

The Influence of Total Quality Management and Transformational Leadership on Teacher Quality in Malaysian Secondary School

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This study aims to examine the influence of total quality management and transformational leadership on teacher quality in secondary schools. This study used a cross-sectional survey to collect data from 423 secondary school teachers from all over Malaysia. Data was collected using questionnaires adapted from Total Quality Management Instruments (Zhang, Waszink, & Wijngaard, 2000), Multi-Factor Leadership Questionnaire (Avalio & Bass, 2004) and Malaysian Teacher Standards Instruments (MOE, 2008). This study used Multiple Regression to determine the relationship between variables. Simple random sampling procedures and proportional random sampling were employed in this study. The results portrayed that reward is the best total quality management practice that influence teacher quality. Whereas idealized influence as in leadership dimension influences dominantly on teacher quality. Therefore, the practices of rewarding and implementing charismatic leadership styles are encouraged to improve teacher quality in Malaysian secondary schools.

Key words: *Total quality management, teacher quality, secondary schools.*

Introduction

Teacher quality plays a crucial role in the education system. In nurturing students in schools, a teacher's self-actualisation is needed for teacher quality (Nilsen, Trude & Gustafsson, 2016). Job satisfaction level amongst teachers represents teacher quality as well (Don, Azizah & Yaakob, 2014). Teacher quality influences teachers' commitment in fulfilling their

accountability, gaining desired knowledge and skills, passion, willingness and loyalty ahead of their own (Ministry of Education, 2016). Hence, national education standards are achievable with teacher quality in line with a school's notion on its own (Shahril, 2005).

With Vision 2020 rearing its head, teachers are significant individuals for the education system's competency in producing civilised and a society with high potential (Malaysia Ministry of Education, 2016). The evolvement of education is moving along with sophisticated technologies. These technologies are compliant with the National Education Philosophy, which aim to produce individuals who are intellectually, spiritually, emotionally and physically balanced, who are responsible and capable of achieving a high level of personal well-being as well as being able to contribute to the harmony and betterment of nation (Nordin & Othman, 2008).

Recent issues regarding teachers' workloads have called upon the need to emphasising teacher quality. Due to high demands over creative, efficient, highly motivated and courteous teachers, teacher quality is one of the upmost important aspects in moving towards enrichment in teaching and learning process (Mau, Ellsworth, & Hawley, 2008). Those aspects are indeed attainable if there is greater self-quality and job quality amongst teachers. Other than improving teachers' performances, great teacher quality would gradually boost one's capability and effectiveness of a school (Hanushek & Rivkin, 2006). These previously mentioned aspects are in fact, vital for betterment of future generation. Level of teacher quality, is nevertheless differ significantly depending on individuals. In fact, its level is undeniably difficult to gauge due to an individual's accountability, burdens, difficulties, exposure and capabilities (Mau et al. 2008).

Problem Statement

It is worth noting that a teacher carries a special role in refining individuals' capabilities to achieve a high level of personal well-being and are able to contribute for betterment of nation. Apart from preparing students academically, teachers' responsibilities are beyond that, comprising of the endless administrative tasks such as accumulating students' school fees, issuing the Textbook Loan Scheme (TBLS), organising and conducting co-curricular activities, teachers' club activities planning and participating in Parent-Teacher Associations (PTAs). These relentless duties are seen as impactful on one's job quality and professionalism.

In 2006, the *Utusan Malaysia* reported that majority of teachers based in Selangor, Kuala Lumpur, Negeri Sembilan and Johor claimed that they were overworked with 74 working hours in a week, whereby more than 50 hours, or 64 percent, were allocated for curriculum activities participation. A report from Teachers' Duties and Responsibilities Committee

(TTG) in 2005, additionally revealed that teachers spent approximately 12.7 percent for co-curricular activities and 8.9 percent for student affairs management. Surprisingly 1.2, 4.3 and 2.4 percent were allocated for a school's hostel management, administration, and finance respectively. Community relations and training were assigned for 1.1 percent whilst 0.1 percent for the school's physical development.

