Teacher Leadership Factors and Teacher Leadership Model Based on the Six Guiding Principles

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Abstract
The purpose of this study is to explore teachers' leadership factor and to develop a teacher leadership model based on the six guiding principles proposed. To address the objectives, this study employed a quantitative approach using a descriptive design. A total of 196 respondents; whom are comprised of teachers pursuing their post graduate studies at UPSI, using purposive sampling technique. The exploratory factor analysis and confirmatory factor analysis have been used to obtain construct validity. Data from the survey is used to test and confirm factors expressed in the proposed model. The findings of this study which are tested on future teacher leaders have revealed significant results of the six guiding principles namely; "Leading by facilitating improvements in instructions and students learning'', "Leading through modelling" ,"Leading through collaborative culture", "Leading through organisational development" ,"Leading through partnership with the community" and "Leading through exemplary contribution". The findings of this study provide important information for the undergraduates, lecturers, university administrators, and the community at large regarding to a new teacher leadership model in preparing quality teachers for the future. Besides that, it will broaden the literature on training and development of new teachers. Thus, this study also contribute a new paradigm in the area of teacher leadership.
Keywords: Teacher Leadership, Teacher Development, Teacher Leader, Exploratory Factor Analysis, Confirmatory Factor Analysis.

Introduction
Effective leadership among teachers is a pertinent element in the effort to produce productive and successful generation in the future. The demand on teacher leadership skill is increasing along with schools' transformation process since the past two decades (Crowther, Ferguson & Hann, 2009). Today's teachers are not only responsible for educating the students but also are expected to serve as role models for their students, colleagues and community (Umpstead, Pogodzinski & Lund, 2013). Thus, in this matter, teacher leadership plays a very

important role and this encourages the teachers to accept and handle the concept of teacher leadership with care (Moller & Katzenmeyer, 1996).

Before the teachers act as teacher leaders, they should prepare themselves by understanding and accepting their roles as teacher leaders in order to avoid any misunderstandings in the organizations, especially in schools. Lambert (1998) made a suggestion that, models of teacher leadership which appreciate teachers as leaders and provide for a paradigm of open, transparent and deep democratic leadership, should be embraced. The researcher believes that with the aid of these teacher leadership models, quality teachers for the future can be produced.

Even as late as 1980s, along with the emergence of educational administration, the issue of educational leadership has already been evolved. However, the concept of teacher leadership was not much concentrated as the teachers got in the way of administrators' plans (Crowther et al., 2009). But in this new era, where educational transformations are imposed widely, the notion of teacher leadership becomes one of the most important concepts in the schools in order to enhance schools' achievements.

One of the ways to improve teacher leadership skills is to develop a model and then conduct training. It is important to bear in mind, in order to prepare professional teachers with good leadership qualities, the types of trainings and programs designed must be highly related to schools' reformation and transformation. This is in line with Moller and Katzenmeyer (1996) who claimed that, professional development of teacher leaders can occur either formally or informally. Wasley (1991) who made a comparison between these two facts found that informal teacher leaders are more influential than the formal teacher leaders. Even so, the teachers who assume formal leadership roles in their schools have the advantage to learn how to turn educational policy into constructive practice.

In general, if teachers are able to change their roles in the classroom to be more effective, they must also be able to help students change their traditional roles from passive learners to active scholars; who will seek understanding of concepts and assume more responsibility for their own learning (Merideth, 2000). In other words; as a good teacher leader, a teacher is able to promote effective teaching-for-understanding strategies by being a role model for the students. In terms of teachers' continuous development and improvement, teachers are able to upgrade themselves by attending workshops, conferences and participating in study groups. Apart of that, teachers' visit to one another's classrooms, reading books related to their interest, and spending time studying with other teachers are the few activities that can be listed out here which enable the teachers to not only collaborate with their colleagues but also to build new views relating to teaching and dealing with the community (Moller & Katzenmeyer, 1996).

Problem Statement

Education and teaching are not static type of sector or profesion, but continuously transform according to the changes in time. With all the transformations that are going on; be it in technology, demographic and social culture or government's education policy, the biggest challenge to the education institutions and teachers is; they must always be at the most contemporary level and able to flexibly adjust and adapt to the changes. Moreover, as schools compete with virtual academies and private providers for students, they have to differentiate themselves from others by creating uniqueness, which tells the public that they are better than their competitors. The areas in creating differentiation mainly focused on critical thinking, evaluate sources of information and participate as full (Lieberman & Miller, 2004).

So, it is essential for teachers to upgrade themselves to make the world trust and exemplify them in all circumstances.

Apart of the challenges mentioned above, there are many studies that pay specific focus on other types of challenges faced by teachers. The challenges do not only limited to teaching and learning contents and methods, but also involve challenges in the form of communication and interaction when dealing with humans; namely between teachers and students and other parties associated with school (i.e principal, colleagues, administrators); parents and finally with other institutions and the society (community)).

A number of studies has diverted their attention to studying teachers challenges and its association with teachers' educational leadership perception, knowledge and skill. For example, the study by Swanson, Elliot, and Harmon (2011) whom highlighted that in recent years teachers also encounter challenges in building support among administrators, dealing with resistance, establishing and maintaining credibility, developing new expertise and defining roles and responsibilities. Under normal circumstances, teachers (without formal leadership knowledge and training) who face these challenges often feel demotivated and fail to play their roles efficiently.

