DEVELOPMENT AND VALIDATION OF A NEW TEACHING FRAMEWORK FOR TEACHER EDUCATORS IN MALAYSIAN HIGHER TEACHER EDUCATION INSTITUTIONS

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THESIS SUBMITTED IN FULFILLMENT OF THE REQUIREMENT FOR THE DOCTOR OF PHILOSOPHY (PEDAGOGY)

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2019

ABSTRACT

This study aimed to develop and validate a new teaching framework for teacher educators in Malaysia using an exploratory mixed-method study design. A qualitative phase involved document analysis of theories, principles and policies underlies teaching framework of selected teacher education institutions and interviews with 10 stakeholders namely two policy makers, two teacher educators, four teacher mentors and two Ministry of Education personnel in Malaysia. In this phase, six constructs or factors emerged, namely (i) Intellectual Excitement (IE); (ii) Quality Learning Spaces, Resources and Technology (QL); (iii) Constructive Alignment (CA); (iv) International and Cultural Diversity (IC); (v) Climate of Inquiry and Critical Reflection (CR); and (vi) Good Values, Attitudes and Behaviour (GV). In a quantitative phase, a 67-item questionnaire was developed based on the themes under each construct and administered to 248 teachers using the stratified random sampling. The analysis using Exploratory Factor Analysis retained the six factors which were clustered thematically to 14 sub-constructs according to the factor loading. This 14 sub-construct questionnaire was again administered to to a different set of 458 teachers in the high-performance schools selected using the stratified random sampling method. Analysis using Confirmatory Factor Analysis (CFA) by means of Measurement Model with the goodness-of-fit value (GFI≥0.90), Construct Reliability value (CR≥0.6) and Average Variance Extracted value (AVE≥0.5) further confirmed the six factors, retaining the 14 sub-constructs which constituted the Teaching Framework for Teacher Educators (MyTF@TE). A closer inspection of MyTF@TE indicated that the first four sub-constructs (group discussion, critical thinking, evaluating peer's work and knowledge transfer) were derived from IE, three sub-constructs (learning resources, physical setting, and technology integration) from QL, two sub-constructs (learning outcome and theory to practice) from CA, two sub-constructs (global connection and embracing culture diversity) from IC, and two sub-constructs (welcoming ideas and improving practices) from CR. Meanwhile, GV stood alone as the sub-construct. As a conclusion, Teacher Framework for Teacher Educators (MyTF@TE) based on the 14 factors was validated through the EFA and further confirmed through the CFA. The implication of the findings is that the factors embodied in a visual guideline may be employed in assisting and uplifting the quality of teacher educators across the Malaysian Higher Teacher Education institutions.

PEMBINAAN DAN PENGESAHAN RANGKA PENGAJARAN BAHARU UNTUK PENDIDIK GURU INSTITUSI PENDIDIKAN GURU PERINGKAT PENGAJIAN TINGGI