The TTG Committee have further contributed to the study back in 2007, stating that an average of 66.24 hours per week spent by a teacher to fulfil his accountabilities and other relevant duties as an educator. Suggested working hours of 45 hours by International Labour Organisation (ILO) would be relevant for personnel and responds to the previous data mentioned that certainly exceeded the relevant ones. The report also mentioned that curriculum, co-curricular, community relations, staff development, physical development, office and administration, finance, student affairs, and hostel management have eventually contributed towards teachers' heavy workloads. Apart from conducting teaching and learning session, teachers are involved in other curriculum related duties such as planning and preparing teaching aids, assessment, extra classes and other appropriate duties (MOE, 2007).

As stated in the Ministry of Education (MOE) Newsletter No. 2 (2012), TTG Committee have classified teachers' workloads according to its respective fields, involving 17 teachers as respondents found that 47 percent of the teachers claimed they were assigned for more than 29 teaching periods. Whilst 53 percent disclosed that their teaching periods have exceeded an average of 66 hours per week with the inclusion teaching and learning duties. All in all, other than inexorable clerical works, teachers' incompetency in co-curricular skills for students' enrichment and continuous co-curricular activities that caused inappropriate workloads, the teachers too revealed that they were still uncertain with their own teaching periods due to undesignated duties and roles.

Rather than heavy reliance of a superior leader for a productive school expansion, a high-quality school relies on competency of the school organisation work culture instead (Davies & Burnham, 2010). Davies and Burnham (2010) further explained that school effectiveness revolves systematically around teacher quality and producing wholesome students accordingly. Hence, the competency of the school organisation work culture carries a greater value for the school sustainability despite constant changes in leadership roles. Teachers and administrative personnel therefore, would work collaboratively in keeping with the standardised guidelines on quality school management to establish high potential outcomes and meet students' needs and demands (Mokshein et al., 2015).

There are still on-going efforts to amplify quality management in government sectors to comply with prior studies that have previously been conducted. For instance, Total Quality Management (TQM), Creative and Innovative Group (CIG), Job Quality Enhancement (JQE)

and Quality School Management System (QSMS). Government sectors should cultivate these values of quality management constantly to establish well-delivered information from its services. It is yet to be unveiled that there is an imperative call upon the needs of implementing quality management in schools (Rahim, Rahman, & Daud, 2012). Possible explanations for the omission of implementing it is due to organisational uncertainty to command quality management values and incomprehensive information regarding the importance of an effective quality school management. It consequently results towards prolonging the conventional management practices, and thus, producing low quality teachers reluctant to move out of their comfort zones. It is intriguing for the policy makers to be prominent in upholding education quality as a prevention over pessimistic reflection on the effectiveness of a school management quality. This will eventually interfere teacher quality in fulfilling the assigned roles due to the conventional management.

Other than impelling teacher quality, transformational leadership is a significant aspect in establishing an effective school and cultivating values. Leadership roles vary depending on an individual that is usually driven by the current state of a school. Transformational leadership is predominantly being practised by principals to productively accomplish the school's goals. The principals executes this leadership in accordance with the current organisational behaviours and condition (Bass & Bass, 2008). Therefore, the aim of our study was to further identify the impacts of principal's transformational leadership at assigned schools and to determine transformational leadership that affects teacher quality.

Few researchers have addressed the issues, problems, and challenges over the recent issues on teacher quality as discussed earlier. Despite this interest, no one to the best of our knowledge have discussed in-depth over the influence of total quality management practices in teacher quality effectively and thoroughly. The aim of the study was thus to examine the influence of total quality management and transformational leadership on teacher quality in secondary schools.

Literature Review

Teacher quality is described as self-quality and the duties of a teacher. These qualities are driven by the practised of teaching professionalism values, knowledge, comprehension, and pedagogical teaching, and learning skills to meet the desired goals for students' performances and personal well-being.

