategies in the frequency of strategy use by principals with different levels of involvement. It has been noted that some of the strategies used by principals with high level of involvement are entirely different than those used by principals with lower and medium level of involvement in the prominent strategies in the frequency of strategy use for TCB.

4.5.1 Qualitative Analysis

In addition to the quantitative means, there was also a qualitative approach in the form of interviews that were conducted to capture more relevant data to enhance the findings for this research question. Some thirteen interviews with principals who revealed that they had used a number of strategies to build their teachers' capacity were conducted. These thirteen principals revealed different set of descriptions with regards to their involvement in teacher capacity building. These interviews were used to corroborate the survey data and provide more in-depth, comprehensive and detailed data from the principal's perspectives. Among the thirteen principals, one principal showed low level of involvement, five principals showed moderate level of involvement and seven principals showed high level of involvement.

4.5.2 Interview Participants' Demography

Table 4.13 below presents the demography of interview participants. This demography includes the level of involvement, academic qualification, years of leadership, age, and gender.

Table 4.13: Interview Participant's Demographics

Participant	Level of Involvement	AQ	Exp	Age	Gender
Principal 1	High	PhD	15	54	male
Principal 2	Medium	MEd	3	53	male
Principal 3	High	Med	7	52	female
Principal 4	Low	BA	5	52	female
Principal 5	High	NPQH	6	53	male
Principal 6	High	BA	5	55	male
Principal 7	High	BA	8	54	male
Principal 8	Medium	BA	6	52	male
Principal 9	Medium	BA	7	54	female
Principal 10	Medium	BA	7	55	female
Principal 11	High	MED	4	52	male
Principal 12	Medium	BA	5	54	female
Principal 13	High	BA	5	55	female

Among the thirteen principals interviewed, one of them showed low level involvement, five showed moderate level involvement and seven showed high level involvement. In terms of highest academic qualifications, it is noted that five already had their post graduate degrees while the rest only had their first degree. As for the leadership experience, one has 3 years experience, seven of them have between 3 to 6 years experience, four of them have between 7 to 10 years experience, and one has more than 10 years experience as a leader. All the principals fall between 52 and 55 years of age. Six of them were females while the other seven were males.

4.5.3 Principals Describe Supervision Strategy:

Principal 13 said,

"I started my management by walking which has no specific time, indicated that a sports teacher does not enter class on time and at times he had informed the students that he's busy with school sports programs. I personally confronted him and made him explain the reasons for not entering or entering late for his classes.

"Cikgu …., you have not been entering your classes for the last month dates ……, …..,…..,…… and you were also late in entering these classes lately class 2…. And 3 ……How can I help you cikgu?"

After discussing the matter with the teacher concerned and head of department the teacher himself proposed that the teacher be guided by a senior teacher to help in module and handout preparation. Although it took much of my time I feel I need to be patient in handling this instruction related issues. The teacher was relieved that cooperation among the teachers can help to share duties and tasks in teaching. The senior teacher also monitors and supervises the teacher concerned from time to time."

For the same strategy:

Principal 11 said,

"Weekly I check on teachers' record books on their weekly lesson plans. During one of the weekly task, I noticed that a History subject teacher has weakness in putting together the lessons aims and learning outcomes related to the activities. I invited him to my room to rectify the problem. I gave him a model history lesson plan and guided him in listing out the objectives, learning outcomes and related activities. I without fail will invite the teacher daily to my room to discuss on teacher's daily lesson plan. I carried out this guidance for two months without fail. To guide him further, I appointed a senior teacher in that subject to render help and guidance in lesson plans for the teacher concerned. After three months the teacher was happy, feeling confidence in preparing daily lesson plans. The teacher even complemented that I'm professional in handling teacher related difficulties".

It is understood that the principal uses supervision strategy to monitor and provide guidance to teachers who are facing instructional difficulties. The enforcement idea to overcome instructional deficit among the teachers of the school also received positive feedback.

Principals 2, 8, 9, 10 and 12 explained that they conduct supervision strategy in their schools. Principal 2 said that she organizes individual subject committees in her school to monitor teachers and advises the committee if necessary. Principal 8 and Principal 12 said that they have their yearly meetings with heads of departments as supervisors who during the other duties carry out supervision among their subject teachers. Principal 9 and Principal 10 gave a similar but a different scenario how they carry out supervision in their schools. The heads of department will be briefed by the principal pertaining to instructional supervision before the semester begins. The need to prepare a schedule for supervising their teachers twice a year and send report to the principal.

4.5.4 Principals Describe the Coaching/Mentoring Strategy:

All the seven principals in the high level of involvement and the six principals in the moderate level of involvement stated that they have carried out coaching/mentoring strategy in their school. Among them, Principal 1, Principal 6, Principal 7 and Principal

11 assured that they use this strategy without fail year in and year out to help guide their teachers specifically new teachers from teachers training colleges or universities.

Principal 1 and Principal 6 presented the idea that they were self driven and that they used coaching/mentoring as an important strategy to both their principal and personal daily use. They assured that the new teachers have improved their performance and ability to teach better as it increased the confidence among them.

Principal 13 said,

" I am willing to take risks in front of my teachers now although they are having more knowledge and skills yet they still need our or our senior teachers' guidance in teaching and learning because we are experienced in understanding our student abilities".

Principal 11 mentioned that he now was able to understand how to support the curriculum and evaluation initiative of the ministry in guiding teachers since we were exposed in curriculum matters and evaluation comities in state level.

He explained,

"I am able to lead curriculum and evaluation coaching/mentoring because our school has outlined clear goals and guidelines for daily and weekly lesson plans and evaluation".

Principal 11 said,

"When I took the leadership chair in this school I spend much time in understanding the school data; student achievement in academics, extra-curricular activities and co-academic activities. I think it is really important to look at our data to understand and further decide and strategize on what's working and what's not. This will explain what we need to do and who should be involved in that process, to look at how you can build capacity. The training that I have received during the NPQH program help me to identify my teachers strengths and weaknesses and the areas I need to work on. I think it's ***building a culture of learners and letting the staff know that you're a learner too,*** *and that we're in this together as principal, teachers, parents, and students. I call our school. Kita….Kita sekolah kita……This is how I started my task as principal in this school, studied the data and plan my strategies on coaching/mentoring. I do refer to my notes or books to support my strategies. I will make sure that I follow educational models in using coaching or mentoring".*

4.5.5 Principals Describe The Staff Meeting Strategy:

Principal 11 said,

"Every teacher goes through basic training, basic skills in pedagogy and instruction. They come to school with knowledge and skills to teach students. Some teachers come to school with professional knowledge but they have attitude problem. For example, a teacher does not have basic training about sports but has good attitude towards school, a principal will be able to coach, train and supervise him or her to help run or improve sports programs carried out by the school."

Further, he explained that he utilizes staff meeting sessions to build teachers disposition and view of self in the first place as he said,

*"**Once you win their heart they will do anything for you**. Since I was promoted to this school as a principal I carry out **my staff meeting sessions in building teachers attitudes and character building**. I Have noticed that many teachers enter classroom on time (menepati masa) send their lesson plans weekly, carry out teaching without fail, able to manage classes well. I carry out a program called **'sekolahku syurgaku'**. We*

have to love ourselves, our family members and our home that's our school. If we can make every teacher belongs to this school they will automatically change from ***bad to good, good to better, and better to great".***

Principal 1 has stated that **Staff Meeting is the 'Golden Opportunity'** to develop teacher capacity in his school as this gives the principal to discuss new pedagogy from lecturers or well known speakers from universities or colleges to all the teaching staffs.

He continued,

"This is necessary as most of the teachers are quite relaxed with 'Zone Proxima' happy with what they do in school, I have learnt this in Psychology in University. We need to change them from this zone. Although teachers are trained in universities and teachers training colleges, I as a principal feel that I need to develop teachers' knowledge not only knowledge in curriculum but also about students and classroom management in my school. The expectations from parents are very high as this school is focusing towards attaining one of the nations cluster schools. This is usually done in December before the new session begins in January. Then I will conduct the second session in April. I shall make sure that I organize a Staff Meeting session either in a university or college where we use their expertise in sharing their knowledge and skills and experience in teaching and learning while building the teachers dispositions and views of self. We also make this opportunity for my teachers to exchange information with the lecturers and some of them communicate through e-mails and face book. My school teachers said that they sometimes get some ideas from the lecturers about latest information on science. I remember one science teacher collected more information about Nanotechnology in 1998 from a lecturer in Australian University which later.

This strategy actually helps me to let my teachers communicate with local and foreign lecturers to exchange information. Therefore, I make sure that I conduct one session of my staff meetings in a college or university at least once a year.

My 'guru ICT' will record in digital camera while I'm observing and we will let the teachers to watch and brainstorm about teaching methodology and classroom management, student involvement and resource managements. We began with Bahasa Malaysia, Mathematics and moral subjects. Now we do for all subjects These sessions were of great guidance and help to many new teachers who were posted or come on transfer. I have carried out this recording and playing during staff meeting for the last five years. Many teachers feel that they have learnt different types of teaching strategies and classroom management skills as well as build confidence after participating in these sessions.

"We have started this with our excellent group of teachers, we do not record", said Principal 3, "We will make one of our excellent teachers to carry out a two lesson (90 minutes) session before staff meeting and we will discuss during the staff meeting about the teaching strategies and classroom management, students and evaluation techniques.

Many teachers felt that this is a waste of time since I began this program. But over five years we have 4 excellent teachers qualified by the Jemmah Nazir Sekolah (school inspectorates)".

"Before changing others you have to change yourself. Management is not telling teachers what to do. It is supposed to be guiding what to be done", said Principal 2, "Every year I attend either leadership or development programs (programs that I still remember such as Leadership Style (Gaya Kepimpinan Pengetua), Principal Competencies (Kompetensi Pengetua) by Ministry of Education or IAB. After attending those programs I share the knowledge that I have gained from the workshops to my teachers during my staff meeting sessions. I have organized some workshops for my teachers too. I have noticed that there are some positive changes in my teachers' attitudes and beliefs after these sessions. This has given me motivation to carry out these types of workshops during my staff development programs every year since I have become the principal in this school".

Principal 8 (moderate involvement) said,

"Staff meeting is used for improving teachers class management problems and to inform teachers about the programs carried out by district education departments, State education departments and ministry of education. I will take the first session on the day for two hours to inform teachers about the programs such as Pelan Pembangunan Pendidikan Nasional, PBS, MBM, MBI, Sekolah Penyayang, and others".

Principal 4 (low involvement) said that she uses staff meetings to do housekeeping, that is to trash out the problems among teachers that we encounter throughout the semester.

"Sometimes teachers come late to school; enter class late; they sit and teach; they will use their mobile phones in class and fail to mark students work. These are the matters that I tackle during my staff meeting sessions."

Among the principals who show high level of involvement for teacher capacity building in their schools they adopted a more supportive leadership style in utilizing the staff meeting strategy in order to assist the teachers to embrace change in their disposition and view of self rather than knowledge and skills. Perhaps they believe that disposition and views of self are more important and fundamental as compared to knowledge and skills for TCB. Meanwhile principals who show medium and low level of involvement in teacher capacity building adopted a more autocratic leadership style which also focus on teachers' disposition and view of self.

4.5.6 Principals Describe Table Talk Strategy:

Besides Staff meeting, principals who show high and medium level of involvement prefer to use Table Talk strategy in their schools. This strategy is used by all the thirteen respondents of the survey. All the respondents in the high and medium level feel that it is a casual conversation about their teachers teaching and student learning. They tend to use staff rooms canteens to use conveniently as they wish to talk about what happens in the classroom on that day.

Principal 1 said,

"Teachers love to come to canteen when I am there, when they have no lessons- while laughing. I usually have my breakfast in school canteen. This gives me an opportunity to meet my teachers and be friendly in a collegial atmosphere to get closer to my staffs. I make sure that I talk casually, in friendlier tone about students or teaching. Teachers share about their observations about students and especially students with learning difficulties as well as disciplinary problems. I will let the teachers to put forward their suggestions and opinions regarding the problems that they put forward. I will make sure that I do not control the discussion. I will just say my opinion and many times I will support other teacher's suggestions."

"One day we talked about students problems during a mathematics class. A form 4 teacher niticed that four students always go out for their interschool Robotic Competition preparation. The teacher said that they will not be able to do well in the coming semester exams. Some teachers suggested that they hold their training in the afternoon while some said they go for tuition classes. Finally, they decided that the boys be given some extra homework to overcome their missing lessons in class."

These kind of conversations take place either in school canteen or corridors or even in teachers reading corners in the staff rooms, said Principal 1 and Principal 3 (The researcher later took a walk to look at the teachers reading corner in school 1 where there are some sofa and book shelves with educational magazines, newspapers, and computers at a corner of the staff room).

When the principal in low level of involvement was asked about Table Talk in canteen, they mentioned that they hardly walk to canteen or staff room. Only the heads of departments or PTA members would sit together during graduation ceremonies or other school programs carried out at the school hall. If they walk along the corridor as a routine monitoring process no teacher would approach them for anything. May be the teachers are inferior to talk to or ask anything about students or teaching.

Principal 4 said that Table Talk strategy is used when there are complains about teaching and learning from parents. Principal will call upon the particular teacher to discuss the teaching and learning issues that parents put forward. Furthermore, when the teachers are unable to complement any programs carried out from day to day the principal will use this strategy to gain room for brainstorming and overcoming any issues. Here seem

to be no fixed setting for implementing this strategy as any amicable place and time is made use of.

Principal 13 said,

"one day during the table talk session there was a complaint from a form four class teacher regarding a female student. The teacher complained that the student who use to be present in school daily was absent for a couple of days without any reason. The conversation turned serious as other teachers complained that the parents had neglected the student and currently she (student) is working in a restaurant as an attendant. Now the student lives with the grandparents. As the conversation was getting serious I asked the teacher concerned to meet me in my office to discuss further on that matter. As the form teacher approached me on the next day she compiled the student's particulars on the student's achievement. I was stunned as she is one of our 'star students'. We discussed on the details and decided amicably that we pay a visit to the student's grandparent's home.

I realized that our visit explicitly explained the reasons for her absenteeism. We were able to persuade the student to return to school with the grandparent's permission that the school will help financing the family. Back in school we discussed with the PIBG and the organization agreed to pay a monthly token of 500 ringgit. The student was glad that she can return to school. This episode caught the attention of one of a prominent business entrepreneur (a taukeh) to pay the student with a monthly token of six hundred until she finishes her form five. I realized that our table talk conversation in the canteen has helped in a child's education. I believe we can make a lot more by talking casually than formally. The principal implements an open-door policy and will listen and respond to any concerns or ideas from the teachers for the purpose of school improvement".

4.5.7 Principals Describe Teacher Leader Strategy:

Leadership practices of teachers in schools involve them as formal leaders' posts in roles such as department heads, subject heads, special program coordinators, heads of counselors, discipline boards, resource centers, uniform bodies, and teacher mentors. These teacher leaders help other teachers to embrace goals to understand the changes that are needed to strengthen teaching and learning and to work together for their school improvement.

As every principal is a leader of a school, every teacher is also considered as a leader in a school. The MOE has implemented the promotion practice for senior teachers as department heads and the 'guru cemerlang' (*excellent teacher*) promotion in teaching profession since 2008.

Since the implementation, Principal 1, Principal 11, and Principal 13 have motivated teachers to be promoted to the relevant authorities.

"I have motivated my school teachers to apply for the excellent teacher posts according to teacher's subject specialization. We have excellent teachers in Mathematics, Chemistry, National Language (Bahasa Malaysia) and History. I am planning to have at least one excellent teacher for each subject in my school by 2020 (Principal 1). This is a benchmark for me to improve my school as a cluster school in Malaysia".

Principal 1 told that he spoke to Teacher 1, "why don't you apply for the post of excellent teacher promotion for this selection. I am very sure that you have the capabilities and the skills to qualify as an excellent teacher in your subject area (History). Please fill in the and submit the forms to the office. I will forward the application forms with full support. Prepare yourself before Jemaah Nazir call you for observation. Make sure you utilize ICT, thinking skills and collaborative learning".

"After the submission of application to the relevant authorities I would follow up whether the JN contacted for observation whenever I meet up with the particular teacher. I motivate the teacher to prepare well before hand. I ask the other subject excellent teachers to guide and help in the preparation process too. If I have an opportunity I would observe the particular teacher and guide as well. I have also applied for excellent principal post this year and fortunately I was awarded as an excellent principal" (Congratulation, *Pengetua Cemerlang*: another promotional post in school leadership*).*

Principal 2,

"Every year as they sent in circulars for application, I would ask my senior assistant for curriculum to identify teachers to apply for the post. There has been negative feedback as no teacher would like to apply. We do not have any excellent teacher in this school. I do not understand why no one likes to apply for it in this school".

Principal 13 said that he gives the head teachers all the autonomy in implementing curricular and instructional strategies in the school. He continued**,**

"*Beginning of the year I will ask the head teachers to prepare their targets of the*

year with the project papers for implementing the curricular or instructional programs. Once these head teachers debrief me about their programs I will give them the autonomy to use funds and resources allocated. In the event of any shortage in funds or resources I will personally speak to the Parent Teacher Association's President or NGO's and ask him to look for sponsors. I will make sure that the allocations are met to carry out those programs".

"I also empower the head teachers to carry out programs on their own. My school Heads of department involving the humanities, mathematics and language had carried out programs which involved school, district, state and national level competitions. We have achieved great success in Additional mathematics quiz, poem reciting and creative writing competitions. Besides that, there is much hard work noticed among the head teachers and they are motivated to inspire the teachers and students.

"I empower my head teachers to utilize the funds and resources allocated for the individual departments, said P11. I asked the Senior Assistant for Students' Affairs to utilize some amount of money to run programs for counseling and disciplinary board. He managed to carry out a number of programs for the teachers involved in his department such as peer counseling and motivational workshops. These programs had created a sense of willingness among the department teachers to overcome student discipline problems in school. Now I see that the discipline teachers carry out their task willingly which had helped in reducing the number of disciplinary problems in my school compared to last year. We had minimized the number of students Ponteng Kelas, ponteng perhimpunan with the help of our discipline teachers.

"(Pegetua saya percaya saya) My principal trusts me. Tuan Pengetua saya tengok En. ....iIalah seorang pengetua yang sangat professional." Mr ……. (Principal), I see that you are very professional. (the teacher said).
"Cikgu, If you can win their heart you can make them do anything for you!".

It is noted that by empowering techniques and giving autonomy to the head teachers

they carry out their task in a trust worthy manner and that leads to school improvement.

4.5.8 Principals Describe The Continuous Professional Development Strategy:

Professional development involves skills and knowledge attained for both teachers' personal development and career advancement. Professional development in this survey encompasses all types of facilitated learning opportunities, Off Campus Programs, Distance Learning, Masters, Doctorate Programs, conferences, LADAP and informal learning opportunities situated in teaching practice. These approaches to professional development, includes consultation, coaching, lesson study, mentoring, reflective supervision and technical assistance.

These programs were carried out formally, either in group or individualized. Individuals are pursuing professional development independently, or programs offered by human resource departments. Professional development on the job develop or enhance process skills, sometimes referred to as leadership skills, as well as teaching skills.

Professional development opportunities in the survey schools range from a single workshop to a day-long academic course, to services offered by a medley of different professional development providers and varying widely with respect to the philosophy, content, and format of the learning experiences.

Professional Development programs carried out in many schools are related to Networking, Technology for teaching and Learning, Leadership skills, Teaching strategies, Techniques of carrying out action research, educational policy, Skills in comprehending the syllabus, research reports, effective teaching and learning.

Principal 12 said,

"A language teacher presented a video of utilizing creativity in language learning program among the form four students. The video showed us how a class students of 36 pupils formed into six groups and brainstorm on presenting a poem in a creative method. The first group demonstrated a role play, while the second group recited the poem. The third group used a traditional mixed hip-hop style of performance. The fourth group presented a theater. The last group used props to demonstrate their skills. The teachers in school during our professional development program watched the video and discussed the usefulness of this language learning strategy.

A team of additional mathematics teachers who had attended a workshop on setting exam based questions presented the outcome of their workshop to our teachers on a professional development day. They carried out a workshop as well for all mathematics and additional mathematics teachers. The teachers involved in the work shop eventually improved their skills on constructing mathematics and additional mathematics questioning skills and now we have a data bank for our mathematics and additional mathematics. These kind of workshops have been carried out for other subjects as well. Teachers feel happy to participate in workshops organized during our professional development sessions and they become more focused and professional in teaching.

During one of the professional development sessions we invited a senior lecturer to guide teachers on coming up with activities related to language subjects objectives. The teachers were guided in groups of three (low, medium and high) to brainstorm and draft activities and strategies based on students' different abilities and skills using the secondary school curriculum (Sukatan Pelajaran dan Huraian Sukatan Pelajaran).

Our teachers also carried out a workshop based on techniques of evaluating students' folios. Teachers used sample folios to guide on evaluation skills and revealed a marked understanding of accessing students' folios for subjects related to physics, chemistry and biology".

Principal 1 quite casually said,

"Usually the professional development sessions will begin with house keeping announcements. These are related to teachers entering class late or not entering at all, absence in sending record books weekly for principals to check, students' discipline problems and others. Then, the session will continue with principals' topic on school improvement related to instructional problems encountered for the last two to three months. Usually, they find it difficult to conduct this session as it need much preparation and skill. They complain that they are more involved in administrative work as they need to handle as a responsible person. Most of the sessions are planned by the principal only".

Principal 13, while answering said,

"My first attempt was to make that all teachers feel that the school belongs to them. It is our school. I did this by organizing a work shop on school vision and mission. I make sure that every teacher participate in their group actively and collect feed back from each group regarding teachers understanding and participation in the workshop. They exchanged ides about the former leadership practices and felt free in participating in school improvement program. They listed programs and strategies for achieving the vision and mission Since then teachers always forward their suggestions for instructional and discipline related matters to me personally".

Principal 3 stated that she uses the LADAP for Micro Teaching sessions in her school. This is usually being carried out during the second or third sessions. Principal 3 continued further,

"I always encourage teachers to seek knowledge. I encourage my teachers to further their studies. There are teachers pursuing their tertiary education; two Doctorate and 6 Masters. I make sure for those attending their classes to be relieved on Fridays as they have evening classes. But they take extra lessons on other four days. They also teach similar number of periods per week as other teachers. These teachers are very active in teaching and most of them use their knowledge from tertiary education for better teaching in class. Students have given positive comments too. The teachers also show better …… "penampilan diri". Some of the teachers who pursue their tertiary education also received APC (Anugerah Perkhidmatan Cemerlang)".

Principal 11, Principal 12 and Principal 13 revealed that they carry out continuous professional development strategy without fail. They conduct an eight hour development program every two months once. The program lasts for 8 hours. Usually the program will include professional topics related to teachers' instructional improvement".

Principal 11 revealed that he will brainstorm compiled handouts from seminars and meetings attended in the district, state and national level and brainstorm with the heads of department before deciding on the topics for the program.

He continued by saying,

"I as a presenter will prepare by reading books regarding the topics and will have handouts for all my teachers. I will usually use my mobile phone to record my own presentations to listen and correct myself in future. During my tenure as a principal I have carried out continuous professional development programs with the topics such as 360 % leadership, Curriculum, lesson plans, A moving school culture, use of Head Count, use of technology for teaching, and other instructional topics related to instruction. I can notice immediate change among certain number of teachers and others over a period of few weeks. I usually invite speakers from teacher training colleges, universities or state department officers to deliver speeches regarding instruction. We used to carry out group work, hands on and task oriented sessions to keep the teachers active throughout the sessions. Our teachers trained students to participate in district level competitions involving chorus speaking, drama and poetry reciting. We became runners up for the district level in Drama and chorus speaking competitions. Before this we were always the last".

4.5.9 Principals Describe Team Building Strategy:

Every teacher in a school is a member of a team or member in many teams. Team building in this research refers to a wide range of activities, in schools, which is designed for improving team performance. Team building is pursued via a variety of practices, and can range from simple bonding exercises to complex simulations and multi-day team building retreats designed to develop a team usually falling somewhere in between. It generally sits within the theory and practice of organizational development of school groups. Team building can also be seen in day-to-day operations of the school organization and team dynamic can be improved through successful leadership. Team building is an important factor in any environment, its focus is to

specialize in bringing out the best in a team to ensure self development, positive communication, leadership skills and the ability to work closely together as a team to problem solve for a better student learning.

Principal 11 said,

*"I carry out a program called 'Bilik Kuliah**".** It's a closed door discussion with all teachers on every Monday. It is carried out from 7.40 to 8.00 in the morning just after the morning assembly while the students go through the morning checks by the discipline board students. The session is only for 20 minutes just before the students enter the first lesson after the assembly. Our assembly is carried out only for 20 minutes and every Monday half an hour the Principal's input: what are the main activities, discuss problems that had happened last week. Teachers voice out their problems, this creates belongingness to the school. A conducive environment and harmonious environment among teachers. 80 % teachers talk, participate (active partners, but 20 % does not talk, silent partners".*

Principal 3 said,

"We use Team Building strategy in Panitia Mata Pelajaran. We have a senior teacher officially appointed as the head of Panitia. All teachers from form 1 to form 5 who teach Mathematics will attend the meetings. They work in small teams to identify their strength and weakness for school improvement programs. They sit to analyze term, SPM and PMR results and overcome their problems. We conduct four times formally and may be two or three times informally.

In my school we started with improvement plans after each semester evaluation. But we now focus more on action research among the subject teachers. Although many teachers are not skillful in research base methods but we were given samples of research reports by State Education Department and District Education Offices as guidance. From that my teachers did some action research. I'm impressed that my school English (summary writing) and history (learning history online- facebook) action research were recognized by the state and district officers to be implemented in many other schools.

We share 'info baru' for example PKBS School Based Evaluation (Penilaian Keberkesanan Berasaskan Sekolah). The heads of subjects would brief and identify the criteria for evaluation. The teachers also discuss about students achievements according to the forms and find out the improvement plans for better learning and achievement. Extra coaching in specific areas like in English they organized essay writing workshops, summary writing skills and vocabulary command skills for the low secondary forms.

There is a team spirit as they work towards improved achievement and achieve set target for the particular semester or the year end. Sometimes the PTA would provide educational trips for teachers if their team has attained remarkable result. The BM teachers went to Indonesia and the History Teachers went to Langkawi".

4.5.10 Principals Describe The Face to Face Strategy:

Principal 4 said,

"I will call them personally and tell them about their problems and ask them to change. The young teachers sometimes feel angry but they will change over time. Sometimes I give them a letter informing their mistakes in school. Usually, after the formal observations I will call upon the teachers who show deficiency in their teaching evaluation based on the evaluation scores. Teachers who score less than category C will be called in to my room to discuss about their weaknesses in delivering the lessons according to the evaluation. Basically, a teacher will make improvements in their teaching and learning. Besides, the teachers will participate in subject matter discussions organized by individual department. My school teachers who are new to the moral subject were able to improve based on guidance after the face to face talk in my school. They manage to improve on their skills of teaching and ability to guide students better than before. The outcome is the individual class achievement level has improved and overall the school moral achievement level has improved in SPM too".

Principal 11 said,

"I will call/invite the head of departments (leaders), Subject heads: English, BM, Physics, or Chemistry. What is your target for 2012? What are your strategies for achieving that target? If the Heads of Department has no concrete answer I will give suggestions. If I were you, these are my targets, and these are my strategies. I will prepare beforehand some targets pertaining to the subject and give them in writing if they do not have any. Usually they will return with some plans and strategies when they meet me face to face for the second time. We will sit again and discuss, brainstorm, get them recorded and file them. I will monitor whether those strategies being carried out. I asked my school football coach to ask about his target and strategies and their training schedules for this year. If they are not prepared I will give them one week time frame to get ready to inform me. I will also suggest school target such as champion for district level. I also attend competitions in and outside school, give monetary and personal support. There are teachers who say that Principal, (Cikgu ….) you are good because you give us token for food and other monetary aid".

Principal 11,

" I will inform the academic leaders about the amount of fund allocated for the particular department and I will give the full authority for them to plan and work on utilizing the fund." ***"Oh, the principal trusts me! I see that Mr. X is a professional leader"(Heads of Departments)*** *Once you are able to win their heart they (head teachers/teachers) will do anything for school.*

4.5.11 Principals Describe The Networking Strategy:

Networking strategy was limited to descriptions by the principals from the teacher-centered perception to student centered. Principals' Involvement ideas began with the use of technology for teaching and learning only.

Principal 5 said,

"Technology development had helped teachers to prepare for technology integration where they were able to use networking such as face book, twitter, e-mail and blogging. This is because the students are now more knowledgeable of the technology integration that was available for use and applicable to instruction".

(Both the Principal 3 and Principal 5 forwarded the idea that they were self driven and that they saw networking as a tool necessary for teachers to communicate with other teachers from other schools and also overseas to exchange ideas on subject matter and skills. They continued to say,

"For example, our school teachers have been networking with teachers in Kelantan and Terengganu in Bahasa Melayu subject Blogs. This has helped my school to create our own home page and blogs as well. Lately, we have also organized a visit to Surabaya, Indonesia to visit the schools that the teachers were in networking with for the subject matter of environmental studies. The visit had prompted hands on learning for our teachers as well as our teachers to gain knowledge on the subject.

Principal 5 stated that with the support of the school board and PTA he has taken risk of collecting enough fund to build digital classrooms for utilizing network facilities for his teachers to have more networking knowledge. Principal 7 explained that it was easier to lead technology integration efforts because the school has outlined clear goals, guidelines and expectations for networking for future teaching.

Principal 1 described the PTA initiative fourteen years ago to use technology in every way imaginable starting with MS Office. Principal 3 said,

"Twenty years ago the ministry was in the forefront of technology for Smart School Concept using the software program for student learning especially science and mathematics when I was in different school. We also send teachers for ICT training sessions conducted by private colleges in collaboration with JPS. Many teachers have created teaching and learning blogs".

The descriptions of school technology use through the teacher lens began with productivity uses for teachers, such as the report card SAPS. Principal 1 further stated that technology was used for a variety of things but one of the most important uses was for the report card purposes.

Principal 1 described the use of the student grading program and how it had greatly increased communication with parents,

"We no longer have as many parents calling the office phone because the parents are looking online and seeing things for themselves".

Principal 1 described his vision for technology has come true as the school now has two digital classrooms,

"I have the advantage of hiring an ICT firm with personnel who help in technology abilities to support our digital classroom system".

Both the Principal 1 and Principal 3 when talking about their use of technology, noted that there were so many initiatives for teachers to keep track of for productivity purposes that finding time for instructional integration is last on their list. They continued,

"we started with science labs, then teacher and student workstations".

Principal 1 and Principal 3 stated that technology was changing the way teachers are teaching. Principal 1 believes that Technology has improved the overall quality of teaching because teachers are able to provide more challenges for students because the teacher's lack of knowledge in content is not compromised and they can create a more engaging classroom using technology as a research tool.

Principal 7 and Principal 9 said that they are like 'Digital Immigrant' not in this world,

"we are not where the students are with respect to networking because we are not being funded by ministry".

The student-centered lens was described best by Principal 5 who said,

"Technology is a tool to engage students in learning. Technology gives kids immediate feedback on their success or failure".

In summary, it can be noted that the frequency of use of the strategies and the variety and pattern of use by the Principals in the interviews quite clearly explained for the variations in the use. High involvement principals generally exhibited stronger concerns in their involvement as compared to their counterparts in the other level of involvement. They even went to the extent of focusing on individual teachers with problems to help them improve their capacity using these strategies in ways and manners that they think are productive. Their descriptions on what and how things improved are evidences for their initiatives and involvement. Further, high involvement principals' preference to use staff meeting, teacher leader, table talk and face to face strategies for teacher capacity building in their schools may not be matched with the list of strategies and pattern of use by principals who showed moderate or low involvement.

The interview details reveal that principals use strategies such as supervision, coaching/mentoring, staff meeting, teacher leader, continuous professional learning, team building and networking for the purpose of building teachers' knowledge and skills.

Meanwhile, table talk and staff meeting strategies are more for building teachers' dispositions and views of self. Staff meeting strategy on the other hand seem to be used by all three levels of principals for developing teachers' knowledge, skills, dispositions

and views of self. Nevertheless, each group seems to be proud of their own selection and use of the strategies for the TC building in their schools. The concern that arises here is that due to different leadership capacity among these principals, there exists different level of involvement in building their teachers' capacity. Principals with different ability show their involvement differently and hence indicate their different strengths in building their teachers' capacity through different ways of engaging in sometimes the same strategy.

4.6 Research Question 6:

Are there significant differences in principals' use of strategies according to type of school?