ABSTRAK

Kajian ini bertujuan untuk membangun dan mengesahkan satu kerangka pengajaran baharu bagi para pendidik guru di Malaysia menggunakan reka bentuk kajian kaedah campuran eksploratori. Fasa kualitatif melibatkan analisis dokumen untuk teori, prinsip dan polisi institusi pendidikan guru yang terkemuka serta temubual dengan 10 orang pemegang taruh iaitu dua orang pembuat dasar, dua orangpensyarah guru, empat orang mentor guru dan pegawai di Kementerian Pendidikan di Malaysia. Dalam fasa ini, enam konstruk atau faktor telah dikenalpasti, iaitu *Intellectual Excitement (IE), Quality Learning Spaces, Resources and Technology (QL), Constructive Alignment (CA), International and Cultural Diversity (IC), Climate of Inquiry and Critical Reflection (CR),* dan *Good Values, Attitudes and Behaviour (GV).* Dalam fasa kuantitatif, sebuah soal selidik 67 item telah dibangunkan berdasarkan tema yang ada pada enam konstruk ini dan ia telah ditadbir kepada 248 orang guru yang dipilih secara rawak berstrata. Analisis yang menggunakan *Exploratory Factor Analysis* telah mengekalkan enam konstruk tersebut apabila 14 sub-konstruk dikelompokkan secara bertema mengikut *factor loading*. Soal Selidik 14 sub-konstruk ini sekali lagi ditadbir kepada sekumpulan 458 orang guru yang lain di sekolah berprestasi tinggi yang dipilih secara rawak berstrata. Analisis menggunakan *Confirmatory Factor Analysis (CFA)* menggunakan Model Pengukuran dengan nilai *goodness-of-fit* (GFI≥0.90), *Construct Reliability* (CR≥0.6) dan *Average Variance Extracted* (AVE≥0.5) mengesahkan lagi enam konstruk dengan mengekalkan 14 sub-konstruk yang merupakan tunjang kepada Kerangka Pengajaran untuk Pendidik Guru (MyTF@TE). Penelitian MyTF@TE menunjukkan bahawa empat sub-konstruk yang pertama (*group discussion, critical thinking, evaluate peer's work* dan *knowledge transfer*) adalah terhasil daripada IE, tiga sub-konstruk (*learning resources, physical setting* dan *technology integration*) terhasil daripada QL, dua sub-konstruk (*learning outcome* dan *theory to practice*) terhasil daripada CA, dua sub-konstruk (*global connection* dan *embrace culture diversity*) terhasil daripada IC, dan dua sub-konstruk (*welcoming ideas* dan *improving practices*) terhasil daripada CR. Dalam pada itu, GV berdiri sebagai sub-konstruk tunggal. Sebagai kesimpulan, kajian ini telah mengenalpasti 14 faktor yang menjadi tunjang kepada pembangunan Kerangka Pengajaran untuk Pendidik Guru (MyTF@TE) yang telah disahkan melalui EFA dan disahkan lebih lanjut dengan CFA. Implikasi dapatan kajian ini ialah faktor-faktor yang terangkum dalam bentuk visual boleh digunakan untuk membantu dan meningkatkan kualiti pendidik guru merentas semua institusi Pendidikan Tinggi di Malaysia.

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LIST OF ABRREVIATIONS

AKEPT Higher Education Leadership Academy

AMOS Analysis of Moment Structure

BPG Bahagian Pendidikan Guru

CAP Critical Agenda Project

CDD Curriculum Development Division

CFA Confirmartory Factor Analysis

EFA Exploratory Factor Analysis

ELTC English Language Teaching Centre

EPRD Educational Planning Research Division

IPGM Malaysia Teacher Education Institute

IPGs Teacher Education Institutes

JNJK School Inspectorate and Quality Assurance

MEB Malaysia Education Blueprint 2013-2025

MEBHE Malaysia Education Blueprint (Higher Education) 205-2025

MOE Ministry of Education, Malaysia

MOEC Ministry of Education and Culture, Finland

MQA Malaysia Qualification Agency

NCLB No Child Left Behind

NHESP National Higher Education Strategic Plan 2007-2020

NIE National Institute of Education, Singapore

NPE National Philosophy of Education

PISA   The Programme for International Student Assessment

SEM   Structural Equation Model

SISC   School Improvement Specialist Coach

SPSS   Statistical Package for Social Science

TIMSS   Trends in International Mathematics and Science Study

TLLM   Teach Less Learn More

WSU   Wichita State University

APPENDIX LIST

A   **Documents Analysed**

     A1   No Child Left Behind (NCLB)

     A2   Teach Less Learn More

     A3   Finland's Education and Research Development Plan

     A4   Singapore Teacher Education Model for 21st Century, National Institute of Education (NIE)

     A5   A Teaching and Learning Framework for Carleton University, Canada

     A6   Strategic plan 2010-2015, University of Nottingham, United Kingdom

     A7   Teacher Education Student Handbook, Wichita State University, USA

     A8   Nine Principles Guiding Teaching and Learning, Melbourne University, Australia