Teaching professionalism defines a teacher's standards and competency of professional values and practices depending on three key domains. These include self-domain, profession domain and social domain. These practices are outlined in keeping with the teaching practices, the moral values in curriculum, and the moral values and ethics in public services



as stated by MOE (2008). These standards comprise of three domains previously mentioned too.

Knowledge and understanding emphasises the standards and competencies of a teacher. This covers one's knowledge and comprehension over a subject matter, education awareness, curriculum and co-curricular. Teacher professionalism is seen to be greater with well-prepared information in accomplishing the assigned roles and duties effectively and efficiently, other than professional growth in preparing themselves creatively and innovatively to proliferate the inner knowledge (MOE, 2008).

Teaching and learning skills stress the required skills for teachers that are in line with the regulated standards and competencies in teaching and learning. These skills are inclusive of planning, and conducting and assessing teaching and learning in both academically and co-curricular.

Total quality management refers to quality management practices in a school management with the purpose of enhancing teacher quality, the school competency itself, and students' well-being. These practices focus thoroughly on the students, administrative leadership, teachers' participation, continuous enhancement, reward, training, and education.

Customer focus in this study is defined as students' well-being through school service quality-based and education-based reports assembled from students and parents over a long term. In response towards a school's commitment in delivering satisfactory information for its users, the prioritised actions are much needed for the reported issues. In keeping with the Malaysian Education Quality Standard for a qualified school education, appropriate suggestions from parents should be implied with the aim of attaining the favourable students' performances and the school on its own. There is a vital need for a good quality management to grasp and prepare the desired demands of students ahead to ensure a school's necessities meet the existing expectation precisely (Ishikawa, 1985). By prioritising students' needs, an effective school is recognised. A growing body literature has additionally presented a key indicator for a prosper quality management relies upon supportive relationship between students as the main users of a school (Zhang et. al., 2000). This relationship can be strengthened by recognising the students' demands and durably, responding to their demands and satisfactory level of their respective schools. Students are encouraged to participate in planning and designing teaching education standards in schools (Flynn, Schroeder & Sakakibaba, 1994). The inclusiveness of their participation in every stages of education is advisable from scratching up till designing teaching and learning session in classrooms (Ko & Chung, 2014). Level of students' satisfaction, needs and well-being are the key elements for gauging a school's performance since they generally refer to one's performances and well-being in the school (Kanji & Usher, 1993).

Leadership, in this study, is defined as administrative personnel being actively and directly involved in quality management and in enhancing the schools progress to strive for impressive school performances compared to prior years. Broad conceptual knowledge and skills of quality management are much needed for administrative personnel. This allows them to incorporate and empower participation amongst teachers for potential decision making aside from enriching resources for teachers and the school. A long- term discussion on recent issues regarding education quality is indeed and is crucial to keep in line with the standardised guidelines in the Malaysian Education Quality Standard. Organisational leadership is important for goals and values attainment, other than continuous betterment for a qualified system. Deming (1986), a founder of quality management, primarily focuses on a leadership aspect as one of the key elements in establishing total quality management. A possible explanation for the omission of quality management practices will directly reveal administrative commitment in a school (Brown, Hitchcock & Willard, 1994). Hence, the lower the administrative commitment, the lower the quality management practices. An organisational quality management is driven by two aspects: high quality services and great leadership commitment. Several pieces of literature have attempted to agree that the main factor for an organisation quality improvement is through supportive top management (Zhang et al., 2000).

Employee participants is described as a school's encouragement for teachers to perform various duties and be actively involved in school-quality activities. Constant evaluation must be executed to meet the desired quality according to the Malaysian Education Quality Standard and the recommendations from teachers must be implemented accordingly. Teachers' participation in quality improvement of the school would act as an additional knowledge for themselves specifically in decision making and drawing attention over uncertain issues in schools. Consequently, the teachers are capable of enlightening self-quality issues throughout the fruitful process of gaining information on the quality management, apart from life-changing attitudes. The practicality of teachers' participation would offer an avenue for the quality improvement in schools (Juran & Gryna, 1993).