Previous findings in this study show that all sixteen (16) strategies identified through literature were used by principals in secondary schools for TCB, but with varying degrees of emphasis. The 16 strategies include supervision, role model, coaching/mentoring, continuous learning opportunities, collegial conversation, staff meeting, table talk, face to face, teacher networking, team building, professional membership, continuous professional development, teacher's teacher, staff-mixing, teacher leader and teacher researcher. Generally, the principals use all the strategies but

with different frequency. In order to see if there exist significant differences in the principals' use of strategies with respect to type of schools, Kruskal Wallis H Test was conducted with the output as shown below in Table 4.14.

Table 4.14: Strategy according to type of school

	School Type	N	Mean Rank
Professional Membership	SMK	300	163.11
	SMJK	8	101.94
	SBP	12	134.25
	Total	**320**	
Collegial Conversation	SMK	300	160.94
	SMJK	8	84
	SBP	12	200.63
	Total	**320**	
Staff Meeting	SMK	300	161.83
	SMJK	8	187.5
	SBP	12	109.25
	Total	**320**	
Staffing Mix	SMK	300	159.83
	SMJK	8	111.25
	SBP	12	210
	Total	**320**	

Table 4.15: Test Statistic using Kruskal Wallis H Test

	Professional Membership	**Collegial Conversation**	**Staff Meeting**	**Staffing Mix**
Chi-Square	6.654	10.052	10.476	8.872
Df	2	2	2	2
Asymp. Sig.	0.036	0.007	0.005	0.012

The Kruskal Wallis Test identified significant differences in the frequency of use of four of the sixteen strategies with respect to type of school (SMK, SMJK, and SBP). The four strategies are Professional Membership ($\chi 2$ (2) = 6.654, p=0.036), Collegial Conversation ($\chi 2$ (2) = 10.052, p=0.007), Staff Meeting ($\chi 2$ (2) = 10.476, p=0.005), and Staffing Mix ($\chi 2$ (2) = 8.872, p=0.012) as shown in Table 4.15 above.

Detailed analysis into Table 4.14 above reveals further that the mean ranking of frequency of use of Professional Membership strategy for SMK (163.11) is higher than that of the SBP (134.25) and SMJK (101.94). As for the Collegial Conversation strategy, it is the SBP that has the highest mean rank of (200.63) as compared to that of SMK (160.94), and SMJK (84.00). In the Staff Meeting strategy, the test reveals a higher mean rank for SMJK (187.50) as compared to that of SMK (161.83) and SBP (109.25). Finally, in the Staffing Mix strategy, once again, SBP shows a higher mean rank of (210.00) as compared to that of SMK (159.83) and SMJK (111.25).

A further post hoc analysis (Mann-Whitney U test) was conducted to identify exactly which of the schools differ significantly. This analysis revealed that there exists significant difference in the frequency of use of strategies between schools for specific strategies. For Professional Membership strategy, it is found that only SMK and SMJK

differ significantly in their frequency of use. In the Collegial Conversation strategy, it is found that SMK differs significantly from SMJK, and at the same time SMJK differs significantly from SBP. However, no significant differences were identified between SMK and SBP in this strategy.

Table 4.16: Post Hoc Analysis

Difference in the frequency of use of Strategy:	**Between SMK and SJK**	**Between SMK and SBP**	**Between SMJK and SBP**
Professional Membership	Significant at $p<0.05$ ($z=-2.269$, $p=0.023$)		
Collegial Conversation	Significant at $p<0.05$ ($z=-2.639$, $p=0.008$)		Significant at $p<0.05$ ($z=-3.219$, $p=0.001$)
Staff Meeting		Significant at $p<0.05$ ($z=-2.937$, $p=0.003$)	Significant at $p<0.05$ ($z=-2.330$, $p=0.020$)
Staffing Mix		Significant at $p<0.05$ ($z=-2.310$, $p=0.021$)	Significant at $p<0.05$ ($z=-3.082$, $p=0.002$)

As for the Staff Meeting strategy, significant differences are identified between SMK and SBP and between SMJK and SBP. No differences were cited for this strategy between SMK and SMJK. Staffing Mix is one other strategy that showed a significant difference between these schools in the Kruskal Wallis test. However the post hoc analysis reveals that there exist significant difference between SMK and SBP and between SMJK and SBP. Table 4.16 above depicts these details for further reference.

4.7 Research Question 7:

Are there significant differences in principals' level of involvement according to leadership experience, academic qualification and gender?

Differences in principals' level of involvement in TCB according to leadership experience

The sample in this study was observed and identified to have different years of leadership experience in the same school. Detailed analysis revealed that 33.2% (N=106) principals have more than 10 years of leadership experience, 35.0% (N=112) principals have between 7 and 10 years of leadership experience, 8.4% (N=27) principals have between 3 and 6 years of leadership experience, and 23.4% (N=75) principals have less than 3 years of leadership experience in the same school.

To seek whether there are significant differences in the principals' level of involvement according to years of leadership experiences, Kruskal Wallis Test was conducted and the output provided the following information as shown in Table 4.17 below.

Table 4.17: Principals' Level of Involvement according to years of leadership

Level of Involvement in	**Years of Leadership**	**N (%)**	**Mean Rank**	**Kruskal Wallis Test Results**
Building **Knowledge** Dimension	Less than 3 yrs	106(33.2)	180.66	$\chi2(3) = 12.068$, $p = 0.007$): **significant at $p< 0.05$**
	Between 3 and 6 yrs	112 (35.0)	147.42	
	Between 7 and 10 yrs	27 (8.4)	139.89	
	More than 10 years	75 (23.4)	158.96	
Building **Skill** Dimension	Less than 3 yrs	106 (33.2)	170.49	$\chi2(3) = 4.144$, $p = 0.246$): Not significant at $p< 0.05$
	Between 3 and 6 yrs	112 (35.0)	159.68	
	Between 7 and 10 yrs	27 (8.4)	139.09	
	More than 10 years	75 (23.4)	155.31	
Building **Disposition** Dimension	Less than 3 yrs	106 (33.2)	175.29	$\chi2(3) = 10.329$, $p = 0.016$), **significant at $p< 0.05$**
	Between 3 and 6 yrs	112 (35.0)	159.92	
	Between 7 and 10 yrs	27 (8.4)	130.04	
	More than 10 years	75 (23.4)	151.43	
Building **View of Self** Dimension	Less than 3 yrs	106 (33.2)	167.84	$\chi2(3) = 6.39$, $p = 0.094$): Not significant at $p< 0.05$
	Between 3 and 6 yrs	112 (35.0)	166.54	
	Between 7 and 10 yrs	27 (8.4)	133.91	
	More than 10 years	75 (23.4)	150.69	

From the test statistics, it can be seen that there are only two dimensions, namely, the knowledge ($\chi 2(3) = 12.068$, $p = 0.007$) and the disposition dimensions ($\chi 2(3) = 10.329$, $p = 0.016$), that show significant differences in the principals' level of involvement based on the years of leadership.. However, to identify which two groups, among the four groups of principals, show significant difference, further post hoc analysis was undertaken.

The post hoc analyses, using the Mann-Whitney Test, reveal that there are significant differences in the level of involvement between principals with different years of leadership experience. In the **knowledge dimension**, there is a significant difference in the principals' level of involvement as follows: between principals with less than 3 years of leadership and those with more than 10 years of leadership in the same school ($U=3423.5$, $p= 0.04$); between principals with less than 3 years of leadership and those with 7 to 10 years of leadership ($U=1104.5$, $p= 0.021$); and between principals with less than 3 years of leadership and those with 3 to 6 years of leadership ($U=4677.5$, $p=0.001$).

In the **disposition dimension**, there is significant differences in the principals' level of involvement as follows: between principals with less than 3 years of leadership and

those with more than 10 years of leadership (U=3363.5, p=0.021); between principals with less than 3 years of leadership and those with 7 to 10 years of leadership (U=1047.5, p= 0.004).

In summary, there exist significant differences between years of leadership and principals' level of involvement in two of the four dimensions. It is the knowledge dimension that shows the most difference between groups while disposition is next with significant differences existing between at least two pairs. It has been consistently noted that in all the two dimensions, the principals with less than 3 years of leadership do show significant differences when compared to other groups. This may be due to their freshness on the job plus acquisition of more leadership capacity in recent times and enthusiasm in the leadership position as compared to the other groups of principals.

Differences in principals' level of involvement in TCB according academic qualification

Among the sample (n=320), 23.4 % principals are post graduates (with masters or doctorate) and 76.6 % principals are first degree holders. A Mann-Whitney U test was conducted to determine whether there are significant differences in principals' level of involvement according to their academic qualification. Results of the analysis indicate

that there is a significant difference in the disposition dimension (U=8037.5, p= .037). However, principals do not differ significantly in relation to the other dimensions of TCB as shown in Table 4.18..

Table 4.18: Mean Rank of Level of Involvement for Academic Qualification

	Academic Qualification	N (%)	Mean Rank	Sum of Ranks
Knowledge	First Degree Holders	245 (76.5)	162.84	39895.5
	Masters/PhD	75 (23.5)	152.86	11464.5
	Total	320 (100.0)		
Skill	First Degree Holders	245 (76.5)	161.39	39540.5
	Masters/PhD	75 (23.5)	157.59	11819.5
	Total	320 (100.0)		
Disposition	First Degree Holders	245 (76.5)	155.81	38172.5
	Masters/PhD	75 (23.5)	175.83	13187.5
	Total	320 (100.0)		
View of Self	First Degree Holders	245 (76.5)	157.9	38686
	Masters/PhD	75 (23.5)	168.99	12674
	Total	320 (100.0)		

Table 4.19: Test statistics for principals' level of involvement for Academic Qualification

	Knowledge	Skills	Disposition	View of self	Teacher Capacity
Mann-Whitney U	8614.5	8969.5	8037.5	8551	8909
Wilcoxon W	11464.5	11819.5	38172.5	38686	11759
Z	-0.967	-0.37	-2.09	-1.118	-0.489
Asymp. Sig. (2-tailed)	0.334	0.711	0.037	0.264	0.625

Within the disposition dimension, the post graduate principals show a higher mean rank than that of the first degree holders, indicating that they are more involved and concerned in developing their teachers' disposition than their counterparts who only possess first degree. This difference may be attributed to the additional knowledge and maturity that they have acquired through their post graduate studies. Or it could be because these post graduate principals have come to realize, through their new learning, that it is disposition that is more important and essential as compared to the other dimensions of TC for enhancing the teachers' professionalism.

Differences in principals' level of involvement in TCB according to gender

The sample of principals comprised 55% males and another 45% females. As more and more female principals are being assigned to lead the Malaysian schools, it is however felt whether there is any significant difference in their level of involvement in TCB as compared to their male counterparts. For that, the non parametric Mann-Whitney Test was performed and the results are shown in Table 4. 20 below.

Table 4.20: Mean Rank of Level of Involvement for Gender

Ranks				
	Gender	**N (%)**	**Mean Rank**	**Sum of Ranks**
Knowledge	**Male**	144 (45.0)	164.5	23688
	Female	176 (55.0)	157.23	27672
	Total	320 (100.0)		
Skill	**Male**	144 (45.0)	160.99	23183
	Female	176 (55.0)	160.1	28177
	Total	320 (100.0)		
Disposition	**Male**	144 (45.0)	170.05	24487
	Female	176 (55.0)	152.69	26873
	Total	320 (100.0)		
View of Self	**Male**	144 (45.0)	156.3	22506.5
	Female	176 (55.0)	163.94	28853.5
	Total	320 (100.0)		

Table 4.21: Test statistics for principals' level of involvement for gender

	Knowledge	**Skill**	**Disposition**	**View of Self**
Mann-Whitney U	12096	12601	11297	12066.5
Wilcoxon W	27672	28177	26873	22506.5
Z	-0.827	-0.103	-2.128	-0.905
Asymp. Sig. 2-tailed)	0.408	0.918	0.033	0.365

From the table on test statistics (Table 4.21) it is found that only the disposition dimension seems to elicit significant difference in the principals' level of involvement (U=11297.0, p= .033). The male principals seem to have a higher mean rank (170.05) than that of their female counterparts (152.69). This indicates that male principals show

a higher involvement and concern for the development of their teachers' disposition as compared to that of their female counterparts.

4.8 Summary of Chapter 4

Principals indicated a variation in their level of involvement towards teacher capacity building in their schools. Different distribution of principals' involvement were identified in all the dimensions of teacher capacity. The high involvement principals exhibited strong concerns for dispositions followed by views of self, skills and then knowledge. On the contrary, it was the skills dimension that drew more concern followed by knowledge, dispositions, and views of self for the low involvement principals. While the low involvement principals showed the skills dimension as their preference or dominant dimensions when building their teachers' capacity, the moderate and the high involvement principals quite clearly indicated their dominant dimensions. Even then, only the high involvement principals focused on the right dimension as they develop the teachers' capacity.

Analysis on all four dimensions reveals that principals who show high level of involvement generally **prefer** to develop teacher's ability to improve students' performances and achievements as compared to low involvement principals who prefer

to develop teachers' managerial tasks. As we look into the strategies used by these principals, it is noted that the frequency of use of strategies by principals varies from principal to principal. However, most principals do use all these strategies for TCB and many principals are using these strategies with somewhat different understanding and subsequently different form of practices. The six most prominent strategies that are being used by high user principals (those who say they always use) include staff meeting, supervising, table talk, face to face, continuous learning, coaching/mentoring. Four of the sixteen strategies showed significant differences with respect to type of school (SMK, SMJK, and SBP). They are Professional Membership, Collegial Conversation, Staff Meeting, and Staffing Mix. There exist significant differences between years of leadership and principals' level of involvement in two of the four dimensions. It is the knowledge dimension that shows the most difference between groups while disposition is next with significant differences existing between at least two pairs. It has been consistently noted that in all the two dimensions, the principals with less than 3 years of leadership do show significant differences when compared to other groups. Within the disposition dimension, the post graduate principals show a higher mean rank than that of the first degree holders, indicating that they are more involved and concerned in developing their teachers' disposition than their counterparts who only possess first degree. The male principals seem to show a higher involvement

and concern for the development of their teachers' disposition as compared to that of their female counterparts.

CHAPTER 5

SUMMARY, DISCUSSION AND CONCLUSION

This last chapter provides a summary statement of the research problem, the research methods used during the study, and the results. The sections of this chapter state the researcher's conclusions, explain the significance of the study, and discuss implications for research and practice.

As mentioned in Chapter 1, principals that make effective student learning as their prominent chore in their schools, should be tapping into teacher capacity as it is the most essential internal construct for school improvement that relates to effective student learning (Hopkins, 2002). Some leaders may be unaware of their leadership role in ensuring this. However, between total unawareness and complete awareness regarding their role in building their teachers' capacity, principals may be engaged at different level of involvement towards developing the teacher capacity in their schools. Knowing that teachers are a whole lot of energized professionals who are in direct relation to the students, school leaders should tap into and build on their teacher capacity to enable them to deliver their best.

Research has shown that, even in the most difficult circumstances, schools can sustain improvement through capacity building and equipping teachers to lead innovation and development (Harris, 2002; Harris, and Chapman, 2002). One clear message that emerges here is that to sustain improvement it requires the leadership capability of the leader and that improvements in learning are more likely to be achieved when the leadership is instructionally focused. As instructional leaders of the 21st century, the principals are now required to play prominent roles in building their teachers' capacity. This role becomes the key factor in ensuring teachers possess the right capacity that can accommodate even tough challenges to their profession in the teaching and learning process for better student learning. Indeed the principal leadership and their involvement becomes the key component in building their teachers' capacity in terms of knowledge, skills, dispositions and views of self that are pivotal in ensuring the teachers become more productive in this modern era.

In line with that, this study was designed to identify the level of principals' involvement and the frequent strategies that they use to build their teachers' capacity in its various dimensions. To be more comprehensive, this study was guided by the following research questions.

1. What is the extent of involvement of the principals in Teacher Capacity Building?

2. What are the dimensions that are dominant in Teacher Capacity Building according to principals' Level of Involvement?

3. What are the most prominent components in each of the Teacher Capacity Dimension according to the corresponding level of involvement?

4. What are the strategies that principals use in Teacher Capacity Building?

5. What are the most frequent strategies in each level of involvement in the Teacher Capacity dimensions?

6. Are there significant differences in principals' frequent strategies according to type of school?

7. Are there significant differences in principals' level of involvement according to leadership experience, academic qualification and gender?

The study used a mixed method approach. This format was chosen owing to its ability to capture multiple data and identify details of the strategies through a more in-depth interview process. The quantitative data allowed the researcher to identify different level of involvement and patterns of strategies by principals with different level of involvement while the qualitative data allowed the researcher to establish details of the strategies used by the principals that were interviewed.

5.1 Summary of the Findings

5.1.1 Principals' level of involvement in Teacher Capacity Building

Teacher Capacity (TC) in this research comprises four dimensions. They are Knowledge, Skills, Dispositions and Views of Self. Three levels of involvement by the principals were identified: Low, Medium, and High. In the low level, the principal's involvement is represented by actions such as: just informing; showing minimal interaction; being authoritative; being highly bureaucratic and control oriented. In the moderate level, the principal's involvement is represented by actions such as: organizing training; giving rewards; providing opportunity and empowering others to make related decisions, while in the high level, the principal's involvement is usually outstanding and represented by actions such as: solving related problems; contributing to group discussions; performing a wide array of technical work-related activities; showing much patience; showing perseverance; considering his or her actions as his or her learning opportunity and showing moral commitment to group decision-making.

The findings showed that principals indicated variations in their level of involvement in building their teachers' capacity. As teacher capacity comprises four dimensions, namely knowledge, skill, dispositions, and views of self, it was found that each

dimension exhibited a different set of levels for principals' involvement. An interesting finding that was noticed and worth mentioning is that the dispositions dimension inform that some principals who showed moderate involvement previously in the other three dimensions (knowledge, skills, and views of self) moved on to show high involvement in developing their teachers' dispositions.

5.1.2 Teacher Capacity Dimension that becomes dominant in TCB according to principals' level of involvement

The findings of the study indicated that low involvement principals did not show their preference or dominant dimension much clearly while building their teachers' capacity in its various dimensions. On the average, they showed their highest concern for the skills dimension throughout. Similarly, the moderate involvement principals had their focus on dispositions for most of the time, even when they are engaged in developing the other dimensions. However, the high involvement principals are always aware of the dimension they are focusing. And they give preference to that particular dimension when they are building the teachers' capacity. For example, when they are building the teachers' knowledge, then they are very much concerned about and focused upon knowledge dimension as compared to the other dimensions. Similarly, when these principals are involved in building their teachers' skills dimension, they constantly focus

in the skills as compared to the other dimensions. Likewise when they build their teachers' dispositions and views of self dimensions, their focus remains at the respective dimension.

5.1.3 Most prominent components of TC dimensions according to principals' level of involvement

Principals' most prominent components of TC sub-dimensions differ variably according to their level of involvement. This variation is seen in all four dimensions of TCB. High involvement principals focus on students' achievement, students' performance, role as a teacher, effective planning and assessments. In other words, these principals focus more on student learning and their attainment. Meanwhile, low involvement principals prefer to develop their teachers' daily/yearly lesson planning, subject matter pedagogy and ICT for teaching and learning, thereby indicating their focus is more on the teachers. Among the high involvement principals, the tendency to focus more on students rather than the teachers is quite evident from the principals' response to survey items pertaining to the most prominent components in TCB dimensions. To put it rather simple, these principals demonstrate their belief towards making student learning the priority for their teachers. This fact is quite evident in all four dimensions of knowledge, skills, dispositions and views of self.

Principals' high engagement in developing teachers' role in students' achievement and improvement is more of an indication that these high involvement principals are exercising their instructional leadership role towards student learning. On the other hand, the low involvement principals tend to focus on the managerial role of developing their teachers for daily/yearly lesson plans. This can be seen as more teacher-centered and less exhibiting their role as instructional leaders. The difference between these two groups of principals clearly sends a message that high involvement principals understand their instructional initiatives and provide the right support in developing their teachers' capacity.

5.1.4 Strategies that principals use in teacher capacity building

Of the sixteen strategies enlisted in the questionnaire, it has been noted that all sixteen strategies received some response from the principals in this study. This indicates that the principals use all the sixteen strategies but at varying degree in terms of frequency. Not only many principals are using these strategies but they also use them with somewhat different understanding and different way of practicing. The percentage of principals who say that they always use one or more of these sixteen strategies lies between 10 and 45, while that of principals who say that they never use one or more of these strategies falls between 1 and 3. The six most prominent strategies that are being

used by high user principals (those who say they always use) include *staff meeting, supervising, table talk, face to face, continuous learning, coaching/mentoring*.

5.1.5 Most frequent strategies in each level of involvement in Teacher Capacity Building

It is noted that the high involvement principals do have a set of strategies (*staff meeting, table talk, coaching/mentoring, team building, and professional membership*) for developing almost all the dimensions of teacher capacity. In addition, they seem to rotate the frequent strategies according to the dimension that they are focusing. In contrast, the low involvement principals also indicated one set of frequent strategies but different from those of the high involvement principals. Their strategies included *staff meeting, supervision, role model, team building, and continuous learning* in developing three of the teacher capacity dimensions (knowledge, dispositions, and views of self). In developing the skills dimension, the low involvement principals' frequent strategies were *staff meeting, role model, face to face, teacher's teacher, and teacher researcher*. However, they do not seem to practice any rotation system with their frequent strategies when they develop different dimensions. On the other hand, the moderate involvement principals only had two strategies (*staff meeting and supervision*) that were consistently used in developing all the teacher capacity dimensions. The other strategies that they

used included coaching/mentoring, teacher leader, teacher's teacher, table talk, role model, face to face.

Due to different leadership capacity among low involved, moderately involved and highly involved principals, there exist different level of involvement in building their teachers' capacity. Principals with different ability show their involvement differently and hence indicate their different strengths in building their teachers' capacity through different ways of engaging in sometimes the same strategy.

5.1.6 Principals' frequent strategies according to type of school

This study was conducted upon principals from three different type of schools (SMK, SMJK, and SBP). The post hoc analyses identified the existence of significant differences in the frequency of strategy use between these schools for four of the sixteen strategies. The four strategies are *Professional Membership, Collegial Conversation, Staff Meeting, and Staffing Mix.*

The Professional Membership strategy was used more often by the SMK as compared to SBP and SMJK. As for the Collegial Conversation strategy, it is the SBP that used more often than SMK and SMJK. In the Staff Meeting strategy, high usage was found

among the SMJK as compared to SMK and SBP. Finally, in the Staffing Mix strategy, once again, SBP showed higher usage than SMK and SMJK .

5.1.7 Principals' level of involvement in TCB according to leadership experience

Significant differences were found in principals' level of involvement according to years of leadership in two of the four dimensions. It is the knowledge dimension that showed the most difference between groups while disposition is next with significant differences existing between at least two pairs of groups. It has been consistently noted that in all the two dimensions, the principals with less than 3 years of leadership indicated significant differences when compared to other groups. They show higher involvement than the rest. This may be due to their freshness on the job plus acquisition of more leadership capacity in recent times and enthusiasm in the leadership position as compared to the other groups of principals. However, this finding of higher involvement by these young principals point towards the findings of Chan, Jane, and Pauline (2004) that indicated the younger principals are more conscientious in carrying out their work more seriously because they still have the opportunity to be promoted to higher grades. In another perspective, when years of job experience was examined for its relationship with leadership styles, results indicated a less clear but moderate increase in the use of transformational leadership approaches with greater experience. In the same study it

was noted that the involvement of principals in the form of transformational leadership behaviours not only accounted for but increased teachers' on-the-job challenge and support their initiatives and, in so doing, increase their job satisfaction which is a significant factor in explaining their perceived capacity (Campbell, 2010). However, the group of principals within the categories of 7 to 10 years and more than 10 years of leadership did not show high involvement towards TCB.

5.1.8 Principals' level of involvement in TCB according to academic qualification

The findings confirm that academic qualification among leadership did show some significant differences in their involvement for TCB. The post graduates (those with Masters and PhDs) indicated higher involvement in TCB as compared to their first degree counterparts in the dispositions dimension. However, principals did not differ significantly in relation to the other dimensions of TCB. Within the dispositions dimension, the post graduate principals showed higher involvement and more concerns towards building their teachers' dispositions than their first degree counterparts. It could be that the higher the academic level the better their judgment that it is disposition that needs to be enhanced first before focusing on improving the rest of the TC dimensions (as described by some principals during the interview session).

5.1.9 Principals' level of involvement in TCB according to gender

In the analysis to identify any differences in the principals' involvement in TCB due to gender factor, the findings revealed that only the dispositions dimension of TC seem to elicit significant differences in the principals' level of involvement. In an earlier study, Rijeng (1999), found that there was no significant difference between male and female principals in their involvement as instructional leaders supporting teacher growth. However in this study, the male principals seem to show higher involvement and concern for the development of their teachers' dispositions as compared to their female counterparts. This finding contradicts the indications from Grogan(2010) that women by ascribing more importance to relational leadership, leadership for social justice, spiritual leadership, leadership for learning, and balanced leadership may provide more concerns for the dispositions of their teachers, and also those of Chin (2011) who contended that women by identifying them as not only as leaders, but also as women, eliciting their roles as racial/ethnic individuals, as mothers, etc., in a composite manner may make good leaders in environments that seek challenges of work-family balance, caretaking responsibilities, gender role expectations, connectedness and affiliation with multiple communities while exercising their leadership.

5.2 Discussion

This study intended to identify a number of things: whether there exist differences in the level of involvement of principals in TCB; what are the dominant teacher capacity dimensions that become the focus of the principals while they are engaged in TCB; what are the strategies these principals use for TCB; whether there are differences in their frequent strategies according to their level of involvement, and type of school; whether there are differences in the level of involvement due to demographic variables.

First and foremost concern of this study, the involvement of principals in TCB, seem to be revealing three distinct levels, low, moderate and high among the principals as they engage themselves in TCB. On the average, about 5% principals fall into the low involvement group, while 27% are in the moderate group with the rest 68% in the high group. The distinctive existence of these three groups provided a lot of details and information towards this study. Principals exhibited different level of involvement in each of the four dimensions of Teacher Capacity indicating that either they are aware in how they want to be engaged (the high involvement principals) or ignorant about the whole idea of developing their teachers' capacity (the low involvement principals).

When we look at the findings about the dimension that becomes dominant in TCB according to level of involvement, we begin to realize that low involvement principals, on the average, showed their highest concern for the skills dimension throughout. Their continuous focus on skills disregarding the relevance of other dimensions even while developing them seem to support the contention that these principals are quite ignorant about the whole idea of TCB and the dimensions involved. On the other hand, the consistent focus of the high involvement principals on the relevant dimension while it is being developed support the contention that they are aware of TCB and how they want to be engaged. This nature of high involvement principals' responsibility in engaging themselves with commitment in TCB, coincides with Hackman and Oldham's (1980) intrinsic involvement that works towards providing employees with enhanced job autonomy, responsibility and accountability leading to increased levels of job and organisational satisfaction and commitment.

The differences in the most prominent components of TC sub-dimensions among principals from different level of involvement was observed in all four dimensions of TCB. This implies that these principals are actually focusing on different components

based on their degree of involvement. The high involvement principals' focus on students' achievement, students' performance, role as a teacher, effective planning and assessments simply denotes their focus and concerns towards student learning and their attainment. Meanwhile, by showing their intense focus more on the teachers' daily/yearly lesson planning, subject matter pedagogy and ICT for teaching and learning, the low involvement principals indicate their focus is more on the teachers. Student learning seem to be the priority for the high involvement principals as compared to teacher focus by the low involvement principals. Principals' high engagement in developing teachers' role in students' achievement and improvement can be seen as an indication that these high involvement principals are exercising their instructional leadership role towards student learning. On the other hand, the low involvement principals tend to focus on the managerial role of developing their teachers for daily/yearly lesson plans, hence exhibit less of their role as instructional leaders. The difference between these two groups of principals quite clearly indicate that high involvement principals do understand their instructional initiatives and provide the right kind of involvement and support in developing their teachers' capacity.

The contention by Leithwood, Harris, & Hopkins (2008) that considerable emphasis on school leaders' contributions to building staff capacity has been reflected in their role as

'instructional leaders' in many countries seems to be gaining ground in this study. In their report on "seven strong claims about successful school leadership", Leithwood et al., (2008), stressed that when the principals enacted their core leadership practices, the greater was their influence on teachers' capacities, motivation and beliefs regarding the supportiveness of their working conditions. Similarly in this study it was found that the more involved the principals in the TCB, the more they show their instructional leadership that focuses on student learning.

Among the sixteen strategies that were explored, six of them seem to be the frequent strategies for developing the teachers' capacity in the Malaysian secondary schools. The researcher believes that these six strategies could have attained these positions for the following established reasons.

Staff meeting has always been regarded as a good time to share positive teacher's feedback with the team and several activities can be introduced and interwoven within a staff meeting to fetch far reaching objectives in building the teachers' capacity such as: updating the status of school's goals; presenting mini case studies; sharing reports and presentations; and discussing process improvement (Youngwirth, 2012).

Supervision as mentioned in the education and organizational theory literature, is a process that directs or guides people to accomplish the goals of the organization in which they work (Daresh, 1989), with the ultimate objective being to offer the organization's service and support to its staff in the most efficient and effective manner possible (Kadushin, 1985).

Table Talk, on the other hand, is a casual conversation about teaching and student learning, that can conveniently take place in teachers' staff rooms or lunch rooms. Being a low-pressure way to discuss subject matters on instruction it helps strengthen the relationship among teachers and help them exercise their professionalism at work. Being an interesting and effective relationship building technique, *face to face* strategy usually enables teachers to be involved with teacher leaders who are close to them and support them more personally with close care for their learning improvement.

Continuous learning strategy usually allows an individual teacher and the teacher community in a school grow together through shared vision. The practice of shared vision fosters genuine commitment in collaborative efforts in small groups working together within a larger group of teachers in schools (Norwood, 2007).

Selection of *coaching and mentoring* as one of the six prominent strategies for TCB by the principals studied indicates that the principals in this study are aware of the contentions by researchers that mentoring has many benefits such as improving teacher collaborations, their communication skills, giving them a sharper focus, and enhancing their self-esteem and confidence in their teaching ability (Kerka, 1998; McCann & Radford, 1993; Mullen, 2000). Indeed the assignment of coaching/mentoring courses for school leaders in the low achievement schools to help build the teacher potential and hence student achievement in the School Improvement Programme (SIP) by Institut Aminuddin Baki Malaysia is another evidence to prove its practicality and feasibility strength in ensuring success (Noraini & Hamidon, 2011).

Having a specific set of frequent strategies, and knowing very sure what dimension they are developing, the high involvement principals seem to cast the right focus when building their teachers' capacity. Though the low involvement principals indicate their own set of frequent strategies for developing their teachers' capacity, they do not resemble those of the high involvement principals. Staff meeting seem to be the number one strategy among all principals irrespective of their level of involvement. However, the follow up interviews with principals from different level of involvement revealed

many findings with regards to the pattern of use of these strategies by the principals.

The variety and pattern of use by the principals in the interviews quite clearly explained for the variations in the use. High involvement principals generally exhibited stronger concerns in their involvement as compared to their counterparts from the other level of involvement. They even went to the extent of focusing on individual teachers with problems to help them improve their capacity using these strategies in ways and manners that they think are productive. Their descriptions in the interviews on what and how things improved are evidences for their initiatives and involvement. Further, high involvement principals' preference to use staff meeting, teacher leader, table talk and face to face strategies for TCB in their schools may not be matched with the list of strategies and pattern of use by principals who showed moderate or low involvement. Nevertheless, each group seem to be proud of their own selection and use of the strategies for the TCB in their schools. The concern that arises here is that the existence of different level of involvement by the principals in building their teachers' capacity is probably due to the different leadership capacity possessed by these principals, Principals with different ability show their involvement differently and hence indicate their different strengths in building their teachers' capacity through different ways of engaging in sometimes the same strategy (as shared by some of the high involvement principals in the interviews). For example,

The interviews with the high involvement principals indicate their leadership capacity to identify instructional related problems such as lack of subject matter knowledge among school teachers and hence guide as well as lead these teachers for instructional improvement in teaching and learning. Meanwhile, these principals also appointed teacher leaders to further monitor the teachers with instructional problems and help them improve. This initiative by the high involvement principals also exhibits their problem-solving expertise as leaders, which is very much acknowledged and given special importance by researchers on school leader problem-solving processes (McLaughlin & Mitra, 2001).

The teachers in this study reported that the principal's authentic expressions of emotion were an important influence on how they were beginning to feel a renewed desire to focus on their commitment to their work and an improvement in their craft. Leadership for sustainable learning communities means thinking beyond styles, traits, and practices—what leaders know and do. We also need to understand how leaders become more fully human through their work, how they inspire others to do the same, and how they cultivate conditions for community members to learn to live well together.