     A9   Using the CEFR, Principles of a Good Practice, University of Cambridge, UK

     A10   Taylors' University, Malaysia

     A11   University of Tampere, Finland

B   **Letter of Appointment**

     B1   Expert 1

     B2   Expert 2

     B3   Expert 3

CHAPTER 1

INTRODUCTION

1.1　　Background of the Study

Quality teaching is seen as the most effective lev.er available to transform primary and secondary education and deliver improved outcomes for students (Ministry of Education, 2013). It is consistently identified as the most important factor in student achievement. Quality teaching matters in student learning (Lockwood, Koretz, Miller, 2002; Louis, & Hamilton, 2004; Rivkin, Hanushek, & Kain, 2005). This statement concurs to the findings on the accumulative and long-lasting effect of effective teaching on student achievement (Bembry, Jordan, Gomez, Anderson, & Mendro, 1998; Blazar & Kraft, 2016; Rivkin et al., 2005). The higher the quality teaching been implemented, the higher the number of students will succeed in their learning. More empirical evidence on teacher's teaching competency as a factor affecting student achievement found and this evidence concurs with Baxter, Hastings, Law and Glass (2008), Darling-

Hammond (2000), Montalvo, Mansfield and Miller (2007), who claimed that quality teaching matters to student learning. Therefore, quality teaching is the factor that cannot be compromised to realise the education aspirations stipulated in the Malaysia Education policies.

The aspirations of the uplift teaching profession at the highest level were documented in the Malaysia Education Blueprint 2013-2025 (Ministry of Education, 2012). It emphasises on every aspect of teaching in ensuring Malaysia to be at par with the international level (Ministry of Education, 2013). No doubt teaching is a challenging profession and as such teachers need adequate preparation for shouldering the heavy responsibilities of nation building. The Ministry will improve the quality of teaching in the schools, building on existing good practices, and rewarding high-quality teaching with better career pathways that support teachers in the classroom (Ministry of Education, 2013). The Malaysian Education Blueprint 2013-2025's aspiration concurs with the National Higher Education Strategic Plan 2007-2020 (NHESP) which also highlighted the importance of teaching and considered as a Critical Agenda Project (CAP) in the document (Ministry of Higher Education, 2010).

1.2   What is teaching

There is no one-word definition of teaching. Oxford Advanced Learner's Dictionary (2015) defined teaching as "to give systematic information to a person or about a subject or skill; to practices professionally; to enable a person to do something by instruction and training; to be an advocate for moral constructs; to communicate,

instruct in a moral principle; to induce person by example or punishment to do or not to do a thing; to make a person disinclined to do something" (p.1531). These definitions are in line with scholars definition. Jarvis (2006) stated that teaching is helping others to learn. Darling-Hammond (2000) stated that teaching is a process that facilitates and bridges between students' need.

In conclusion of the definition, there are few keywords used to described teaching such as to facilitate, to help and directing which were opined by scholars. Teaching also sees as a set of process which is not mechanical. Principally, teaching exists if there is learning taking place. It involves learners who are the central or purpose of education in general. It is a complex process of methodologies, approach or strategy that is shaped by the teaching context. Therefore, whenever teaching is concerned, learner aspect should be considered. It is described as the two sides of a coin because teaching does not happen without a learner (Siaw & Nortey, 2011).

1.3   What is Quality Teaching

When teaching is a concern, quality does matter. Regardless of which level from the policymaker up to the practitioner and stakeholder, it is undeniable that quality teaching will produce quality education in general. Defining quality teaching is very conflicting and challenging. We are far from a precise definition of what quality teaching is (Goodwin, 2010). Some scholars described quality teaching as an outcome and some as a property (Henard & Leprince-Ringuet, 2008). Darling-Hammond and Bransford (2005) described that quality teaching is equally translated as effective teaching. A

command definition of quality teaching is a process of transmitting knowledge successfully, but it is beyond transmitting, especially in the era of knowledge is accessible at children fingertips. Darling-Hammond and Bransford (2005) suggested that quality teaching as more on facilitating students, providing opportunities to the students to explore rather than to listen and absorb information. Shin'ichi Suzuki in the book "Asian Perspective on Teacher Education" says,

Teacher Education faces the tasks of providing initial and acting teachers with appropriate programmes by which teachers should fully cope with the brave task of new 'teaching.