This study defines continuous improvement as a process of quality control and improvement in school with clear commands from administrative personnel, the precise and efficient presentation of internal operation and financial information, and prompt execution on the school necessities and facilities. Continuous assessment of teachers' performances is necessary rather than just controlling and improving teacher quality, education and school services through post-mortem (PDCA). This ensures the effectiveness of quality implementation, as in line with the Malaysian Education Quality Standard. Continuous improvement acts as a key indicator for an organisational performance, either a triumph or a failure (Juran & Gryna, 1993). Juran and Gryna (1993) proposed continuous improvement as a wholesome process and an on-going innovation effort. The fundamental principles of

continuous improvement are current process evaluations and assessment of quality management implementation. These need to be demonstrated effectively in a school as a result of persuasive quality management. An underpinning principle of quality assessment additionally relies on attention drawn over the long dominant issues in quality comprehensively (Juran & Gryna, 1993).

Reward is referred to as positive reinforcement and a school's administrative recognition for teachers as a token of appreciation for the persistent efforts in quality improvement. However, attention must be given for the improvement over appropriate reward and its recognition to be presented intensely in accordance with teachers' efforts of upholding the quality improvement in schools. For instance, job promotion and financial reward should be distributed reasonably, based upon job worthiness and quality. Several factors on the quality improvement in an organisation have been discussed by Dale and Plunkett (1990) which asserts that one of them was reward from an individual, a sector or a department. The implementation of reward is indeed noteworthy for teachers' quality improvement and for students' satisfaction afterwards (Brown, Hitchcock, & Willard, 1994).

This study defines education as a reinforcement for teachers in perceiving education, training, and assembling appropriate resources to support education activities and training for teacher quality improvement to run smoothly. Needs arise upon the awareness of the importance of quality-related education and training through the quality management approach training and coursework training programmes, whereby educated and qualified-training teachers are the school's assets. Thus, Deming (1986) agrees that both education and training are the necessary aspects for the establishment of collaborative continuous improvement amongst teachers and administrative personnel. Previous studies have acknowledged that education and training have remarkably contributed for the quality management (Mann, 1992).

Transformational leadership is an encouraging and prompting leadership to employees in attaining accredited employees who are highly capable of producing extraordinary outcomes and synchronising an organisations objectives and goals. Additionally, transformational leadership would result in an employee's self-satisfaction and constant commitment towards the organisation and the assigned group of employees (Bass & Riggio, 2006). Bass and Riggio (2006) further proposed a transformational leader, as the one who can portray their employees' abilities subsequently with the Maslow's hierarchy of needs and for an employee's self-fulfilment as well. The transformational leadership in this study, therefore, shall be discussed within an aspect of a principal whereby the underpinning characteristics of an individual are inclusive of charisma, motivation, intellectual stimulation and leniency towards teachers.

Idealised influence is referred to as idolised leaders that are respectful, diplomatic, thoughtful, and become role models to their followers. The impression of an idealised influencer is defined with the respect of followers' attributions about the leader (Bass & Riggio, 2006).

Inspirational motivation is motivational and inspirational leadership through worthy and thought-provoking duties for their followers. The followers, in return, would appear themselves as collaboratively committed team in fulfilling goals and missions of an organisation (Bass & Riggio, 2006).

