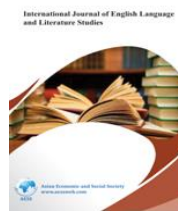




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THE PATH TO QUALITY ENGLISH TEACHER EDUCATION: IS THERE ANY RELATIONSHIP BETWEEN TOTAL QUALITY MANAGEMENT AND THE DETERMINANTS OF QUALITY?

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ABSTRACT

Quality is the leading goal that organization's management strives for accomplishing in its everyday performances. English language teacher education programs should be, like any other educational programs, featured with quality. Total Quality Management (TQM) is a holistic approach that has been used to achieve quality. This study was executed to explore whether the embedding of TQM core principles can lead to enhance the determinants of quality of the English language teacher education programs delivered at Malaysian public higher institutions. Purposive sampling technique was used to collect the quantitative data from 69 academics of English teacher education programs at 5 major public higher Malaysian institutions. Two questionnaires were employed to answer the study's questions. The findings disclosed that Training and Development represents the most critical quality core principle in producing quality programs followed by top management commitment. A further finding exhibited a positive relationship between TQM implementation and the aligned four forms of capital (intellectual, financial, spiritual, and social). Finally, the study's conceptualized model is proposed to be used by other researchers as a corner stone to explore the degree of quality for any offered program.

Keywords: Alignment Model, TQM, Intellectual Capital, Financial Capital, Spiritual Capital, Social Capital.

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1. INTRODUCTION

In a world brands by a revolution of quality demands in all life sectors, including education, the need has appeared to embed quality approaches in its organizations to ensure attaining fruitful accomplishments. English teacher education resembles one of the most vivid and critical areas in teacher education due to the growing demands for English language in everyday life, especially in the context of developing countries in pursuing the global demands of the language. Therefore, the Malaysian higher educational institutions has launched, and in response to the Malaysian Ministry of Education's recommendations in 1996, a campaign to implement TQM approach in the teaching and learning processes to improve the quality of education services. Hence, the need has appeared to conduct studies to examine, evaluate, and improve the implementation of TQM in the Malaysian educational institutions as TQM seeks to enhance the outcomes of the educational processes including the production of quality teachers (Othman and Abdullah, 2007).

A quality teacher is described as the chief driving force capable of making changes and transformation (Barber and Mourshed, 2007). The determinants of quality education system are resembled in the four forms of capital (intellectual, financial, spiritual, and social) as illustrated by Caldwell and Harris (2008) in their book '*Why not the best schools?*'. Therefore, a quality teacher refers to a teacher with high indicators of four forms of capital: intellectual, financial, spiritual, and social. Basically, producing quality English language teachers represents the driving force capable of making the educational process a success when commencing their teaching journey. In point of fact, research about English language teacher education is important in itself especially after today's world has entered into the globalization era, including education like all the other aspects of life, and the migration phenomena, of learners whether from communities or countries to others, which offer sufficient reasons for the educationists' concerns (Mukhopadhyay, 2002).

Accordingly, this study attempts to explore whether the embedding of TQM core principles can lead to enhance the determinants of quality English language teacher education programs delivered at Malaysian public higher institutions since this topic has not been researched before whether locally or internationally. This study seeks to answer two questions: 1) Which quality core principle is most critical for the effective implementation of TQM in English language teacher education by key stakeholders? 2) Is there any significant relationship between TQM implementation and the aligned forms of capital encompassing: intellectual, financial, spiritual, and social capital of English language teacher education by key stakeholders?

2. BACKGROUND OF THE STUDY

Over the recent years, the Malaysian government has been necessitated by the impacts of globalization and liberalization to search for higher intellectual capital for its essential role in constituting the backbone of the nation's development (Mohd.Sahandri and Abdullah, 2009). Consequently, ideas' sharing has spread in an international intellectual dialogue that paves the way towards the establishment of a functioning intellectual community to offer more input for quality improvement in education among UNESCO member countries (Abdullah, 2001).

Fundamentally, the Malaysian teacher education philosophy, which is formulated in 1982, has been translated in principle to the teacher curriculum (Jamil *et al.*, 2010) to develop a balanced, trained, and skilled persons physically, intellectually, emotionally and spiritually (Rajendran *et al.*, 2008). In pursuing the overreaching aim of the nation education philosophy, including in teacher education sector, there have been several programs for the continuous improvement of teacher education within the general reform movement (Ministry of Education Malaysia, 2006). One of these is the adoption of Total Quality Management (TQM) by higher educational institutions like in several other countries including the United States, the United Kingdom, Australia, and New Zealand (Kanji and Tambi, 2000). TQM was implemented in the Malaysian higher educational institutions, especially the public tertiary institutions, in response to the recommendations of Ministry of Education (MOE) in 1996 (Othman and Abdullah, 2007). Nonetheless, not much is published on the progress of TQM implementation in such institutions (Kanji and Tambi, 2000; Zailani *et al.*, 2007). Therefore, local scholars such as Feng and Aida (2009) emphasize the need for research in order to gain better understanding of the subject matter as this topic has not been extensively studied both in educational studies as well as quality management research (Zailani *et al.*, 2007). Only a few studies were carried out to document the embedding process, one of which was a study by Ahmed (1997) which examined the implementation of TQM on the academic performance of the teacher trainees in one of the teacher training colleges in Malaysia tackling the impacts on different aspects: the lecturers, the curriculum and co curriculum activities. The results exhibited highly positive impacts for TQM in training teachers.