The study by Moller and Katzenmeyer (1996) reported that once teachers accept their work as leaders, the context in which they work is a major concern. Even the most able teachers find it difficult to exert influence within a school that does not provide the resources or encouragement for teacher leadership. This is because teachers are often viewed as quasiprofessionals rather than true professionals (Lieberman & Miller, 2004). This view is supported by Swanson et al. (2011) who reported that in recent years, using their talents, many 'accidental' teacher leaders have been thrust into or find themselves in leadership roles without any training. However, the growing reliance on teacher leaders' improvement suggests a need to be more intentional about preparing future teacher leaders.

The scenario described above has provide an indication the importance of "leadership" acceptance, skill and knowledge. If we overview; the studies already highlighted in the main texts, are all mainly categorized under the theme of teachers' educational leadership; which refers to teachers' leadership skill as a principle or administrator. If leadership is very important that means, the values, skill and knowledge of leadership should be trained and embedded at the earlier stage (while they are still student teachers) before going into the mainstream. In relating to this, it has created a strong urge among the researchers to conduct a study that put specific focus on the issue of teacher leadership at pre-service level. The existing literatures that specifically discuss on teacher leadership roles and factors are only few in numbers. To name a few are studies conducted by; Crowther et al. (2009), Wasley (1991), Merideth (2000), and Fareeha Nudrat & Muhammad Saeed Akhtar (2014). These studies gave some useful inputs and better understandings on teacher leadership. In the effort to prepare quality teachers for the future, it is also important to have a leadership model. Thus, apart of investigating leadership factors through the six guiding principles established earlier (Norwani, Yusof, Mansor, & Daud, 2016), this study also aim to develop a teacher leadership model for the purpose to educate teachers in Malaysia as trained teacher leaders, who in turn will enhance schools' excellence.

Literature Review
The theoretical framework on leadership was designed based on House's Path-Goal theory. According to this theory, leaders' behaviour has been divided into four categories – supportive leadership, leadership, participative leadership and achievement-oriented

leadership (Green, 2005). Thus, this theory is the most suitable to be taken as the foundation in designing the   existing teacher leadership model. Besides that, in this study, the framework which was built by Smith (2014) has been adopted and modified. Therefore, the focused variables of this study are the six guiding principles, namely; leading by facilitating improvements in instructions and students learning, leading through modelling, leading through collaborate culture, leading through organizational development, leading through partnership with the community and leading through exemplary contributions (Norwani, Yusof, Mansor, & Daud, 2016).

Teacher Leadership and Teacher Leaders
Teachers have given way to innumerable research studies and definitions of teacher leadership concept over the last few decades (Wasley, 1991). One of the notable studies in this field was Lambert (2003) who defined teacher leadership as performing actions, which enable the participants of a community to develop potential to lead in a trusting environment. Whereas, Katzenmeyer and Moller (2009) refers teacher leadership as teachers' ability to lead within and beyond the classroom. However, Barth (1999) defined teacher leadership as an act of having a positive influence on the school as well as within the classroom.
In most recent studies, teacher leadership's definition cantered on a vision of a teacher leader who is able build influence and interaction, rather than power and authority (Poekert, 2012). According to Fairman and Mackenzie (2012), teacher leadership emerged within many different contexts, such as individual and collective efforts; informal and formal actions; narrowly focused and broader school-wide improvement efforts; a school climate of isolation and mistrust or one of collegiality, shared vision and trust. Whereas, Hunzicker (2012) reported that basically, teacher leadership roles and responsibilities are closely related to student-focused concerns. However, their self-efficacy increase when the teacher leaders are actively pursued leadership skills and positively influence their self-conceptions of teacher leadership.
In lieu to that, teacher leaders who recognize the value of teacher leadership create a school culture of collaboration and continuous learning that engages all teachers in a variety of learning and leadership experiences (Hunzicker, 2012). Hence, Swanson et al. (2011) stated that teacher leaders have substantial needs for institutional support, professional development and professional learning communities when schools are to maximize their contributions.

Teacher Leadership Model and Quality Teachers
Quality teachers are the most significant school-based determinant of student outcomes. There also appear differences in perceptions of what constitutes good quality teaching and learning between schools. For example, 63% of schools rated themselves as having good or excellent teaching and learning practices, as compared to just 13% by school inspectors. From this data, it is suggested that more can be done to build a common understanding of what good teaching looks like, and to prepare quality teachers to meet that expectations in future (Ministry of Education, 2013).
Debates over teacher quality are among the most heated exchanges in the education reform arena when scholars and policy makers grapple with questions about teachers' preparation, compensation, and evaluation, and the changing roles of teachers. In line with this, schools across the country are experimenting new models for recruiting, training, and supporting

teachers, and are innovating strategies for deploying their talents through differentiated roles and the use of technology (Hers & McShane, 2014).

To direct the discussion to be in alignment with the existing study, a number of models which focused on teacher leadership have been designed by the researchers' in order to prepare quality teachers for the future. Despite the fact, there are many teacher leadership models available in the literatures; the theoretical framework of the existing study was designed based on House's Path-Goal Theory, Katzenmeyer and Moller (2009), Phelps (2008), York-Barr and Duke (2004), Fairman and Mackenzie (2012), Ministry of Education (2013) and Ministry of Education (2009) which focused on leaders' behaviour and its effect on performance and satisfaction levels of followers. Green (2009) who claimed that this theory holds many implications for the school to achieve their goals supported the statement by House's Path-Goal Theory.