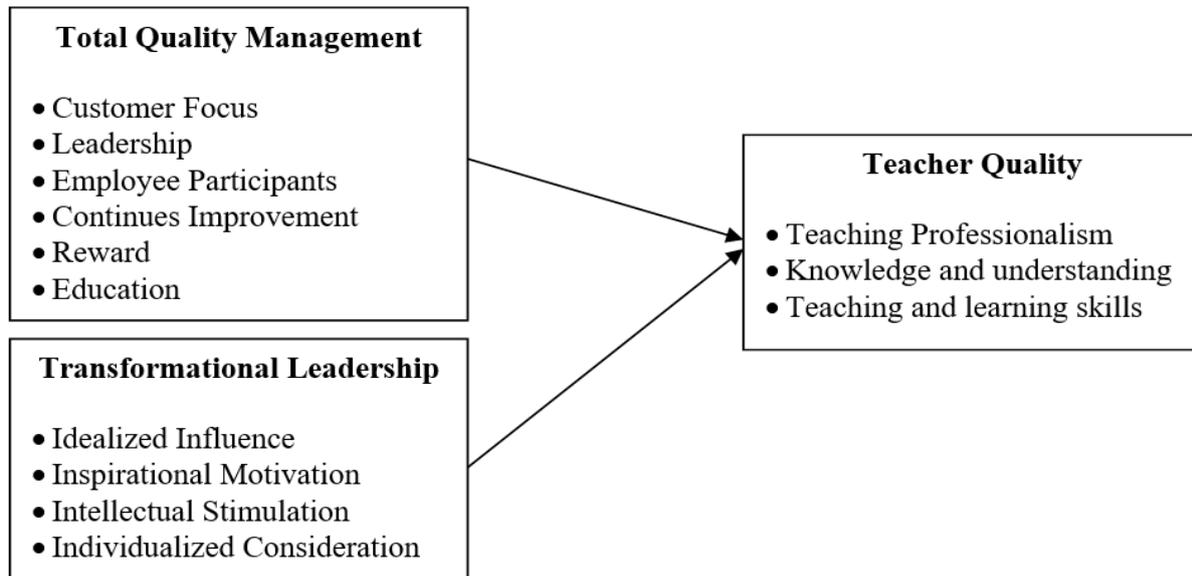
Intellectual stimulation is defined as a leader that exhibits thought-provoking assumptions, innovative problem-solving approaches and solves problems. This leader willingly welcomes criticism and divergent thinking (Bass & Riggio, 2006). Their followers consequently enlarge their capabilities in decision making without heavy reliance over the leader (Avolio & Bass, 2004).

Individualised consideration is a leader who acts as both mentor and instructor for their followers and acknowledges individual differences. A high sensible leader is the one who can communicate frankly, constantly monitor, and allocate duties equally and be a tolerable leader towards his followers.

Conceptual Framework

A conceptual framework presented in Figure 1 represents the relationship between dependent variables (Total Quality Management practices and Transformational Leadership) and independent variable (Teacher Quality) in this study. This conceptual framework is adopted from the Advanced Model of Career Social Cognitive Theory proposed in 2006 by Lent and Brown. The prior Model of Career Social Cognitive Theory, Lent and Brown have developed an in-depth self-efficacy model (Lent & Brown, 2006) with the intention of comprehending teachers' career factors in both education and vocational fields. This Advanced Model emphasises on the relationship between an individual's attitude and surrounding on self-efficacy and self-development. This conceptual framework is fully compliant with three other fundamental models comprised of Total Quality Management Model (Oakland, 2014), Full Range Leadership Model (Bass & Bass, 2008) and Malaysian Teachers Standard Model (MOE, 2008).

Figure 1. Influence of Total Quality Management and Transformational Leadership on the Teacher Quality



Methodology

With the regards of time constraints in collecting data from secondary schools teachers as respondents across Malaysia, this study implied a cross-sectional survey for the data collection. Numerical data was collected and analysed accordingly with a statistical test. This study used a descriptive correlational design in which it examines the relationship between Total Quality Management practices and its influences on teacher quality. Data was then analysed from the distributed questionnaires as the instrument for this study. The gathered data was then classified in each aspect respectively and interpreted quantitatively. The data collected was analysed statistically by using descriptive statistics and multiple regression in response to the research questions.

Reliability and validity of the data collected was performed prior to the actual research, in gauging the theory, constructing facts, and stating the relationship between both variables. Reliability and validity are the significant indicators to determine the instrument used in this study measure what it is supposed to, precisely and consistently.