Teaching English language, as one of the vital and important teacher education programs in today's rapidly changing world, has been researched in terms of short-term, intensive, one-month training programs represented in the Certificate in English Language Teaching to Adults (CELTA), which is endorsed and authorized by Cambridge University (Ferguson and Donno, 2003; Brandt, 2006; Senior, 2006; Wardman, 2009). Nevertheless, the shortage of published studies on English language teacher education even in terms of the CELTA certificate has been raised by (Ferguson and Donno, 2003). In the same vein, (Crookes, 2003) has noticed that very little is understood on ESL (English as a Second Language)/EFL (English as a Foreign Language) teachers' development.

There is a shortage of research on the subject of English language teacher education generally (Crookes, 2003; Beaumont, 2004; Wardman, 2009) and the quality of English language teacher education particularly. Hence, this study bridges the shortcomings of studies and the overlooked areas regarding the implementation of TQM in the Malaysian higher educational institutions context, especially in English language teacher education programs. In addition, there are some blind spots in previous literature represented in the shortage of literature regarding quality English language teacher education and the usage of indicators of four forms of capital as determinants of quality to produce quality English language teacher education programs. Therefore, this study enriches the empirical work conducted in the teacher education field in general and English language teacher education in particular. Moreover, it seeks to be the first in exploring the quality of English language teacher education through employing two approaches: TQM and Alignment model. Actually, substantial amounts of research and literature exist on adopting the TQM

approach in industry, construction, health and service sectors; yet, not much is available on the higher education sector generally and the quality of English language teacher education particularly since quality has recently turned out to be the focus of the ELT profession (Loyet, 2010). Henceforth, this study seeks to develop the understanding regarding the quality of English language teacher education. In addition, it represents an innovation through adding new knowledge about the relevant field of ELT in relation to quality management.

Furthermore, several researchers have observed, in the last decade, the lack of research and literature in terms of English language teacher education (Crookes, 2003; Beaumont, 2004; Wardman, 2009). In the Malaysian context, the topic of exploring the quality of English language teacher education has not been the focus of scholars, (MELTA, 2011). Therefore, this study targets to fill that void and develop the understanding in this relevant area through exploring whether the utilisation of TQM core principles can lead to the production of quality English language teacher education via assessing the indicators of four forms of capital as determinants of quality education system (Caldwell and Harris, 2008; Caldwell and Spinks, 2008). Therefore, the relevance of this study lies in enhancing the capacity of tertiary institutions to improve and implement effective and efficient education programs that contribute to achieve the best transformation of the community as a whole through employing the study's proposed model (to be explained later in the theoretical background).

3. ALIGNMENT MODEL AND ITS FOUR FORMS OF CAPITAL

The Alignment for Transformation Model (Caldwell and Harris, 2008; Caldwell and Spinks, 2008) has proven its efficiency through the international project, which was run to find out the reason behind selecting some schools by PISA (Program for International Student Assessment) as the best ones in six countries: Australia (Victoria), China (Chongqing), England, Finland (Tampere), The United States, and Wales (Caldwell and Harris, 2008). Essentially, the Alignment Model assists in assessing the quality of any education system via measuring the indicators of four forms of capital (intellectual, financial, spiritual, and social) to stand on the degree of quality of that system. In other words, when the indicators of the four forms of capital are high, this reflects the quality of performance for that system because the quality of teacher education determines the quality of that system (Barber and Mourshed, 2007). The Alignment Model was employed as a framework for research by (Caldwell and Harris, 2008; Caldwell and Spinks, 2008) in an international project in six countries: Australia, China, England, Finland, United States and Wales for the purpose of framing the Transformation of Schools. Indeed, Caldwell (2009) described Transformation as '*a significant, systematic and sustained change that secures success for all students in all settings*'. According to the Alignment Model (Caldwell, 2008; Caldwell and Harris, 2008), all school systems can be best and achieve a systematic, significant and constant transformation that ensures success for all students in all locations. The four forms of capital are defined by (Caldwell, 2008; Harris, 2010) as shown in Table 1 below:

Table- 1. The Four Forms of Capital (Caldwell, 2008; Harris, 2010)

No.	Capital	Definition
1.	Intellectual Capital	'knowledge and skills of all of those who work in or for the school'
2.	Financial Capital	'the money available to support the school'
3.	Spiritual Capital	'a degree of coherence among shared values, ethics, beliefs and attitudes towards life and learning as well as the strength of moral purpose of an organisation, such as a school or school system, with those in the wider community'
4.	Social Capital	'strength of formal and informal partnerships and networks involving the school and all individuals, agencies, organisations and institutions that have the potential to support and be supported by the school'