Teacher Leadership and the Guiding Principles
In investigating teacher leadership factors based on the six guiding principles established in the earlier study, it is best to give a brief review of each guiding principle. The description is done in the following order: Leading by facilitating improvements in instructions and students learning, Leading through modelling, Leading through collaborative culture, Leading through organisational development, Leading through partnership with the community and finally, Leading through exemplary contribution.

Leading by Facilitating Improvements in Instructions and Students Learning
Teacher leaders are able to make decisions and use instructional approaches in ways that intentionally can support their instructional purposes. Normally, the students in their classes are engaged throughout the lesson or activity (Fink & Markholt, 2011). Whereas Darensbourg (2011) reported that teacher leaders are also known well for their passion, driven, and expertise in instructions and students learning.

According to Dufour and Marzano (2011), one of the most important factors that contribute to students learning is the quality of instruction that students receive each day. In response to this, schools must utilize strategies that result in more good teaching, and in more classrooms most of the time. This idea was supported by Hargreaves and Shirley (2012), who reported that effective instructional practices are primarily nurtured through teachers' leadership that emphasizes continuous improvement and refinement, collective inquiry, critical problem analysis and innovative solution generation. Nevertheless, teacher leaders are also capable to bring a well-developed commitment to education, especially in teaching and a desire to learn, supported by attitudes of curiosity, open-mindedness and doing their best (Collinson, 2012).

According to Malone (2013), instructional improvement is embedded in teacher leaders' routine work at the school. However, it relies on teacher leaders' capacity and opportunity in schools to collectively analyse student learning needs to create or select instructional interventions to those needs. The Program for International Student Assessment (PISA) is one of the powerful instruments, which lead to 21st century learning. It gives ways to teachers, especially teacher leaders to make changes and improve their instructional strategies.

Leading through Modelling

If an individual wants to improve, one of the most obvious strategies is to learn or copy from someone who is more effective (Hargreaves and Shirley, 2012). Generally, a model teacher builds trust and respect from the students, peers, administrators and community. Being a role model is essential for the teacher leaders, especially to cultivate culture of trust (Fullan, 2007). According to him, teacher leaders are able to "talk the talk" as well as "walk the talk" in the process of gaining trust from the students, administrators and also from the community.

Once a teacher leader is ready to take on a greater leadership role, others are ready to accept him or her as role models. In such a situation, mostly senior teachers are more influenced rather than a principal, where they seem to be the one who is offering direction or feedback on how to conduct the leadership activity (Baecher, 2012). Besides that, as teacher leaders, they are also responsible to exude confidence to others, and to give others authority to make decisions in a participatory manner (Green, 2005). When teacher leaders value diversity, they are committed to fostering strategies that address the needs of all students, peers and stakeholders in process. Changes were made in accordance with teacher leadership standards that have been designed by the administrators and stakeholders.

Leading through organizational development

According to Baecher (2012), the definition of teachers' role that was traditionally known as instructor in the classroom, is now slipped into the hazy area of quasi-administrator. According to Spillane and Coldren (2011), the role of teachers nowadays tends to mould with elements of organizational infrastructure and organizational development. As the result, teacher leaders today can collectively participate in the school and leadership development process. They take ownership of the school development plan while realizing their potential as teacher leaders (De Villiers & Pretorious, 2011).

Dufour and Marzano (2011) suggested that in order to become a good leader, it is necessary for a teacher leader to connect the vision of school or classroom to the hopes and dreams of those he or she serve and take effective steps to move toward the vision. At the same time the teacher leader also constantly need to remind their colleagues, staffs or students of the importance of their work by linking it to a higher purpose. It is supported by Poekert (2012), who made an assertion that influencing colleagues to improve their teaching practice and students' learning are one of the teacher leaders' fundamental roles. Essentially, teacher leaders are also known as school-based professional developers, who can contribute for organizational development.

Leading through Collaborate Culture

Working collaboratively with colleagues and peers to learn each other's achievements and help resolve one another's difficulties is one of the ways that teacher leaders demonstrate their leadership skill (Dufour and Marzano, 2011; Poekert, 2012). Basically, teachers are known as natural leaders in their classroom as they play their roles as formal and /or informal leaders while networking with their colleagues, administrators and community (Franco, Ott & Robles, 2011). However, recognizing teacher leaders' preference to be a formal teacher leader or informal teacher leader is all depending on his or her qualifications.

Generally, ordinary teachers only want to expand the scope of collaboration for student learning purposes. Whereas, teacher leaders have higher inclination to expand the delicate nature of collaboration work to organizational, especially schools' development rather than to only focus on students learning (Rodgers & Jenkins, 2010). Thus, Merideth (2000) reported

that, the latter collaborative learning groups are able to focus wider on school problems; and able to build community and challenge the thinking of their members.

In relation to this, Moller and Katzenmeyer (1996) came up with a framework that consists of four components, which help teacher leaders leading through collaborate culture. They are team teaching, school-university collaboration, special education and bilingual inclusion and alternative professional teaching time. Upon using these four components, teachers are able to experience leadership development in pedagogical innovation, pre-service teacher education, curriculum development, research and governance.

Leading through Partnership with the Community

Effective teacher leaders understand that they cannot accomplish great things alone (Dufour & Marzano, 2011). They also added that teacher leaders are able to recognize that the ability to lead is not only with the private reserve of a few extraordinary people but also with those in particular positions of authority in a community. So that, interactions among teacher leaders with other internal and external stakeholders, such as students, parents, teachers, policy makers and local community members are necessary in motion in understanding teacher leadership and management practice (Spillane & Coldren, 2011).