This study implied simple random sampling and proportional random sampling. Simple random sampling was used to ensure each unit or subject is equally eligible for being chosen as a respondent. It was used to determine inclusiveness of the states and teachers in this study. Additionally, proportional random sampling was employed to determine the total of schools involved in this study by taking into consideration over the number of schools in each state wholly to fit accordingly with the total samples needed.

Sample

The research population in this study involved secondary school teachers that are accountable for duties, which vary across schools. Attitudes and background differences amongst the secondary schools students are believed to influence the teacher quality of the secondary schools teachers. By taking into account the overall research design, procedures and statistical analyses of the study, 423 secondary schools teachers participated as respondents. In fact, there were five stages of sampling to cater huge number of the respondents that comprised of 1) Zone selection; 2) State selection; 3) School allocation selection; 4) School selection; and 5) Teachers selection.

Instrument

Data was assembled through questionnaires adapted from Total Quality Management Instrument (Zhang et. al., 2000), Multi-Factor Leadership Questionnaire (Avalio & Bass, 2004) and Malaysian Teachers Standard Instrument (MOE, 2008). This study additionally employed construct and content validity to indicate the actual concept in this study. Item-total Correlation and Internal Consistency (Cronbach's Alpha) were used to measure the reliability.

Table 1: Details of the Questionnaire Research Items Dimension

Part	Variable	Dimension	Total Item
A	Demography	Sex	1
		Education level	1
		Type of school	1
B	Total Quality Management	Customer Focus	6
		Leadership	8
		Employee Participants	8
		Continuous Improvement	9
		Reward	6
		Education	6
C	Transformation Leadership	Idealized Influence	7
		Inspirational Motivation	9
		Intellectual Stimulation	8
		Individualized Consideration	10
D	Teacher Quality	Teaching Professionalism	26
		Knowledge and understanding	21
		Teaching and learning skills	24

Data Analysis

The researchers analysed the data gathered by using a computerised system, Statistical Package for the Social Sciences (SPSS) to interpret the data statistically. This study employed two statistical analyses which were: descriptive statistical analysis and multiple regression analysis to examine the influence of both variables and thus, to respond precisely to the research questions. Exploratory data analysis was employed prior to the actual data interpretation.

Result

The respondents in this study were comprised of 203 males and 220 female secondary schools teachers whereby statistically 48 percent represent males, whilst the remaining 52 percent were females. Over half of the respondents with 76.1 percent or 322 respondents hold Bachelor's Degree whereas 23.9 percent or 101 respondents have further their postgraduates' studies (Master's Degree and Doctor of Philosophy). Of the study sample, 209 respondents that represented by 49.4 percent were teaching in urban areas, while the remaining sample were located in rural areas, represented by 214 respondents or 50.6 percent.

Table 2: Model Summary Total Quality Management and Teacher Quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimated
1	.947 ^a	.896	.895	.10497

a. Predictors: (Constant): Customer Focus, Leadership, Employee Participants, Continuous Improvement, Reward, Education

b. Dependent Variable: Teacher Quality

Table 3: ANOVA Total Quality Management and Teacher Quality

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39.557	6	6.593	598.364	.000 ^b
	Residual	4.583	416	.013		
	Total	44.140	422			

a. Dependent Variable: Teacher Quality

b. Predictors: (Constant): Customer Focus, Leadership, Employee Participants, Continuous Improvement, Reward, Education

Table 4: Coefficients Total Quality Management and Teacher Quality

Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.
	B	Std. Error	<i>Beta</i>		
(Constant)	.760	.057		13.254	.000
Customer Focus	.032	.021	.050	1.543	.124
Leadership	.179	.021	.286	8.429	.000
Employee Participants	.097	.016	.127	6.159	.000
Continuous Improvement	.149	.022	.216	6.889	.000
Reward	.168	.014	.231	12.448	.000
Education	.178	.020	.261	8.907	.000

a. Dependent Variable: Teacher Quality

The influence of total quality management variable that was consisted of customer focus, leadership, employee participants, continuous improvement, reward and education on teacher quality was illustrated in Table 4. The result indicated the p-value=.000 for leadership, employee participants, continuous improvement, reward and education, in which the value is less than .05 ($p < .05$), except for the customer focus with the significant value of .124, which is more than .05 ($p < .05$). We found that leadership, employee participants, continuous improvement, reward and education are significant for teacher quality, rather than customer focus. It is worth noting that reward is the most intriguing result that emerged from the comparison of significant values of all total quality management dimensions, with the highest t-value of 12.448 in influencing teacher quality in the secondary school teachers.