4. TOTAL QUALITY MANAGEMENT

There is no uniformed definition or identification of the concept of Total Quality Management (TQM) as the researchers in this field have their own definitions that go with their perceptions, business, beliefs, and academic experience (Lau and Anderson, 1998). Hence, TQM is operationally defined as an approach aims at improving and enhancing the efficiency, effectiveness, efficacy, cohesiveness, flexibility and competitiveness of an organization such as any educational institution. TQM is a powerful tool to ensure accomplishing and sustaining quality education. TQM provides the opportunity to involve all the members of an organization in the process of making decisions. Therefore, an expansion of viewpoints and skills is required with increasing the generative activities (Twaissi, 2008). TQM involves an extended process that goes beyond the mere organization to include partnerships with other members of the community pertinent to the organization (Dale, 1994).

Sit, Ooi, Lin, and Chong (2009) point out that TQM is a set of regulations and principles being applied to all the aspects of an organization that are synchronized to certify meeting the customer's needs. Hence, TQM connects all the departments of the organization to accomplish the effective participation of all the staff. In the same respect, Chow and Lui(2001) define TQM as a holistic philosophy that spotlights on all member participation in an organization to attain satisfaction via utilizing continuous improvement in the processes. Dahlgard , Kristensen, and Kannji(1998) view quality in the lens of TQM as quality, according to them, is to constantly meet the required expectations. Kanji and Tambi, (2000) document that TQM is appropriate for all higher education institutions, whether private or public, which make every effort to meet customers' expectations in quality of service.

Accordingly, the outputs quality is everyone's responsibility as all are involved in the processes. In other words, to get an effective institution all ought to work collaboratively to accomplish the goals. The methods and procedures utilized in TQM are applicable to any sort of organizations. Scholars agreed on some main principles of TQM. This study investigates the embedding of TQM core principles which are: top management and leadership commitment, continuous improvements to organizational processes, providing staff training and development, empowerment and total involvement, and policy and strategic planning. Every organization's

culture should enclose some essential principles for TQM in order to be implemented that are addressed below:

- *Top Management and Leadership Commitment*
- *Continuous Improvement*
- *Empowerment and Total Involvement*
- *Training and Development*
- *Policy and Strategic Planning*

5. THEORETICAL BACKGROUND

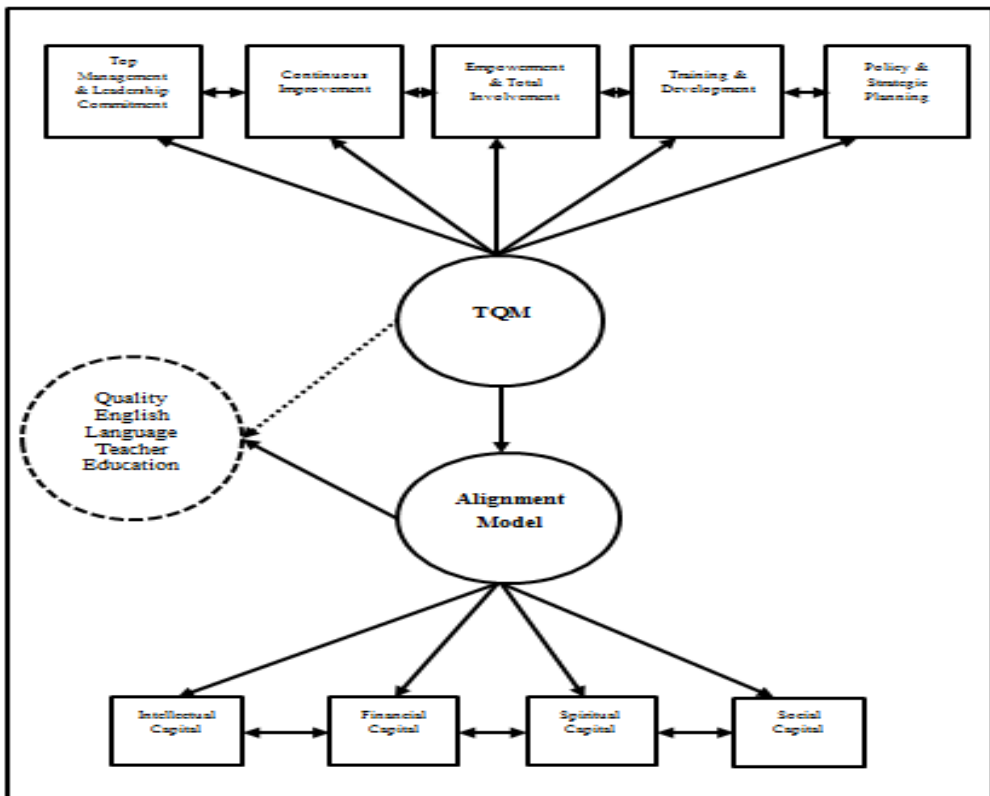
The EFQM Excellence Model and the Invitational Theory construct a firm and consistent ground on which this research is guided and carried out to attain its objectives. Both theories target at accomplishing quality in education through getting to the continuous improvement level which never stops but always carries on. Consequently, quality education means high indicators of the four forms of capital (intellectual, financial, spiritual, and social) as determinants of quality. The EFQM excellence model was formally launched in 1988 with a chief objective to encourage, inspire and identify the development of effective total quality management by the European organizations (EFQM, 2010). The EFQM excellence model is a flexible framework embraced nine criteria: five of which are 'Enablers' and four are 'Results'. On the one hand, the 'Enablers' criteria involve the activities and work of an organization, whilst, on the other hand, the 'Results' criteria involve the achievements of an organization. Hence, 'Enablers' produce 'Results' and 'Results' improve 'Enablers' via their feedback. On the one hand, 'Enablers' are leadership, people, policy and strategy, partnership and resources, and processes. Enablers work as a driving force and aid in smoothing the progress of the alteration of inputs to outputs. On the other hand, 'Results' are people and customer satisfaction, impact on society, and the key results as the measures of the level of output achieved by the organization through its Feedbacks aids to improve Enablers. A number of questions are posed by sub criteria to be deliberated for evaluation purposes (Bou-Llusar *et al.*, 2005; Dejager and Nieuwenhuis, 2005).