5.3 Implications and Suggestions

The study reveals the existence of three distinct level of involvement among the principals in developing their teachers' capacity. The fact is that some thirty two percent are not highly involved in developing their teachers' capacity. Among these thirty two percent principals there are some who are not engaged that much and hence do not seem to know what dimension of the teacher capacity that they are developing. This figure, may also be alarming at the moment. However, the researcher believes that this should alert the authority and the organization that is concerned with developing the leadership capacity of the practicing principals, in particular the low involvement ones, so that these principals are provided with the right skills and training to enhance TCB in their schools. The researcher believes that lack of high involvement could be due to the lack of knowledge and capacity on the leaders' account.

According to (Lambert, 2004), the schools' differing levels of ability to sustain improvement has been ascribed to the differing levels of its leadership capacity. Educators in schools with low leadership capacity seem to avoid focusing on teaching and learning and they lack the challenge of collegiality while moderate leadership capacity schools lack a compelling purpose and focus, are governed by norms of individualism, hold few conversations among members of the whole community, and

suffer from fragmentation and polarization. However, the high leadership capacity schools are learning communities that amplify leadership for all, learning for all, success for all. These schools have developed a fabric of structures (e.g. teams, communities, study groups) and processes (reflection, inquiry, dialogue) that form a more lasting and buoyant web of interrelated actions. Besides the principal, every teacher in the high leadership school shares the vision, understands how the school is moving toward the vision, and understands how he or she contributes to that journey. In short, there is a high quality of conversations within the school that helps improve the quality of the school.

Based on Lambert's findings, the principals in this study may be exhibiting different level of involvement in TCB due to the difference in their leadership capacity. The high involvement principals may possess high leadership capacity to enable them to act differently and more productively than their counterparts from the other level of involvement. Such renewed and more responsive form of accountability from the leadership can enhance teachers' motivation, link teachers' current needs to the school's goals and mission, and increase collective cohesion. Findings suggest that teachers' have varied needs and may linger in the survival stage for even longer period of time than generally anticipated. Though the support for their development may come from

different sources but it is the teacher's principal that contributes the most important source of support (Ovando & Casey, 2006). Thus improving leadership practices becomes an important prerequisite for building teacher capacity in conjunction with school-wide capacity. Improved leadership practices seem to enhance teachers' motivation, promote professional learning, and facilitate the improvement of school organizational conditions. Stimulated school leaders further improve their leadership practices in the direction of transformational leadership by initiating processes of vision-building, showing concern and respect for teachers' emotions, and stimulating them to engage in professional learning activities (Geijsel et al., 2001, 2009; Heck & Hallinger, 2009; Kru¨ ger, Witziers, & Sleegers, 2007; Leithwood & Jantzi, 2006; Thoonen et al., 2011). With this contention, there is a strong feeling and suggestion that the demand for equipping the principals with high leadership capacity to enable them to provide the right focus in the most efficient manner when developing their teachers' capacity is just round the corner.

At the same time, it should always be remembered that the influence of school principals may come in either direct or indirect means. Their direct involvement in building the teachers' capacity has been reported through the findings of this study. Talking about their indirect influence we find that Newman et al., (2001) have made a

clear point on that. While maintaining the emphasis on the influence of school leadership, especially the leadership of the principal, upon TCB in a direct manner, Newman et al., also refer to other resources such as professional community, program coherence and technology resources that the leaders can develop and utilize in building their teachers' capacity. When the school principals put their most emphasis on two aspects of professional community: clear shared learning goals for the school and staff collaboration, the teachers are more united on the goal of having better student performance at each grade. Professional community can help strengthen a collaborative work culture among teachers in two ways. First, the principal will become committed to whole school development upon common goals and programs, and to structuring teachers' work around collaborative planning. Second, the promoted staff collaboration enables the teachers to be committed and involved in cooperative activities that can simulate them to cope with difficulties, possible suggestions for program revisions, and orientation to forthcoming changes as one team at the school (Newman et al., 2001).

Both the direct and indirect practices undertaken by the school principals in developing their teachers' capacity, as mentioned above, constitute the ''inside view", that focuses on the capacity of schools to transform themselves into supportive environments for teacher learning and change. Strengthening the school internal conditions to improve

teacher practice and enhance students' learning seems to be a key challenge for practitioners to cope with the current accountability demands (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). There is a second view called the "outside view" that concerns the implementation of external developed reform designs into the schools (Sleegers and Leithwood, 2010). However, findings seem to suggest that schools which already have a high school-wide capacity for improvement and are able to transform their organisation into a rich learning environment for teachers can integrate externally developed reforms into their current practice far more easily than schools with a low improvement capacity (Slavin, 1998). Again and again, we see the demand for efficient school leadership and appropriate leadership capacity requirement to engage and involve deeply into TCB seem to fall upon the school principals.

In addition to the wide focus on the accountability and responsibility of the school leaders in developing their teachers' capacity, there needs a strong acknowledgement on the part of teachers. As teacher learning and change is crucial for improving their own instructional practices, aspects like teachers' motivation, their efficacy, their dispositions towards learning and change should come from the teachers themselves. It is much easier for the school leaders to lead the teachers towards learning and change when both are aligned in a coherent manner.

The high involvement principals' focus and concerns in this study very much resemble that of the instructional leaders who care more for the student learning. And to accomplish that they hold themselves responsible for teacher capacity building. They always ensure the teachers are at their best capacity to implement the school goals and objectives. When the school principals demonstrated instructional leadership behaviors through their high involvement, teachers' perceptions about their own self efficacy grow stronger and they see themselves more sufficient in educating and teaching the students thus putting a great deal of effort into student learning.

The findings revealed that high involvement principals generally exhibited stronger concerns in their strategies as compared to their counterparts in the other level of involvement. They even went to the extent of focusing on individual teachers with instructional difficulties to help them improve their capacity using these strategies in ways and manners that they think are helpful. Their descriptions on what and how things improved are evidences for their initiatives and involvement. Based on these findings, it is suggested that the school leaders may identify teacher capacity building strategies such as staff meeting, supervision, coaching/mentoring, team building professional development to focus on teachers' knowledge, skills, dispositions and views of self to be used in their schools for school improvement. Strategies such as table

talk, face to face and staff meeting can be used to build teachers' dispositions and views of self. However strategies such as staffing mix, teacher network, teacher teacher, teacher researcher and teacher leaders can be used for building teachers' knowledge and skills. Principals should attend to the strategies to influence teachers, and the effects of these strategies on schools' capacity. But there are challenges in successfully implementing these strategies.

5.4 Directions for future research.

As pointed in the earlier paragraphs about the *inside and outside view*, this study has provided some evidences on the inside view, in particular the direct involvement of the principals in TCB for their teachers. There are three more resources (professional community, programme coherence and technology resources) within the inside view, as noted by Stoll, Bolam, McMahon, Wallace, & Thomas (2006), that could be focused upon in future research attempts.

Not forgetting the *outside view*, as proposed by Sleegers and Leithwood (2010), new research attempts can also be targeted around the external factors that may influence TCB. With both the inside and outside views, the whole picture or scenario of TCB in the Malaysian secondary schools can be brought to the surface and attempts for its

enhancement can then be worked out.

This study investigated the involvement and the strategies used by the principals for TCB using the principals' responses to the questionnaire as well as their interview data. There could be some disagreement between the principals and the teachers on what the principals think that they have provided for TCB to their teachers and what the teachers perceive about the principals' involvement for TCB. In order for a clearer picture on TCB by the principals, future researches may be conducted to include the teachers' responses as well.

Conclusion

Teacher capacity is influenced by many complex factors, and the research literature summarizes them into five common areas, namely teacher knowledge, skills, dispositions, and views of self; professional communities; program coherence; technical resources; and leadership (Anfara & Mertens, 2012).

It is the leadership involvement that was investigated in this study and the findings indicate that secondary school principals show variations in their level of involvement with respect to building their teachers' capacity. While the low involvement principals indicate their involvement in the form of actions such as just informing; showing

interaction; being authoritative; being highly bureaucratic and control oriented, the moderate involvement principals indicate their involvement in the form of actions such as organizing training; giving rewards; providing opportunity and empowering teachers to make related decisions.

On the other hand, high involvement principals indicate their involvement in the form of actions such as solving related problems; contributing to group discussions; performing a wide array of technical work-related activities; showing much patience; showing perseverance; considering any actions as my learning opportunity; showing moral commitment to group decision-making. Principal's deep involvement and engagement is instrumental in setting the tone of the school, helping decide on instructional strategies, organizing and distributing the school's resources including the teachers' capacity. Such pertinent leadership involvement among principals need to be personally shown for improved instruction (Lavine and Lezotte, 1990; Hallinger, 2005).

By relating the high involvement principals' focus on student learning and their attainment to the role of principals, it could be deduced that these high involvement principals also exhibit their instructional leadership roles through their deep involvement in building the capacity of their teachers for better student learning.

Another interesting finding was that these principals select some specific strategies like *staff meeting, table talk, coaching/mentoring, team building, and professional membership* that are considered strong and powerful ones to enhance their teacher capacity and they also show some definite variations in the use of these strategies be it on the frequency as well as on the pattern of use as compared to their counterparts from other level of involvement who do not seem to possess the ability to give the kind of variety exhibited by the high involvement principals in the study.

This phenomenon suggests that these high involvement principals may possess better leadership capacity that allow them to be more competent not only to show deeper involvement but also show variations in the actual pattern of use of these strategies. As a result, the leadership capacity of the principals and its development process for ensuring the leaders are in a better position to build their teachers' capacity may need an immediate and fresh relook by the authorities concerned. In addition to that, the findings of the study can also add significant information to the literature about teacher capacity building and the leadership involvement.

REFERENCE

Adam, E. N. & Kranot, N. (2006). School principal's leadership style and teachers' self-efficacy. *Planning and Changing,* Vol. 37, No. 3&4, pp. 205–218.

Ahmad Mohamad Sharif & Kong M. S. (2001). *The implementation of the KBSR and KBSM Invention Curriculum.*

Ahmed, A., & Hanson, K.T. (2011). Leadership, capacity building and sustainable development in contemporary Africa, *World Journal of Entrepreneurship, Management and Sustainable Development*, Vol. 7, Nos. 2/3/4, 2011.

Albright, J. & Masturah Ismail (2006). Issues facing teacher curricular and pedagogical capacity in mature and emerging education systems, *Paper presented at the Australian Association for,Research in Education Conference, Adelaide, Australia,* 27 - 30 November 2006.

Andrews, R. L., & Soder, R., (1987). Principal leadership and student achievement. *Educational Leadership*, 44 (6), 9-11.

Asariah Mior Shaharuddin. (2008).School Improvement in Malaysia: Development, issues and challenges. *Paper presented at the 3rd International Conference on Principlaship and school Management*, 10th March 2008. Kuala Lumpur.

Babbie, E. (2005). *The basics of social research (third edition)*. Belmont, Ca: Wadsworth.

Ballantyne, K.G., Sanderman, A.R., Levy, J. (2008). Educating English language learners: *Building teacher capacity.* Washington, DC: National Clearinghouse for English LanguageAcquisition.

Bandura (1977) Self-efficacy mechanism in human agency. *American Psychologist,* 37, 122-147.

Barth, R.S. (1990) *Improving school form within: Teaches, parents, and principals can make a difference,* San Francisco: Jossey-Bass.

Bass, B.M and Avolio, B.J., (1994). *Improving organizational effectiveness through transformational leadership*. Thousand Oaks, CA: Sage Publications.

Bell, J. A. (2001). High-performing, high-poverty schools. *Leadership*, 31(1), 8-11.

Blase, J. J. (1990). Some negative effects of principals' control-oriented and protective political behavior. *American Educational Research Journal*, 27(4), 727-753.

Blasé, J., (2001)., *Empowering Teachers: What Successful Principals Do*, Sage Publication. Ltd. 2nd Ed.

Bowers, B. (1991). Teacher Involvement in Curriculum Development, *Research Roundup*, Vol. 7, No, 3, Spring 1991.

Boyer, E. L. (1995). The basic school: A community for learning. Princeton, NJ: Carnegie *Foundation for the Advancement of Teaching.*

Brophy, J. E., and Good, T. L. (1986) *Teacher Behavior and Student Achievement.* In Handbook of Research on Teaching, (3rd Ed.). edited by M. C. Wittrock. New York: Macmillan Publishing Co., 1986, 328-377.

Brunner, C.C., & Grogan, M. (2007). *Women leading school systems*: Uncommon

Bryk, A. S., & Schneider, B. (2002). *Trust in schools*: A core resource for improvement. New York: Russell Sage Foundation.

Campbell, S. B. (2010). A Comparative Study of Educational Leadership Behavior by Gender and Race. ProQuest LLC, Unpublished Ed.D. *Dissertation, Saint Louis University.*

Chaffee, S. H., & Roser, C. (1986). Involvement and the consistency of knowledge, attitudes and behaviors. *Communication Research*, 13, 373–399. Engelberg (1986).

Chin, J. L. (2011). Women and Leadership: Transforming visions and current contexts . *Forum on Public Policy Online.*

Clutterbuck, D. (2008). "What's happening in coaching and mentoring? And what is the difference between them?", *Development and Learning in Organizations,* Vol. 22 Issue: 4, pp.8 – 10.

Cohen, D. & Ball, D. L., (1999). Instruction, Capacity, and Improvement., CPRE *Research Report Series*, RR-43, June.

Cohen, D.K., & Hill, H.C. (1998). State Policy and Classroom Performance, *CPRE Policy Briefs*, January.

Cox, T. R., (2003) A Qualitative Study of a Capacity Building Professional Development Experience. *Dissertation submitted to the College of Human Resources and Education,* West Virginia.

Concoran, T., & Goertz, M. (1995). in Hopkins, D. and Jackson, D. (2002) 'Building the Capacity for Leading and Learning'. School Improvement for Real: London, Routledge Falmer.

Connell, N. (1999). Beating the odds: high-achieving elementary schools in high poverty neighborhoods. New York: Educational Priorities Panel. *(ERIC Document Reproduction Service* No. ED441913).

Cooter, R. B. (2003). "Teacher "capacity-building" helps urban children succeed in reading." *Reading Teacher* 57(2): 198-205.

Crowther, F. (2011). *From School Improvement to Sustained Capacity.* Corwin Press. Thousand Oaks: CA.

Daresh, J.C., (1989) *Supervision As a Proactive Process*, Longman Press.

Darling-Hammond, L., & Bransford, J. (Eds.). (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do*. San Francisco: Jossey-Bass.

Davenport, R., & Anderson, G. (2002). *Closing the achievement gap: No excuses. Houston,* Texas: American Productivity & Quality Center.

David, C.H, Stephen, W.R, Deborah, L.B., (2003)., Resources, Instruction and Research: *Educational Evaluation and Policy Analysis*, Summer Vol 25. No 2: 119-142.

Denson, K. (2003). Minimizing the effects of student mobility through teacher and administrator training. In R.B. Cooter (Ed.), *Perspectives on rescuing urban literacy education* (pp.117-134). Mahwah, NJ: Erlbaum.

Desimone, L. (2002). How can comprehensive school reform models be successfully implemented? *Review of Educational Research*. 72(3), 433–479.

Dinham, S., & Crowther, F. (2011). Sustainable School Capacity Building-one step back, two steps forward? *Journal of Educational Administration,* Vol. 49 Iss:6 (pp. 616-623).

Druian, G,. & Butler, J. A. (1987). Effective school practices and at-risk youth: What research shows. *Office of Educational Research and Improvement (OERI)*, U.S. Department of Education. (Contract Number 400-86-0006).

Eagly, A. (2007), "Female leadership advantage and disadvantage: Resolving the contradictions", *Psychology of Women Quarterly*, Vol. 31 pp.1-12.

Engelberg, M., Flora, J. A., & Nass, C. I. (1995). AIDS knowledge: Effects of channel involvement and interpersonal communication. *Health Communication*, 7, 73-91.

Farahbakhsh, S. (2007). Leadership in Educational Administration: Concepts, Theories and Perspectives. *Online Journal* Vol 4 Issue 1, 13 Feb 2007.

Fullan , M. (2000). The Return of Large Scale Reform (pg 102) in Hopkins, D. and Jackson, D. (2002) '*Building the Capacity for Leading and Learning*'.

Fullan, M. (1991). *The new meaning of educational change.* New York: Teachers College Press.

Fullan, M. (2001). "The Return of Large-Scale Reform," *Journal of Educational Change* (Vol. 1, pp. 1-23).

Fullan, M. (2010a). *All Systems Go: The Change Imperative for Whole System Reform,* Corwin Press. Thousand Oaks :CA.

Fullan, M. (2010b). *Motion Leadership,* Corwin Press, Thousand Oaks: CA.

Fullan, M. (2011a). Choosing the Wrong Drivers for Whole System Reform, *Centre for Strategic Education Seminar series paper* no. 24.

Fullan, M. (2011b). *The Moral Imperative Realized,* Corwin Press and Ontario Principals Council, Thousand Oaks : CA and Toronto.

Fullan, M., (1991) *The New meaning of Educational Change,* New York, Teachers College Press.

Fullan, M.G., & Miles, M.B., (1992). Getting reform Right: What Works and What Doesn't. *Phi Delta Kappan,* June. Pg 746-752.

Gamoran, A. (2003). Access to resources. In A. Gamoran , C . W. Anderso n, P. A. Quiroz, W. G. Secada, T. Williams, & S. Ashmann (Eds.), *Transforming teaching in math and science: How schools and districts can support change* (pp. 65–86).

Garet, M.S., Porter, A.C., Desimone, L., Birman, B.F. & Yoon, K.S. (2001). What makes professional development effective? Results form a national sample of teachers. *American Educational Research Journal.* 38(4), 915-940.

Gigante, N.A & Firestone, W.A.(2008) Administrative support and teacher leadership in schools implementing reform, *Journal of Educational Administration* Vol. 46 No. 3, 2008 pp. 302-331.

Glatthorn, A. A .,(2000) *The Principal as Curriculum Leader: Shaping What Is Taught & Tested*. 2nd ed. Thousand Oaks, Calif. : Corwin Press.

Glatthorn, A. A. (1984). *Differentiated supervision.* Alexandria, VA: Association for Supervision and Curriculum Development.

Grigsby, B, Schumacher, G, Decman, J, and Felix Simieou III (2011). A Principal's Dilemma: Instructional Leader or Manager. Academic *Leadership: The Online Journal.*

Grogan, M. (2010). Generating the power of a diverse collective by following women's approaches to leadership. *The Claremont Letter*, Volume 4, Issue 3, Claremont Graduate University (NJ1).

Grunig, J.E. & Hunt, T. (1984), *Managing Public Relations*, Holt, Rinehart and Winston, Fort Worth, TX.

Gurcharan Singh, B. (2012). An evaluation of a school improvement initiative: A case study of a primary school in England, *Jurnal Pengurusan dan Kepimpinan Pendidikan*, Jilid 23, Bil 1, ms. 103-116.

Hall, P. & Simeral, A. (2008) *Building Teachers' Capacity for Success: A Collaborative Approach for Coaches and School Leaders*. Published by Association for Supervision & Curriculum Development

Hallinger, P. (2003). Leading Educational Change: Reflections on the practice of Instructional and Transformational Leadership. *Cambridge Journal of Education* 33, No. 3: 329- 51.

Hargreaves, D. (2001). A Capital Theory of School Effectiveness and Improvement. In D. Hopkins & D. Jackson (Eds.,). (2002). *'Building the Capacity for Leading and Learning'*.

Hargreaves, D.H. (2001, 2003a, 2003b) *Education Academic: Transforming Secondary Schools Through Innovation Networks.* Demos: London.

Hargreaves. ,D.H (2011). System redesign for system capacity building. *Journal of Educational Administration*, (Vol. 49, pp. 685 – 700)

Harris, A & Muijis, D (2005) Muijs D & Harris A (2002) Teacher leadership: principles and practice, *GTC and NUT websites www.gtc.org.uk, www.nut.org.uk*

Harris, A. (2001). Leadership in schools Facing Challenging Circumstances. *Paper presented by British Education Leadership, Management and Administration Society Conference.*

Harris, A. (2002). 'Distributed Leadership: Leading or Misleading?', *Keynote Address.*

Harris, A. (2002). *School Improvement: What's in it for Schools?* London: Routledge.

Harris, A. (2004). Distributed Leadership and School Improvement: Leading or Misleading? *Educational Management Administration Leadership,* sage publications.

Harris, A., & Chapman, C. (2002). ' Democratic Leadership for School Improvement in Challenging Contexts'. *Paper presented at International Congress for School Effectiveness and Improvement,* Copenhagen, January.

Harris, A., (2011),"System improvement through collective capacity building", *Journal of Educational Administration*, Vol. 49 Iss: 6 pp. 624 – 636.

Haslam, S.A., Ryan, M.K. (2008), "The road to the glass cliff: differences in the perceived suitability of men and women for leadership positions in succeeding/failing organizations", *The Leadership Quarterly*, Vol. 19 pp.530-46.

Heath, R. L., Liao, S., & Douglas, W. (1995). Effects of perceived economic harms and benefits on issue involvement, information use and action: A study in risk communication. *Journal of Public Relations Research,* 7, 89-109.

Hena Mukherjee & Jasbir Sarjit Singh (1983) The New Primary School Curriculum Project: Malaysia, 1982., *International Review of Education,* Vol 29, No2, The Universalization of Primary Education (1983) pp 247-257

Hopkins & Reynolds (2001). (as cited in Hadfield, M, 2003) *Building Capacity versus growing schools.* RoutledgeFalmer.

Hopkins, C. (2001). *School Improvement for Real*. London: Routledge Falmer.

Hopkins, C. (2002). *Improving Quality of Education for All,* (2nd ed.). London: David Fulton.

Hopkins, D., & Jackson, D. (2002). Building the Capacity for Leading and Learning. In A. Harris, C. & et all. *Effective Leadership for School Improvement* (pp. 84–105). London: Routledge.

Hopkins, D., & Jackson, D. (2002). Building the Capacity for Leading and Learning. In A. Harris, C. Day, M. Hadfield, D. Hopkins, A. Hargreaves and C. Chapman (Eds.), *Effective Leadership for School Improvement* (pp. 84–105). London: Routledge.

Hord S.M. (1987). *Evaluating Educational Innovation,* London and New York, Croom Helm.

Howard, A. (1997). "High involvement leadership: moving from talk to action", *Empowerment in Organizations,* Vol. 5 Iss: 4, pp.185 - 192

Hussein Mahmood. (1993). *Kepemimpinan dan keberkesanan sekolah.* Kuala Lumpur: Dewan Bahasa dan Pustaka.

Jackson, D. (2000). (as cited in Hadfield, M, 2003) *Building Capacity versus growing schools.* RoutledgeFalmer.

Jackson, D., & Temperley, J. (2007). From professional learning community to networked learning community. In L. Stoll, & K. S. Louis (Eds.), *Professional learning communities: Divergence, depth and dilemmas* (pp. 45-62).

Jacobson, S. (2011). Leadership effects on student achievement and sustained school success. *International Journal of Educational Management,* Vol 25, No.1, pp33-44.

Jenkins, D., (2011). Exploring Instructional Strategies and Learning Goals in Undergraduate Leadership Education., *A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy Department of Adult, Career, and Higher Education College of Education, University of South Florida.*

Joyce, B., & Showers, B. (1983). A r c h i v e d I n f o r m a t i o n *Systemic Reform - October 1996 The Dimensions of* Capacity. (online)

Joyce, B., & Showers, B. (2002). Student achievement through staff development (3rd ed.). Alexandria, V.A. : *Association for Supervision and Curriculum Development.*

Kadushin, A., & Harkness, D. (2002). *Supervision in social work*. Columbia University Press.

Katz, L. G., & Raths, J. D. (1986). “Dispositions as goals for teacher education.” *Teaching and Teacher Education* 1, 301-307

Kementerian Pelajaran Malaysia (2007), Pelan Induk Pembangnan Pendidikan 2006-2010: Merintis Pembaharuan, Satu Misi Nasional, Kementerian Pelajaran Malaysia. (Ministry of Education Malaysia (2007), *National Education Blueprint 2006-2010.*

Kenneth Leithwood, Alma Harris & David Hopkins (2008): Seven strong claims about successful school leadership, *School Leadership & Management,* 28:1, 27-42.

King, B. M., & Newmann, F. M. (2001) "Building school capacity through professional development: conceptual and empirical considerations", *International Journal of Educational Management*, Vol. 15 Iss: 2, pp.86 – 94.

Kochanek, J. R. (2005). Building trust for better schools: *Research-based practices.* Thousand Oaks, CA: Corwin Press.

Lambert, L. (1998) *Building Leadership Capacity in Schools*, Alexandria, VA, Association for Supervision and Curriculum Development.

Linda, L. (2003). Leadership redefined: an evocative context for teacher leadership. *School Leadership & Management*, 23:4, 421-430

Lambert, L. (2007), Lasting leadership: Towards sustainable school improvement,. *Journal of Educational Change*, (Vol. 8, No. 4, pp. 311-23).

Lashway, L., (2002)., *Developing Instructional Leaders*. Eric Digest 160.

Lawler, E. (1993). *Creating the high involvement organization. In Organizing for the future* (pp. 172-193). San Francisco, CA: Jossey-Bass.

Lawler, E. E. (1986). *High-involvement management: Participative Strategies for improving organizational performance*. San Francisco, CA: Jossey-Bass.

Lawler, E. E. (1992). *The ultimate advantage: Creating the high involvement organization.* San Francisco, CA: Jossey-Bass.

Lazar, A. (2012). The Possibilities and Challenges of Developing Teachers' Social Justice Beliefs, *Online Yearbook of Urban Learning, Teaching, and Research.*

Lee, J.S. & Oxelson, E. (2006). “It’s not my job”: K-12 teacher attitudes toward students’ heritage language maintenance. *Bilingual Research Journal*, 30(2), 453-477.

Leithwood, H , Day, C., Sammons, P., Harris, A., & Hopkins. D. 2006. Successful school leadership: What it is and how it influences pupil learning. London: *DfES and Nottingham” NCSL.*

Leithwood, H. (1992) ‘The Move towards Transformational Leadership’, *Educational Leadership*, 49(5): 8-12.

Leithwood, K., & Jantzi, D, (2006). Transformational school leadership for large-scale reform: *Effects on students, teachers, and their classroom practices.* Vol. 17, No. 2, June 2006, pp. 201 – 227.

Leithwood, K., & C. Riehl. (2005) What we know about successful school leadership. *In a new agenda: directions for research on educational leadership*, eds W.Firestone, and C. Riehl. New York: Teachers College Press.

Leithwood, K., Harris, A., & Hopkins, D. (2008). The impact of school leadership on student outcomes *School Leadership & Management: Formerly School Organisation* (Volume 28, Issue 1) (2008).

Levine, A. (2005). Educating schools leaders: Education school project. *Teacher's College. Columbia University. www.edschools.org/pdf/Final313.pdf. Retreived on 15th June, 2013.*

Levine, D., & Lezotte, L. (1990). Unusually effective schools: *A review and analysis of research and practice.* Madison, WI: The National Center for Research and Development.

Lomotey, K. (1989). *African-American Principals School Leadership and Success.* New York: Greenwood Press.

Lord, B., & Miller, B. (2002). *Teacher Leadership: An Appealing and Inescapable Force in School Reform?*, Education Development Center, Newton, MA.

Lord, B., Cress, K., & Miller, B. (2003). Teacher Leadership as Classroom Support: *The Challenges of Scale and Feedback in Mathematics and Science Education Reform.*

MacBeath, (1988) & Harris, A. (2002). *Effective Leadership for School Improvement.* Cited by Harris, A., Day, C., Hopkins, D., Hadfield, M., Hargreaves, A., Chapman. C.

Marks, H.M., & Printy, S. (2003). "Principal leadership and school performance: An integration of transformational and instructional leadership", *Educational Administration Quarterly*, Vol. 39 No. 3, pp. 370-97.

Marks, H. M., & Nance, J. (2007). Contexts of accountability under systemic reform: Implications for principal influence on instruction and supervision. *Educational Administration Quarterly* 43, no. 1: 3_37.

Massell, D. (2000).The District Role in Building Capacity: Four Strategies, *CPRE Policy Briefs, Graduate School of Education*, University of Pennsylvania, RB-32-September 2000.

Mayer, J.W (1992) in Hopkins, D. and Jackson, D. (2002) 'Building the Capacity for Leading and Learning'. London: Routledge Falmer. *School Improvement for Real.*

Mayotte, Dan Wei, Lamphier., & Doyle (2013). Enhancing Capacity to Improve Student Learning. Catholic Education: *A Journal of Inquiry and Practice*, Vol. 16, No. 2, March 2013, 264-287.

Meadows, J. L., & Knapp, M.S. (2005). Policy Practice Connections in State Standard-Based Reform: *International Handbook of Educational Policy*, 133-158. Springer.

Micheal, C., & Sackney, L. (2000). (as cited in Hadfield, M, 2003) *Building Capacity versus growing schools*. RoutledgeFalmer.

Mitchell, C., & Sackney, L. (2000). *Profound Improvement: Building Capacity for a Learning Community*. Lisse: Swets & Zeitlinger.

Muijs, D., & Harris, A. (2003). Teacher leadership—Improvement through empowerment? An overview of the literature. *Educational Management Administration & Leadership*, 31(4), 437-448.

Mukherjee, H., & Singh, J. S. (1983). The new primary school curriculum project: Malaysia, 1982. *International Review of Education*, 29(2), 247-257.

Mustafa, Y. & Gökhan, B. (2010). Perceptions of elementary teachers on the instructional leadership role of school principals. *US-China Education Review*, Volume 7, No.4.

National Association of Elementary School Principals. (2001). Leading learning communities standards for what principals should know and be able to do. Alexandria, Virginia: *National Association of Elementary School Principals.*

No Child Left Behind Act of 2001, P.L. 107-110 (2002). Retrieved on Mac 5, 2014 from http://www.ed.gov/legislation/ESEA02/107-110.pdf.

NCSL (2006) 'School leaders leading the system'., *NCSL's Leadership Network in conference*. New York: Teachers College Press

Newmann, F.M., King, M.B. & Youngs, P. (2000), "Professional development that addresses school capacity: lessons from urban elementary schools", *American Journal of Education*, Vol.108 No. 4, pp. 259-99.

Newmann, F.M., Marks, H.M & Gamoran (1995). A Authentic Pedagogy: Standards That Boost Student Performance. *Center On Organization And Restructuring Of Schools*., Issue Report No. 8 Spring.

Noraini, A. & Hamidon, K (2011). Memperkasakan sekolah melalui coaching and mentoring, *Jurnal Pengurusan dan Kepimpinan Pendidikan*, Jilid 21, Bil 1, ms. 25-46.

O'Day, J., Goertz, M. E., & Floden, R. E. (1995). *CPRE Policy Brief: Building Capacity for Education Reform. Retrieved 20 Jun 2010, from http://www.ed.gov/pubs/CPRE/rb 18/index.html*.

Omar, Kuan, Kamaruzaman, Marinah, & Jamal, (2011). Teacher Capacity Building in Teaching and Learning: *The Changing Role of School Leadership* (Volume 9 Issue 1) Winter (2011).

Pajak, E. (1990). *Identification of Dimensions of Supervisory Practice in Education: Reviewing the Literature.*

Papalewis, R., & Fortune, R. (2002). *Leadership on Purpose*. Thousand Oaks, CA: Corwin Press.

Patterson, J., & Marshall, C. (2001). Making sense of policy paradoxes: A case study of teacher leadership. *Journal of School Leadership.* 11, 372–398.

Pavlik, S. (1988) 'Beyond the Common Ground: Characteristics of Effective Indian School Administrators', *Journal of American Indian Education* 27(3): 16–23.

Petty, R. E., & Cacioppo, J. T. (1986). *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. New York: Springer.

Philips, J., (2003) Powerful Learning: Creating Learning Communities in Urban schools Reform., *Journal of Curriculum and Supervision*, Spring. Vol 18 No 3. 240- 258.

Printy, S.M. (2008). Leadership for teacher learning: A community of practice perspective. *Educational Administration Quarterly* 44, no. 2: 187_226.

Rinehart, S. T. (1998). *Upside down: The Paradox of Servant Leadership*. NavPress Publishing Group, Colorado, Spring, CO.

Robert F. R, (2001) "The role of values in servant leadership", *Leadership & Organization Development Journal*, Vol. 22 Iss: 2, pp.76 - 84

Rosenshine, B. (1986) Synthesis of Research on Explicit Teaching., *Educational Leadership*, April 1986, p. 60-69.