APK variable is generally significant for the formulation of GKP through regression equation as illustrated below:

$$Y = .760 + .179 (X_2) + .097 (X_3) + .149 (X_4) + .168 (X_5) + .178 (X_6) + e$$

Table 5: Model Summary Transformation Leadership and Teacher Quality

Model	R	R Square	Adjusted R Square	Std. Error of the Estimated
1	.846 ^a	.716	.713	.17315

a. Predictors: (Constant): Idealized Influence, Inspirational Motivation, Intellectual Stimulation, Individualized Consideration

b. Dependent Variable: Teacher Quality

Table 6: ANOVA Transformation Leadership and Teacher Quality

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.608	4	7.902	263.574	.000 ^b
	Residual	12.532	418	.030		
	Total	44.140	422			

a. Dependent Variable: Teacher Quality

b. Predictors: (Constant): Idealized Influence, Inspirational Motivation, Intellectual Stimulation, Individualized Consideration

Table 7: Coefficients Transformation Leadership and Teacher Quality

Model	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.
	B	Std. Error	<i>Beta</i>		
(Constant)	.995	.092		10.802	.000
Idealized Influence	.192	.038	.235	4.980	.000
Inspirational Motivation	.189	.044	.224	4.295	.000
Intellectual Stimulation	.166	.040	.218	4.198	.000
Individualized Consideration	.199	.043	.243	4.621	.000

a. Dependent Variable: Teacher Quality

The dependent variable of transformation leadership on teacher quality consisted of idealised influence, inspirational motivation, intellectual stimulation and individualised consideration was presented in Table 7. The overall result for these variables indicated the p-value=.000, which is less than .05 ($p < .05$). The most striking observation to arise from the significant values of four dimensions in transformational leadership was idealised influence is the dominant dimension with the highest t-value of 4.98. This value confirms that idealised influence has significantly affect teacher quality in the secondary schools teachers. Taken as a whole, regression equation of GKP was formulated from the significant transformational leadership as stated below:

$$Y = .995 + .192 (X_1) + .189 (X_2) + .166 (X_3) + .199 (X_4) + e$$

Conclusion

Imperative attention must be drawn to acknowledge teacher quality to ensure students' personal well-being, achievement, and efficient schools are attainable. Total quality management should be appropriately practised in schools particularly in secondary schools. Along with the current evolvement in the education system, a community of mainly teachers,



principals, and the Ministry are consistently accountable in the developing teacher quality. With great concerns over challenges and greater emphasis on teachers' responsibilities, there is a need for efforts enrichment in highlighting the importance of teacher quality. It is remarkably important for teachers to move out of their comfort zones for the self-fulfilment as teachers, particularly for the dynamic growth on professionalism practices, knowledge, apprehension and pedagogical skills in teaching and learning. In fact, a management system and a principal's leadership are the two upmost important aspects for teacher quality progress. A productive total quality management practices on top of that, shall act as guidelines for high quality performances amongst secondary schools teachers in accordance with the regulated standard. Transformational leadership practised by principals would eventually boost both teachers and school performances towards desired goals dynamically.

Due to the inevitable impact on globalisation and internalisation of world-class education, the results of this study have so far been very encouraging for the Ministry to implement total quality management practices at all education level predominantly for secondary schools across Malaysia. In our view, these results constitute an initial step forward as a guidance in quality management systems for principals as visionary leaders. Our study suggests that transformational leadership would be appropriate for total quality management practices in schools.



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