The Invitational theory is a substantial educational theory tackling practices' issues and is applicable to teachers and counselors (Smith, 2006). Invitational theory is established by William W. Purkey to hold the totality of the educational setting: social, physical, cognitive, spiritual, and emotional (Purkey and Novak, 1996; Purkey and Schmidt, 1996). Furthermore, it sustains that the entire educational environment echoes and accentuates the essence of advantages that can be offered to the humankind via education. Invitational Educational Theory highlights the five (Ps) including people, places, policies, programs, and processes, which facilitate or impede success or failure (Purkey and Novak, 1996; Purkey and Schmidt, 1996). Preferably, the five environmental areas of people, places, policies, programs and processes ought to be very inviting in order to generate a world where individuals are pleasantly called to be cultivated intellectually, socially, physically, psychologically, and spiritually in order to accomplish their full potentials in different sectors of worthy endeavors (IAIE, 2011). Above all, the Invitational Educational Theory targets at

making schools the most inviting spots through emphasizing on the importance of quality processes including teaching and learning (Purkey and Novak, 1996).

Accordingly, a conceptualized model (see Figure 1) is drawn to guide the study's execution. To illustrate, the five TQM core principles represent the independent variables (IVs), whilst the four forms of capital of the Alignment Model stand for the dependent variables (DVs). Therefore, the five core principles of TQM (IVs) are assumed to positively enhance and develop the four forms of capital (DVs) of TESOL teacher education.

Figure- 1. The Study's Conceptualized Model



6. METHODOLOGY

An exploratory case study employed a quantitative approach represented by two questionnaires to answer the study's questions. Two instruments were employed in this study: an adopted 'Self-assessment' questionnaire and an adapted TQM questionnaire. Purposive sampling technique was employed through using 69 respondents from the heads and lecturers of English language teacher education programs at 5 Malaysian public universities.

6.1. The "Self-assessment" Questionnaire

The first instrument, employed in this study to assess the indicators of the four forms of capital as determinants of quality of English language teacher education, was an adopted 'Self-assessment' questionnaire that was set and validated to frame the transformation of schools for the international

project since 2004 till 2008 by Professor Brian Caldwell and Doctors Jim Spinks and Jessica Harris (Caldwell and Harris, 2008). Due to the fact that this questionnaire was essentially formulated to gain data in the sector of education, so this study made a good use of it for being the first study of its type that used this instrument to collect data at the tertiary level. The type of gathered data was ordinal data for all the four sections of the questionnaire, which were ranked from (1-5) as (low-high). The validating study involved schools and school leaders in 11 different countries throughout the world, including Australia, Croatia, England, Malaysia, Mauritius, Netherlands, Philippines, Singapore, Wales, Chile, and New-Zeland (Caldwell and Harris, 2008). Regarding the current study, validity and reliability of 'Self-assessment' questionnaire's items were sought through the validity reports signed by a panel of experts in the field represented by circling the degree of appropriateness of statements to the topic. Besides, the questionnaire's items were pilot tested, before the actual collection of data, on 50 subjects who had similar characteristics to the study's actual subjects reporting 0.97 of Cronbach's Alpha level considered as ideal for conducting the actual study (Nunnally, 1978; Zikmund, 2000; Pallant, 2005).