Malone (2013) who put focus of the study on the same issue provide a conclusion that, an ongoing, sustained and open conversations between teacher leaders, parents and community about what matters for students and their learning, give opportunity for the establishment of mutual understanding and shared decision making between the parties involved. The remark was supported by Tileston (2004), who reported that most parent-teacher conferences end well and forge relationships with teacher. The study by Collinson (2012) went in detail by claiming that; for a teacher leader to learn more about each student, teacher leader need to foster individual relationships between the students and their parents. The relationship is, the more a teacher knows about a student, the more pathways he or she open up to connect with the community.

Leading through Exemplary Contributions

Kouzes & Posner (2012) proclaimed that, leadership is not about who the person is, but it is about what the person does. Katzenmeyer and Moller (2009) stated that teacher leaders are able to contribute to a community of teacher learners and leaders; influence others towards improving educational practice and accept responsibility for achieving the outcomes of leadership. However, according to Pasternak, Rigoni, and Roberts (2012) made an assertion that teacher leaders could only discover their leadership abilities when they realize they could contribute to a community

According to Dufour and Marzano (2011), in order to become the best teacher leader, one should demonstrate his or her confidence in the possibility of improvement through the collective efforts of those they lead by putting a process in motion to foster the necessary changes. Therefore, it is essential for teacher leaders to engage in continuous inquiry, inform, persuade, mobilize, and energize others to do more with their communities (Darensbourg, 2011). These actions will clearly show the teacher leaders' ability to lead with their exemplary contributions. These contributions in return will definitely inspire the community to exemplify the teacher leaders' actions.

In relation to this, Kouzes and Posner (2012) had introduced Five Practices of Exemplary Leadership to anyone who accepts the leadership challenge. The Five Practices of Exemplary Leadership are inspired a shared vision, challenge the process, enable others to act and

encourage the heart. Even so, Collinson (2012) mentioned that teacher leadership skills appear to propel the teachers towards learning sources that can provide them with domain expertise, pedagogical knowledge, knowledge of self and others and also broadening of perspectives through personal interests, organizational involvement and other disciplines, which will later spread outward from their classrooms and make opportunities for leadership unfolded.

Objectives of the Study
According Merideth (2000) leadership strategies for teachers is designed for and dedicated to all teachers who are committed to their students' learning and to their own development. These existing teachers help advance school improvement efforts and adopt innovative teaching practices, but they rarely see themselves as leaders. Therefore, the current study is conducted in order to examine teacher's ability to lead and at the same time to identify whether the present teachers have the leadership qualities or not. In specific, this research intended to address the following objectives:
1. To explore teacher leadership factors based on the six guiding principles.
2. To develop teacher leadership model based on the six guiding principles for preparing quality teachers for the future.
This study is important as the findings provide useful information for the researcher to build a new teacher leadership model based on the six guiding principles observed earlier. Moreover, the findings also help to promote teacher leadership among the teachers in the effort of preparing quality teachers for the future.

Methodology
This study is using primary data for the analysis. The data is obtained from the distribution of questionnaire sets. Data are analysed by using descriptive method, which more emphasis is given on describing rather than judging or interpreting.

Population and Sampling of the Study
In the mission to assess teachers' leadership factors based on the six guiding principles, a total of 202 post graduate students who practically (or by experienced) are teachers and are currently pursuing their studies at the Faculty of Management and Economy of UPSI were selected as respondents of this study. In particular, the distribution process follows the convenience sampling technique (Zainol, Mohd Yasin, Omar & Nik Hashim, 2014), where the respondents were chosen using non-probability sampling approach (Jackson, 2005). Out of total, 196 respondents were accepted (as the remaining are incomplete) and this number fulfil the minimum amount required by Krejcie and Morgan's table.

Instrumentation
The survey questionnaire set was used as primary data collection instrument for this study. The questionnaire explored the existing teachers' leadership qualities by using the six guiding principles which has been developed. The comparative analysis of teacher leadership models such as House's Path-Goal Theory, Katzenmeyer and Moller (2009), Phelps (2008), York-Barr and Duke (2004), Fairman and Mackenzie (2012), Ministry of Education (2013), Malaysian National Policy of Education, Ministry of Education (2009) as well as through key informants and survey of lecturers and teachers from schools and higher learning institutions in Malaysia has been done to develop these items. It consisted of 87 Likert rating questions/statements.

The respondents were asked to determine the extent to which they agreed or disagreed with the Likert-scale questions/statements regarding teachers' leadership guiding principle. The Likert-scale responses ranging from 1 to 5; in which the smaller to higher scales indicate weaker to stronger degrees.

Validity and Reliability of the Instrument

The Cronbach Alpha coefficients were used to measures the internal consistency of these scales. In this study, the constructs which had Cronbach Alpha coefficients greater than .70 have been retained for further analysis. Furthermore, measures with item-to-total correlation larger than .30 are considered to have criterion validity. If item-to-total correlation of each measure was more than .30, we consider the criterion validity of each scale to be satisfactory. From the result, it is noted that the Cronbach's Alpha scores for all the variables are between .71 and .89. According to Jackson (2005), all the scores between .70 and 1.0 are considered strong or very reliable. Thus, it is understandable that all the variables that were tested in this study are very reliable.