Ross, J.A. & Gray, P. (2006). School leadership and student achievement: The mediating effects of teacher beliefs. *Canadian Journal of Education*, 29, 3, pp. 798 – 822.

Sammons, P., Thomas, S., & Mortimore, P. (1997). Forging Links: Effective Schools and Effective Departments, London, Paul Chapman Publishing. Cited in *Changing context of Leadership: Research, Theory and Practice.*

Sathiamoorthy Kannan., Hussein Mahmood & Rahimah Ahmad (2010). *Approaches and Practices of Malaysian Secondary School Principals in Improving Academic Achievement.*

Sebring, P.B., & Bryk, A.S. (2000). *School leadership and the bottom line in chicago*. Phi Delta Kappan, 81(6), 440-443.

Sergiovanni, T.J. (1992) *Moral Leadership: Getting to the Heart of School Improvement*, San Francisco, Jossey-Bass.

Sharrat, L., & Fullan, M. (2009). *Realization: The Change Imperative for Deepening District Wide Reform*, Corwin Press, Thousand Oaks: CA

Showers, J. & Joyce, B. (1996). The evolution of peer coaching. *Educational Leadership, 53*(6), 12–16.

Shulman, L., (1986). Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Journal Review (online)* Volume 57. no 1. spring.

Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57,1-22.

Smith, W. F., & Andrews, R. L. (1989). Instructional leadership: How principals make a difference. Alexandria, V.A: *Association for Supervision and Curriculum Development*.

Smylie, M. A., Miretzky, D., & Konkol, P. (2004). Rethinking Teacher Workforce Strategies for Improving Schools, *A Handbook For School Improvement Partners,* October 2004.

Sparrow, J. (2013). "Creating and sustaining meaningful engagement: what managers need to develop in their five roles as engagers", *Development and Learning in Organizations*, Vol. 27 Iss: 3, pp.8 – 10

Spillane, J. P., & Zeuli, J. S. (1999). Reform and teaching: Exploring patterns of practice in the context of national and state mathematics reforms. *Educational Evaluation and Policy Analysis*, 21(1), 1-27.

Spillane, J.P. (2001). *Investigating school leadership practice: A distributed perspective. Educational Researcher* 30, no. 3: 23-8

Stewart, T. A. (1997, 2001). *Intellectual Capital: The new wealth of the organization.* London: Nicholas Brealey. Publishing Limited.

Stoll, L., & Seashore Louis, K. (2007). *Professional Learning Communities: Divergence, Depth and Dilemmas*. Open University Press: Maidenhead.

Temel, Ç., Ferudun, S., Ali Çağatay, K., & Hasan, K. (2012). Examination of relationships between instructional leadership of school principals and self-efficacy of teachers and collective teacher efficacy, *Educational Sciences: Theory & Practice* - 12(4) • Autumn • 2498-2504.

Thoonen, E. E. J., et al. (2012). "Building school-wide capacity for improvement: the role of leadership, school organizational conditions, and teacher factors." *School Effectiveness and School Improvement* 23(4): 441-460.

Todaro, M. P. & Smith, S. C. (2012). *Economic Development*. (11th edition), Boston: Addison-Wesley.

Tschannen-Moran, M., & Hoy, W. (1998). Trust in schools: A conceptual and empirical analysis. *Journal of Educational Administration*, 36, 334-352.

Veale, D.J., & Wachtel, J.M. (1996) "Mentoring and coaching as part of a human resource development strategy: an example at Coca-Cola Foods", *Management Development Review*, Vol. 9 Iss: 6, pp.19 – 24.

Walker, A. (2010), “Building and leading learning cultures”, in Bush, T., Bell, L. and Middlewood, D. (Eds), *The Principles of Educational Leadership and Management*, 2nd ed., Sage, London, pp. 176-98.

Weber, G. (1971). *Inner city children can be taught to read: four successful schools, occasional Paper* No. 18, (Washington, DC, Council for Public Education).

Whitaker, B. (1997). Instructional leadership and principal visibility. *Clearing House* ,70(3), 155-157.

Wood, D. 2007. Teachers’ learning communities: Catalyst for change or a new infrastructure for the status quo? *Teachers College Record 109*, no. 3: 699_739.

Yu, H., Leithwood, K., & Jantzi, D. (2002). "The effects of transformational leadership on teachers’ commitment to change in Hong Kong", *Journal of Educational Administration*, Vol. 40 Iss: 4, pp.368 – 389.

Yukl, G. 1989. *Leadership in organizations*, 2nd ed. Englewood Cliffs, NJ: Prentice Hall.

Zeichner, K. M., (2003) Teacher research as professional development for P–12 educators in the USA[1] , *Educational Action Research*, 11:2, 301-326.

Appendix A

7 July 2011

Dear *Principal*,

I am a PhD student in the Institute of Principalship Studies at University of Malaya conducting research entitled "**Teacher Capacity Building: Principals' Involvement and their Strategies**." My name is Nedujchelyn Malayalam.

The purpose of this study is to gather information about Teacher Capacity Building in Malaysian secondary schools. These findings are particularly important for the school leadership reform efforts that are currently taking place.

In this study, **Teacher Capacity Building** refers to the four dimensions namely: **knowledge** (*pengetahuan*), **skills** (*kemahiran*), **disposition** (*sikap*) and **view of self** (*kepercayaan mengenai peranan*).

Since you have been selected as a sample, your response is extremely important as representations for Principals' Teacher Capacity Building Involvement and Strategies across the country. Further, I assure that all your responses will be kept strictly confidential and will not be provided to any individuals or group.

Please return the completed questionnaire in the enclosed self-addressed and stamped envelope attached as soon as possible. Thanking you in anticipation for participating in this important study.

Thank you

Yours sincerely,

Nedujchelyn Malayalam, (PhD Student), Institute of Educational Leadership , University of Malaya.

* **Please note this envelope contains ONE (1) set of instrument as below:**

Questionnaire for Principals (only for the Principal to respond)

(This questionnaire is to be responded by the principal only. In the absence of a principal the senior assistant can respond)

INSRUMENT A

Questionnaire for Principals

(Teacher Capacity Building: Principals' Involvement and Strategies)

This questionnaire is not an evaluation of your school leadership. The main focus of this survey is to understand how you, as a principal, are building the teacher capacity in your school for better student learning. Please respond as sincerely as possible. Thank you.

Section A (Demography)

Please tick (/) wherever appropriate.

1. Gender: Male ( )
   Female ( )

2. The typology of your school:
   SMK _____
   SMJK _____
   SM Agama _____
   SM _____

3. How long have you been in this school as a principal?
   more than 10 years ( )
   7 to 10 years ( )
   3 to 6 years ( )
   less than 3 years ( )

4. Your highest academic qualification:
   PhD ( )
   Masters ( )
   First Degree ( )

Section B: (Principal's Involvement in building *Teachers' Knowledge)*

Instruction

*The scale below indicates **three levels of involvement** that vary in degree quite distinctly, each with some examples of descriptor actions by the principal. You are requested to read the items and then decide on the level of involvement by matching with one or more of the descriptor actions from the scale provided. Please indicate your response to each of the items by ticking (√) in the appropriate column.*

Level A	involves actions such as: ***just informing; showing some interaction; being authoritative; being highly beaurocratic; control oriented***
Level B	involves actions such as: ***organizing training; giving rewards; providing opportunity; empowering others to make related decisions***
Level C	involves actions such as: ***solving related problems; contributing to group discussions; performing a wide array of technical work-related activities; showing much patience; showing perseverance; considering his/her actions as his/her learning opportunity; showing moral commitment to group decision-making***

No.	Item My level of involvement in developing my teachers' KNOWLEDGE:	Level		
		A	B	C
1	about the subject matter			
2	to integrate curriculum within discipline			
3	to integrate curriculum across disciplines			
4	about students' differences			
5	on yearly scheme of work			
6	on daily lesson plans			
7	about learning styles			
8	about general pedagogy			
9	about subject-specific pedagogy			
10	about their role as teachers			
11	about learning objectives			
12	about thinking skills			
13	of effective planning			
14	of resources management			
15	of classroom management			
16	of effective evaluation			
17	of effective assessment			
18	of the use ICT for better teaching and learning			
19	of their role in academic leadership groups			
20	to analyze students' achievement			
21	to improve students' performance			

Section C: (Principals' involvement in building *Teachers' Skills*)

No	Item My level of involvement in developing my teachers' SKILLS in:	Level		
		A	B	C
1	utilizing the knowledge base			
2	utilizing subject matter knowledge			
3	integrating curriculum within discipline			
4	integrating curriculum across disciplines			
5	preparing lessons to cater for students' differences			
6	planning yearly scheme of work			
7	preparing daily lesson plans			
8	general pedagogy			
9	subject-specific pedagogy			
10	utilizing thinking skills			
11	effective planning			
12	classroom management			
13	effective evaluation			
14	effective assessment			
15	the use of ICT in teaching and learning			
16	understanding students abilities			
17	improving student achievement			
18	improving student performance			

Section D: (Principals' Involvement in building *Teachers' Dispositions*)

No	Items **My level of involvement in developing my teachers' ATTITUDE:**	Level		
		A	**B**	**C**
1	as an effective teacher			
2	towards the subject matter			
3	towards higher expectations upon student achievement			
4	as a facilitator for student learning			
5	towards student learning			
6	as a role model for my students			
7	towards students' learning styles			
8	towards effective planning			
9	towards effective classroom management			
10	towards effective evaluation			
11	towards effective assessment			
12	towards effective use of ICT			
13	towards higher student achievement			
14	towards better student performance			

Section E: (Principals' Involvement in building *Teachers' View of Self*)

No	Items My level of involvement in developing my teachers' VIEW OF SELF regarding their :	Level		
		A	B	C
1	capacity to teach in different ways			
2	beliefs about their role in classroom activity			
3	ability to adapt in the classroom			
4	views as a learner			
5	belief in effective evaluation			
6	belief in the effects of effective assessment			
7	belief that they could use ICT for better teaching and learning			
8	beliefs about their role in academic groups			
9	beliefs about their role in school			
10	beliefs to improve the students' abilities			
11	beliefs to improve the students' achievement			
12	beliefs to improve the students' performances			

Section F: (Principals' Strategies for Teacher Capacity Building)

Please indicate the frequency of each of the following **strategies** that you use for Teacher Capacity Building, by circling the appropriate scale shown below.

5	**Always**
4	**Often**
3	**Frequently**
2	**Seldom**
1	**Never**

No.	**Item** **As a principal, I help my teachers in building their capacity using:**	**Scale**				
1	Teaching Role models	1	2	3	4	5
2	Team building & Teacher Leadership	1	2	3	4	5
3	Continuous learning opportunities	1	2	3	4	5
4	Professional membership	1	2	3	4	5
5	Continuous professional development	1	2	3	4	5
6	Collegial conversation	1	2	3	4	5
7	Staff meeting	1	2	3	4	5
8	Staffing mix(blend personality, expertise, youth & experience)	1	2	3	4	5
9	Table talk	1	2	3	4	5
10	Face to face time	1	2	3	4	5
11	Teacher network within school	1	2	3	4	5
12	Net working with teachers from other schools	1	2	3	4	5
13	Teacher Leader (Guru Cemerlang)	1	2	3	4	5
14	Out- of- school training	1	2	3	4	5
15	Teacher Researcher	1	2	3	4	5

INSTRUMENT B

Research Questionnaire for Principals

Teacher Capacity Building:

Principals' Involvement and their Strategies

Nedujchelyn s/o Malayalam

(YHA 060002)

Supervisor:

Dr. Sathiamoorthy Kannan

Institute of Educational Leadership

University of Malaya

Questionnaire for Principals

Title : Teacher Capacity Building:
Principal's Involvement and Strategies

This is a questionnaire to understand your leadership. It's not an evaluation of your leadership, or, your school program. I would like to get a picture of your involvement for teacher capacity building. My main focus is on understanding how you, as a principal, are building your teachers' capacity.

Section A (Demography)
Please write down or tick (/) wherever appropriate.

1. Name of school : SMK _____
SMJK _____
SM Agama _____
SBP _____

2. Gender : male ( )
female ( )

3. Job title : Principal ( )
Acting Principal ( )

4. How long have you been in this school**?**
more than 10 years ( )
7 to 10 years ( )
3 to 6 years ( )
less than 3 years ( )

5. Your Highest Academic Qualification
PhD ( ) Specialization: _____
Masters ( ) Specialization: _____
First Degree ( ) state _____
Diploma ( ) state _____
Certificate ( ) state _____
Others (state) : _____

Section B:

Theme A: Principals' Involvement in building Teachers' Knowledge
(theoretical or practical understanding of a subject)

Instruction

The scale below indicates your involvement that vary in degree quite distinctly, each with some examples of descriptor actions. Please read the items and then decide on your involvement by matching with one or more of the descriptor actions. Please indicate your response to each of the items by ticking (/) in the appropriate column.

Scale:

1 - indicates your involvement is usually in the form of actions such as: just informing; showing interaction; being authoritative; being highly beurocratic and control oriented.
2 - indicates your involvement is usually in the form of actions such as: organizing training; giving rewards; providing opportunity and empowering teachers to make related decisions.
3 – indicates your involvement is usually in the form of actions such as: solving related problems; contributing to group discussions; performing a wide array of technical work-related activities; showing much patience; showing perseverance; considering any actions as my learning opportunity; showing moral commitment to group decision-making.

The level of involvement that I show in developing my teacher's knowledge .....

No	Items	Scale		
		1	2	3
1	base (subject content for better teaching)			
2	about the subject matter (knowing the facts and concepts)			
3	to integrate curriculum within discipline			
4	to integrate curriculum across disciplines			
5	about students' differences			
6	on yearly scheme of work			
7	on daily lesson plans			
8	about learning styles			
9	about general pedagogy (basic & has been serving the teacher in the teaching process)			
10	about subject-specific pedagogy			
11	about his/her role as a teacher			
12	about learning objectives			
13	about thinking skills			
14	of effective planning			
15	of resources management			
16	of classroom management			
17	of the use of ICT for teaching and learning			
18	of effective evaluation			
19	of effective assessment			
20	to analyze students' achievement			
21	to improve students' performance			
22	of his/her role in academic leadership groups			

Theme B: Principals' involvement in building Teachers' Skills

(*knowledge of how to teach or deliver***)**

Scale:

1 - indicates your involvement is usually in the form of actions such as: just informing; showing interaction; being authoritative; being highly beurocratic and control oriented.
2 - indicates your involvement is usually in the form of actions such as: organizing training; giving rewards; providing opportunity and empowering teachers to make related decisions.
3 – indicates your involvement is usually in the form of actions such as: solving related problems; contributing to group discussions; performing a wide array of technical work-related activities; showing much patience; showing perseverance; considering any actions as my learning opportunity; showing moral commitment to group decision-making.

The level of involvement that I show in developing my teacher's skills in ……..

No	Items	Scale		
		1	2	3
1	utilizing knowledge base (subject content for better teaching)			
2	utilizing subject matter knowledge (the facts and concepts)			
3	Integrating curriculum within discipline			
4	Integrating curriculum across disciplines			
5	preparing lessons to cater for students differences			
6	planning yearly scheme of work			
7	preparing daily lesson plans			
8	general pedagogy			
9	subject-specific pedagogy			
10	utilizing thinking skills			
11	effective planning			
12	classroom management			
13	the use of ICT in teaching and learning			
14	understanding students abilities			
15	effective assessment			
16	effective evaluation			
17	improving student achievement			
18	improving student performance			

Theme C: Principals' Involvement in building Teachers' Dispositions (attitudes towards the subject matter and students)

Scale:

1 - indicates your involvement is usually in the form of actions such as: just informing; showing interaction; being authoritative; being highly beurocratic and control oriented.
2 - indicates your involvement is usually in the form of actions such as: organizing training; giving rewards; providing opportunity and empowering teachers to make related decisions.
3 – indicates your involvement is usually in the form of actions such as: solving related problems; contributing to group discussions; performing a wide array of technical work-related activities; showing much patience; showing perseverance; considering any actions as my learning opportunity; showing moral commitment to group decision-making.

The level of involvement that I show in developing my teacher's attitude …….

No	Items	Scale		
		1	2	3
1	as an effective teacher			
2	towards the subject matter			
3	For effective teaching			
4	as a facilitator for student learning			
5	towards students' better learning			
6	as a role model for my students			
7	towards students' different learning styles			
8	towards effective planning			
9	towards effective classroom management			
10	towards effective evaluation			
11	towards effective assessment			
12	towards effective use of ICT			
13	for high expectations of student achievement			
14	for high expectations of student performance			

Theme D: Principals' Involvement in building Teachers' Views of Self (beliefs about their role for student learning)

Scale:

1 - indicates your involvement is usually in the form of actions such as: just informing; showing interaction; being authoritative; being highly beurocratic and control oriented.
2 - indicates your involvement is usually in the form of actions such as: organizing training; giving rewards; providing opportunity and empowering teachers to make related decisions.
3 – indicates your involvement is usually in the form of actions such as: solving related problems; contributing to group discussions; performing a wide array of technical work-related activities; showing much patience; showing perseverance; considering any actions as my learning opportunity; showing moral commitment to group decision-making.

The level of involvement that I show in developing my teacher's beliefs about his/her …….

No	Items	Scale		
		1	2	3
1	capacity to teach in different ways			
2	role in classroom activity			
3	persona that I adopt in the classroom			
4	ability as a learner			
5	effective evaluation			
6	effective assessment			
7	effective use of ICT for teaching and learning			
8	ability to improve my students abilities			
9	ability to improve my students achievement			
10	ability to improve my students performances			
11	effective role in academic groups			
12	effective role in school			

Section C:

Teacher Capacity Building: Strategies

(specific actions that are taken by principals for Teacher Capacity Building)

Instruction

Please read every statement and circle the appropriate scale.

Scale

1 never
2 seldom
3 occasionally
4 frequently
5 always

I have implemented the strategies below to help build my teacher's capacity:

		Scale				
a	Teaching Role models (*observing teaching, spending time in the classroom to know what is going on and helping teachers with their instructional efforts*)	1	2	3	4	5
b	Team building *(introducing practices that recognize and acknowledge the needs and dignity of the staff, including shared decision making, shared problem solving and a lot of open communication)*	1	2	3	4	5
c	Continuous learning opportunities *(inviting teachers to continue to meet in study groups and reflecting on the strategies they have implemented in the classrooms)*	1	2	3	4	5
d	Professional membership (*creating opportunities for teachers to work together with educational groups*)	1	2	3	4	5
e	Continuous professional development (*creating a culture of adult learning of your teachers*)	1	2	3	4	5
f	Collegial conversation (*organizing avenues for teachers to explain situations in class on a particular day of what students did, and how the teachers handled it. Then the colleagues respond by giving feedback and suggestions*)	1	2	3	4	5

g	Staff meeting (*Updating the Status of School's Goals; Present Mini Case Studies- new things they've learned about the teaching profession during the previous week; Share Reports and Presentations; Discuss Process Improvement)*	1	2	3	4	5
h	Staffing mix (*blending personality, expertise, experience of senior teachers with new teachers*)	1	2	3	4	5
i	Supervising (*instructional observation, service to teachers, personal development; refining their skills, elaborate discipline-specific knowledge, technical competencies; promoting commitment to the field and position, enhances motivation*)	1	2	3	4	5
j	Coaching/mentoring (*watching teacher's lessons, preparing and giving instructional presentations; speaking on one-to-one about classroom methods; observing one another regularly and providing feedback in an internal, critical friend)*	1	2	3	4	5
k	Table talk (*casually converseing about teaching & student learning, may be in the canteen, staff room or corridors*)	1	2	3	4	5
l	Face to face time (*supporing the teachers individually with close care for learning improvement*)	1	2	3	4	5
m	Teacher network/ Networking (*assisting teachers in collaborating with other learning groups and using networks as the main source of improvement*)	1	2	3	4	5
n	Teacher leader (*creating opportunities for teachers to become excellent teachers*)	1	2	3	4	5
p	Teacher's teacher (*organizing avenues for experienced teachers to guide teachers facing challenges in teaching and learning*)	1	2	3	4	5
q	Teacher researcher (*promoting action research and other relevant research for teaching and learning*)	1	2	3	4	5

Thank You Very Much

The Interview Protocol

A. Interview protocol

This is a visit to get acquainted. It's not an evaluation of you, or, of your school program. I would like to get a picture of teacher capacity building in your school. My main focus is on how you have worked along with the other people for student learning. I want to understand the story since you were here. I have a number of specific questions to ask.

1. Background

a. Name of Principal : _____

b. Name of school : _____

c. Job title : _____

d. How long have you been teaching? _____

e. How long have you been the principal of this school? _____
Other position held _____ School _____

f. Educational background. (refer to questionnaire)
i. Degree _____
ii. Major _____

g. Leadership training attended_____+

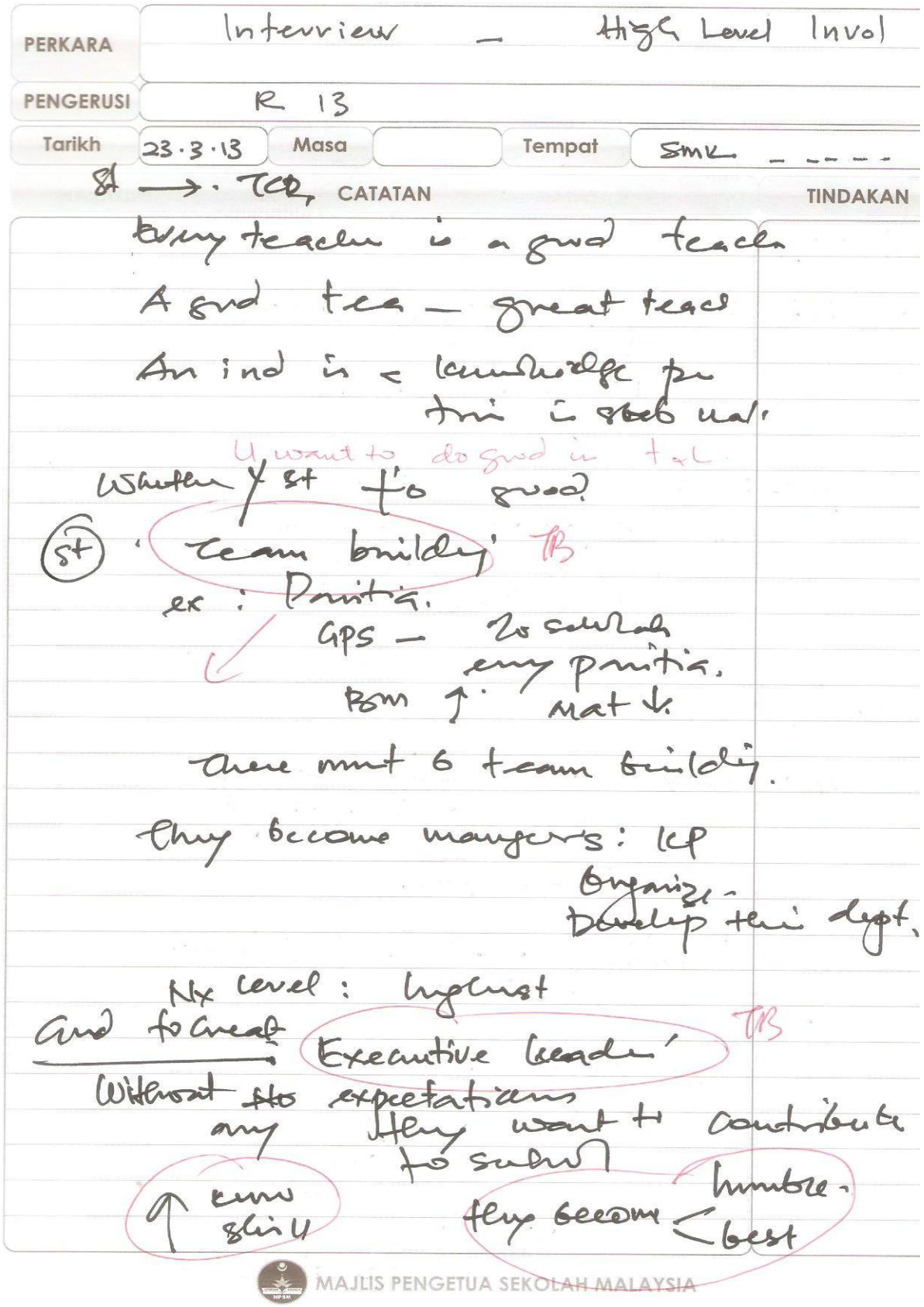
2. Strategies for Teacher Capacity Building

- Tell me about your experience(s) with the strategies for TCB.
- What is the most prominent strategy that you use in your school for TCB?
- Describe how this strategy is used in your school.
- Describe how the use of this strategy has helped in TCB.
- Where have you learnt about this strategy?
- What barriers do you see to the implementation of utilizing this strategy for TCB?
- Do you have any additional comments?.

APPENDIX B

INTERVIEW

NOTES



CATATAN | TINDAKAN

Drama - Tempul Telips
Clums Specialj Kilup
Olahraga N.J.

bef this always Cont.

12 gold
15 sil.
10 Gms.

St: Face 2 face. -

We will call Leader.
Fotbal Tea -
What is ur target.
Olahraga -
What is ur st 2013.

Cingn talin I give u
5 days.
I want u what will I do.
* Train 5 stn.
target 10 gold

I give option.
He went & prepared

APPENDIX C

SAMPLE SCHOOLS

Northern Zone Schools

No	Code	Name	Add
1	5 REA0076	SMK KUALA PERLIS	JLN KUALA PERLIS 02000 KUALA PERLIS 049854212 Bandar 1318 100
2	8 REA0079	SMK SANGLANG	KG RAMA 02800 SIMPANG EMPAT049809316 Luar Bandar 423 50
3	10 REA0081	SMK PADANG BESAR UTARA	JALAN PADANG BESAR 02100 PADANG BESAR 049492959 Luar Bandar 695 70
4	16 REE0059	SMK DERMA	JALAN PENJARA 01000 KANGAR 049761202 Bandar 800 75
5	23 RFT0002	SMA AL MADRASAH AL ALAWIYAH AD DINIAH	DEPAN POLIKLINIK ARAU, JALAN BESAR, 02600 ARAU 049861
6	27 RRA0002	SMKA (P) ALAWIYAH PERSIARAN JUBLI EMAS	01000 KANGAR 049760336 Bandar 809 73
7	PEA0001	SMK PRAI	PERAI 13700 PERAI 043903099 LUAR BANDAR 581 46
8	7 PEA0007	SMK TAMAN INDERAWASIH	TAMAN INDERAWASIH 13600 PERAI 043973561 Luar Bandar 732 59
9	9 PEA0009	SMK MENGKUANG	MENGKUANG 14000 BUKIT MERTAJAM 045223651 Luar Bandar 847 73
10	21 PEA1092	SMK HUTCHINGS	LEBOH FARQUHAR 10200 GEORGETOWN 042611425 Bandar 323 38
11	24 PEA1210	SMK HAMID KHAN	LORONG DELIMA 8,TAMAN MUTIARA, 11700 GEORGETOWN 046585462 Bandar 914 51
12	28 PEA2051	SMK PERMATANG TOK JAYA	SUNGAI DUA 13800 BUTTERWORTH 043564060 Luar Bandar 1211 100
13	29 PEA2052	SMK DATUK HAJI AHMAD SAID	SUNGAI DUA 13800 BUTTERWORTH 043563994 Luar Bandar 777 64
14	31 PEA2054	SMK DATUK HAJI AHMAD BADAWI	JALAN DATUK HAJI AHMAD BADAWI 13200 KEPALA BATAS 045751142 Bar
15	35 PEA2058	SMK PAYA KELADI PENGETUA	SMK PAYA KELADI 13200 KEPALA BATAS 045753894 Luar Bandar 929 66
16	38 PEA2084	SMK POKOK SENA	POKOK SENA 13220 KEPALA BATAS 045735844 Luar Bandar 972 72
17	41 PEA2087	SMK KEPALA BATAS	JALAN TIGA 13200 KEPALA BATAS 045792911 Bandar 590 52
18	50 PEA3036	SMK TELUK BAHANG	TELUK BAHANG 11050 TELUK BAHANG 048814636 Luar Bandar 578 51
19	52 PEA3038	SMK PONDOK UPEH	SMK PONDOK UPEH 11000 BALIK PULAU 048660217 Bandar 233 20
20	54 PEA4002	SMK VALDOR	JALAN VALDOR, SUNGAI BAKAP, 14200 SUNGAI JAWI 045821037 Bandar 1570 94
21	71 PEB1097	SMK CONVENT GREEN LANE	JLN MASJID NEGERI 11600 GEORGETOWN 042814842 Bandar 1101 68
22	72 PEB1098	SMJK CONVENT DATUK KERAMAT	421, JALAN DATUK KERAMAT 10150 GEORGETOWN 042279908 Bandar 1238 7
23	77 PEB1106	SMK (L) METHODIST	250 JLN AYER ITAM 10460 GEORGETOWN 042293986 Bandar 1525 117
24	78 PEB1107	SMK (P) METHODIST	42 JALAN ANSON 10400 GEORGETOWN 042263073 Bandar 675 48
25	96 PEE1092	SMK TANJONG BUNGA	JALAN TAN JIT SENG 11200 TANJUNG BUNGAH 048908377 Bandar 381 40
26	99 PEE1111	SMK HAJI ZAINUL ABIDIN	JALAN HAMILTON 11600 GEORGETOWN 042827933 Bandar 578 61
27	108 PFT0003	SM ISLAM AL-MASRIYAH	1267,JALAN ABDUL KADIR 14000 BUKIT MERTAJAM 045385126 Bandar 432 29
28	115 PFT3001	SMA MAAHAD AL MASHOOR AL ISLAMI	SUNGAI BATU, TELUK KUMBAR 11920 BAYAN LEPAS 046491191 Luar
29	116 PKA0001	SMT SEBERANG PERAI	BUKIT MINYAK 14000 BUKIT MERTAJAM 045022079 Luar Bandar 597 67
30	118 PKA4001	SMT NIBONG TEBAL	JALAN BUKIT PANCHOR 14300 NIBONG TEBAL 045932904 Luar Bandar 557 94
31	125 PRA4001	SMKA NIBONG TEBAL	JALAN PERMATANG TOK MAHAT 14300 NIBONG TEBAL 057172403 Bandar 681 61
32	KEA0035	SMK BALING	JALAN KULIM BALING 09100 BALING 044701218 Bandar 1191 102