6.2. The TQM Questionnaire

The second instrument, employed in an attempt to explore the effective embedding of TQM core principles, was an adapted questionnaire. Actually, the researcher adapted from 3 questionnaires to modify an instrument chiefly utilized for collecting data about exploring the effective embedding of TQM core principles in English language teacher education programs at some major Malaysian public tertiary institutes. Besides, the three types of measurement scales were used in the adapted questionnaire: categorization, ranking, and ordering (Cooper and Schindler, 2001). Categorization was used in the first and second parts, whereas ranking and ordering were used in the third part as the last one when respondents were asked to rank and arrange the five named obstacles to the success of adopting TQM. All statements were adapted from related research according to their importance to the existing study.

The questionnaire items were pilot tested on 50 subjects and the Cronbach's Alpha was 0.98, which was considered ideal as it exceeded 0.7 (Pallant, 2005; Nunnally, 1978). Moreover, Exploratory Factor Analysis was employed to point out the number of factors, or underlying variables for being the most frequently used analysis to develop questionnaires (Connolly, 2007). Therefore, 176 respondents participated in the factor analysis study for 30 items to reveal the underlying structure of the 30 items regarding the effective embedding of TQM core principles. Two techniques were used to evaluate the suitability of data for factor analysis. Firstly, the Kaiser-Meyer-Olkin value was 0.70, exceeding the recommended value of 0.6 (Tabachnick and Fidell, 2007). Secondly, the Barlett's Test of Sphericity reached statistical significance ($p=0.000$) supporting the factorability of the correlation matrix (Barlett, 1954; Dongsheng *et al.*, 2005).

Through performing Varimax rotation, the presence of five components was revealed. Thus, the five dimensions were labeled as, '*Top management and Leadership*' or as abbreviated in Table 5 M&L (factor 1), '*Continuous Improvement*' abbreviated as CI (factor 2), '*Empowerment and Total Involvement*' abbreviated as E & TI (factor 3), '*Training and Development*' abbreviated as T&D

(factor 4), and ‘Policy and Strategic Planning’ abbreviated as P&SP (factor 5). The results of this analysis supported the use of items regarding the effective embedding of TQM core principles.

Table- 2.Rotated Component Matrix

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
	M&L	CI	E&TI	T&D	P&SP
Senior executives are visibly and explicitly committed to quality.	.88				
There is an inclination of top management to allocate adequate resources, and time for quality management efforts.	.85				
The school management always delivers the latest technology for contributing to the application of TQM and is aware of the value of updating	.46				
The school management gives great importance to research and development for the design and development of its products and services.	.86				
In your school the top management trusts the staff members to do their work properly.	.66				
Elements of quality management structure are in place to manage the school quality journey.	.561				
The school develops relationships with other organizations, institutions and agencies which lead to continuous improvements in quality.		.63			
The school emphasizes on Continuous Improvement and it applies changes in all operations at all levels.		.70			
The school uses surveys as well as feedback, and tracking of other key measures to improve its performance.		.82			
The school implements suggested activities extensively.		.66			
Staff members actively seek opportunities to enhance their competence, knowledge and experience.		.68			
The creation of quality awareness among staff members is on-going in the school.		.67			
There is continuous improvement in the school.		.54			
Staff members are very committed to the success of the school.			.69		
Staff members are encouraged to fix problems they encounter.			.43		
Staff members are encouraged to accept responsibility for quality.			.53		
Staff members understand the importance of their contribution and role in the school.			.75		
Staff members openly discuss problems and issues.			.65		
Staff members are encouraged to apply skills after training.				.53	
Quality-related training is given to all staff in the school.				.47	
Training is provided for staff to improve interactive skills (such as communication skills, effective meeting skills and leadership skills).				.87	
Regular training for staff members is practiced.				.53	
There is a general policy development and effective deployment of goals in the school.					.44
Major elements of quality management structure are in place to facilitate the school's quality strategy objectives.					.48
There is a system for recognition and appreciation of quality effort and success of individuals and teams.					.76

There is a system that links reward to staff members' quality achievement.					.61
The school builds its competitiveness on the basis of providing high quality services.					.80
TQM principles are used in reviewing the formulation and implementation of strategy.					.88
There is a use of self-assessment mechanisms to track as well as improve performance gaps in the implementation of systems, processes and practices.					.74
There is strategic quality planning of the long term quality journey.					.60

*Only factor loading with an absolute value > 0.400 are displayed in the table.

7. FINDINGS

The findings are detailed under two headings as follows:

- The most critical quality core principle in producing quality English language teacher education programs
- The relationship between TQM implementation and the aligned four forms of capital

The most critical quality core principle in producing quality English language teacher education programs

H₀1: TQM core principles are not significant predictors to quality English language teacher education.