Meanwhile, to ensure the instrument has reasonable construct validity, both exploratory and confirmatory factor analyses were used. This preliminary study has been done by using 179 sets of data. The exploratory factor analysis (EFA) through orthogonal rotation with varimax method had been used. The EFA applied the following rules as suggested by Hair, Black, Babin, Anderson, and Tatham (2010) and Tabachnick and Fidell (2007): i. Bartlett's Test of Sphericity had to be significant (p < .05); ii. Kaiser-Meyer-Olkin measure of sampling index ≥ .5; iii. Eigenvalue > 1;

iv.   Items with the factor loading > .5 were retained;

v.   Factors building were based on teacher leadership theory and previous studies.

The results of exploratory factor analysis shows that, the Kaiser-Meyer-Olkin measure of sampling adequacy index was .872, and Bartlett's Test of Sphericity was significant x^2(3741, N = 196), 10296. 32, p < .05, indicating that the sample and correlation matrix were appropriate for such an analysis. The exploratory factor analysis (EFA) through principle component analysis method has been used. In this study, we found that there are six factors being retained. These six factors accounted for 54.34% of the variance in the items scores. The six factors are; Leading by facilitating improvements in instructions and students learning, Leading through modelling, Leading through organizational development (management, administration, leadership skill), Leading through collaborate culture, Leading through partnership with the community and Leading through exemplary contribution.

The confirmatory factor analysis was used test the existence of unidimensionality and stability of six factor, thirty two item teacher leadership using AMOS Version 21.0 by using actual data (N = 196). We analysed this hypothesized six-factor model with all thirty-two items as indicators of the variable. The parameters were estimated using maximum likelihood. This approach incorporates both observed and latent variables. Multiple indices provided a comprehensive evaluation of model fit (Hu & Bentler, 1999). We examined chi-square per degree of freedom ratio (x²/df), Comparative Fit Index (CFI),Tucker-Lewis Fit Index (TLI), Adjusted Goodness of Fit Index (AGFI), Goodness of Fit Index (GFI), Normed Fit Index (NFI) and Root Mean Square Error of Approximation (RMSEA). These indices were used to evaluate the goodness-offit of the model that fit the data (Bryne, 2010; Schumacker & Lomax, 2004). x²/df ratio value of less than 3 and value of .70 for CFI, TLI, AGFI, GFI, and NFI have been use as a lower cut-off value of the acceptable fit (Nunnally & Bernstein, 1994; Schumacker &

Lomax, 2004). In addition, the RMSEA value of less than .06 indicate a good fit, while the value as high as .80 indicate a reasonable fit (Hu & Bentler, 1999).

The analytical results of the AMOS CFA model reveal a satisfactory fit for our sample data. The modified hypothesized six-factor teacher leadership model with thirty two-construct is illustrated in Figure 1 below. The fit indices (x^2/df = 1.51, CFI = .91, AGFI = .78, GFI = .81, TLI = .89, NFI = .77 and RMSEA = .06) indicates the CFA model meets recommended levels. Thus represents a satisfactory fit for the sample data collected. Meanwhile, the convergent validity scores are between .57 to .80 and divergent validity scores are between .35 to .83. As conclusion, the proposed model shows the existence of unidimensionality of each factor and stability of the 32 items teacher leadership. The indices of the fit test of the overall CFA model are shown in Figure 1.
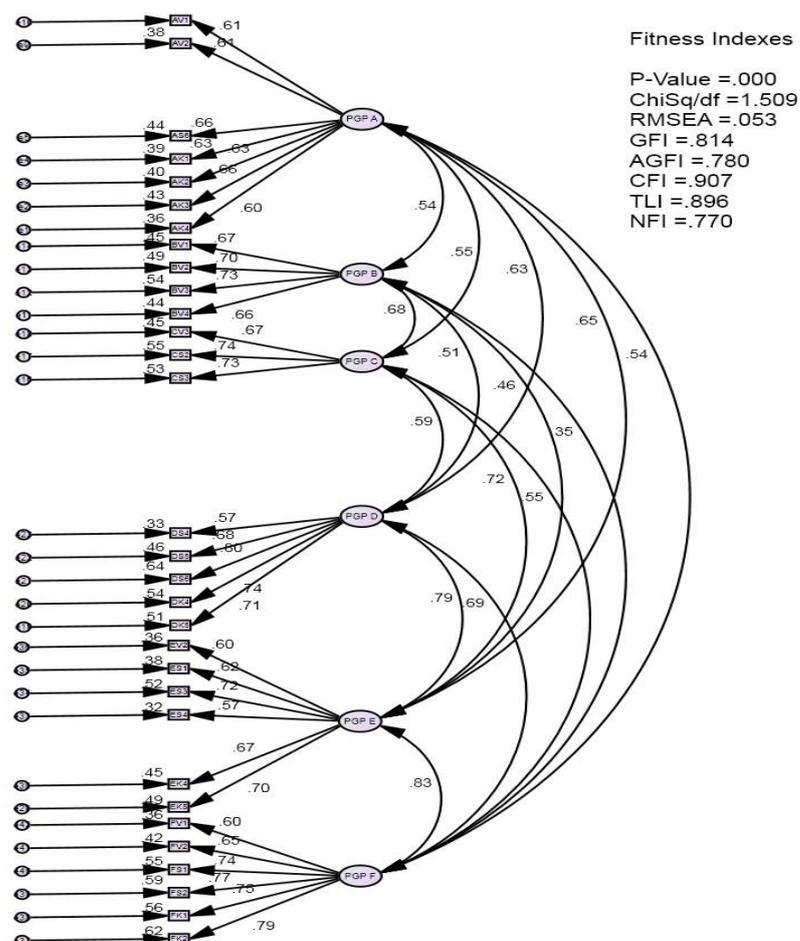