5 KEA0067 SMK JERAI KUPANG 09200 KUPANG 044767226 Luar Bandar 1027 69

6 KEA0068 SMK PARIT PANJANG JALAN PARIT PANJANG 09200 KUPANG 044721422 Luar Bandar 1020 71

9 KEA0071 SMK BAKAI MUKIM BAKAI 09300 KUALA KETIL 044430586 Luar Bandar 900 63

22 KEA2178 SMK JABI POKOK SENA 06400 POKOK SENA 047876755 Luar Bandar 995 80

26 KEA2182 SMK SIMPANG KUALA JALAN ALOR MENGKUDU 05400 ALOR STAR 047344732 Bandar 702 63

28 KEA2184 SMK BUKIT PAYONG BUKIT PAYONG, JALAN NAKA, 06400 POKOK SENA 047822105 Luar Bandar 688 53

30 KEA2186 SMK HUTAN KAMPONG JALAN HUTAN KAMPONG 05350 ALOR STAR 047203381 Bandar 664 58

35 KEA3107 SMK KOTA KUALA MUDA JALAN PANTAI MERDEKA, 08500 KOTA KUALA MUDA 044374224 Luar Bandar 1624 11

41 KEA3113 SMK SUNGAI LAYAR SUNGAI PETANI 08000 SUNGAI PETANI 044239581 Bandar 1960 133

56 KEA4065 SMK BANDAR BARU SINTOK JALAN SINTOK 06010 SINTOK 049241028 Luar Bandar 658 55

62 KEA5025 SMK DATO LELA PAHLAWAN JALAN SIDAM KANAN 09400 PADANG SERAI 044857140 Luar Bandar 1885 119

71 KEA5074 SMK AIR MERAH JALAN TAMAN SELASIH 09000 KULIM 044957031 Bandar 1175 73

74 KEA6014 SMK AYER HANGAT MUKIM AYER HANGAT 07000 LANGKAWI 049561170 Luar Bandar 730 57

80 KEA7018 SMK LUBOK MERBAU FELDA LUBOK MERBAU, 06710 PENDANG 047520933 Luar Bandar 760 52

85 KEA8020 SMK SERI ENGGANG BATU LIMA, JALAN BATU LIMA SIK 08200 SIK 044625495 Luar Bandar 1216 75

103 KEB2094 SMK KEAT HWA 1 (CF) JALAN KUALA KEDAH 05400 ALOR STAR 047722053 Bandar 2474 139

108 KEB2099 SMK TUNKU ABDUL RAHMAN JALAN PUTRA,MERGONG 05150 ALOR STAR 047204880 Bandar 1573 104

117 KEB5027 SMK SULTAN BADLISHAH JALAN LUNAS, 09000 KULIM 044903709 Bandar 1462 107

163 KFT7002 SMA MA'AHAD TAHFIZ AL-ABIDIN KAMPUNG CERUK MANGGIS POKOK TAI 06720 PENDANG 044619697 Luar B

168 KKA3002 SM TEKNIK SUNGAI PETANI 1 LOT 82, KG. SG. TUKANG, 08000 SUNGAI PETANI 044428972 Bandar 491 74

169 KKA5001 SM TEKNIK KULIM JALAN JUNJONG 09000 KULIM 044905432 Bandar 783 124

171 KKE2156 SM TEKNIK ALOR SETAR LEBUHRAYA SULTAN ABDUL HALIM 05400 ALOR SETAR 047721548 Bandar 628 77

172 KKE2159 SM TEKNIK JALAN STADIUM JALAN STADIUM 05100 ALOR SETAR 047333363 Bandar 530 112

176 KRA8001 SMK AGAMA SIK SIK, 08200 SIK 044693270 Bandar 695 62

177 KRA9001 SMK AGAMA YAN TITI SERONG 06900 YAN 044657366 Luar Bandar 802 57

Eastern Zone Schools

No	Code	Name	Add	Tel
1	2 DEA0032	SMK NIPAH	JALAN NIPAH 16300 BACHOK	097787304 Bandar 1003 70
2	4 DEA0034	SMK LONG YUNUS	BERIS KUBOR BESAR 16350 BACHOK	097788358 Luar Bandar 1625 108
3	7 DEA0037	SMK PAK BADOL	KG. PAK BADOL,MELOR 16400 KOTA BHARU	097835303 Luar Bandar 1053 72
4	9 DEA0039	SMK KANDIS	KG KANDIS, TELONG 16310 BACHOK	097787298 Luar Bandar 932 61
5	13 DEA1122	SMK KEDAI BULOH	JALAN KUALA BESAR,KEDAI BULOH 15350 KOTA BHARU	097741904 Luar Bandar 2018 139
6	18 DEA1128	SMK LONG GAFAR	KUBANG KERANJI 16150 KOTA BHARU	097652837 Luar Bandar 1541 114
7	33 DEA1145	SMK PENAMBANG	JALAN PANTAI CAHAYA BULAN 15350 KOTA BHARU	097479757 Bandar 991 74
8	35 DEA1147	SMK SERING	JALAN RAJA SAKTI OFF JALAN RAJA BAHAR 16150 KOTA BHARU	097766819 Luar Bandar 899 69
9	40 DEA2189	SMK MACHANG	JALAN KOTA BHARU, KWENG HITAM. 18500 MACHANG	099751235 Bandar 1843 144
10	49 DEA3241	SMK TENGKU PANGLIMA RAJA	17000 PASIR MAS	097922440 Luar Bandar 1785 116
11	54 DEA3422	SMK TIANG CHANDI	17070,PASIR MAS, KELANTAN. 17070 PASIR MAS	097907586 Luar Bandar 1017 69
12	66 DEA4293	SMK SRI MAHARAJA	BUKIT ABAL, SELISING, 16810 PASIR PUTEH	097522241 Luar Bandar 874 61
13	90 DEA7407	SMK KUALA KRAI	KUALA KRAI KELANTAN 18000 KUALA KRAI	099602291 Luar Bandar 1507 104
14	105 DEA9001	SMK AYER LANAS	KM40 JALAN JELI TANAH MERAH 17700 AYER LANAS	099468234 Luar Bandar 1270 104
15	107 DEA9003	SMK KUALA BALAH	KM 35 KG TG ABDUL RAHMAN JLN JELI-DABONG 17610 KUALA BALAH	099361044 Luar
16	112 DEB1142	SMK ZAINAB (1)	JALAN TELIPOT 15150 KOTA BHARU	097418643 Bandar 1092 94
17	117 DEE1133	SMK PENGKALAN CHEPA	JALAN MAKTAB 16100 KOTA BHARU	097713840 Luar Bandar 1869 130
18	121 DEE2191	SMK HAMZAH	JALAN BAHAGIA 18500 MACHANG	099751300 Bandar 2038 147
19	128 DFT0001	SMU(A) DARUL ULUM ALMUHAMMADIAH (SABK)	KOLAM, PAK BADOL 16400 KOTA BHARU	097538401 Luar
20	131 DFT1002	SM UGAMA (ARAB) AL-YUNUSIAH	KAMPUNG PANJANG BANGGU 16150 KOTA BHARU	09-7666430Luar Bandar
21	139 DFT4002	SMU(A) TARBIAH ISLAMIAH	KAMPUNG LEPAH, SELISING 16810 PASIR PUTEH	097535553 Luar Bandar 156 16
22	144 DFT5004	SMU (ARAB) ARABIAH	KG. TERNANG, GUAL IPOH, 17500 TANAH MERAH	09-9570143Luar Bandar 53 10
23	154 DRA0001	SMK(A) TOK BACHOK	TANGOK 16310 BACHOK	097787242 Luar Bandar 690 58
24	13 TEA0078	SMK TOK DOR	KG TOK DOR 22020 JERTEH	096924969 Luar Bandar 577 47
25	15 TEA1029	SMK TENGKU INTAN ZAHARAH	DUNGUN 23000 DUNGUN	098481834 Bandar 957 95
26	16 TEA1030	SMK PAKA	JALAN SANTONG 23100 PAKA	098271662 Bandar 1156 87
27	23 TEA1037	SMK KETENGAH JAYA	BANDAR KETENGAH JAYA 23300 DUNGUN	098200150 Luar Bandar 733 65
28	29 TEA1043	SMK BALAI BESAR	KAMPUNG BALAI BESAR 23000 DUNGUN	098457600 Bandar 1024 68
29	34 TEA2022	SMK CHUKAI	JALAN KUBANG KURUS 24000 CHUKAI	098591301 Bandar 1113 92
30	52 TEA3085	SMK SERI BUDIMAN	LORONG BUDIMAN, 20400 KUALA TERENGGANU	096221780 Bandar 1196 82
31	54 TEA3088	SMK MANIR	KAMPUNG KUBANG JELA 21200 KUALA TERENGGANU	096152315 Bandar 1808 141
32	56 TEA3110	SMK BELARA MANIR,	21200 KUALA TERENGGANU	096152080 Bandar 2154 165
33	63 TEA3120	SMK DATO' RAZALI ISMAIL	JALAN PANJI ALAM 21100 KUALA TERENGGANU	096246885 Bandar 845 69
34	73 TEA4013	SMK BUKIT SAWA	KG BUKIT SAWA, MARANG 21400 BUKIT PAYONG	096191379 Luar Bandar 1253 90

35 80 TEA4020 SMK SERI PAYONG KAMPUNG BUKIT PAYONG 21400 MARANG 096191236 Luar Bandar 1022 71

36 82 TEA5035 SMK MATANG KAMPUNG MATANG, JALAN SUNGAI TONG 21700 KUALA BERANG 096818677 Luar Bandar 743 67

37 88 TEA5041 SMK JENAGOR KG.JENAGOR,JLN STESEN JANAELEKTRIK SULTAN MAHMUD 21700 KUALA BERANG 0968181

38 92 TEA6057 SMK TENGKU IBRAHIM BANDAR PERMAISURI, 22100 SETIU 096092323 Bandar 1089 87

39 96 TEA6083 SMK CHALOK KM 65, KG.CHALOK 21450 PERMAISURI 096576013 Luar Bandar 1030 87

40 101 TEA6088 SMK LANGKAP SUNGAI TONG 21500 PERMAISURI 098246340 Luar Bandar 279 23

41 109 TEE3105 SM (SAINS) SULTAN MAHMUD WAKAF TEMBESU, JALAN GONG BADAK, 21300 KUALA TERENGGANU 00966

42 116 TFT2001 SMA AL FALAH JALAN PADANG 24000 CHUKAI 098591515 Bandar 911 69

43 118 TFT3002 SMA (ATAS) SULTAN ZAINAL ABIDIN JALAN SULTAN MAHMUD 20400 KUALA TERENGGANU 096221086 Band

44 126 TKA1001 SM TEKNIK DUNGUN KM 5, JALAN PAKA 23000 DUNGUN 098452700 Bandar 570 73

45 130 TRA0001 SMKA NURUL ITTIFAQ KUALA BESUT 22300 JERTEH 096919624 Luar Bandar 921 79

46 1 CEA0014 SMK BENTONG KAMPUNG BENUS 28700 BENTONG 092221163 Bandar 708 58

47 6 CEA0057 SMK BUKIT TINGGI JALAN LAMA BENTONG-KUALA LUMPUR, BUKIT TINGGI, 28750 BENTONG 092330684 Luar

48 8 CEA0059 SMK KARAK SETIA KAMPONG KARAK SETIA 28600 KARAK TIADA Luar Bandar 130 18

49 9 CEA1001 SMK KAMPUNG RAJA JALAN BESAR KAMPUNG RAJA 39010 TANAH RATA 054981971 Luar Bandar 699 51

50 11 CEA2029 SMK PULAU TAWAR KAMPUNG PULAU TAWAR 27050 JERANTUT 092671171 Luar Bandar 439 41

51 16 CEA2048 SMK TEMIN KM.5 JALAN TEMERLOH 27000 JERANTUT 092662722 Bandar 1014 86

52 18 CEA2050 SMK JUBLI PERAK, SULTAN HAJI AHMAD SHAH KUALA TAHAN 27000 JERANTUT 092601130 Luar Bandar 336 35

53 28 CEA3057 SMK SERI LIPIS KM8 JALAN LIPIS PADANG TENGKU 27200 KUALA LIPIS 093101321 Luar Bandar 457 54

54 32 CEA4023 SMK ALOR AKAR JALAN TENGKU MUHAMAD 25050 KUANTAN 095666746 Bandar 935 93

55 34 CEA4026 SMK PAYA BESAR KM 7 JLN.GAMBANG 25150 KUANTAN 095365509 Bandar 1175 90

56 37 CEA4074 SMK TANJONG LUMPUR KEMPADANG 25150 KUANTAN 095341416 Luar Bandar 828 59

57 42 CEA4079 SMK TOK SERA JLN TG MUHAMAD 25050 KUANTAN 095686810 Bandar 527 47

58 49 CEA4086 SMK SERI KUANTAN BANDAR DAMANSARA 26100 KUANTAN 095602777 Luar Bandar 589 55

59 52 CEA4089 SMK SUNGAI SOI JALAN PANTAI SEPAT 25150 KUANTAN 095511954 Luar Bandar 966 63

60 59 CEA4096 SMK PADANG GARUDA JALAN LAPANGAN TERBANG SHAH KAMPUNG PANDAN 126070 KUANTAN 013965232

61 62 CEA5056 SMK PALOH HINAI PALOH HINAI 26650 PEKAN 094291235 Luar Bandar 621 49

62 68 CEA5074 SMK SERI PEKAN BANDAR BARU PERAMU 26600 PEKAN 094264221 Luar Bandar 622 58

63 78 CEA6024 SMK LKTP TERSANG FELDA TERSANG 2 27610 RAUB 093403931 Luar Bandar 757 64

64 80 CEA6026 SMK GALI KM 9 JALAN KUALA LIPIS 27600 RAUB 093630339 Luar Bandar 217 19

65 81 CEA7060 SMK KERDAU KM 18, JALAN TEMERLOH JERANTUT 28010 TEMERLOH 092846044 Luar Bandar 553 43

66 83 CEA7064 SMK KUALA KRAU KUALA KRAU,JALAN JERANTUT 28050 KUALA KRAU 092861225 Luar Bandar 1114 84

67 85 CEA7066 SMK SERI SEMANTAN BATU 2 1/2 JALAN KARAK 28400 MENTAKAB 092776408 Luar Bandar 1276 91

68 86 CEA7067 SMK SERI TUALANG KM 125 JLN PINTASAN TEMERLOH/MENTAKAB 28000 TEMERLOH 092901061 Luar Bandar

69 90 CEA7071 SMK TELUK SENTANG JALAN SEBERANG TEMERLOH 28000 TEMERLOH 092791767 Luar Bandar 416 34

70 97 CEA8019 SMK TANJUNG GEMOK KAMPUNG TANJUNG GEMOK 26820 KUALA ROMPIN 094132640 Luar Bandar 1014 75

71 99 CEA8021 SMK PERANTAU DAMAI FELDA KERATONG 10 26700 MUADZAM SHAH 094431295 Luar Bandar 719 59

72 107 CEA8029 SMK SELENDANG JALAN SEKOLAH SELENDANG 1 26800 KUALA ROMPIN 094140071 Luar Bandar 328 32

73 116 CEA9158 SMK (LKTP) JENGKA 10 FELDA JENGKA 10 26400 BANDAR JENGKA 094663320 Luar Bandar 220 27

74 119 CEA9162 SMK JENGKA PUSAT 2 LINTASAN SEMARAK 26400 BANDAR JENGKA. 094663168 Bandar 568 50

75 131 CEAA159 SMK KEMAYAN KEMAYAN 28380 KEMAYAN 092408501 Luar Bandar 793 55

76 143 CEB4032 SMK SULTAN ABU BAKAR JALAN BESERAH 25300 KUANTAN 095665759 Bandar 1279 120

77 145 CEB4034 SMK (P) METHODIST JALAN GAMBUT 25000 KUANTAN 095131989 Bandar 958 68

78 147 CEB4036 SMK TANAH PUTEH JALAN TANAH PUTIH 25100 KUANTAN 095131182 Bandar 2184 132

79 148 CEB4040 SMK SERI MAHKOTA KM 16, JLN GAMBANG 25150 KUANTAN 095381461 Luar Bandar 1697 122

80 153 CEB6029 SMK CHUNG CHING JALAN PEKELILING 27600 RAUB 093501120 Bandar 1209 76

81 160 CEE0018 SMK SULAIMAN KM 4, JALAN KUALA LUMPUR 28700 BENTONG 092221046 Bandar 884 92

82 176 CKA5002 SM TEKNIK MUADZAM SHAH JALAN ISTANA, PINGGIR PELANGI 26700 MUADZAM SHAH 094522788 Bandar 38

83 178 CKA8001 SMT ROMPIN JALAN ENDAU/ROMPIN 26800 KUALA ROMPIN 094146622 Luar Bandar 517 91

84 184 CRA4001 SEKOLAH BERASRAMA PENUH INTEGRASI KUANTABNANDAR INDERA MAHKOTA 25200 KUANTAN 095733

85 185 CRA5001 SEKOLAH BERASRAMA PENUH INTEGRASI PEKAN PULAU SERAI 26600 PEKAN 094101010 Luar Bandar 554 63

Central Zone Schools

No	Code	Name	Add	Tel
1	2 AEA0034	SMK KHIR JOHARI	JALAN BEROP 35900 TANJONG MALIM	054596334 Bandar 1545 124
2	4 AEA0036	SMK SLIM	JLN MELATI, TAMAN SEROJA 35800 SLIM RIVER	054528926 Luar Bandar 734 75
3	21 AEA2043	SMK JALAN PASIR PUTEH	JALAN PASIR PUTEH 31650 IPOH	052530520 Bandar 1442 98
4	27 AEA2049	SMK KG PASIR PUTEH	JALAN PENGKALAN BARAT 18 31650 IPOH	053225150 Bandar 1282 103
5	30 AEA2052	SMK SIMPANG PULAI	TAMAN PULAI JAYA 31300 KG. KEPAYANG	053575627 Bandar 1163 82
6	32 AEA2054	SMK TASEK DAMAI	JALAN TAWAS BARU UTARA 30010 IPOH	052917200 Bandar 1937 131
7	40 AEA2062	SMK JATI	TAMAN JATI 30020 IPOH	055265082 Bandar 1092 64
8	53 AEA3087	SMK KUALA KURAU	KM KE 3 DARI KUALA KURAU 34350 KUALA KURAU	057277651 Luar Bandar 599 63
9	62 AEA4087	SMK MUHIBBAH	SIMPANG JALONG 31100 SUNGAI SIPUT (U)	055951350 Bandar 686 52
10	65 AEA5072	SMK SUNGAI MANIK	SUNGAI MANIK 36000 TELUK INTAN	056221825 Luar Bandar 553 46
11	73 AEA5080	SMK SERI KANDI	JALAN PADANG TEMBAK 36000 TELUK INTAN	056221667 Bandar 618 53
12	77 AEA6048	SMK DOKTOR BURHANUDDIN	NO 58, JALAN RAJA SULONG, KG BOYAN 34000 TAIPING	058072213 Bandar 166
13	79 AEA6050	SM SAINS RAJA TUN AZLAN SHAH	PETI SURAT 79 34000 TAIPING	058083020 Bandar 657 69
14	81 AEA6052	SMK KAMUNTING	JLN KG EXPO 34600 KAMUNTING	058913723 Luar Bandar 1763 135
15	88 AEA6059	SMK TAMAN PANGLIMA ASSAM	KUMBANG 34000 TAIPING	058069786 Bandar 914 65
16	90 AEA6061	SMK MATANG	JALAN MATANG 34750 MATANG	058476877 Luar Bandar 908 69
17	96 AEA7004	SMK DATO SERI WAN MOHAMED	KG PLANG 33310 GERIK	057915644 Luar Bandar 675 56
18	107 AEA8007	SMK SUNGAI RANGGAM	KOTA SETIA 36810 KG GAJAH	056224350 Luar Bandar 469 44
19	110 AEB0036	SMK SRI TAPAH	JALAN PAHANG 35000 TAPAH	054012628 Bandar 903 72
20	120 AEB2044	SMK ST. MICHAEL	JLN DATO S P SEENIVASAGAM 30000 IPOH	052540418 Bandar 2111 140
21	124 AEB2048	SMK CONVENT	JLN SULTAN IDRIS SHAH 30000 IPOH	052494200 Bandar 1376 82
22	133 AEB2057	SMK SRI PUTERI	JALAN SUNGAI PARI 30200 IPOH	052540648 Bandar 546 40
23	137 AEB2061	SMK SERI IPOH	LEBUH JANSZ 30200 IPOH	052549207 Bandar 340 22
24	140 AEB2064	SMK ST. BERNADETTE'S CONVENT	JALAN PUSING 31000 BATU GAJAH	053661577 Bandar 1044 67
25	142 AEB2068	SMK PEI YUAN	NO 9 JALAN KUALA DIPANG 31900 KAMPAR	054661542 Bandar 1555 84
26	144 AEB3041	SMK METHODIST	JALAN SEKOLAH 34200 PARIT BUNTAR	057161062 Bandar 705 61
27	146 AEB3043	SMK SRI KURAU	JALAN SIAKAP 34300 BAGAN SERAI	057217958 Luar Bandar 1323 106
28	152 AEB4076	SMK SHING CHUNG	JALAN BESAR 31100 SUNGAI SIPUT (U)	055981353 Bandar 1915 127
29	155 AEB5166	SMK RAJA MUDA MUSA	PEKAN BARU 36000 TELUK INTAN	056221123 Bandar 1037 91
30	168 AEE0040	SMK SUNGKAI	JALAN PEKAN LAMA 35600 SUNGKAI	054386609 Luar Bandar 749 74
31	172 AEE1032	SMK RAJA SHAHRIMAN	JALAN PARIT 32700 BERUAS	056749237 Luar Bandar 632 70
32	174 AEE1037	SMK PANGKOR	JALAN PASIR BOGAK 32300 PANGKOR	056851014 Luar Bandar 839 66
33	178 AEE2070	SMK IDRIS SHAH	KOPISAN BARU 31600 GOPENG	053591314 Luar Bandar 1167 81
34	185 AEE4071	SMK RAJA PEREMPUAN KELSOM	BUKIT KERAJAAN 33000 KUALA KANGSAR	057761516 Bandar 1055 87

191 AEE5175 SMK SERI MUARA SMK SERI MUARA 36100 BAGAN DATOH 056466216 Luar Bandar 458 48

194 AEE6059 SMK DATO' HJ HUSSEIN JALAN WAN MD RAZALLI 34100 SELAMA 058394048 Bandar 1496 107

198 AEE7032 SMK SULTAN IDRIS SHAH II KAMPUNG AIR PANAS 33300 GERIK 057911393 Luar Bandar 1603 148

206 AFT2002 SABK MAAHAD AL-UMMAH JALAN JELAPANG 31200 CHEMOR 052012727 Luar Bandar 419 46

214 AFT4003 SMA MAAHAD NURUL FADZLIAH KAMPUNG KELIMAT 31120 SUNGAI SIPUT (U) 055912248 Luar Bandar 131 1

217 AFT6001 SM ADDINIAH JELUTONG, CHANGKAT JERING 34850 CHANGKAT JERING 058554667 Luar Bandar 317 28

230 AKA7001 SM TEKNIK GERIK KM 4, JALAN KUALA RUI 33300 GERIK 057916288 Bandar 357 51

232 AKB2269 SM TEKNIK IPOH PERSIARAN BRASH 31400 IPOH 055477405 Bandar 607 58

234 AKE6159 SM TEKNIK TAIPING BATU 4,KAMUNTING 34600 KAMUNTING 058839371 Luar Bandar 974 132

2 BEA0092 SMK RAJA LUMU JALAN RAJA LUMU, PANDAMARAN 42000 PELABUHAN KLANG 0331685844 Bandar 1454 93

7 BEA0097 SMK PULAU INDAH KAMPUNG SUNGAI KEMBONG, PULAU INDAH 42920 PELABUHAN KLANG 0331012046 Lua

9 BEA0100 SMK RANTAU PANJANG JALAN KAPAR 42100 KLANG 0332911004 Luar Bandar 2398 128

15 BEA0106 SMK KAMPUNG JAWA JALAN RAJA NONG 41000 KLANG 0333734348 Bandar 2080 140

18 BEA0109 SMK BANDAR BARU SULTAN SULEIMAN LEBUH SULTAN ABDUL SAMAD 42000 PELABUHAN KLANG 03317

20 BEA0111 SMK SHAHBANDARAYA JALAN RAJA NONG 41000 KLANG 0333714653 Bandar 1667 110

22 BEA1064 SMK JENJAROM KG JENJAROM 42600 JENJAROM 0331913977 Luar Bandar 1601 104

28 BEA1071 SMK BANTING TELOK DATOK, KUALA LANGAT 42700 BANTING 0331856088 Bandar 1163 77

44 BEA4604 SMK SULTAN ABDUL AZIZ SHAH (INTEG) KM 22, JALAN CHERAS 43000 KAJANG 0387376387 Bandar 2294 154

51 BEA4612 SMK TASEK PERMAI JALAN PERMAI K, 68000 AMPANG 0342961829 Bandar 950 77

53 BEA4614 SMK JALAN TIGA JALAN 3/4 43650 BANDAR BARU BANGI 0389261755 Bandar 2283 123

60 BEA4621 SMK SAUJANA IMPIAN KM22, JALAN CHERAS, 43000 KAJANG 0387397609 Bandar 2489 157

74 BEA5063 SMK SUNGAI CHOH KG. SUNGAI CHOH 48000 RAWANG 0360916081 Luar Bandar 777 69

77 BEA5066 SMK BUKIT SENTOSA BANDAR BARU BUKIT SENTOSA, 48300 RAWANG 0360283611 Luar Bandar 2019 120

79 BEA5068 SMK AMPANG PECAH JALAN HAMZAH 44000 KUALA KUBU BHARU 0360644109 Bandar 983 67

81 BEA5070 SMK BANDAR SUNGAI BUAYA BANDAR SUNGAI BUAYA 48010 RAWANG 0360285382 Luar Bandar 1028 66

87 BEA6043 SMK SUNGAI BESAR JALAN PEGAWAI 45300 SUNGAI BESAR 0332241331 Bandar 2012 177

96 BEA7606 SMK TAMAN KERAMAT JALAN ENGGANG TIMUR 4 54200 KUALA LUMPUR 0342579837 Bandar 1228 87

103 BEA7614 SMK SERI KERAMAT JALAN AU4, LEMBAH KERAMAT 54200 KUALA LUMPUR 0341065002 Bandar 1080 73

107 BEA7618 SMK BANDAR TASIK PUTERI BANDAR TASIK PUTERI 48000 RAWANG 0360342885 Luar Bandar 2022 119

115 BEA8605 SMK BUKIT GADING KM. 26, SG. PLONG 47000 SUNGAI BULOH 0360383258 Luar Bandar 2052 137

119 BEA8609 SMK BATU 8 BATU 8, JALAN PUCHONG 47100 PUCHONG 0380702830 Bandar 1510 98

132 BEA8622 SMK ALAM MEGAH JALAN SG. BATU 27/72,SEKSYEN 27 40400 SHAH ALAM 0351910709 Bandar 1285 95

135 BEA8625 SMK SS 17 JALAN SS 17/1 SUBANG JAYA 47500 SUBANG JAYA 0356338747 Bandar 1003 97

139 BEA8629 SMK SEKSYEN 9 JALAN TENGKU AMPUAN RAHIMAH 9/20 40100 SHAH ALAM 0355129942 Bandar 1665 119

141 BEA8631 SMK BANDAR UTAMA 1 PINTASAN BANDAR UTAMA 47800 PETALING JAYA 0377252829 Bandar 873 75

145 BEA8635 SMK USJ 12 PERSIARAN SETIA, USJ12 47630 UEP SUBANG JAYA 0380233236 Bandar 2253 122

152 BEA8642 SMK USJ 23 JALAN HARMONI 47640 SUBANG JAYA 0380235014 Bandar 1216 94

171 BEA8663 SMK PUCHONG PERMAI LOT 65079, PERSIARAN PRIMA UTAMA, TMN PUCHONG PRIM47150 PUCHONG 0380

173 BEA9602 SMK SERI SEPANG BANDAR BARU SALAK TINGGI 43900 SEPANG 0387061077 Bandar 1596 111

180 BEB0099 SMK METHODIST (ACS) JALAN RAYA BARAT 41000 KLANG 0333718814 Bandar 1440 108

190 BEB0110 SMK MERU BATU 7, PEKAN MERU 41050 KLANG 0333921035 Bandar 3883 207

197 BEB3078 SMK SULTAN ABDUL AZIZ JALAN DATO' HAMZAH 45000 KUALA SELANGOR 0332891380 Bandar 1700 126

203 BEB4071 SMK JALAN BUKIT JALAN BUKIT 43000 KAJANG 0387331235 Bandar 2074 130

212 BEB7654 SMK SERI GARING JALAN KUALA GARING 48000 RAWANG 0360916491 Bandar 3275 193

214BEB8651 SMK ASSUNTA JALAN CHANGGAI 46000 PETALING JAYA 0379575745 Bandar 1776 105

229 BFT1002 SAMT TENGKU AMPUAN RAHIMAH SUNGAI MANGGIS 42700 BANTING 60331872396Bandar 1086 72

242 BFT7001 SAM RAWANG BATU 16 JALAN IPOH 48000 RAWANG 0360918934 Bandar 706 52

246 BFT9001 SAM SUNGAI MERAB LUAR SUNGAI MERAB LUAR SEPANG 43000 KAJANG 0389259824 Bandar 500 36

248 BKA3001 SMT KUALA SELANGOR JALAN SEKOLAH OFF JALAN BESAR 45600 BESTARI JAYA 0332718370 Luar Bandar 5

261 BRA7002 SBPI GOMBAK BATU 8, JALAN SUNGAI PUSU, GOMBAK 53100 KUALA LUMPUR 0361863050 Bandar 648 62

3 WEA0196 SMK AMINUDDIN BAKI JALAN KAMPUNG PANDAN 55100 KUALA LUMPUR 0392858219 Bandar 1223 101

7 WEA0201 SMK PETALING BATU 6 JALAN KELANG LAMA, 46000 KUALA LUMPUR 0377829153 Bandar 1126 76

9 WEA0206 SM SAINS SELANGOR JALAN YAAKOB LATIFF, 56000 KUALA LUMPUR 0391316093 Bandar 628 63

13 WEA0212 SMK TAMAN DESA JALAN DESA BAKTI, OFF JALAN KLANG LAMA 58100 KUALA LUMPUR 0379823058 Banda

16 WEA0215 SMK ZON R1 WANGSA MAJU WANGSA MAJU SEKSYEN 1, SETAPAK 53300 KUALA LUMPUR 0341496122 Band

20 WEA0219 SMK TAMAN YARL LORONG AWAN CINA, TAMAN YARL 58200 KUALA LUMPUR 0379834552 Bandar 629 50

22 WEA0221 SMK TAMAN SERI RAMPAI JALAN REJANG, SETAPAK 53300 KUALA LUMPUR 0340243034 Bandar 836 58

29 WEA0228 SMK SEGAMBUT JAYA JALAN 4/38A SEGAMBUT 51200 KUALA LUMPUR 0362587622 Bandar 948 78

33 WEA0232 SMK TAMAN SETIAWANGSA JALAN BUKIT SETIAWANGSA 54200 KUALA LUMPUR 0342522891 Bandar 1731 1

42 WEA0241 SMK SERI BINTANG SELATAN JALAN 3/91A, TAMAN SHAMELIN PERKASA, 56100 KUALA LUMPUR 0392004

50 WEA0249 SMK KIARAMAS PERSIARAN DUTAMAS 50480 KUALA LUMPUR 0362014523 Bandar 719 62

51 WEA0250 SMK SERI MUTIARA JALAN 31/119, TAMAN TAYNTON VIEW, CHERAS 56000 KUALA LUMPUR 0391325370 Ba

61 WEB0212 SMK CONFUCIAN (CF) LORONG HANG JEBAT 50150 KUALA LUMPUR 0320783364 Bandar 1193 76

65 WEB0216 SMK TINGGI SETAPAK JALAN AIR JERNIH, SETAPAK, 53200 KUALA LUMPUR 0340236191 Bandar 918 95

85 WEB0236 SMK LA SALLE BRICKFIELDS (M) JALAN TUN SAMBANTHAN 50470 KUALA LUMPUR 0322741852 Bandar 383

88 WEB0243 SMK DHARMA KM 10, JLN PUCHONG 58200 KUALA LUMPUR 0377829908 Bandar 197 15

89 WEB0247 SMK CHONG HWA (CF) JALAN GOMBAK 53000 KUALA LUMPUR 0340235459 Bandar 2344 136

94 WKB0001 SMT CHERAS JALAN YAACOB LATIF, BANDAR TUN RAZAK 56000 KUALA LUMPUR 0391318052 Bandar 594 6

96 WRA0004 SMA KUALA LUMPUR BANDAR MENJALARA, 52200 KUALA LUMPUR 0362758923 Bandar 674 50

1 WEA2001 SMK PUTRAJAYA PRESINT 8(1) NO. 4, JALAN P8, PRESINT 8 62250 PUTRAJAYA 0388880200 Bandar 993 91

8 WEA2008 SMK PUTRAJAYA PRESINT 11(2) NO 1, JALAN P11C, PRESINT 11 62300 PUTRAJAYA 0388903490 Bandar 158 23

Southern Zone Schools

No	Code	Name	Add	Tel
1	6	NEA1084	SMK SENALING KM 2 JALAN TAMPIN KUALA PILAH 72000 KUALA PILAH 064813171 Luar Bandar 339 33	
2	14	NEA3037	SM SAINS REMBAU PILIN 71300 REMBAU 06-6970037 Luar Bandar 476 49	
3	15	NEA4088	SMK TUNKU AMPUAN DURAH JALAN SIKAMAT 70400 SEREMBAN 067625590 Bandar 1806 148	
4	20	NEA4101	SMK DATO' HAJI MOHD REDZA KM 5, JALAN SIKAMAT 70400 SEREMBAN 067617281 Bandar 1186 85	
5	35	NEA5051	SMK PASIR BESAR FELDA PASIR BESAR 73420 GEMAS 064576215 Luar Bandar 445 40	
6	54	NEB0027	SMK PERTANG KM 1, JALAN GELANG 72300 SIMPANG PERTANG 064941444 Luar Bandar 364 31	
7	55	NEB1081	SMK TUANKU MUHAMMAD KM 2 JALAN TAMPIN 72000 KUALA PILAH 064811030 Bandar 881 87	
8	57	NEB1083	SMK CHUNG HUA KM2 JLN TAMPIN, KUALA PILAH 72000 KUALA PILAH 064811179 Bandar 820 59	
9	63	NEB4092	SMK PUTERI JALAN LABU LAMA 70200 SEREMBAN 067655600 Bandar 1476 91	
10	72	NEE1086	SMK TUNKU BESAR BURHANUDDIN JALAN KELAB GOLF DIRAJA SERI MENANTI 71550 SERI MENANTI 06497	
11	80	NEE3037	SMK DATUK ABDULLAH ASTANA RAJA, 71350 KOTA 064382577 Luar Bandar 515 52	
12	81	NEE4098	SMK DATO' KLANA PUTRA BT 14, JALAN BESAR LENGGENG 71750 LENGGENG 0387667769 Luar Bandar 701 61	
13	84	NEE4101	SMK MANTIN BATU 10, JALAN BESAR MANTIN 71700 MANTIN 067581251 Luar Bandar 1670 115	
14	95	NFT1002	SM RENDAH AGAMA ULU JEMPOL BATU KIKIR 72200 KUALA PILAH 06-4983115 Luar Bandar 60 13	
15	100	NFT4001	SM RENDAH AGAMA RANTAU KUALA SAWAH 71200 RANTAU 066943626 Luar Bandar 200 19	
16	109	NKA2001	SMT PORT DICKSON KM 5, JALAN SEREMBAN 71000 PORT DICKSON 066512266 Bandar 679 102	
17	112	NKE4001	SMT AMPANGAN KM 4 JALAN SEREMBAN-KUALA PILAH, AMPANGAN 70400 SEREMBAN 067624981 Bandar 6	
18	113	NKE4144	SMT TUANKU JAAFAR KM 4 JALAN JALAN SEREMBAN-KUALA PILAH , AMPANGAN70400 SEREMBAN 06763	
19	6	MEA0095	SMK LUBOK CHINA LUBOK CHINA 78100 LUBOK CHINA 06-6966375 Luar Bandar 1023 87	
20	11	MEA1060	SMK ISKANDAR SHAH JALAN KELUBI 77000 JASIN 065291266 Bandar 1128 93	
21	22	MEA2088	SMK TUN MUTAHIR (INTEG) BATU BERENDAM 75350 MELAKA 063174376 Bandar 1487 109	
22	27	MEA2094	SMK TUN HAJI ABD MALEK KM 10, CHENG 75250 MELAKA 06-3357473 Luar Bandar 1944 147	
23	43	MEB2092	SMK TINGGI PEREMPUAN LRG TUN FATIMAH, JLN DURIAN DAUN 75400 DURIAN DAUN 062921206 Bandar 978	
24	44	MEB2093	SMK TINGGI ST DAVID (M) JLN. TANJUNG , BUKIT BARU 75150 MELAKA 06-2823619 Bandar 1523 77	
25	45	MEB2094	SMK METHODIST (ACS) MELAKA (M) JLN TENGKERA 75200 MELAKA 06-2823434 Bandar 525 45	
26	46	MEB2095	SMK PEREMPUAN METHODIST (M) 440-B, JLN TENGKERA, 75200 MELAKA 06-2823606 Bandar 985 64	
27	47	MEB2096	SMK ST FRANCIS (M) JLN PARAMESWARA, 75000 MELAKA 06-2823431 Bandar 1179 73	
28	58	MEE0075	SMK DATO' DOL SAID JALAN DATO DOL SAID 78000 ALOR GAJAH 065561286 Bandar 1740 118	
29	60	MEE2141	SM SAINS MUZAFFAR SHAH AYER KEROH 75450 MELAKA 06-2320833 Bandar 651 60	
30	69	MKA2001	SMKT MELAKA TENGAH BUKIT KATIL 75450 MELAKA 062326190 Luar Bandar 639 102	
31	71	MKE0001	SMKT DATUK SERI MOHD. ZIN JALAN PENGKALAN 78000 ALOR GAJAH 06-5561200 Luar Bandar 665 106	
32	4	JEA0013	SMK SENGGARANG JLN. PT. JABAR, 83200 SENGGARANG 074291675 Luar Bandar 1475 108	
33	9	JEA0018	SMK SERI GADING SRI GADING 83300 BATU PAHAT 074558264 Luar Bandar 1855 116	
34	11	JEA0020	SMK DATO SETH JALAN YONG PENG - MUAR 83700 YONG PENG 074671044 Bandar 1800 114	