Multiple regression analysis was employed to answer this research question. A number of assumptions should be met first. Regarding the assumption of Tolerance and VIF, it was reported that two variables violated this assumption: Continuous development with Tolerance value 0.086 and VIF 11.681 and the other independent variable that also violated this assumption was Policy and Strategic Planning with tolerance value 0.068 and VIF value 14.625. Actually, Tolerance value must be above 0.10 and VIF value must be less than 1. Therefore, it was decided to delete these two independent variables in order to fulfill the assumption and only 3 independent variables (Top Management and Leadership Commitment, Employment and Total Involvement, and Training and Development) were used in this study. Accordingly, the multicollinearity assumption had not been violated in this research. On the other hand, Singularity did not exist in this study as none of the three independent variables is a combination of other independent variables. Hence, checking for these two problems were made before running the multiple regression analysis and both did not exist.

Thus, after meeting all the assumptions of continuous variables, multicollinearity, singularity, outliers, normality, linearity, homoscedasticity, and interdependence of residuals, it was safe to carry on with the multiple regression analysis technique to answer the 3rd research question of the study. According to the given results by SPSS, the 3 core principles of TQM (IVs) are jointly regressed to produce quality English language teacher education program (DV). Table 3 exhibited the significant inter-correlations among the three TQM core principles, on the one hand, and with the DV on the other hand as stated by Sekaran (2003).

Table- 3. Correlations

	Quality ETE	M&L	E&TI	T&D	
Pearson Correlation	Quality ETE	1.000	.673	.632	.703
	M&L	.673	1.000	.620	.679
	E&TI	.632	.620	1.000	.673
	T&D	.703	.679	.673	1.000
Sig. (1-tailed)	Quality ETE	.	.000	.000	.000
	M&L	.000	.	.000	.000
	E&TI	.000	.000	.	.000
	T&D	.000	.000	.000	.
N	Quality ETE	69	69	69	69
	M&L	69	69	69	69
	E&TI	69	69	69	69
	T&D	69	69	69	69

Source: Data analysis Results.

According to Pallant (2007), in small samples like this study with only 69 respondents the value of Adjusted R square is read (0.566) and not R square illustrating that 56.6% of the variance in the quality of English language teacher education program was explained by a linear combination of independent variables (Top Management and Leadership Commitment, Empowerment and Total Involvement, and Training and Development). According to Tabachnik and Fidell(2001) and Pallant (2007), 56.6% is considered as a respectable result.

Next, the ANOVA Table indicated a significant result at the 0.05 level of significance ($F(3, 65) = 30.52; p = 0.000$). Due to the fact that the F test was significant, the overall hypothesis was rejected ($H_01: TQM$ core principles are not significant predictors to quality English language teacher education). Therefore, either all or one or more of the IVs are significant predictors of quality English language teacher education program.

The Coefficients Table 4 demonstrated only two significant predictors for the quality English language teacher education program as the P values in the t-tests for Top management and Leadership Commitment and Training and Development were less than 0.05 and as followed: Training and Development ($B = .362, t = 2.99, p = .004$), and Top Management and Leadership Commitment ($B = .304, t = 2.66, p = .010$) whilst Employment and Total Involvement was not a significant predictor for the quality English language teacher education program as the t-test 0.083 larger than 0.05. The result indicated that both of Training and Development and Top Management and Leadership Commitment made significant unique contribution to the prediction of the dependent variable; however, Training and Development explained the greatest amount of variance 36.2% in producing quality English language teacher education program and Top Management came second with 30.4%.

Table- 4.Coefficients

Model		Unstandardized Coefficient		Standardized Coefficient	t.	Sig.	95% Confidence interval for B	
		B	Std. Error	Beta			Lower bound	Upper bound
1	(Constant)	1.604	.258		6.21	.000	1.088	2.120
	Top Management and Leadership Commitment	.183	.069	.304	2.66	.010	.045	.320
	Employment and Total Involvement	.159	.090	.200	1.76	.083	-.021	.338
	Training and Development	.272	.091	.362	2.99	.004	.090	.454

Source: Data analysis Results.

Thus, it is concluded with the confidence interval of 95% that quality of English language teacher education program was explained by a linear combination of two independent variables: Top Management and Leadership Commitment, and Training and Development. Besides, Training and Development was found to be the most critical quality core principle among the TQM core principles in producing quality English language teacher education program.

The relationship between TQM implementation and the aligned four forms of capital

H₀2: There is no significant correlation between TQM implementation and the aligned forms of capital encompassing: intellectual, financial, spiritual, and social capital of English language teacher education.

For the purpose of answering this research question, a new continuous variable was computed from the four forms of capital named as 'Alignment Model'. Pearson moment-product correlation coefficient (r) was performed to test the strength of the association between TQM implementation and the aligned forms of capital. Therefore, level of measurement, independence of observations, normality, linearity, related pairs, and homoscedasticity were all checked to ensure no existence for any violation of these assumptions.

Next, Pearson correlation analysis was performed. Table 5 demonstrated the correlation result being tested at the significance level 0.01. Therefore, a strong positive and significant linear association occurred between the aligned forms of capital and TQM implementation ($r=.783$, $n=69$, $p=0.00$). The strength of association was calculated according to Cohen (1988). Given the $r^2=.783$ showed that 78.3% of the variance in the aligned forms of capital was due to a linear relationship with TQM implementation. Accordingly, H₀2 hypothesis was rejected as the $p<0.01$. Thus, it was concluded with 99% of the confidence interval that there was a positive and significant linear correlation between TQM implementation and the aligned forms of capital encompassing: intellectual, financial, spiritual, and social capital of English language teacher education by key stakeholders.