Figure 1: Teacher leadership CFA model

Data Analysis and Results

The data were analysed by using SPSS version 21.0 and AMOS 21.0. The research focused on descriptive analyses, where the researcher opted to get the mean and standard deviation of each variable and second order CFA model in order to answer the research questions by using actual data (N = 196). The sample of this study was selected among postgraduate students who are currently pursuing their studies in Education at the Faculty of Management and Economy in UPSI. 196 set of questionnaires were valid for analysis. The analysis for this study was divided into two parts. The first part presented the mean scores and standard deviation scores for overall teachers' perspectives on the six guiding principles and followed by the

presentation of mean scores and standard deviation scores based on the research objectives. Meanwhile, the second part is second order CFA of the six guiding principles of teacher leadership.

Descriptive Analysis
Descriptive Analysis of the Mean Scores and Standard Deviation Scores for Overall Teachers' Perspectives on the Six Guiding Principles

Table 1 illustrates the mean scores and standard deviation scores for overall teachers' perspectives on the six guiding principles. Overall, the cumulative mean scores for all the guiding principles range from 3.69 to 3.99. High mean score is recorded by the first guiding principle that is "leading by facilitating improvements in instructions and students learning" (M= 3.99, SD= .462) while the least mean scores recorded by the last guiding principle, "leading through exemplary contribution" (M= 3.69, SD= .530). This shows that most of the teachers are good in delivering their lessons and giving instructions in their classrooms, especially to their students. However, in showing their leadership skills, these teachers need to pay more attention in giving exemplary contributions to their schools and students' development, which is also equally important as the earlier principle.

In lieu to this, the results yielded that in terms of value, "leading through modelling" is the most important guiding principle amongst the teachers, which recorded the highest mean scores (M= 3.99, SD= .462). Whereas, "leading through collaborate culture" and "leading through exemplary contribution" recorded the least mean scores (M= 3.69, SD= .586). This indicates that most of the teachers are able to show their values and beliefs in order to practice their leadership skills by being role models, especially to their colleagues and students. However, they are weak in showing and practicing their values among their colleagues, hence fail to give their contributions that can be followed by others.

Despite that, in terms of skills, "leading through organizational development" marked the highest mean scores (M= 3.95, SD= .504). Whereas, the lowest mean scores recorded by "leading through exemplary contribution (M= 3.65, SD= .647). From this result, it is revealed that most of the teachers are able to use their leadership skills to develop their schools. However, they are still lack in giving exemplary contributions for others, especially to their students and colleagues to follow.

Lastly, the highest mean scores for knowledge is recorded by "leading through modelling" (M= 3.90, SD= .568) and the lowest mean scores is marked by "leading through exemplary contribution" (M= 3.74, SD= .625). This shows that the teachers are more capable in becoming role model than giving exemplary contribution.

Table 1
Overall Teachers' Perspectives on Six Guiding Principles

Teacher Leadership Guiding Principle			Value		Skill		Knowledge	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Leading by facilitating improvements in instructions and students learning	3.99	.462	3.88	.463	3.85	.438	3.81	.639
Leading through modelling	3.92	.475	3.99	.462	3.92	.468	3.90	.568
Leading through organizational development (management, administration, leadership skill)	3.81	.453	3.80	.523	3.95	.504	3.80	.493
Leading through collaborate culture	3.85	.450	3.69	.586	3.80	.493	3.80	.506
Leading through partnership with the community	3.77	.460	3.77	.514	3.72	.492	3.83	.532
Leading through exemplary contribution	3.69	.530	3.69	.586	3.65	.647	3.74	.625