15 JEA1002 SMK TASEK UTARA SUSUR 7, JALAN TUN ABD RAZAK, 80350 JOHOR BAHRU 072361806 Bandar 840 72

18 JEA1005 SMK SRI RAHMAT JKR 4868, JLN SKUDAI 81200 JOHOR BAHRU 072374153 Bandar 1803 115

34 JEA1055 SMK KEMPAS JALAN DATARAN 4 TAMAN KEMPAS 81200 TAMPOI 072320407 Bandar 1460 87

38 JEA1059 SMK MUTIARA RINI JALAN PERSIARAN UTAMA 81300 SKUDAI 075569845 Bandar 1997 119

55 JEA1076 SMK PERMAS JAYA 2 JLN PERMAS 12, BANDAR BARU PERMAS JAYA 81750 MASAI 073865368 Bandar 1274 80

58 JEA1079 SMK TASEK UTARA 2 JLN TARUKA OFF JLN DATIN HALIMAH 80350 JOHOR BAHRU 072375700 Bandar 1074 72

64 JEA1085 SMK TAMAN MUTIARA RINI 2 OFF JALAN HANG JEBAT, TAMAN MUTIARA RINI 81300 SKUDAI 075542254 Banc

72 JEA2029 SMK LAYANG-LAYANG JKR 1028, LAYANG-LAYANG 81850 LAYANG-LAYANG 077527477 Luar Bandar 926 64

92 JEA3045 SMK ADELA FELDA ADELA 81900 KOTA TINGGI 078278340 Luar Bandar 986 83

100 JEA3053 SMK TAMAN KOTA JAYA JALAN ANGGOR, TAMAN KOTA JAYA 81900 KOTA TINGGI 078838318 Bandar 1152 82

115 JEA5028 SMK BUKIT PASIR JALAN JORAK 84300 BUKIT PASIR 069856861 Luar Bandar 1152 84

123 JEA5038 SMK SAGIL TANGKAK KM 43, JLN SEGAMAT 84020 SAGIL 069773162 Luar Bandar 810 69

126 JEA5041 SMK FELCRA BUKIT KEPONG PETI SURAT 4, 85300 LABIS 079237767 Luar Bandar 626 41

127 JEA5042 SMK PESISIRAN PERDANA JALAN GADING 3, TAMAN GADING BARU, TANJUNG AGAS 84000 LEDANG 069537

129 JEA6006 SMK. DATO` PENGGAWA BARAT JLN PARIT MESJID, 82000 PONTIAN 076871628 Bandar 1393 118

136 JEA7031 SMK BULUH KASAP KM 8, JLN BULOH KASAP, 85010 SEGAMAT 079441736 Luar Bandar 1316 93

149 JEA8001 SMK SENAI BATU 14 1/2, SENAI 81400 SENAI 075991054 Bandar 2091 118

157 JEA8009 SMK BANDAR TENGGARA 2 JALAN TUN AHMAD, 81440 BANDAR TENGGARA 078966121 Luar Bandar 512 38

160 JEA8012 SMK BANDAR PUTRA JALAN NURI 9 BANDAR PUTRA 81000 KULAI 075999409 Bandar 1141 75

162 JEA8014 SM PENDIDIKAN KHAS VOKASIONAL INDAHPURA SISIRAN INDAHPURA 36/6 81000 KULAI 076625625 Bandar

166 JEB0018 SMK MUNSHI SULAIMAN KM 6, JALAN KLUANG 83000 BATU PAHAT 07-4341949 Bandar 1582 109

169 JEB1002 SMK DATO JAAFAR JLN YAHYA ALDATAR 80300 JOHOR BAHRU 072221071 Bandar 827 74

171 JEB1004 SMK SAINT JOSEPH (B) JLN GERODA, LARKIN, 80350 JOHOR BAHRU 072367515 Bandar 441 38

173 JEB1006 SMK INFANT JESUS CONVENT (M) JALAN YAHYA AWAL 80100 JOHOR BAHRU 072244645 Bandar 950 60

174 JEB1007 SMK SULTANAH ENGKU TUN AMINAH JALAN SUNGAI CHAT 80100 JOHOR BAHRU 072237033 Bandar 1126 77

180 JEB4044 SMK SRI MERSING PETI SURAT 10, JALAN ISMAIL 86807 MERSING 077991150 Bandar 747 77

186 JEB5026 SMK CONVENT (M) NO 100, JLN DAUD 84000 MUAR 069521376 Bandar 1236 71

199 JEE0020 SMK SEMERAH WAKIL POS SEMERAH, SEMERAH 83600 BATU PAHAT 074161014 Luar Bandar 1269 90

203 JEE1004 SMK GELANG PATAH WAKIL POS GELANG PATAH 81550 GELANG PATAH 075101213 Luar Bandar 1303 90

208 JEE2043 SM (SAINS) JOHOR KM. 1, JLN. BATU PAHAT, 86000 KLUANG 077722458 Bandar 588 65

210 JEE2045 SMK DATO' ABD RAHMAN ANDAK JLN. PT. HJ. HASHIM, 86200 SIMPANG RENGGAM 077556198 Bandar 1916 11

212 JEE4036 SMK UNGKU HUSIN JALAN HAJI ARIFFIN 86900 ENDAU 077943234 Luar Bandar 1695 119

219 JEE6011 SMK PEKAN NENAS JLN SAWAH, 81500 PEKAN NANAS 076991261 Bandar 1110 74

222 JEE7035 SMK DATO' AHMAD ARSHAD BATU ANAM 85100 SEGAMAT 079499131 Luar Bandar 819 52

225 JEE8001 SMK SULTAN IBRAHIM JLN LENGKONGAN 81000 KULAI 076631303 Bandar 1769 123

226 JFT1001 MADRASAH ALATTAS ALARABIAH JOHOR KM 23, JALAN KOTA TINGGI, ULU TIRAM 81800 JOHOR BAHRU 07

238 JRA1001 SMKA JOHOR BAHRU JALAN ANGGERIK 21, TAMAN JOHOR JAYA, 81100 JOHOR BAHRU 073517057 Bandar 593

239 JRA3001 SMKA BANDAR PENAWAR BANDAR PENAWAR 81900 KOTA TINGGI 078222071 Bandar 652 58

APPENDIX D

Letter of Approval for Research EPRD, MOE

BAHAGIAN PERANCANGAN DAN PENYELIDIKAN DASAR PENDIDIKAN
KEMENTERIAN PELAJARAN MALAYSIA
ARAS 1 - 4, BLOK E - 8,
KOMPLEKS KERAJAAN PARCEL E
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN
62604 PUTRAJAYA

Telefon : 03-88846591
Faks : 03-88846579

Rujuk. kami : KP(BPPDP)603/5/JLD12 (157 ,
Tarikh 16 Dis 2010

Encik Neduichelvn A/L Malavalam
No 3 Jln Kiara 9/KS6 Bandar Botanic
41200 Klang
Selangor

IC 570725105323

Tuan/Puan,

Kelulusan Untuk Menjalankan Kajian Di Sekolah, Institut Perguruan, Jabatan Pelajaran Negeri dan Bahagian-Bahagian di Bawah Kementerian Pelajaran Malaysia

Adalah saya dengan hormatnya diarah memaklumkan bahawa permohonan tuan/puan untuk menjalankan kajian bertajuk:
Teacher Capacity Building : Principals' Involvement And Their Strategies

diluluskan.

2. Kelulusan ini adalah berdasarkan kepada cadangan penyelidikan dan instrumen kajian yang tuan/puan kemukakan ke Bahagian ini. Kebenaran bagi menggunakan sampel kajian perlu diperoleh dari Ketua Bahagian / Pengarah Pelajaran Negeri yang berkenaan.

3. Sila tuan/puan kemukakan ke Bahagian ini senaskah laporan akhir kajian setelah selesai kelak. Tuan/Puan juga diingatkan supaya mendapat kebenaran terlebih dahulu daripada Bahagian ini sekiranya sebahagian atau sepenuhnya dapatan kajian tersebut hendak dibentangkan di mana-mana forum atau seminar atau diumumkan kepada media

Sekian untuk makluman dan tindakan tuan/puan selanjutnya. Terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(DR. SOON SENG THAH)
Ketua Sektor,
Sektor Penyelidikan dan Penilaian
b.p. Pengarah
Bahagian Perancangan dan Penyelidikan
Dasar Pendidikan
Kementerian Pelajaran Malaysia

Letter of Approval from State Department of Education

JABATAN PELAJARAN NEGERI KEDAH DARUL AMAN
KOMPLEKS PENDIDIKAN, JALAN STADIUM
05604 ALOR SETAR
KEDAH DARUL AMAN
TELEFON - A.S. 04 733 1311 NO. FAX :

Ruj Kami : JPK03-07/3212(8)Jld 5
Tarikh : 27 Mac 2011
22 Rabiaulakhir 1432

Encik Nedujchelyn a/l Malayalam
No. 3 Jalan Kiara 9/KS 6
Bandar Botanic
41200 Klang
Selangor

Tuan/Puan,

Kebenaran Untuk Menjalankan Kajian/Soal Selidik di Jabatan Pelajaran Negeri / Pejabat Pelajaran Daerah dan Sekolah – Sekolah di Negeri Kedah Darulaman

Saya dengan hormatnya diarah merujuk kepada perkara tersebut di atas.

2. Dimaklumkan bahawa permohonan tuan/puan untuk menjalankan kajian / soal selidik di Sekolah-sekolah di Negeri Kedah bertajuk ***" Teacher Capacity Building: Principals Involvement and Their Strategies "*** *telah di* ***luluskan.***

3. Kelulusan ini adalah berdasarkan kepada apa yang terkandung di dalam cadangan penyelidikan yang tuan/puan kemukakan ke Kementerian Pelajaran Malaysia. Tuan/Puan dikehendaki mengemukakan senaskah laporan akhir kajian setelah selesai kelak dan diingatkan supaya mendapat kebenaran terlebih dahulu daripada Jabatan ini sekiranya sebahagian atau sepenuhnya dapatan kajian tersebut hendak dibentangkan di mana-mana forum, seminar atau diumumkan kepada media.

4. Kebenaran ini adalah tertakluk kepada persetujuan Pengetua/Guru Besar sekolah berkenaan dan adalah **sah sehingga 30 November 2011**.

Sekian, terima kasih.

" BERKHIDMAT UNTUK NEGARA "
" PENDIDIKAN CEMERLANG KEDAH TERBILANG "

Saya yang menurut perintah,

(ROZAINI BIN AHMAD BCK)
Penolong Pengarah Kanan (Ketua Unit)
Unit Perhubungan dan Pendaftaran
Sektor Pengurusan Sekolah,
b.p. Pengarah Pelajaran Negeri Kedah Darul Aman.

.ina/ppps/kajian2010/27

JABATAN PELAJARAN PERLIS
JALAN TUN ABD. RAZAK
01990 KANGAR
PERLIS

TELEFON: – 04-9737777
Pengarah – 04-9763155
Telefon – 04-9737644
Fax – 04-9767080
Peperiksaan – 04-9769355

Rujukan kami : JPPs. UPRO.100-6/15 (113
Tarikh : 25 Mac 2011
20 Rabiulakhir 1432H

Encik Neduichelvn a/l Malavalam,
No. 3, Jalan Kiara 9/KS6 Bandar Botanic,
41200 Klang,
SELANGOR

Tuan,

KEBENARAN MENJALANKAN KAJIAN DI SEKOLAH-SEKOLAH, INSTITUT-INSTITUT PERGURUAN, JABATAN-JABATAN PELAJARAN DAN BAHAGIAN-BAHAGIAN DI BAWAH KEMENTERIAN PELAJARAN MALAYSIA

Dengan hormatnya saya merujuk perkara di atas.

2. Sukacita dimaklumkan bahawa Jabatan ini tiada apa-apa halangan bagi Tuan/Puan/Encik/Cik menjalankan kajian bertajuk **"Teacher Capacity Building : Principals' Involvement And Their Strategies".**

3. Kelulusan ini adalah berdasarkan kepada apa yang terkandung di dalam cadangan penyelidikan yang tuan kemukakan ke Kementerian Pelajaran Malaysia.

4. Kebenaran ini adalah tertakluk kepada persetujuan Pengetua/Guru Besar sekolah-sekolah berkenaan.

5. Sehubungan dengan itu, tuan/puan/encik/cik dikehendaki menghantar senaskah penyelidikan ke jabatan ini sebaik sahaja selesai penyelidikan tersebut.

6. Segala maklumat yang diperolehi dari kajian ini adalah sulit dan tidak boleh dihebahkan kepada mana-mana pihak. **Tuan juga dipohon untuk menghantar sesalinan soalan kajian ke jabatan ini sebelum ianya dilaksanakan di sekolah yang terlibat.**

Sekian, terima kasih.

'BERKHIDMAT UNTUK NEGARA'
'CINTAILAH BAHASA KITA'

Saya yang menurut perintah,

(YUSUFF BIN MAN, AMP, PMP)
Ketua Unit Perhubungan Dan Pendaftaran,
b.p. Pengarah Pelajaran Negeri,
Perlis

YM/zana

(Sila catatkan rujukan Jabatan ini apabila berhubung)

JABATAN PELAJARAN NEGERI KEDAH DARUL AMAN
KOMPLEKS PENDIDIKAN, JALAN STADIUM
05604 ALOR SETAR
KEDAH DARUL AMAN
TELEFON - A.S. 04 733 1311 NO. FAX :

Ruj Kami : JPK03-07/3212(8)Jld 5
Tarikh : 27 Mac 2011
22 Rabiaulakhir 1432

Encik Nedujchelyn a/l Malayalam
No. 3 Jalan Kiara 9/KS 6
Bandar Botanic
41200 Klang
Selangor

Tuan/Puan,

Kebenaran Untuk Menjalankan Kajian/Soal Selidik di Jabatan Pelajaran Negeri / Pejabat Pelajaran Daerah dan Sekolah – Sekolah di Negeri Kedah Darulaman

Saya dengan hormatnya diarah merujuk kepada perkara tersebut di atas.

2. Dimaklumkan bahawa permohonan tuan/puan untuk menjalankan kajian / soal selidik di Sekolah-sekolah di Negeri Kedah bertajuk ***" Teacher Capacity Building: Principals Involvement and Their Strategies "*** *telah di* ***luluskan.***

3. Kelulusan ini adalah berdasarkan kepada apa yang terkandung di dalam cadangan penyelidikan yang tuan/puan kemukakan ke Kementerian Pelajaran Malaysia. Tuan/Puan dikehendaki mengemukakan senaskah laporan akhir kajian setelah selesai kelak dan diingatkan supaya mendapat kebenaran terlebih dahulu daripada Jabatan ini sekiranya sebahagian atau sepenuhnya dapatan kajian tersebut hendak dibentangkan di mana-mana forum, seminar atau diumumkan kepada media.

4. Kebenaran ini adalah tertakluk kepada persetujuan Pengetua/Guru Besar sekolah berkenaan dan adalah **sah sehingga 30 November 2011**.

Sekian, terima kasih.

" BERKHIDMAT UNTUK NEGARA "
" PENDIDIKAN CEMERLANG KEDAH TERBILANG "

Saya yang menurut perintah,

(ROZAINI BIN AHMAD BCK)
Penolong Pengarah Kanan (Ketua Unit)
Unit Perhubungan dan Pendaftaran
Sektor Pengurusan Sekolah,
b.p. Pengarah Pelajaran Negeri Kedah Darul Aman.

.ina/ppps/kajian2010/27

JABATAN PELAJARAN PULAU PINANG
JALAN BUKIT GAMBIR
11700 PULAU PINANG
Tel : 04-657 5500, Faks : 04-658 2500
http://jpnpp.edu.my

"1 MALAYSIA : RAKYAT DIDAHULUKAN PENCAPAIAN DIUTAMAKAN."

Ruj Tuan :
Ruj Kami : JPNPP(PER) 100-9/4 Jld.3 (43)
Tarikh : 24 Mac 2011

Nedujchelyn A/L Malayalam
No.3 Jalan Kiara 9/KS 6
Bandar Botanic
41200 Klang
Selangor.

Tuan/Puan,

KELULUSAN UNTUK MENJALANKAN KAJIAN DI SEKOLAH, INSTITUT PERGURUAN, JABATAN PELAJARAN NEGERI DAN BAHAGIAN – BAHAGIAN DI BAWAH KEMENTERIAN PELAJARAN MALAYSIA

Dengan hormatnya saya diarah merujuk perkara tersebut di atas.

2. Surat kelulusan menjalankan kajian dari Bahagian Perancangan Dan Penyelidikan Dasar Pendidikan, Kementerian Pelajaran Malaysia **Bil.KP(BPPDP)603/5/Jld.12(157)** bertarikh **16 Disember 2010** adalah dirujuk.

3. Adalah dimaklumkan bahawa pihak Jabatan Pelajaran Pulau Pinang, tiada halangan untuk Tuan/Puan menjalankan penyelidikan di sekolah-sekolah negeri Pulau Pinang yang bertajuk:

"Teacher Capacity Building : Principal' Involvement And Their Strategies"

4. Walau bagaimanapun Tuan/Puan adalah tertakluk kepada syarat-syarat seperti berikut:
   4.1 Mendapat kebenaran dari Pengetua/Guru Besar sekolah berkenaan.
   4.2 Tidak mengganggu perjalanan, peraturan dan disiplin sekolah.
   4.3 Segala maklumat yang dikumpul adalah untuk tujuan akademik sahaja.
   4.4 Menghantar satu salinan laporan kajian ke Jabatan ini setelah selesai kajian.
   4.5 Sila kemukakan surat ini apabila berurusan dengan pihak sekolah.
   4.6 Surat ini berkuatkuasa sehingga **31 Disember 2011.**

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(IBRAHIM BIN YACUB)
Penolong Pendaftar Institusi Pendidikan
Jabatan Pelajaran Pulau Pinang
b.p Ketua Pendaftar Institusi Pendidikan
Kementerian Pelajaran Malaysia

IB/NSA/KAJIAN/2011

جابتن فلايجارن سلاڠور
JABATAN PELAJARAN NEGERI SELANGOR
Jalan Jambu Bol 4/3E, Seksyen 4, 40604 Shah Alam
TEL : 03-5518 6208 FAKS : 03-55129704 E-mail jpnsel@sel.moe.gov.my
Website;http://www.moe.gov.my/jpnsel

Rujukan Tuan :
Rujukan Kami : JPNS.PPN 600-1/48/(46)
Tarikh : 21/03/2011

ENCIK NEDUICHELVN A/L MALAVALAM,·
NO. 3 JLN KIARA 9/KS6 BANDAR BOTANIC,
41200 KLANG,
SELANGOR DARUL EHSAN.

Tuan,

TEACHER CAPACITY BUILDNG : PRINCIPALS' INVOLVEMENT AND THEIR STRTEGIES

Dengan segala hormatnya perkara di atas dirujuk.

2. Jabatan ini tiada halangan untuk pihak tuan menjalankan kajian / penyelidikan tersebut di sekolah-sekolah dalam Negeri Selangor seperti yang dinyatakan dalam surat permohonan.

3. Pihak tuan diingatkan agar mendapat persetujuan daripada Pengetua / Guru Besar supaya beliau dapat bekerjasama dan seterusnya memastikan bahawa penyelidikan dijalankan hanya bertujuan seperti yang dipohon. Kajian / Penyelidikan yang dijalankan juga tidak mengganggu perjalanan sekolah serta tiada sebarang unsur paksaan.

4. Tuan juga diminta menghantar senaskah hasil kajian ke Unit Perhubungan & Pendaftaran Jabatan Pelajaran Selangor sebaik selesai penyelidikan / kajian.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(JOHARI BIN MOHD NOH)
Penolong Pendaftar Institusi Pendidikan dan Guru,
Jabatan Pelajaran Selangor.
b.p. Ketua Pendaftar Institusi Pendidikan dan Guru,
Kementerian Pelajaran Malaysia.

s.k. 1. Fail

JABATAN PELAJARAN NEGERI WILAYAH PERSEKUTUAN
PERSIARAN DUTA, OFF JALAN DUTA
50604 KUALA LUMPUR
Tel : 03-6203 7777 Faks : 03-6203 7788
Laman Web : http://www.moe.gov.my/jpwpkl

Rujukan Kami : JPNWP.900-6/1/6/Jld.II(34)
Tarikh : 24 Mac 2011

Encik Neduichelvn A/L Malavalam
No.3 Jln Kiara 9/KS6
Bandar Bontanic 41200 Klang Selangor

Y. Bhg. Dato/Datin/Tuan/Puan,

KEBENARAN UNTUK MENJALANKAN KAJIAN DI SEKOLAH-SEKOLAH, MAKTAB-MAKTAB PERGURUAN, JABATAN-JABATAN PELAJARAN DAN BAHAGIAN-BAHAGIAN DI BAWAH KEMENTERIAN PELAJARAN MALAYSIA

Dengan hormatnya saya diarah memaklumkan bahawa permohonan Y. Bhg. Dato/Datin/Tuan/Puan untuk menjalankan kajian bertajuk :-

" Teacher Capacity Building : Principals' Involvement And Their Strategies " adalah diluluskan tertakluk kepada syarat-syarat berikut:-

a) Kelulusan ini adalah berdasarkan kepada apa yang terkandung di dalam cadangan penyelidikan yang telah diluluskan oleh Kementerian Pendidikan Malaysia.
b) Sila kemukakan surat kebenaran ini ketika berurusan dengan Pengetua/Guru Besar sekolah berkenaan.
c) Kelulusan ini untuk sekolah-sekolah di Wilayah Persekutuan Kuala Lumpur sahaja
d) Y. Bhg. Dato/Datin/Tuan/Puan dikehendaki mengemukakan senaskah hasil kajian tuan/puan ke Jabatan ini sebaik sahaja ianya siap sepenuhnya.
e) Kebenaran ini sah sehingga 31.03.2012

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(ABD HALIM BIN ISMAIL)
Ketua Sektor Pengurusan Sekolah
b.p Pengarah Pelajaran
Jabatan Pelajaran Negeri Wilayah Persekutuan

UNIT PERHUBUNGAN DAN PENDAFTARAN
SEKTOR PENGURUSAN SEKOLAH
JABATAN PELAJARAN PAHANG
BANDAR INDERA MAHKOTA
25604 KUANTAN

Telefon : 09-5715700
Faks : 09-5734857

Rujuk Kami : JPNP. SPS. 04. 600 – 2/6 (34)
Tarikh : 30 Mac 2011
: 25 Rabiulakhir 1432

Encik Nedujchelyn a/l Malayalam
No 3 Jalan Kiara 9/KS 6
Bandar Botanic
41200 KLANG
SELANGOR

Tuan,

KEBENARAN MENJALANKAN KAJIAN DI SEKOLAH-SEKOLAH MENENGAH DI BAWAH JABATAN PELAJARAN NEGERI

Dengan segala hormatnya, saya diarah merujuk perkara di atas.

2. Sehubungan dengan itu, pihak kami tiada berhalangan untuk memberikan keizinan atas permohonan pihak tuan. Semoga apa yang dirancang beroleh kejayaan.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

AZIZ BIN AHMAD
Unit Perhubungan dan Pendaftaran
Jabatan Pelajaran Pahang
b.p. Pengarah Pelajaran Pahang

s.k. : Pengarah Pelajaran Pahang
: Timbalan Pengarah Pelajaran Pahang
: Fail Timbul

(Sila Catatkan Rujukan Jabatan Ini Apabila Berhubung)

جابتن ڤلاجرن نکري سمبيلن دارالخصوص
JABATAN PELAJARAN NEGERI
NEGERI SEMBILAN DARUL KHUSUS
JALAN DATO' HAMZAH KARUNG BERKUNCI No. 6
70990 SEREMBAN, NEGERI SEMBILAN DARUL KHUSUS
Tel : 06-7653100 Fax : 06-7639969

"1MALAYSIA : RAKYAT DIDAHULUKAN PENCAPAIAN DIUTAMAKAN"

Ruj. Tuan :
Ruj. Kami : JPNS.SPS.PP.100-1/7(38)
Tarikh : 21 Mac 2011

Nedujchelyn a/l Malayalam
No.3 Jalan Kiara 9/KS 6
Bandar Botanic
41200 Klang
Selangor Darul Ehsan

Tuan/Puan,

Kebenaran Menjalankan Kajian Ke Sekolah-Sekolah Di Negeri Sembilan Darul Khusus Di Bawah Kementerian Pelajaran Malaysia

Saya dengan hormatnya di arah memaklumkan bahawa permohonan tuan/puan untuk menjalankan kajian bertajuk:-

'Teacher Capacity Building : Principals' Involvement And Their Strategies'

telah diluluskan

2. Tuan/Puan hendaklah berjumpa terus dengan Pengetua atau Guru Besar sekolah berkenaan untuk meminta persetujuan dan membincangkan kajian tersebut di tempat seperti berikut:

i) Di Sekolah-Sekolah Menengah Negeri Sembilan

3. Dimaklumkan bahawa kebenaran ini diberi berdasarkan surat kelulusan dari pihak Kementerian Pelajaran Malaysia, Bahagian Perancangan Dan Penyelidikan Dasar Pelajaran, nombor rujukan KP(BPPDP)603/5/JLD12(157) bertarikh 16 Dis 2011.

.... 2/

4. Tuan/Puan hendaklah menghantar satu naskah hasil kajian ke Jabatan Pelajaran Negeri Sembilan (u.p: Unit Perhubungan, Pendaftaran & Pelajaran Swasta).

Sekian untuk makluman dan tindakan tuan/puan selanjutnya.

Terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

HAJI JAMALI BIN HAJI SALAM
b.p. Pengarah Pelajaran
Negeri Sembilan Darul Khusus

s.k. Pengetua atau Guru Besar sekolah berkenaan.

Nota: -Sila beri satu salinan surat kelulusan semasa membuat kajian di sekolah.

Tengku Ahmizal/Kajian'2011

PEJABAT PELAJARAN WILAYAH PERSEKUTUAN PUTRAJAYA
PUTRAJAYA FEDERAL TERRITORY EDUCATION OFFICE
Jalan P16, Presint 16, 62150 Wilayah Persekutuan Putrajaya
Tel: 03-8888 8922 03-8890 3069 03-8890 3070
Fax: 03-8890 3085

Ruj. Kami : KPM.PPWPP.620-1/5 Jld.21(67)
Tarikh : 28 Mac 2011

Nedujchelyn a/l Malayalam,
No.3, Jalan Kiara 9/KS6,
Bandar Botanic,
41200 Klang, Selangor.

Tuan,

KEBENARAN MENJALANKAN KAJIAN DI SEKOLAH-SEKOLAH, INSTITUT PERGURUAN, JABATAN PELAJARAN NEGERI DAN BAHAGIAN-BAHAGIAN DI BAWAH KEMENTERIAN PELAJARAN MALAYSIA

Dengan hormatnya perkara di atas dirujuk dan surat tuan bertarikh 14 Mac 2011 berkaitan.

2. Sukacita dimaklumkan bahawa pihak Pejabat Pelajaran Wilayah Persekutuan Putrajaya tiada halangan dan mengizinkan pelajar tuan menjalankan kajian bertajuk **"Teacher Capacity Building : Principals' Involvement and Their Strategies"** di sekolah-sekolah Menengah Putrajaya seperti yang terkandung di dalam surat tuan kepada kami.

3. Sehubungan itu, pihak tuan dikehendaki menghubungi Pengetua sekolah sebelum memasuki sekolah dan mematuhi syarat-syarat yang terkandung dalam surat Bahagian Perancangan dan Penyelidikan Dasar Pendidikan KP(BPPDP)603/5/Jld.12(157) bertarikh 16 Disember 2010.

4. Pihak tuan dimohon mengemukakan senaskah laporan akhir kajian setelah selesai untuk simpanan pejabat ini. Kebenaran ini hanya untuk tujuan yang dipohon dan luput selepas 31 Disember 2011.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(HAJI JAMALUDDIN BIN YUSOFF)
Timbalan Pengarah Pelajaran
Pejabat Pelajaran Wilayah Persekutuan Putrajaya

s.k. 1. Fail.

1Malaysia, Rakyat Didahulukan, Pencapaian Diutamakan
"Pengurusan Cemerlang, Pendidikan Gemilang"

JABATAN PELAJARAN PERAK
JALAN TUN ABDUL RAZAK,
30640 IPOH,
PERAK DARUL RIDZUAN.