Table- 5.Correlations between TQM implementation and the alignment model

		TQM Implementation	the aligned forms of capital
TQM Core principles' Implementation	Pearson Correlation	1	.783(**)
	Sig. (2-tailed)		.000
	N	69	69
the aligned forms of capital	Pearson Correlation	.783(**)	1
	Sig. (2-tailed)	.000	
	N	69	69

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

Source: Data analysis results.

8. DISCUSSIONS

The first research question was answered by running Multiple Regressions Analyses. It was found that quality of English language teacher education programs at Malaysian public tertiary institutions was explained by a linear combination of two independent variables: Top Management and Leadership Commitment, and Training and Development. Therefore, this finding indicates that both of Training and Development and Top Management and Leadership Commitment made a significant unique contribution to the production of quality English language teacher education programs. Running further analysis demonstrated that Training and Development explained the greatest amount of variance 36.2% in producing quality English language teacher education program and Top Management came second with 30.4%. Accordingly, Training and Development was found to be the most critical quality core principle in producing quality English language teacher education programs.

This finding entails that running constant training workshops and seminars is essential to attain quality programs that must be executed on different levels to the new staff as well as the old staff. Quality commences and finishes with training (Ishikawa, 1985). The importance of training lies in ensuring that the staff members do not get out of date in a rapidly altering environment by updating their skills. Moreover, the on-going training to the staff whether academic or admin sustains their appreciation of the magnitude of quality and ultimately directs into continuous improvement in performance as the sole target of implementing TQM. This finding also represents that training is considered as the corner stone to attain quality but it must be practiced regularly to all staff. Actually, fixed funds in preparing the annual budget must be allocated to training purposes because simply if training sessions are not provided to staff regarding their CPD (continuing professional development), the product will lack quality. Additionally, this finding highlighted the importance of scheduling well-timed training and development workshops on a regular basis to enable the staff to broaden their awareness and perception of quality to secure delivering quality English language teacher education programs.

Revising previous literature shows that this finding was in line with the study by [Twaissi \(2008\)](#) when the value of training was proved to enhance the employee's skills in the sector of ICT in Jordan. Besides, another study by [Lee \(2004\)](#) highlighted that serious problems will definitely be

generated throughout the implementation of TQM when employees lack the appropriate training. Moreover, Lomas (2004) documented the importance of offering high-quality training programs for both recently recruited staff and their senior colleagues. Most importantly, training and development programs should be on-going and ought to be viewed in the lens of a lifetime route.

Top management and leadership commitment, in this study, was found to be another critical core principle of TQM as it came second in contributing to the production of quality English language teacher education programs. Certainly, committed leadership is essential for successful quality improvement programs. Leaders should pave the way for quality implementation by promoting the spirit of teamwork to achieve continuous improvement and creating a vision which mirrors the devotion to attain total quality. This finding illustrates that the top managements of the participated schools and faculties give great importance to research, publication and development with a highest mean score 3.99. Not only that but they are also quality-oriented leaders who visibly and explicitly direct efforts towards continuous improvement because of their commitment to quality with a mean score of 3.94. Of course, the top managements of the participated schools and faculties trust their staff members to do their work properly scored 3.93. Furthermore, the top managements of schools are always keen on delivering the latest technology to sustain quality scored 3.87. It was also found that there is an inclination of top management to allocate sufficient resources and time for quality management efforts with a mean score 3.81. Additionally, elements of quality management structure are in place to manage the school quality journey with a mean score 3.55.

Previous studies echo similar findings regarding the relevant role that TQM management and leadership commitment plays in implementing TQM. Kanji and Tambi, (2000) found in their empirical study on the Malaysian education institutions that leadership represented the most critical factor among TQM critical success factors, whilst the study considered the insufficient training as one of the obstacles in implementing TQM. Gandil's study (1996), on the civil servants in the education sector in Kuching and Sarawak, found out that teamwork came first as the best predictor of TQM awareness followed by customer focus, then quality assurance, later came training and recognition followed by strategic quality planning, performance measurement, and top-management support as the least. In Hong Kong, Antony, Leung, Knowles, and Gosh (2002) mirrored in their study a similar finding that training and education came first as the most critical factor among TQM factors followed by quality data and reporting, later came management commitment and the last one was Continuous improvement. Twaissi (2008) valued the top management commitment as a critical factor in implementing TQM philosophy in the ICT sector in Jordan. A wealth of research highlighted that when the top leaders believe in the programs of TQM, they generate its culture to enable the employees to attain quality in the delivered programs such as Al-Khalifa and Aspinwall (2000) and Lewis, Pun, and Lalla(2006). Another study by Salaheldin (2003) described the top management commitment as the most significant driving force that facilitates the TQM implementation in Egypt.