Second Order CFA
The second order CFA was used to confirm the theorized underlying sub-construct of six-factor model, thirty two-item teacher leadership using AMOS Version 21. We analysed this hypothesized six-factor model with all thirty-two items as indicators of the variable. The parameters were estimated using maximum likelihood. This approach incorporates both observed and latent variables. Multiple indices provided a comprehensive evaluation of model fit (Hu & Bentler, 1999). We examined chi-square per degree of freedom ratio (x^2/df), Comparative Fit Index (CFI),Tucker-Lewis Fit Index (TLI), Adjusted Goodness of Fit Index (AGFI), Goodness of Fit Index (GFI), Normed Fit Index (NFI) and Root Mean Square Error of Approximation (RMSEA). These indices were used to evaluate the goodness-of-fit of the model that fit the data (Bryne, 2010; Schumacker & Lomax, 2004). x^2/df ratio value of less than 3 and value of .70 for CFI, TLI, AGFI, GFI, and NFI have been use as a lower cut-off value of the acceptable fit (Nunnally & Bernstein, 1994; Schumacker & Lomax, 2004). In addition, the RMSEA value of less than .06 indicate a good fit, while the value as high as .80 indicate a reasonable fit (Hu & Bentler, 1999).
The analytical results of the AMOS CFA model reveal a satisfactory fit for the sample data. The unmodified hypothesized six-factor teacher leadership model with thirty two-construct is illustrated in Figure 2. The fit indices (x^2/df = 1.56, CFI = .90, AGFI = .77, GFI = .80, TLI = .88, NFI = .76 and RMSEA = .06) provide indication the CFA model meets recommended levels, and thus represents a satisfactory fit for the sample data collected. Leading by facilitating improvements in instructions and students learning (PGPA) (ß = .71, p <.00) accounted for 51% (R^2 = .51), Leading through modelling (PGPB)(ß = .57, p <.00) accounted for 32% (R^2 = .32), Leading through organizational development (PGPC)(ß = .75, p <.00) accounted for 57% (R^2 = .57), Leading through collaborate culture (PGPD) (ß = .84, p =<00) accounted for 70% (R^2 = .70), Leading through partnership with the community (PGPE)(ß = .96, p <.00) accounted for 91% (R^2 = .91), and Leading through exemplary contribution (PGPF) (ß = .81, p <.00) accounted for 66% (R^2 = .66)of the variance in teacher leadership. As the conclusion, the second order model shows the teacher leadership model consists of six sub factors. The indices of the fit test of the overall model are shown in Figure 2.
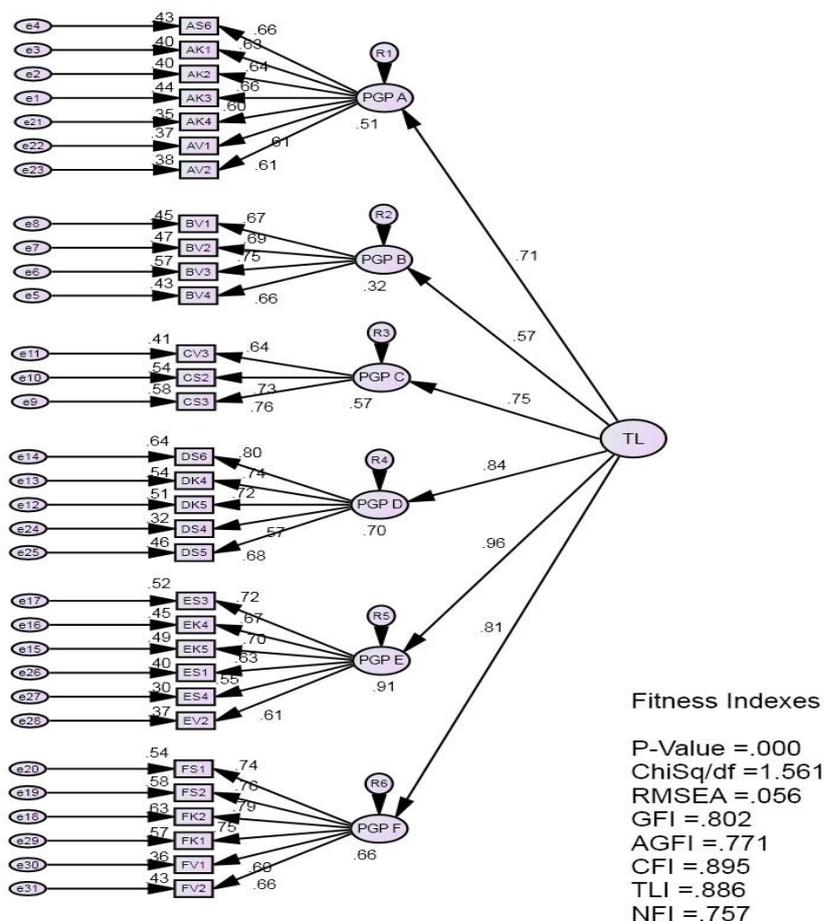
Figure 2: Teacher leadership model

Conclusion

Based on the findings, we may conclude, the leadership factors are relatively significant in teachers' perspective. The detail discussion of the findings is presented according to the following research objectives: to explore teachers' leadership factor and to develop teacher leadership model based on six guiding principles for preparing quality teachers.

Leading by Facilitating Improvements in Instructions and Students Learning

As indicated in the findings, most teachers were found having the ability to lead by facilitating improvements in instructions and students learning in order to practice the teacher leadership skills. Generally, the teachers believe that they are very good in recognizing the importance of meeting the needs of students. This perception is consistent with Malone (2013) who mentioned that teacher leaders' are capable analyse student learning needs to create or select instructional interventions to those needs.

 Apart of the findings, the result also shows that in order to apply or show their ability in leading by facilitating improvements in instructions and students learning, they are also ready to practice life-long learning. Effective teacher leaders will volunteer themselves to accept professional development, especially through life-long learning, which can nurture teachers' leadership that emphasizes continuous improvement and refinement, collective inquiry, critical problem analysis and innovative solution generation (Hargreaves & Shirley, 2009).

Finally, the results show the teacher respondents are good in integrating content knowledge and educational management. However, there is indication that they do weak in terms of understanding various theories and practices of teaching. This finding provides call for teachers on the need to use their content knowledge more regularly, or every day at work in order facilitate improvements in instructions and student learning and management. This finding is supported by Dufour and Marzano (2011) who made a conclusion that teachers must utilize the strategies that enable improvements in students' and schools' achievements., in the absence of the strategies, teachers appears to have less opportunity to integrate the theories that they have learnt in their classrooms or routine works.