Telefon : 05-501 5000
Faks : 05-527 7273
Portal : http://www.pelajaranperak.gov.my

" 1 MALAYSIA : RAKYAT DIDAHULUKAN, PENCAPAIAN DIUTAMAKAN "

Ruj.Kami : J.PEL.PK.(AM)5114/4 JLD.7 (002)
Tarikh : 19 Mac 2011

Encik Neduichelyn a/l Malayalam
N0. 3, Jln Kiara 9/KS6 Bandar Botanic
41200 Klang
Selangor

Tuan,

KEBENARAN UNTUK MENJALANKAN KAJIAN DI SEKOLAH-SEKOLAH MENENGAH / RENDAH NEGERI PERAK

Saya diarahkan merujuk surat tuan bertarikh 14 Mac 2011 yang ada kaitannya dengan surat Kementerian Pelajaran Malaysia bilangan KP(BPPDP)603/5/JLD.12 (157) bertarikh 16 Disember 2010 tentang perkara di atas.

2. Sukacita dimaklumkan bahawa pihak Jabatan Pelajaran Perak **tiada halangan** memberi kebenaran kepada tuan untuk menjalankan kajian dan soal selidik bertajuk **"Teacher Capacity Building: Principals' Involvement And Their Strategies"** di sekolah-sekolah di negeri Perak dengan syarat mendapat persetujuan terlebih dahulu daripada Pengetua/Guru Besar sekolah berkenaan.

3. Sila tuan/puan kemukakan senaskhah laporan akhir kajian ke Unit Perhubungan dan Pendaftaran , Jabatan Pelajaran Perak setelah selesai kajian dijalankan.

4. Kehadiran tuan/puan membuat kajian di sekolah berkenaan tidak seharusnya menjejaskan proses pengajaran dan pembelajaran di sekolah berkenaan.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA'

Saya yang menurut perintah,

(KHAIROL AZMI BIN AHMAD ARIFIN)
Penolong Pengarah,
Unit Perhubungan dan Pendaftaran
Jabatan Pelajaran Negeri Perak
b.p. Pengarah Pelajaran Negeri Perak.

Sk. - Pengarah Pelajaran Negeri Perak

Khazupp11

"CINTAILAH BAHASA KITA"
(Sila catatkan rujukan pejabat ini apabila berhubung)

JABATAN PELAJARAN NEGERI WILAYAH PERSEKUTUAN
PERSIARAN DUTA, OFF JALAN DUTA
50604 KUALA LUMPUR
Tel : 03-6203 7777 Faks : 03-6203 7788
Laman Web : http://www.moe.gov.my/jpwpkl

Rujukan Kami : JPNWP.900-6/1/6/Jld.II(34)
Tarikh : 24 Mac 2011

Encik Neduichelvn A/L Malavalam
No.3 Jln Kiara 9/KS6
Bandar Bontanic 41200 Klang Selangor

Y. Bhg. Dato/Datin/Tuan/Puan,

KEBENARAN UNTUK MENJALANKAN KAJIAN DI SEKOLAH-SEKOLAH, MAKTAB-MAKTAB PERGURUAN, JABATAN-JABATAN PELAJARAN DAN BAHAGIAN-BAHAGIAN DI BAWAH KEMENTERIAN PELAJARAN MALAYSIA

Dengan hormatnya saya diarah memaklumkan bahawa permohonan Y. Bhg. Dato/Datin/Tuan/Puan untuk menjalankan kajian bertajuk :-

" Teacher Capacity Building : Principals' Involvement And Their Strategies "
adalah diluluskan tertakluk kepada syarat-syarat berikut:-

a) Kelulusan ini adalah berdasarkan kepada apa yang terkandung di dalam cadangan penyelidikan yang telah diluluskan oleh Kementerian Pendidikan Malaysia.
b) Sila kemukakan surat kebenaran ini ketika berurusan dengan Pengetua/Guru Besar sekolah berkenaan.
c) Kelulusan ini untuk sekolah-sekolah di Wilayah Persekutuan Kuala Lumpur sahaja
d) Y. Bhg. Dato/Datin/Tuan/Puan dikehendaki mengemukakan senaskah hasil kajian tuan/puan ke Jabatan ini sebaik sahaja ianya siap sepenuhnya.
e) Kebenaran ini sah sehingga 31.03.2012

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(ABD HALIM BIN ISMAIL)
Ketua Sektor Pengurusan Sekolah
b.p Pengarah Pelajaran
Jabatan Pelajaran Negeri Wilayah Persekutuan

جابتن فلاجاران كلنتن
JABATAN PELAJARAN KELANTAN
JALAN DOKTOR,
15000 KOTA BHARU,
KELANTAN DARUL NAIM.

TELEFON
Pejabat Am : 09-741 8000
Pengarah : 09-741 8001
Timb Pengarah : 09-741 8054
FAKS : 09-748 2554
Web : http//apps.emoe.gov.my/jpnkelantan

Ruj. Kami : JPKn/SPS/1403/106/5 Jld 10(20)
Tarikh : 21 Mac 2011

Nedujchelyn a/l Malayalam
No 3 Jalan Kiara 9/KS 6
Bandar Botanic
41200 Klang
Selangor Darul Ehsan

Tuan/Puan,

KEBENARAN MENJALANKAN KAJIAN / PENYELIDIKAN DI SEKOLAH KERAJAAN / BANTUAN KERAJAAN DI NEGERI KELANTAN

Adalah saya dengan hormatnya diarah merujuk surat permohonan tuan / puan mengenai perkara di atas.

2. Surat kebenaran dari Pengarah Bahagian Perancangan & Penyelidikan Dasar Pendidikan, Kementerian Pelajaran Malaysia Rujukan: KP(BPPDP)603/5/ Jld 12(157) bertarikh 16 Dis 2011 berkaitan.

3. Jabatan Pelajaran Kelantan tiada halangan bagi tuan/puan menjalankan kajian/penyelidikan seperti tajuk:

Teacher Capacity Building : Principals' Involvement And Their Strategies

4. Kelulusan ini adalah dihadkan berdasarkan kepada tajuk kajian / penyelidikan yang dikemukakan ke jabatan ini bagi tempoh: **01 Mac 2011 hingga 31 Disember 2011.**

5. Sekolah-sekolah yang terlibat adalah: **Sekolah-Sekolah Di Negeri Kelantan.**

6. Tuan/Puan dinasihatkan supaya terlebih dahulu berbincang dengan Pengetua/Guru Besar sekolah-sekolah berkenaan sebelum kajian /penyelidikan dijalankan.

Sekian terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

UNIT PENDAFTARAN JABATAN PELAJARAN KELANTAN

(ABDUL AZIZ BIN MOHD. ZAIN)
Penolong Pendaftar Sekolah dan Guru
b.p Pendaftar Sekolah dan Guru
Jabatan Pelajaran Kelantan

s.k
i. Pengarah, Bahagian Perancangan & Penyelidikan Pelajaran Kementerian Pelajaran Malaysia.
ii. Pegawai Pelajaran Daerah: PPD berkenaan.
iii. Pengetua / Guru Besar Sekolah berkenaan

Nm/Borang Kajian 2.com.1

JABATAN PELAJARAN MELAKA
JALAN ISTANA,
PETI SURAT No. 62,
75450 MELAKA

Pengarah : 06-2323782
Timbalan : 06-2323781
Pejabat Am : 06-2323777
: 06-2323778
: 06-2323779
Peperiksaan : 06-2323780
Fax : 06-2320500

JPM.SPS.UPP.100 -2/5/2 Jld 6(37)
Tarikh : 22 Mac 2011

En. Nedujchelyn Malayalam,
No.3, Jln. Kiara 9/KS 6,
Bandar Botanic,
41200 Klang,
Selangor.

Tuan,

KEBENARAN MENJALANKAN KAJIAN DI SEKOLAH DI NEGERI MELAKA.

Dengan segala hormatnya merujuk surat tuan yang bertarikh 14 Mac 2011, mengenai perkara di atas.

2. Sukacita dimaklumkan bahawa Jabatan ini tiada halangan bagi pihak tuan untuk menjalankan aktiviti seperti yang dinyatakan. Dimaklumkan juga di sini bahawa kajian ini adalah semata-mata untuk memenuhi syarat kursus yang diduduki sahaja dan bukan untuk tujuan lain.

3. Walau bagaimanapun, pihak tuan adalah dinasihatkan menghubungi Pengetua/ Guru Besar sekolah berkenaan terlebih dahulu untuk berbincang dan mendapatkan persetujuan. Sebarang pertanyaan, sila hubungi Hj Shahidin bin Mohd Shah di talian 06-2325541. Sekian untuk makluman tuan.

Terima kasih.

'1MALAYSIA, MELAKA MAJU 2010'
"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(HAJI ASHA'ARI BIN JOHARI)
Ketua Sektor Pengurusan Sekolah
b.p Pengarah Pelajaran Melaka

s.k
1. Fail Penyelaras

(Sila catatkan rujukan Jabatan ini bila berhubung)

Appendix E

Factor Analysis

A) Knowledge Dimension

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.474	52.154	52.154	11.474	52.154	52.154	4.207	19.121	19.121
2	1.391	6.324	58.477	1.391	6.324	58.477	4.088	18.581	37.702
3	1.240	5.638	64.115	1.240	5.638	64.115	3.946	17.934	55.637
4	.975	4.430	68.546	.975	4.430	68.546	2.840	12.909	68.546
5	.823	3.742	72.288						
6	.708	3.219	75.507						
7	.642	2.916	78.423						
8	.594	2.698	81.121						
9	.542	2.462	83.583						
10	.501	2.276	85.858						
11	.434	1.971	87.829						
12	.395	1.795	89.624						
13	.359	1.633	91.257						
14	.319	1.449	92.706						
15	.298	1.354	94.060						
16	.262	1.190	95.249						
17	.225	1.024	96.273						
18	.214	.971	97.244						
19	.197	.898	98.141						
20	.172	.782	98.924						
21	.148	.671	99.595						
22	.089	.405	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
Base	.308	.100	.762	.106
subjmatter	.409	.203	.657	.075
integcurwitindis	.215	.296	.739	.178
integcuracrdis	.133	.282	.716	.328
studentdiff	.382	.102	.392	.459
yrschofwork	.543	.317	.413	.088
daillesplan	.573	.131	.454	.241
learnstyle	.712	.231	.200	.393
genpedagogy	.771	.313	.250	.144
subspecped	.766	.173	.260	.154
roleasteacher	.269	.384	.531	.298
learnobjective	.606	.333	.339	.233
thinkingskills	.482	.501	.230	.420
effplanning	.179	.735	.251	.289
resmngmn	.154	.705	.305	.262
classmngmn	.281	.542	.469	.186
effeval	.469	.669	.123	.179
effassesssmn	.387	.791	.124	.066
useicttealearn	.437	.245	.015	.661
rolenacdldsp	.201	.198	.235	.781
anlystuach	.110	.492	.332	.598
impstuperf	.071	.552	.389	.510

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

B) Skills Dimension

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.570	58.724	58.724	10.570	58.724	58.724	4.774	26.524	26.524
2	1.194	6.631	65.356	1.194	6.631	65.356	4.140	23.001	49.525
3	.956	5.314	70.669	.956	5.314	70.669	3.424	19.020	68.545
4	.855	4.752	75.421	.855	4.752	75.421	1.238	6.876	75.421
5	.771	4.284	79.705						
6	.648	3.602	83.307						
7	.451	2.504	85.811						
8	.431	2.396	88.207						
9	.418	2.322	90.529						
10	.323	1.792	92.321						
11	.283	1.572	93.893						
12	.253	1.408	95.302						
13	.205	1.138	96.439						
14	.179	.996	97.435						
15	.148	.823	98.258						
16	.136	.755	99.013						
17	.106	.587	99.600						
18	.072	.400	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component			
	1	2	3	4
skillknwbase	.766	.337	.173	.233
sksubjmatbase	.794	.268	.195	.218
skintegcurwith	.698	.090	.544	.018
skintegacr	.651	.199	.478	-.040
skprepless	.554	.394	.249	.341
skyrlplan	.254	.182	.206	.830
skpreplesson	.767	.369	.127	.230
skgenped	.584	.555	.280	.006
sksubped	.408	.714	.172	.105
skthksk	.369	.768	.175	.123
skeffplan	.348	.552	.492	.142
skclasman	.612	.447	.361	.144
skeffeval	.233	.785	.373	.120
skeffass	.158	.762	.435	.150
skict	.439	.377	.389	-.266
skstuability	.428	.295	.630	.049
skimpstuach	.208	.354	.816	.211
skimpstuperf	.220	.348	.811	.233

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 12 iterations.

C) Dispositions Dimension

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.984	57.030	57.030	7.984	57.030	57.030	4.677	33.410	33.410
2	1.061	7.576	64.606	1.061	7.576	64.606	4.273	30.518	63.928
3	.924	6.599	71.204	.924	6.599	71.204	1.019	7.276	71.204
4	.747	5.335	76.540						
5	.688	4.914	81.454						
6	.560	3.997	85.451						
7	.481	3.434	88.885						
8	.359	2.567	91.452						
9	.327	2.335	93.787						
10	.286	2.041	95.828						
11	.210	1.501	97.329						
12	.174	1.243	98.572						
13	.107	.765	99.337						
14	.093	.663	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
disefftea	.410	.752	.001
dissubmat	.532	.604	.049
dishighexp	.033	.082	.986
disfac	.560	.591	.084
disstulearn	.616	.454	.059
disrolemodel	.455	.626	-.080
dislernsty	.741	.310	-.030
diseffplan	.773	.375	.017
disclasmng	.745	.404	-.002
diseffeval	.846	.282	.051
diseffass	.819	.291	.066
disict	.281	.619	.103
dishighstuach	.289	.836	.070
dishighstuperf	.278	.862	.055

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

D) Views of Self Dimension

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.058	58.814	58.814	7.058	58.814	58.814	3.275	27.292	27.292
2	1.182	9.851	68.666	1.182	9.851	68.666	3.016	25.137	52.429
3	.865	7.212	75.878	.865	7.212	75.878	2.814	23.449	75.878
4	.571	4.759	80.636						
5	.557	4.638	85.274						
6	.472	3.935	89.209						
7	.379	3.161	92.370						
8	.284	2.368	94.738						
9	.249	2.073	96.811						
10	.165	1.379	98.189						
11	.149	1.244	99.433						
12	.068	.567	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix[a]

	Component		
	1	2	3
vteachdifways	.288	.328	.698
vroleclassact	.254	.649	.473
vpersona	.212	.719	.437
vthemlearn	.316	.508	.543
veffevaluat	.406	.747	.213
veffeffassessm	.317	.811	.146
vICT	.064	.355	.722
vroleacadem	.303	.087	.804
vrolesch	.657	.189	.493
vbelifimpstu	.846	.229	.277
vblifstuachieve	.884	.342	.189
vblifstuperfor	.833	.400	.162

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 7 iterations.

APPENDIX F

Statistics

NPar Tests Dominant Dimension

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Knowledge	320	53.6281	9.50775	22.00	66.00
Skills	320	43.9438	8.63633	18.00	54.00
Disposition	320	35.2281	6.49242	14.00	42.00
VOS	320	29.4656	5.36961	12.00	36.00
KL	320	2.58	.581	1	3

Ranks

	KL	N	Mean Rank
Knowledge	1	15	8.00
	2	103	67.00
	3	202	219.50
	Total	320	
Skills	1	15	10.30
	2	103	74.01
	3	202	215.75
	Total	320	
Disposition	1	15	8.00
	2	103	93.91
	3	202	205.78
	Total	320	
VOS	1	15	8.00
	2	103	92.77
	3	202	206.36
	Total	320	

Test Statistics[a,b]

	Knowledge	Skills	Disposition	VOS
Chi-Square	228.709	202.713	143.871	146.904
df	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000

a. Kruskal Wallis Test

b. Grouping Variable: KL

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Knowledge	320	53.6281	9.50775	22.00	66.00
Skills	320	43.9438	8.63633	18.00	54.00
Disposition	320	35.2281	6.49242	14.00	42.00
VOS	320	29.4656	5.36961	12.00	36.00
SL	320	2.59	.597	1	3

Ranks

	SL	N	Mean Rank
Knowledge	1	18	11.25
	2	96	69.20
	3	206	216.09
	Total	320	
Skills	1	18	9.50
	2	96	66.50
	3	206	217.50
	Total	320	
Disposition	1	18	11.00
	2	96	86.77
	3	206	207.92
	Total	320	
VOS	1	18	21.33
	2	96	76.55
	3	206	211.78
	Total	320	

Test Statistics[a,b]

	Knowledge	Skills	Disposition	VOS
Chi-Square	215.262	226.482	163.678	184.716
df	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000

a. Kruskal Wallis Test

b. Grouping Variable: SL

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Knowledge	320	53.6281	9.50775	22.00	66.00
Skills	320	43.9438	8.63633	18.00	54.00
Disposition	320	35.2281	6.49242	14.00	42.00
VOS	320	29.4656	5.36961	12.00	36.00
DL	320	2.67	.561	1	3

Ranks

	DL	N	Mean Rank
Knowledge	1	15	8.00
	2	75	86.30
	3	230	194.64
	Total	320	
Skills	1	15	10.30
	2	75	79.34
	3	230	196.76
	Total	320	
Disposition	1	15	8.00
	2	75	53.00
	3	230	205.50
	Total	320	
VOS	1	15	8.00
	2	75	67.84
	3	230	200.66
	Total	320	

Test Statistics[a,b]

	Knowledge	Skills	Disposition	VOS
Chi-Square	120.637	133.312	198.331	160.755
df	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000

a. Kruskal Wallis Test

b. Grouping Variable: DL

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Knowledge	320	53.6281	9.50775	22.00	66.00
Skills	320	43.9438	8.63633	18.00	54.00
Disposition	320	35.2281	6.49242	14.00	42.00
VOS	320	29.4656	5.36961	12.00	36.00
VL	320	2.64	.571	1	3

Ranks

	VL	N	Mean Rank
Knowledge	1	15	8.00
	2	86	83.73
	3	219	201.09
	Total	320	
Skills	1	15	10.30
	2	86	76.17
	3	219	203.90
	Total	320	
Disposition	1	15	8.00
	2	86	83.23
	3	219	201.29
	Total	320	
VOS	1	15	8.00
	2	86	58.50
	3	219	211.00
	Total	320	

Test Statistics[a,b]

	Knowledge	Skills	Disposition	VOS
Chi-Square	142.514	160.066	144.709	212.426
df	2	2	2	2
Asymp. Sig.	.000	.000	.000	.000

a. Kruskal Wallis Test

b. Grouping Variable: VL

Kruskal-Wallis Test Leadership Experience

Ranks

	Longisschoolcat	N	Mean Rank
KL	1	106	180.66
	2	112	147.42
	3	27	139.89
	4	75	158.96
	Total	320	
SL	1	106	170.49
	2	112	159.68
	3	27	139.09
	4	75	155.31
	Total	320	
DL	1	106	175.29
	2	112	159.92
	3	27	130.04
	4	75	151.43
	Total	320	
VL	1	106	167.84
	2	112	166.54
	3	27	133.91
	4	75	150.69
	Total	320	
TCB	1	106	173.89
	2	112	164.20
	3	27	133.43
	4	75	145.80

Ranks

	Longisschoolcat	N	Mean Rank
KL	1	106	180.66
	2	112	147.42
	3	27	139.89
	4	75	158.96
	Total	320	
SL	1	106	170.49
	2	112	159.68
	3	27	139.09
	4	75	155.31
	Total	320	
DL	1	106	175.29
	2	112	159.92
	3	27	130.04
	4	75	151.43
	Total	320	
VL	1	106	167.84
	2	112	166.54
	3	27	133.91
	4	75	150.69
	Total	320	
TCB	1	106	173.89
	2	112	164.20
	3	27	133.43
	4	75	145.80
	Total	320	

Test Statistics[a,b]

	KL	SL	DL	VL	TCB
Chi-Square	12.068	4.144	10.329	6.391	6.610
df	3	3	3	3	3
Asymp. Sig.	.007	.246	.016	.094	.085

a. Kruskal Wallis Test

b. Grouping Variable: Longisschoolcat

NPar Tests

Mann-Whitney Test

Ranks

	Longinschool	N	Mean Rank	Sum of Ranks
KL	more than 10 years	75	53.18	3988.50
	7 to 10 years	27	46.83	1264.50
	Total	102		
SL	more than 10 years	75	52.96	3972.00
	7 to 10 years	27	47.44	1281.00
	Total	102		
DL	more than 10 years	75	53.56	4017.00
	7 to 10 years	27	45.78	1236.00
	Total	102		
VL	more than 10 years	75	53.18	3988.50
	7 to 10 years	27	46.83	1264.50
	Total	102		
TCB	more than 10 years	75	52.99	3974.00
	7 to 10 years	27	47.37	1279.00
	Total	102		

Test Statistics[a]

	KL	SL	DL	VL	TCB
Mann-Whitney U	886.500	903.000	858.000	886.500	901.000
Wilcoxon W	1264.500	1281.000	1236.000	1264.500	1279.000
Z	-1.104	-.956	-1.379	-1.104	-.847
Asymp. Sig. (2-tailed)	.269	.339	.168	.269	.397

a. Grouping Variable: Longinschool

Mann-Whitney Test

Ranks

	Longinschool	N	Mean Rank	Sum of Ranks
KL	more than 10 years	75	98.13	7360.00
	3 to 6 years	112	91.23	10218.00
	Total	187		
SL	more than 10 years	75	92.45	6933.50
	3 to 6 years	112	95.04	10644.50
	Total	187		
DL	more than 10 years	75	91.03	6827.00
	3 to 6 years	112	95.99	10751.00
	Total	187		
VL	more than 10 years	75	88.40	6630.00
	3 to 6 years	112	97.75	10948.00
	Total	187		
TCB	more than 10 years	75	87.23	6542.00
	3 to 6 years	112	98.54	11036.00
	Total	187		

Test Statistics[a]

	KL	SL	DL	VL	TCB
Mann-Whitney U	3890.000	4083.500	3977.000	3780.000	3692.000
Wilcoxon W	10218.000	6933.500	6827.000	6630.000	6542.000
Z	-.985	-.378	-.762	-1.421	-1.402
Asymp. Sig. (2-tailed)	.325	.705	.446	.155	.161

a. Grouping Variable: Longinschool

Ranks

	Longinschool	N	Mean Rank	Sum of Ranks
KL	more than 10 years	0[a]	.00	.00
	Total	75		
SL	more than 10 years	0[a]	.00	.00
	Total	75		
DL	more than 10 years	0[a]	.00	.00
	Total	75		
VL	more than 10 years	0[a]	.00	.00
	Total	75		
TCB	more than 10 years	0[a]	.00	.00
	Total	75		

a. Mann-Whitney Test cannot be performed on empty groups.

Mann-Whitney Test Lsp exp bet group 1 & 4

Ranks

	Longinschool	N	Mean Rank	Sum of Ranks
KL	more than 10 years	75	83.65	6273.50
	less than 3 years	106	96.20	10197.50
	Total	181		
SL	more than 10 years	75	85.91	6443.00
	less than 3 years	106	94.60	10028.00
	Total	181		
DL	more than 10 years	75	82.85	6213.50
	less than 3 years	106	96.77	10257.50
	Total	181		
VL	more than 10 years	75	85.11	6383.00
	less than 3 years	106	95.17	10088.00
	Total	181		
TCB	more than 10 years	75	81.59	6119.00
	less than 3 years	106	97.66	10352.00
	Total	181		

Test Statistics[a]

	KL	SL	DL	VL	TCB
Mann-Whitney U	3423.500	3593.000	3363.500	3533.000	3269.000
Wilcoxon W	6273.500	6443.000	6213.500	6383.000	6119.000
Z	-1.979	-1.330	-2.315	-1.564	-2.034
Asymp. Sig. (2-tailed)	.048	.184	.021	.118	.042

a. Grouping Variable: Longinschool

Mann-Whitney Test Lsp exp bet group 3 & 4

Ranks

	Longinschool	N	Mean Rank	Sum of Ranks
KL	7 to 10 years	27	54.91	1482.50
	less than 3 years	106	70.08	7428.50
	Total	133		
SL	7 to 10 years	27	57.02	1539.50
	less than 3 years	106	69.54	7371.50
	Total	133		
DL	7 to 10 years	27	52.80	1425.50
	less than 3 years	106	70.62	7485.50
	Total	133		
VL	7 to 10 years	27	55.96	1511.00
	less than 3 years	106	69.81	7400.00
	Total	133		
TCB	7 to 10 years	27	54.52	1472.00
	less than 3 years	106	70.18	7439.00
	Total	133		

Test Statistics[a]

	KL	SL	DL	VL	TCB
Mann-Whitney U	1104.500	1161.500	1047.500	1133.000	1094.000
Wilcoxon W	1482.500	1539.500	1425.500	1511.000	1472.000
Z	-2.312	-1.828	-2.877	-2.062	-1.886
Asymp. Sig. (2-tailed)	.021	.068	.004	.039	.059

a. Grouping Variable: Longinschool

Ranks

	Longinschool	N	Mean Rank	Sum of Ranks
KL	7 to 10 years	27	66.15	1786.00
	3 to 6 years	112	70.93	7944.00
	Total	139		
SL	7 to 10 years	27	62.63	1691.00
	3 to 6 years	112	71.78	8039.00
	Total	139		
DL	7 to 10 years	27	59.46	1605.50
	3 to 6 years	112	72.54	8124.50
	Total	139		
VL	7 to 10 years	27	59.11	1596.00
	3 to 6 years	112	72.63	8134.00
	Total	139		
TCB	7 to 10 years	27	59.54	1607.50
	3 to 6 years	112	72.52	8122.50
	Total	139		

Test Statistics[a]

	KL	SL	DL	VL	TCB
Mann-Whitney U	1408.000	1313.000	1227.500	1218.000	1229.500
Wilcoxon W	1786.000	1691.000	1605.500	1596.000	1607.500
Z	-.625	-1.238	-1.865	-1.941	-1.506
Asymp. Sig. (2-tailed)	.532	.216	.062	.052	.132

a. Grouping Variable: Longinschool

Mann-Whitney Test Lsp exp bet group 1 & 2

Ranks

	Longinschool	N	Mean Rank	Sum of Ranks
KL	3 to 6 years	112	98.26	11005.50
	less than 3 years	106	121.37	12865.50
	Total	218		
SL	3 to 6 years	112	105.86	11856.50
	less than 3 years	106	113.34	12014.50
	Total	218		
DL	3 to 6 years	112	104.39	11691.50
	less than 3 years	106	114.90	12179.50
	Total	218		
VL	3 to 6 years	112	109.16	12226.00
	less than 3 years	106	109.86	11645.00
	Total	218		
TCB	3 to 6 years	112	106.14	11888.00
	less than 3 years	106	113.05	11983.00
	Total	218		

Test Statistics[a]

	KL	SL	DL	VL	TCB
Mann-Whitney U	4677.500	5528.500	5363.500	5898.000	5560.000
Wilcoxon W	11005.500	11856.500	11691.500	12226.000	11888.000
Z	-3.237	-1.062	-1.650	-.105	-.808
Asymp. Sig. (2-tailed)	.001	.288	.099	.917	.419

a. Grouping Variable: Longinschool

Ranks

	SchType	N	Mean Rank
RMCat	SMK	300	162.47
	SMJK	8	119.19
	SBP	12	138.75
	Total	320	
TBCat	SMK	300	159.15
	SMJK	8	204.50
	SBP	12	165.00
	Total	320	
CLCat	SMK	300	159.99
	SMJK	8	215.50
	SBP	12	136.50
	Total	320	
PMCat	SMK	300	163.11
	SMJK	8	101.94
	SBP	12	134.25
	Total	320	
PDCat	SMK	300	160.01
	SMJK	8	132.81
	SBP	12	191.13
	Total	320	
CCCat	SMK	300	160.94
	SMJK	8	84.00
	SBP	12	200.63
	Total	320	
SMCat	SMK	300	161.83
	SMJK	8	187.50
	SBP	12	109.25
	Total	320	
SMixCat	SMK	300	159.83

	SMJK	8	111.25
	SBP	12	210.00
	Total	320	
TTalkCat	SMK	300	160.73
	SMJK	8	145.38
	SBP	12	164.75
	Total	320	
F2FCat	SMK	300	161.24
	SMJK	8	172.88
	SBP	12	133.75
	Total	320	
TNetCat	SMK	300	162.13
	SMJK	8	124.25
	SBP	12	144.00
	Total	320	
TLeadCat	SMK	300	160.00
	SMJK	8	168.00
	SBP	12	168.00
	Total	320	
TTeachCat	SMK	300	161.28
	SMJK	8	113.25
	SBP	12	172.50
	Total	320	
TResCat	SMK	300	162.14
	SMJK	8	124.19
	SBP	12	143.75
	Total	320	
Supcat	SMK	300	161.08
	SMJK	8	139.94
	SBP	12	159.63
	Total	320	

Coacat	SMK	300	159.25
	SMJK	8	183.25
	SBP	12	176.67
	Total	320	

Test Statistics[a,b]

	RM Cat	TB Cat	CL Cat	PM Cat	PD Cat	CC Cat	SM Cat	SMix Cat
Chi-Square	3.455	3.165	5.350	6.654	2.712	10.052	10.476	8.872
df	2	2	2	2	2	2	2	2
Asymp. Sig.	.178	.205	.069	.036	.258	.007	.005	.012

TTalk Cat	F2F Cat	TNet Cat	TLead Cat	TTeach Cat	TRes Cat	Sup cat	Coa cat
.405	1.763	2.366	.224	3.507	2.392	.741	1.540
2	2	2	2	2	2	2	2
.817	.414	.306	.894	.173	.302	.690	.463

a. Kruskal Wallis Test

b. Grouping Variable: SchType

Kruskal-Wallis Test Type of School vs Level of Involvement in Type of School

Ranks

	SchType	N	Mean Rank
KNowledge	SMK	300	163.82
	SMJK	8	117.81
	SBP	12	106.00
	Total	320	
Skills	SMK	300	164.01
	SMJK	8	99.19
	SBP	12	113.63
	Total	320	
Dispositions	SMK	300	164.26
	SMJK	8	114.44
	SBP	12	97.13
	Total	320	
VoS	SMK	300	164.23
	SMJK	8	99.38
	SBP	12	108.13
	Total	320	

Test Statistics[a,b]

	KNowledge	Skills	Dispositions	VoS
Chi-Square	6.270	7.064	8.190	7.894
df	2	2	2	2
Asymp. Sig.	.044	.029	.017	.019

a. Kruskal Wallis Test

b. Grouping Variable: SchType

NPar Tests

Mann-Whitney Test KSDV vs Level of Involvement in SMK & SMJK

Ranks

	SchType	N	Mean Rank	Sum of Ranks
KNowledge	SMK	300	155.65	46694.50
	SMJK	8	111.44	891.50
	Total	308		
Skills	SMK	300	156.10	46828.50
	SMJK	8	94.69	757.50
	Total	308		
Dispositions	SMK	300	155.76	46727.50
	SMJK	8	107.31	858.50
	Total	308		
VoS	SMK	300	156.11	46831.50
	SMJK	8	94.31	754.50
	Total	308		

Test Statistics[a]

	KNowledge	Skills	Dispositions	VoS
Mann-Whitney U	855.500	721.500	822.500	718.500
Wilcoxon W	891.500	757.500	858.500	754.500
Z	-1.388	-1.930	-1.527	-1.946
Asymp. Sig. (2-tailed)	.165	.054	.127	.052

a. Grouping Variable: SchType

Mann-Whitney Test KSDV vs Type of school SMK & SBP

Ranks

	SchType	N	Mean Rank	Sum of Ranks
KNowledge	SMK	300	158.67	47601.00
	SBP	12	102.25	1227.00
	Total	312		
Skills	SMK	300	158.42	47524.50
	SBP	12	108.63	1303.50
	Total	312		
Dispositions	SMK	300	159.01	47701.50
	SBP	12	93.88	1126.50
	Total	312		
VoS	SMK	300	158.62	47586.00
	SBP	12	103.50	1242.00
	Total	312		

Test Statistics[a]

	KNowledge	Skills	Dispositions	VoS
Mann-Whitney U	1149.000	1225.500	1048.500	1164.000
Wilcoxon W	1227.000	1303.500	1126.500	1242.000
Z	-2.127	-1.880	-2.465	-2.085
Asymp. Sig. (2-tailed)	.033	.060	.014	.037

a. Grouping Variable: SchType

Mann-Whitney Test

Test Statistics[b]

	KNowledge	Skills	Dispositions	VoS
Mann-Whitney U	45.000	36.000	39.000	40.500
Wilcoxon W	123.000	72.000	117.000	76.500
Z	-.235	-.935	-.705	-.590
Asymp. Sig. (2-tailed)	.814	.350	.481	.555
Exact Sig. [2*(1-tailed Sig.)]	.851[a]	.384[a]	.521[a]	.571[a]

a. Not corrected for ties.

b. Grouping Variable: SchType

Ranks

	SchType	N	Mean Rank	Sum of Ranks
KNowledge	SMJK	8	10.88	87.00
	SBP	12	10.25	123.00
	Total	20		
Skills	SMJK	8	9.00	72.00
	SBP	12	11.50	138.00
	Total	20		
Dispositions	SMJK	8	11.63	93.00
	SBP	12	9.75	117.00
	Total	20		
VoS	SMJK	8	9.56	76.50
	SBP	12	11.13	133.50
	Total	20		

Test Statistics[b]

	KNowledge	Skills	Dispositions	VoS
Mann-Whitney U	45.000	36.000	39.000	40.500
Wilcoxon W	123.000	72.000	117.000	76.500
Z	-.235	-.935	-.705	-.590
Asymp. Sig. (2-tailed)	.814	.350	.481	.555
Exact Sig. [2*(1-tailed Sig.)]	.851[a]	.384[a]	.521[a]	.571[a]

a. Not corrected for ties.

b. Grouping Variable: SchType

APPENDIX – G

1. A Senior Lecturer at the Faculty

Dr. Sathiamoorthy Kannan

Senior Lecturer
Institute of Educational Leadership
University of Malaya
Wisma R & D
Jalan Pantai Bharu
59990 Kuala Lumpur, Malaysia
03 22463421; 016 2912722 (Hp)

Email: drsathia@um.edu.my; kajohsa@yahoo.com

Visiting Scholar at University of Kentucky, USA
Between September 11, 2011 to January 25, 2012

EDUCATION

PhD (Management of Innovation) University Science Malaysia (2003)
M. Ed (Physics Education), University of Malaya (1992)
Dip Ed. With Credit, University of Malaya (1980)
B. Sc (Hons), University of London (1979)

POSITIONS HELD

Programme Coordinator for PhD courses 2011, 2012, 2013, 2014

Core person for Curriculum Review of the PhD courses, 2014

Lecturer in charge of PhD Research Support System 2013, 2014

Core person for the Technology Leadership Courses in the MEL Programme

EXCELLENCE AWARDS AND FELLOWSHIP

Visiting Scholar at University of Kentucky, United States of America, between September 10, 2011 to January 25, 2012

Excellent Service Certificate by the University of Malaya, 2007

Excellent Service Certificate by the Ministry of Education Malaysia, 1992

WORK EXPERIENCE

1. Visiting Scholar at the Department of Educational Leadership, University of Kentucky, United States, between September 10, 2011 to January 25, 2012.