The result for the second research question by employing Pearson correlation coefficient (r) demonstrate that the strength of association reveal 78.3% of the variance in the aligned forms of

capital is due to a linear relationship with TQM implementation. Thus, it is concluded with 99% of the confidence interval that there is a positive and significant linear correlation between TQM implementation and the aligned forms of capital encompassing: intellectual, financial, social, and spiritual capital of English language teacher education by key stakeholders.

As previously stated, Malaysia public tertiary institutions responded to the Ministry of Education's recommendations in 1996 to embed TQM at every level of its higher educational institutions. The empirical study conducted by [Kanji and Tambi, \(2000\)](#), on the progress of TQM implementation in 60 higher educational institutions registered under the Ministry of Education 11 of which were public institutes, showed that only 50% of institutions embraced TQM before around 10 years of conducting the research. After around 11 years, this PhD study was carried out using TQM but this time it is aligned to four forms of capital as determinants of quality to explore the quality of English language teacher education programs in Malaysian public tertiary institutions. Actually, this finding represents a novelty by itself since it is the first study of its type that explores the significant and positive relationships between TQM implementation and the aligned forms of capital on the tertiary level. In fact, this finding verifies the EFQM excellence model since the 'enablers' relate positively to the 'results'. In other words, the TQM core principle: top Management and leadership commitment, continuous improvement, empowerment and total involvement, training and development, and policy and strategic planning have positively correlated with the results of the determinants of quality represented by the four forms of capital. Not only that but also the Invitational Educational Theory that grounds this study was clearly verified by the quality English language teacher education programs offered at the participated universities in this study to the extent that they drastically contribute to making schools as the most inviting spots.

Definitely, the chief goal of implementing quality approaches is to achieve quality performance so that the offered program is quality and the products of English language teachers are quality teachers who can make a difference in teaching the English language later on when serving the community. This can perfectly happen with the well-equipped teachers with the forefront knowledge and skills of high four forms of capital. Most importantly, this significant positive relationship indicates that the effective implementation of TQM core principles directs into producing a quality English language teacher education program via the determinants of the four forms of capital.

Actually, the importance of this finding lies in the successful alignment of implementing TQM core principles to improve four forms of capital. Therefore, having a committed leadership who believes in quality programs facilitates the strategies to attain quality. This can be seen in scheduling well-timed on-going CPD workshops and seminars to ensure training all the staff to develop their four forms of capital. Besides, promoting the spirit of teamwork and empowering staff to be totally involved in running academic activities to achieve the continuous improvement. It is noteworthy not to neglect the critical role that strategic planning and right policies play in facilitating the success of the whole educational process. Consequently, the four forms of capital

will inevitably be improved. Indeed, this study is the first in checking the four forms of capital at the tertiary level, specifically in terms of English language teacher education programs.

The literature in this regard documents a series of reports recorded the relationships among these four forms of capital in 6 countries on the secondary and primary levels including Australia's report by Douglas and Harris (2008); Wales' by Egan (2008); England's by Goodfellow and Walton (2008); Finland's by Saarivirta(2008); China's by Zhao et al. (2008); and the United States' by Zhao et al. (2008). The Malaysian literature echoes the positive and significant correlations between TQM awareness and TQM core principles in Gandil's study (1996) among the civil servants in the education sector in Kuching and Sarawak. Feng and Aida (2009) reported in their survey research the important role that Malaysian tertiary institutions play in pointing out the realization of TQM in the education sector.

9. CONCLUSION

Indeed, the study's conceptualized model guides the research towards accomplish its aim. Hence, it is recommended that the mentioned model to be used by other researchers as a corner stone to explore the degree of quality of any offered program. Moreover, Training and Development is the most critical quality core principle among the TQM core principles in producing Quality English language teacher education program followed by top management commitment. It entails that running constant training workshops and seminars is essential to attain quality programs that must be executed on different levels to the new staff as well as the old staff. Additionally, the on-going training to the staff, whether academic or admin, sustains their appreciation of the magnitude of quality and ultimately directs into accomplishing continuous improvement in performances. Furthermore, committed leadership is essential for successful quality improvement programs. Essentially, leaders should pave the way for quality implementation by promoting the spirit of teamwork to achieve continuous improvement and creating a vision which mirrors the devotion to attain total quality.

The major finding of the study can be summarized in the fact that the effective implementation of TQM core principles inevitably leads to produce quality English language teacher education programs featured with high four forms of capital as determinants of quality. Actually, aligning TQM core principles as '*the enablers*' to produce quality programs with high four forms of capital as '*the results*' has been proved by the findings of this empirical study. Therefore, the successful alignment of implementing TQM core principles leads to improve the four forms of capital. Thus, sustaining quality work is the sole target which is ultimately reached to when everyone, including the top management, is committed to accomplishing quality at all levels.

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