Leading through Modelling
Leading through modelling scored the second highest guiding principle; which affecting the development of teacher leadership model in the study. The result revealed that teachers are good in recognizing the importance of and in meeting students' need. This finding was supported by Green (2009) who mentioned in her study that fostering strategies that address the needs of all students, peers and stakeholders in process is vital to be an effective leader. The findings also figured that majority of the teachers are able to develop students' capability to be a leader. This is consistent with the finding of the earlier study, which was conducted by Green (2009) who stated that teacher leaders are having the responsibility to exude confidence in others, especially in students. However, these teachers are still poor in increase students' confidence in implementing learning activities. Therefore, it is better for the teachers to concentrate in this area. However, teachers are good in evaluating students' potential for higher order thinking, they are still need to acquire knowledge on instilling various decisionmaking techniques among peers and students. According to Green (2009) and Baecher (2012), it is important to give the peers and students authority to make decisions in a participatory manner. Hence, teachers must acquire related knowledge to lead through modelling.

Leading through Organizational Development
The results of the analysis for this part showed that, majority of the teachers agreed that they have less interest in leading through organizational development. Even though they know the types of leadership skills to be applied in this area, they claim to have little knowledge and values in this field. Majority of the teachers prefer to practice knowledge sharing to enhance school improvements. In recent studies, this strategy has been proposed where Poekert (2012) and Dufour and Marzano (2011) suggested that a teacher leader can help in organizational development by sharing their knowledge with others.
From the results obtained, we may infer that teachers' performance is poor in acquiring knowledge related to organizational development. This weakness has to be cured because as teachers, it is important for them to understand the development of the schools' capacity for strategic development, to expose students to utilizing relevant data pertaining decision making, to evaluate the organizational development and to know instructional and educational management. This is in line with a few studies that have been conducted by Dufour and Marzano (2011), and Spillane and Coldren (2011) who agreed that acquiring knowledge on organizational development is essential before making any changes or development in that organization.

Leading through Collaborate Culture

The findings reported that leading through collaborate culture ranked as the third best guiding principle. Despite this finding, teachers are willing to share their personal knowledge and ideas for practices. It is because, teachers believe themselves, as natural leaders in the classrooms (Franco et al., 2011) and think that the survey made are not suitable for them. Besides that, the result shows that skills and knowledge are equally important for majority of the teachers. Basically, the teachers are capable to encourage their colleagues to achieve excellence in teaching as mentioned by Rodgers and Jenkins (2010) in their study.

Knowledge is also equally important for teachers in motion to lead through collaborate culture. They know future educational needs and challenges. Hence, Moller and Katzenmeyer (1996) suggested that an effective teacher leader who can collaborate in culture is able to experience leadership development in pedagogical innovation, pre-service teacher education, curriculum development, research and governance. This can help teacher leaders to develop themselves and also their students and peers.

Leading through Partnership with the Community

As indicated in the findings, teachers' ability to lead through partnership with the community is a less favourable principle among the teachers. However, it is interesting to note that they have compatible knowledge in this principle. Most of the teachers understand the needs of the school and community for educational development. Thus, they will use their knowledge to achieve it. Other than that, most of the teachers tend to show their awareness of the current educational development. This fact is supported by Dufour and Marzano (2011) and Malone (2013) who stressed that, it is important for the effective teacher leaders to lead through partnership with the community that is related to them. However, most of the teachers show less enthusiasm in initiating work with the parents and the community and at the same time do not realize the importance and miss the opportunities to involve in teacher-preneurism. This is contrast to previous finding conducted by Spillane and Coldren (2011), Tileston (2014) and Collinson (2014), where relationship among teachers, parents and community is given importance in accordance teacher leadership strategy.

Teachers in general are capable to initiate work with the communities and other diverse groups, but they fail to skilfully get latest information on educational development. This situation may be occurred due to teachers' excessive workload, or having minimal time to update themselves with latest information that help them to cooperate with the community.

Leading through Exemplary Contribution

Overall, findings revealed that teachers least prefer to lead through exemplary contribution. Even so, the teachers are good in terms of knowledge, where they understand the impact in the area of expertise and know the path to go beyond prescribed roles. This is consistent with Katzenmeyer and Moller (2009) who stated that teacher leaders are able to influence others towards improving educational practice and accept responsibility for achieving the outcomes of leadership.

Despite that, even though the teachers are good in facilitating improvements in instructions, they are weak in possessing high confidence in instructional and management in order to show exemplary contributions to others. This is contrast from Dufour and Marzano's (2011) study who suggested, in order to become the best teacher leader, one should demonstrate his or her confidence in the possibility of improvement through the collective efforts of those they lead by putting a process in motion to foster the necessary changes. This shows that the

teachers could not follow the Five Practices of Exemplary Leadership that was proposed by Kouzes and Posner (2012).

Briefly, in the face of school transformations that are occurring widely nowadays, teacher leadership has become one of the vital skills that every teacher should acquire. The existing literatures provide indication that teacher leaders are in substantial needs for institutional support, professional development and professional learning communities if schools are to maximize their contributions (Swanson et al., 2011). Thus, developing a new teacher leadership model in order to prepare quality teachers for the future is essential. This model also will be very useful in reshaping current teachers, as well as preparing new teachers with good teacher leadership strategies.

The results of the current study should be viewed in light of its limitations. First, this study is a cross sectional study where the data were collected from the respondents simultaneously for a period of time. Thus, the" undergraduates and post-graduates" development of leadership through the course were not assessed based on their studying period. With that in mind, future studies are suggested using the longitudinal method to examine the development/progress of undergraduates` and post-graduates' leadership according to their learning period in the university. Future research can also be conducted to investigate the impact of other factors on teacher leadership such as demographic factors (for example: gender, year of services and program of study) and other underlying factors which may include respondents' value, skill and knowledge toward guiding principle of teacher leadership.

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