2. Senior Lecturer at the Institute of Educational Leadership, University of Malaya since 2006

3. Head of Department at the Institut Aminuddin Baki (The National Institute of Educational Management and Leadership), Ministry of Education, Genting Highlands between 2004 -2005

4. Senior Lecturer at the Institut Aminuddin Baki/The National Institute of Educational Management and Leadership, Ministry of Education, Genting Highlands between 2001 -2004

5. Mathematics Lecturer at the Maktab Perguruan Persekutuan Pulau Pinang from December 1991 till Dec 1997

6. Physics Teacher, and also Ketua Panitia Mathematics SMK Teluk Datuk Banting from 1986 till December 1991

7. Mathematics Teacher at Sekolah Menengah Sains Pengkalan Chepa from January 1981 till December 1985

MAIN RESEARCH AREAS

1. Educational Leadership
2. Technology Leadership
3. Management of Innovation
4. Leading Change and Innovation
5. Curriculum Leadership
6. Leadership for Learning
7. Supervision and Instructional Leadership

SERVICES PROVIDED TO HOME INSTITUTION

Senior Lecturer teaching relevant courses that include:

Curriculum Leadership 2006, 2007, 2008, 2009, 2010, 2011
Technology Leadership 2007, 2008, 2009, 2010
School Based Research 2006, 2007, 2008, 2009, 2010, 2011, 2012
Research Methodology for MEL Course 2013
Research Seminars in Educational Leadership for PhD 2013, and
Research Methodology for PhD students 2013, 2014
Quantitative Research Methods for MEL students 2014

Chair Person for PhD proposal Vetting 2007, 2008, 2013

Web Manager 2007, 2008, 2009, 2010, 2011

Examiner for Masters Projects 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014

Quality Manager for the Institute from 2008, 2009, 2010

Programme Coordinator for the PhD 2010, 2011, 2012, 2013, 2014

RESEARCH

Instructional Leadership in East Asia: A Cross-Cultural Collaborative Research Study headed by Prof. Philip Hallinger and Prof. Allan Walker from Asia Pacific Centre for Leadership and Change with Dr. Sailesh Sharma, Prof Alma Harris & **Dr. Sathiamoorthy Kannan** as Representative Collaborators for Malaysia. 2013/2014.

Study of Institutional Development and Principal Leadership in Malaysian secondary schools Study of Institutional Development and Principal Leadership in Malaysian secondary schools. An UMRG 2012/2013: Dr. Suseela Malakolunthu as the principal researcher and **Dr. Sathiamoorthy Kannan** as the co-investigator

Large –Scale 1:1 Computing Initiatives: An open–Source database. A Research with the CASTLE Team members at University of Kentucky in 2011. **Dr. Sathiamoorthy Kannan** as a co-researcher.

Leading ICT integration: Principals' Concerns and Their Strategies. An UMRG 2010/2011 Research Grant. **Dr. Sathiamoorthy** as the principal researcher.

The Dynamics of headmasters' instructional leadership in the context of primary school human resource management in Selangor. An UMRG 2009 Research Grant. **Dr. Sathiamoorthy** as a Co Researcher.

Principals' Concerns and Professional Needs in using School Management Information System. An UMRG 2009/2010 Research Grant: **Dr. Sathiamoorthy** as the principal researcher.

Principals' Involvement and their Strategies in building Teacher Capacity for School Improvement: What the preliminary findings say. A Self Funded Research in 2009. **Dr. Sathiamoorthy** as the principal researcher.

Portfolio Assessment of Lower Secondary History and Geography Subjects in Malaysia / *Pentaksiran Kerja Kursus Sejarah dan Geografi di Malaysia*. Total Grant: RM 250 000. Funded by: Malaysian Examination Syndicate, Ministry of Education, Malaysia. (June 2006 – December 2007). **Dr. Sathiamoorthy** as a Data Analyst.

PUBLICATIONS

MONOGRAPH

Abdul Aziz Jamin, Chan Yuen Fook, Tan Siew Eng & **Sathiamoorthy Kannan** (2004). *Amalan Pengurusan dan Kepimpinan Pengetua Kanan di Malaysia / Management and Leadership Practices of Senior Principals in Malaysia*. Genting Highlands: Institut Aminnudin Baki/The National Institute of Educational Management and Leadership Malaysia.

CHAPTER IN BOOK

Implementation of innovation from the perspectives of concerns and level of use, *Jurnal IPK, 2006.*

JOURNALS

Alma Harris, Michelle Jones, Sailesh Sharma, & **Sathiamoorthy Kannan** (2013). Leading educational transformation in Asia: sustaining the knowledge society, Asia Pacific Journal of Education, Vol. 33, Issue 2. DOI: 10.1080/02188791.2013.

Jayson W. Richardson, Scott McLeod, Kevin Flora, Nick J. Sauers, **Sathiamoorthy Kannan**, & Mehmet Sincar (2013). Large-scale 1:1 computing initiatives: An open access database. *International Journal of Education and Development using Information and Communication Technology (IJEDICT),* 2013, Vol. 9, Issue 1, pp. 4-18.

Sathiamoorthy K., Sailesh Sharma, Zuraidah Abdullah (2012). Principal's Strategies for Leading ICT Integration: The Malaysian Perspective. *Creative Education, Vol 3, Supplement, 111-115. Published Online December 2012* in SciRes (http:// SciRP.org/journal/ce).

Sailesh Sharma, **Sathiamoorthy Kannan** (2012). Instructional Supervision a Tool for Improvement or Weapon for Punishment. *TIJ's Research Journal of Social Science & Management – RJSSM, Vol 2, No 8.*

Chan Yuen Fook, Gurnam Kaur Sidhu & **Sathiamoorthy Kannan (2012).** Effective Training for Organizational Change in School: A Case Study. *Social and Management Research Journal (SMRJ)*, UiTM, 2012.

Sathiamoorthy K., M. W. Leong, & Mohd Jamil Salleh. (2011). Principal technology leadership and teacher's ICT applications in two different settings in Malaysia. *Proceedings of the International Conference on Application of ICT in Economy and Education (ICAICTEE-2011). Pg 347 – 359.*

Sailesh Sharma, Marohaini Yusoff, **Sathiamoorthy Kannan**, and Suria Baba (2011). Concerns of Teachers and Principals on Instructional Supervision in Three Asian Countries, *International Journal of Social Science and Humanity, Vol. 1, No. 3, September 2011*.

Sailesh Sharma, Marohaini Yusoff, **Sathiamoorthy Kannan**. (2011). Instructional Supervision in Three Asian Countries-What DoTeachers & Principals Say? *Proceedings of 2nd International Conference on Education and Management Technology, IPEDR vol.13 (2011) © (2011) IACSIT Press, Singapore.*

Kannan, S. (2011). Technology leadership: Principals' concerns and their strategies. In M. Koehler & P. Mishra (Eds.), *Proceedings of Society for Information Technology & Teacher Education International Conference 2011* (pp. 2988-2995). Chesapeake, VA: AACE.

Subramaniam Batu Malai Velu, & **Sathiamoorthy Kannan** (2008). Effectiveness of sfaff development programmes in a Tamil school in Klang, *Jurnal Pemimpin IPK, Jilid 8, 2008.*

Ho Yip Leong, & **Sathiamoorthy Kannan** (2008). Instructional leadership in the supervision of teaching : A comparison between a government school and a private school, *Jurnal pemimpin IPK, Jilid 8, 2008.*

Lew Yeok Leng, & **Sathiamoorthy Kannan** (2007). Use of ICT in PPSMI classroom in 4 selected secondary schools in Penang, *Jurnal Pemimpin IPK, Jilid 7, 2007.*

Maziah Mohammad, & **Sathiamoorthy Kannan** (2007). Malaysian Education Ministry's courseware use in the PPSMI classroom, *Jurnal Pemimpin IPK, Jilid 7, 2007.*

Sathiamoorthy Kannan (2002). A study of managing ability of computer integration among smart school teachers, *Jurnal Pengurusan dan Kepemimpinan Pendidikan, Jilid 12, Bil 02, 2002, 126 – 151.)*

Sathiamoorthy Kannan (1996). Relationship between Cognitive Style, Mathematics Belief and Performance on Mathematical Problem Solving of Gred Five Students, *Jurnal Pendidikan GERAK,* MPPPP, 9, 19 – 25)

Sathiamoorthy Kannan (1995). Relationship between Cognitive Styles, Cognitive levels and Physics achievement of Form 4 Science students, *Jurnal Pendidikan GERAK*, MPPPP, 8, 15 – 20.

CONFERENCES

Kepimpinan Teknologi. Paper presented at Kolokium ict dalam pengurusan dan kepimpinan pendidikan 2013, 18 – 20 Jun, 2013, organized by Institut Aminuddin Baki, Kementerian Pelajaran Malaysia, 69000 Genting Highlands, Pahang, Malaysia.

Principal's Strategies for Leading ICT Integration: The Malaysian Perspective. Paper presented at CITE 2012, Dec 27 – 29 Sanya City, Hainan Island, China**.**

Instructional Supervision in Three Asian Countries-What DoTeachers & Principals Say? Paper presented at the 2nd International Conference on Education and Management Technology, August 19-21, 2011 Shanghai China.

Principals' concerns and professional needs in using school management information system. Paper presented at INTED2011 (International Technology, Education and Development Conference), March 7th-9th, 2011, Convention Centre Hotel SH Valencia Palace, Valencia (Spain).

Principals' Involvement and their Strategies in building Teacher Capacity for School Improvement: What the preliminary findings say, Paper presented at the 23rd International Conference for School Effectiveness and Improvement 2010 (ICSEI 2010), 5 – 8 January 2010, Kuala Lumpur Convention Centre (KLCC) Malaysia.

Leadership Capacity Development: What the institute of Principalship Studies is doing, Paper presented at the Oman-Malaysia Educational Seminar Kuala Lumpur, 5 – 6 October 2009, Hotel Empress Sepang.

Developing student capacity: Agenda for sustainable school improvement, Paper presented at the Seminar Kepengetuaan Kebangsaan ke VI, March 11-13, 2009, Institute of Principalship studies, University of Malaya.

Approaches and Strategies in Improving School Achievement among 335 Secondary
School Principals, Paper presented at the 22rd International Conference for School Effectiveness and Improvement 2009, 4 – 7 January 2009, Vancouver BC, Canada.

Approaches and Practices of Malaysian Secondary School Principals in Improving Academic Achievement, Paper presented at the 3rd International Conference on Principalship and School Management, 10 -13 March 2008, Legend Hotel, Kuala Lumpur

Leadership for change in Tamil schools, Paper presented at the Congress organized by Kesatuan Kebangsaan Guru-Guru Sekolah Tamil Malaya in Langkawi on 20 June 2007.

Curriculum leader in the context of school improvement, Paper presented at the Persidangan Pengurusan Kualiti Menjana Kecemerlangan bagi Pengetua Sekolah menengah negeri Terengganu, 20 Mac 2007, Quality Hotel Shah Alam

Improvement in learning process: Several strategies for curriculum leaders, Paper presented at the Seminar Kepengetuaan Kebangsaan ke-V, Mac 13 – 15, 2007, Institute of Principalship studies, University of Malaya.

Assessment in Education: Towards Authenticity, Paper presented at the Second International Conference on Principalship and School Management, March 14 – 16 2006, Institute of Principalship studies, University of Malaya.

Cabaran dan Keperluan Latihan Pengetua Kanan dalam Alaf Baru, Paper presented at the in *Seminar Kebangsaan Pendidikan 2003* organized by Universiti Teknologi Malaysia in 2003.

Kajian Keberkesanan Kursus Pengurusan Penilaian Berasaskan Sekolah Anjuran Institut Aminuddin Baki, Paper presented at the in *Persidangan Kebangsaan Penilaian Kemajuan Berasaskan Sekolah (PKBS 2002)* organized by Research Unit of Fundamental Education University Science Malaysia in collaboration with Educational Planning and Research Division Ministry of Education Malaysia in 2002.

Integration of computer into teaching-learning: A study of concerns and the managing ability among smart school teachers, Paper presented at the *International Conference on Technology and Vocational Technical Education: Globalsation and Future Trends* organized by the Faculty of Education Universiti Kebangsaan Malaysia in collaboration with Malaysian National Commission for UNESCO in 2001.

CONSULTATION

MASTERS PROJECTS SUPERVISED AND EXAMINED

2006

Concerns and levels of use of ICT in Teaching among Maths and Science teachers of a secondary school by *Kamariah Bujang.*

Computer management in teaching and learning in a secondary school by *Hilmi Hassan.*

Management of Computer usage for Teaching in a secondary school in Pahang by *Jasme Ismail*

ICT usage in the Maths and Science Teaching in four selected schools in Penang by *Lew Yeok Leng.*

Administrator's readiness towards computer usage in managing the school administration by *Noor Kamsiah Jaapar*

Readiness Level in LEM Management among Teachers in Malacca by *Anita Maizan*

Usage of Automation software in the management of the school resource center by *Sophia Nor Molhit*

Usage of PPSMI Courseware among teachers by *Maziah Mohammad*

2006 -2007

Principal leadership in the implementation of ICT integrated Teaching and Learning by *Roslini Razali*

The Understanding of principal's roles and practices in implementing ICT integration in schools by *Rossiah Mat Adam*

Teachers' attitude towards computer and their level of use in a Smart school by *Shahrin Alias*

The roles of heads of departments in managing ICT integration in teaching and learning by *Julia Tasrip*

Implementation of Computer Technology in teaching and learning activities: Teachers' perceptions and practices in a school in Kedah by *Hafizah Moahamed*

2007-2008

Staff Development Programme in a Tamil School Klang by *Subramaniam Bathumalai Velu*

Use of internet among teachers in a secondary school in Kluang by *Northip*

Computer usage in teaching and learning in a rural school in Kedah by *Azami Abdul Rahman*

Multimedia technology usage in a school in Johor by *Azlina Rahmat*

Instructional leadership in supervision of teaching: A comparison between government school and private school by *Ho Yip Leong*

A study of school climate and student academic achievement in two selected schools in Sarawak by Hii *Kwong Ung*

Relationship between principal's reinforcement behavior and teacher job satisfaction in a school in Federal Territory by *Krishna Kumarie*

2008 - 2009

Principal leadership style and teachers' job satisfaction in a secondary school by *Nik Muza Nik Cob*

Principal's Instructional Leadership teachers' job motivation in a school in Selangor by *Jamilah Abd Aziz*

Principal leadership in implementing staff development programme in a secondary school by *Siti Shamizatulfiza Abd. Paris Khan*

Principal's role in implementing curriculum innovation in a school: Teachers' perception by *Azhan Anuar*

Principal as a technology leader in a secondary school in Negeri Sembilan by *Kamala Salahya*

2009 – 2010

Principals leadership style and teacher job satisfaction in a secondary school in Kelantan by *Wan Yusof Wan Abdullah*

Principal's leadership style and teacher professional development in a secondary school by *Hamizah Hashim*

Instructional leadership characteristics and improvement in effective teaching in a secondary school in Kuala Lumpur by B*anusha Balasingham*

Principlal's instructional leadership and effective teaching in a school in Negeri Sembilan by *Roslan Mohd Zainal*

Assistant principal's leadership style and teacher motivation in a school in Seremban by *Badrol Shah Abdul Saha*

Principal's leadership and school effectiveness in a secondary school in Bentong by *Aniz Suraza Sued*

Principal technology leadership and teachers' ICT application in a secondary school in Seremban by *Leong Mei Wei*

Principal's communication style and teachers' teamwork practices in a secondary school in Seremban by *Nadzida Mohd Nadzim*

2010 – 2011

Kajian Perbandingan Pengurusan Disiplin Oleh Pengetua Secara Elektronik Dengan Tradisional Di Sebuah Sekolah Menengah Negeri Johor by *Mohamed Rani Asim*

Kepimpinan Teknologi Pengetua Di Sebuah Sekolah Bestari Kota Tinggi Johor by *Mohd Jamil Salleh*

Gaya Komunikasi Kepimpinan Pengetua Dan Penglibatan Guru Melaksanakan Aktiviti Kokurikulum Di Sebuah Sekolah Di Terengganu by *Mohd Amiludin Mohd Amin*

Kepimpinan Teknologi Terhadap Implementasi Ict Di Sebuah Sekolh by *Nazri Bakar*

Kepimpinanpengetua Dalam Membentuk Iklim Pembelajaran Yang Kondusif Di Sebuah Sekolah Daerah Kuala Muda Yan by *Sukriyah Shafie*

Kepimpinan Transformasional Pengetua Dan Amalan Kajian Tindakan Di Sebuah Sekolah Menengah Daerah Pasir Gudang, Johor by *Vijayan Durysamy*

Gaya Kepimpinan Pengetua Cemerlang Dan Hubungan Dengan Tahap Kepuasan Kerja Guru by *Siti Faridah Othman*

Kepimpinan Transformasional Pengetua Terhadap Literasi Komputer Guru Di Sekolah Menengah Vokasional Selangor by *Harin Hafian Ramlan*

Kepimpinan Pengetua Dan Amalan Kpp by *Zubaidah Selamat*

Gaya Kepimpinan Transformasional Pengetua Wanita Dan Motivasi Guru Di Sebuah Sekolah by *Amran Dazid*

2011 – 2012

Kepimpinan Transformasi Pengetua terhadap Iklim Organisasi di Sekolah Daerah Kuantan by *Asiah Muda*

Kepimpinan Instruksional Pengetua dan Komitmen Guru di sebuah Sekolah Menengah Kawasan Samarahan Sarawak by *Augustine Anak Atung*

Kepimpinan Instruksional Pentadbiran Sekolah dan Kualiti Penyeliaan Pengajaran dan Pembelajaran pendidikan Khas di Negeri Sembilan by *Mohd Asri Mat Hassan*

Kepimpinan Transformasi Pengetua dan tahap penerimaan guru terhadap perubahan di Sekolah Menengah di Bukit Mertajam Pulau Pinang by *Saniah Matt Lazim*

Kepimpinan Guru besasr terhadap pelaksanaan pentaksiran berasaskan sekolah di sebuah sekolah rendah di Kuala Lumpur by *Ong Li Choo*

2012 - 2013

Shahariman Abd Rahman

Kamarulzaman Mahmad

Adanan Hussin

Kamarul Ariffin Mahumdin

2013 – 2014

Relationship between Principals Distributed Leadership and Teacher Leadership at one MRSM in Malacca by *Zakiah Khamis*

Kepimpinan Instruksional Pengetua dan Komitmen Guru di sebuah MRSM Negeri Kedah by *Rusidi Mustafa*

Kepimpinan Transformasi dan Kepuasan Kerja Guru by *Mohamad Zabedi Abd Samad*

Kepimpinan Instruksional Pengetua dan Pengurusan Kurikulum by *Hisham Awang*

Tahap Kepimpinan Teknologi Pengetua MRSM by *Abdul Manaf Abdullah*

PHD THESIS SUPERVISED AND COMPLETED

1. Teacher capacity building: Principals involvement and their strategies by *Nedujchelyn Malayalam (The student has passed his Viva Voce and awaits his graduation in October 2014).*

PHD THESIS UNDER SUPERVISION AS <u>THE SUPERVISOR</u>

1. Developing school improvement critical success factors model through a study on principals in selected secondary schools in Malaysia by *Umar Man*

2. Management obstacles in primary schools: Actions and needs of headmasters to overcome by *Joohari Hassan*

3. Role of School leadership in Student character building for better discipline by *Yaacob Hj Jantan*

4. Budaya sekolah dan pencapaian pelajar: Faktor mediating amalan kepimpinan pendidikan *by Teoh Hong Kean*

5. Kepimpinan terhadap pelaksanaan *production based education* di Kolej Kemahiran Tinggi MARA (KKTM) dan Institut Kemahiran MARA (IKM) by *Mohd Nawawi bin Omar*

6. Kepimpinan pengetua terhadap keberkesanan program khas pendidikan sekolah di MRSM by *Mohd Radzi bin Taib*

7. Talent Management among second line leaders in Malaysian Secondary Schools *by S.Sathiyabama d/o Suprammaniam*

8. Challenges, interventions and opportunities to improve learning behaviors in classrooms for secondary schoolboys in Petaling Jaya, Selangor by *Kenny Chia Soon Lee*

9. Kepimpinan pengetua membentuk Murabbi di MRSM by *Nik Mustafa bin Mat Ali*

10. Kepimpinan teknologi pengetua dan kompetensi guru menggunakan teknologi di sekolah menengah, Semenanjung Malaysia by *Dharmalingam a/l Vyapury*

PHD THESIS UNDER SUPERVISION AS CO- SUPERVISOR

1. Instructional Leadership in Four Provinces in Pakistan by *Muhammad Niqab*

2. Impak penyeliaan instruktional dalam meningkatkan keupayaan guru by *Mislinah bt Makin*

3. *Wan Aida Rohana binti Mohammed Salleh*

4. *Nor Hesham bin Mat Jusoh*

5. *Qusayla Binti Abd Razak*

6. *Mohd Razi Bin Yahya*

EXPERTISE/SERVICE TO THE COMMUNITY

Invited speaker and trainer for School Professional Developments in the following schools:

SJKT Vivekananda Brickfields, Kuala Lumpur
SJKT Simpang Lima Klang
SJKT Watson Port Klang
SJKT Batu Caves Selangor
SJKT Saraswathy Petaling
SJKT Fletcher Road, Kuala Lumpur
SJKT Bangsar, Kuala Lumpur

SMK Batu Caves, Selangor
SMK Selayang
SMK Kebun Sultan Klang
SMK Kampung Jawa Klang

Consultant & Module Developer for "I LOVE MATH" programme for EWRF since 2010

Facilitator for the preparation course for the Teacher's Competency Assessment in 2008, and 2009

PROFESSIONAL MEMBERSHIPS

Yayasan Guru Malaysia - Member since 2000

International Congress for School Effectiveness and Improvement (ICSEI) 2009, 2010 - Member

2. An expert from Institut Aminuddin Baki

MR. Vasu Muniandy

Senior Lecturer

Department of Mentoring and Coaching

Centre for Consultation and Mentoring

Institute of Aminuddin Baki,

Ministry of Education,

Sri Layang, Genting Highlands,

69000 Pahang Darul Makmur, MALAYSIA

Tel : 03-61056100/6423

Fax:03-61056299

http://www.iab.edu.my/

Education

BIL.	PERINGKAT SIJIL/DIPLOMA/IJAZAH	INSTITUSI SEKOLAH/UNIVERSITI	TAHUN
1.	IJAZAH SARJANA PENDIDIKAN (MATEMATIK)	UNIVERSITI MALAYA	2007
2.	IJAZAH SARJANA MUDA PENDIDIKAN (MATEMATIK)	UNIVERSITI PENDIDIKAN SULTAN IDRIS	2002
3.	DIPLOMA PENDIDIKAN (TAMIL)	MAKTAB PERGURUAN SERI KOTA,KL	1993
4.	SIJIL PELAJARAN MALAYSIA	SM METHODIST, BANTING.SELANGOR	1989

Experience

BIL	JAWATAN	PEJABAT	TAHUN
1.	PENSYARAH KANAN DG 48	INSTITUT AMINUDDIN BAKI GENTING HIGHLANDS	18.8.2009-31.8.2013
2.	PPPS DG41	SM SYED MASHOR, BATANG KALI.	16 JUN 2002 HINGGA 1 JULAI 2008
3.	PPPBS DG29	SJKT LADANG GEDDES, BAHAU.NEGERI SEMBILAN	1 JAN 1995 HINGGA 31 DIS 1998
4.	PPPBS DG29	SJKT SUNGAI SEBALING,BAHAU.NEGERI SEMBILAN	1 DIS 1993 HINGGA 31 DIS 1994

Courses/Workshops/ Seminars attended

BIL.	KURSUS/BENGKEL/ SEMINAR/LATIHAN	TEMPAT	TARIKH
1.	KOLOKIUM MASTER TRAINER – BIL 1 /2013	INSTITUT AMINUDDIN BAKI	24 JUN 2013
2.	KOLOKIUM KAJIAN TINDAKAN	INSTITUT AMINUDDIN BAKI	29 NOVEMBER – 1 DISEMBER 2011
3.	KURSUS BENGKEL PEMBIMBING PROGRAM TEACH FOR MALAYSIA UNTUK MENTOR SEKOLAH	INSTITUT AMINUDDIN BAKI	SEPTEMBER 2011

4.	KURSUS COACHING & MENTORING PROGRAM PEMBANGUAN PRESTASI SEKOLAH (SIP)	INSTITUT AMINUDDIN BAKI	JUN 2010
5.	SEMINAR NASIONAL PENGURUSAN KEPIMPINAN PENDIDIKAN KE-17	INSTITUT AMINUDDIN BAKI	JULAI 2010
6.	KURSUS BENGKEL TEACH FOR MALAYSIA	INSTITUT AMINUDDIN BAKI	APRIL 2010
7.	KURSUS LEADERSHIP COACHING	INSTITUT AMINUDDIN BAKI	NOVEMBER 2009
8.	SEMINAR NASIONAL PENGURUSAN & KEPIMPINAN PENDIDIKAN KE-18	INSTITUT AMINUDDIN BAKI	JULAI 2011

Contribution

BIL.	NAMA TERBITAN/PENULISAN	TEMPAT	TAHUN DIHASILKAN
1.	PENCERAMAH KURSUS BINA UPAYA BAGI PEGAWAI KANAN , EKSEKUTIF PELAPIS DAN PEGAWAI PAKAR KEMENTERIAN PELAJARAN MALAYSIA 4/2012	CORUS PARADISE RESORT PORT DICKSON, NEGERI SEMBILAN	JULAI 2012
2.	PENCERAMAH KURSUS BINA UPAYA BAGI PEGAWAI KANAN , EKSEKUTIF PELAPIS DAN PEGAWAI PAKAR KEMENTERIAN PELAJARAN MALAYSIA 5/2012	SRI CEMPAKA SUITE CHERAS KUALA LUMPUR (BAHAGIAN PENDIDIKAN GURU)	SEPTEMBER 2012
3.	JAWATANKUASA PELAKSANA MAJLIS SAMBUTAN HARI GURU PERINGKAT IAB	INSTITUT AMINUDDIN BAKI	JUN 2013

4.	PENGERUSI JAWATANKUASA PENILAIAN TEKNIKAL 4 BAGI BENGKEL PEMANTAPAN PRUF MUKA SURAT PROGRAM PENERBITAN PAKEJ BUKU TEKS KSSR TAHUN 4 KEGUNAAN MULAI TAHUN 2014 MELALUI KAEDAH TENDER/SEBUT HARGA	TOWER REGENCY HOTEL & APPARTMENTS, PERAK	MEI 2013
5.	PENGERUSI JAWATANKUASA BAKAL PENILAI PRUF MUKA SURAT (PMS) PAKEJ BUKU TEKS TAHUN 2 KEGUNAAN MULAI TAHUN 2012 BAGI MATA PELAJARAN MATEMATIK TAHUN 2 SJKT	HOTEL CORUS PARADISE RESORT PORT DICKSON, NEGERI SEMBILAN	FEBRUARI 2011
6.	PENGERUSI MESYUARAT PEMBACA PRUF PERINGKAT NASKHAH SEDIA KAMERA PROGRAM	EMPRESS HOTEL, SEPANG	JUN 2011

	PENERBITAN PAKEJ BUKU TEKS KSSR TAHUN 4 (TERJEMAHAN) SAINS DAN MATEMATIK TAHUN 4 KEGUNAAN MULAI TAHUN 2012 MELALUI KAEDAH RUNDINGAN TERUS DENGAN DEWAN BAHASA DAN PUSTAKA PENGERUSI		
7.	JAWATANKUASA PENILAIAN TEKNIKAL 2 BENGKEL BUKU TEKS KSSR TAHUN 4 KEGUNAAN MULAI 2014	HOTEL SUMMIT USJ SELANGOR	APRIL 2013

Expertise

- PENDIDIKAN MATEMATIK
- COACHING & MENTORING (EDUCATIONAL LEADERSHIP)
- CREATIVITY IN EDUCATIONAL LEADERSHIP

C. A Senior Practitioner at a Secondary School

MR VELLAN RAMAN
Principal
SMK Bahau, Negeri Sembilan.
vellanraman@yahoo.com

Academic Qualification:

1. Ijazah Sarjana Lanjutan (M.Ed)

   Pengurusan dan Pentadbiran, University Technology Malaysia (1998)
2. Ijazah Sarjana Muda (BA.Hons)

   University of Malaya (1988)
3. Sijil Perguruan

   Maktab Perguruan Seri Kota (1980/81)

In-service

1. National Professional Qualification For Headship (NPQH)

   Pengurusan Bagi Pengetua, Institut Aminuddin Baki (2001)
2. Program Organisational Development /Program Melonjakkan Kecemerlangan Sekolah; Pengurusan Bagi Pengetua Institut Aminuddin Baki (2008/09)

Awards:

1. Anugerah Perkhidmatan Cemerlang - APC 1995 Pendidikan
2. Anugerah Perkhidmatan Cemerlang - APC 2009 Pendidikan
3. Pingat Perkhidmatan Masyarakat Cemerlang – PMC 2003 Kerajaan Negeri

Experience:

Jawatan	**Tarikh Mula**	**Tarikh Tamat**	**Tempat**	**Masa**
Guru Akademik	04.01.1982	30.06.1985	SJK(T) Nilai	3½ Tahun
Guru Akademik	01.05.1988	31.10.1991	SMK Bahau	3½ Tahun
Penolong Kanan Kokurikulum	01.11.1991	15.09.1992	SMK Bahau	09 Bulan
Penolong Kanan Hal Ehwal Pelajar	16.09.1992	24.05.1997	SMK Bahau	05 Tahun
Guru Akademik	01.05.1998	30.05.2000	SMK Raja Jumaat	02 Tahun
Kursus Dalam Perkhidmatan (NPQH)	01.06.2000	30.05.2001	IAB	01 Tahun
Penolong Kanan Hal Ehwal Murid	01.06.2001	30.05.2006	SMK Dato Md Yusof Linggi	05 Tahun
Penolong Kanan Akademik	01.06.2006	30.12.2011	SMK Rantau	5 Tahun
Pengetua	31.12.2011	Hingga Sekarang	SMK Bahau	1 Tahun