(Suzuki & Howe, 2010, p. 3)

Ministry of Education is very keen in uplifting the quality of teaching to the higher level, but there are few studies by the Ministry of Education findings which contradict with the aspiration. A study conducted by Higher Education Leadership Academy (AKEPT) in 2012 states that 50% of the teachers observed they failed to deliver their lessons effectively, particularly to inculcate higher order thinking (Ministry of Education, 2012). This finding concurs with the observational findings by School Inspectorate and Quality Assurance (JNJK) in 2011 which shows that only 13% of the teaching conducted by teachers in schools are rated as good or excellent (Malaysia Education Blueprint 2013-2025, 2013). The empirical data on teachers who are lack of knowledge and are not well prepared to teach revealed in the baseline study conducted by Cambridge English, the United Kingdom in 2013. The finding also claims that the teaching competency of teachers is quite low (Result Report; Cambridge Baseline English Language in Malaysian Schools, 2013). Cambridge, UK: Cambridge

English. These findings are contradicting the vision of the government in its plan to improve the quality of teachers' teaching. Where does it go wrong? What are the factors that might contribute to these weaknesses?

Even though there is no extensive literature in connecting how prospective teachers trained with their teaching practices in the classroom, there are quite a significant number of studies which findings show the direct relation of the quality of teaching in schools to the quality of the training that novice teachers received in their teacher education institutions. According to Sleeter (2014), 11 articles (6%) out of 196 articles that she reviewed shows the significant impact on teacher education to the teacher performances in the classroom. Similarly studies by Goodwin and Kosnik (2013), Jensen and Cooper (2015), Musset (2010), Roberts-Hull and Darling-Hammond (2006) and Sadler (2011), which also claimed that there is an impact of the teacher education particularly how teacher educators teach on the teacher teaching practices in the real school situation. As such, the role of teacher education in preparing a quality teacher who can carry out quality teaching can be seen as one of the contributors that uplift education in one country. Thus, teacher education should create a conducive teaching environment, which will produce the teacher who will set the same situation in school (Soini, Pietarinen, Toom, & Pyhältö, 2015). Ideally, this is what should be done in teacher education.

The role of teacher education institutions in producing a quality teacher is seen as a must by the literature. Ironically the teacher education around the globe has been criticised as ineffective in preparing teachers for their work, '…unresponsive to new demands, remote from practice or obstacles to the recruitment of bright college student

into teaching…' (Darling-Hammond, 2006, p. 19). Darling-Hammond (2006) critiques and argument support by finding that shows student teacher who graduated from the Teacher Education Institution are not well equipped with the necessary teaching knowledge. Report by the World Bank (2012) also agrees with Darling-Hammond (2006) critique, which reported that teacher education is ineffective in preparing teachers. In the Australian Institute of Teaching and School Leadership (AITSL) (2018) reported some severe problems with the Initial Teacher Education (ITE), which include '…a lack of evidence-based content; inadequate training in subject knowledge; an insufficient focus on data collection and analysis skills for clinical teaching practice; and limited integration of theory and practice…' (Roberts-Hull, Jensen & Cooper, 2015 p. 6). The Teacher Education Ministerial Advisory Group (2014), discovered that teacher education programme is not up to date, not equipping their student teacher with research-based teaching knowledge to cope with the future teaching setting and the worst part is not understood by those who so called as a teacher educator themselves.

In Malaysia, a similar study on the readiness of the teacher after graduating from teacher education institutions also has been carried out. Few studies found that novice teachers who graduated from the universities feel that they were underprepared to face the challenge at the first years of being a teacher in school (Fatiha, Razak Zakaria, & Sharatol Ahmad Shah, 2013). David and Ambotang (2014) also claimed that novice teachers who graduated from universities are not ready to be in school. Goh, Saad, and Wong (2012) and Goh and Matthews (2011), in their phenomenographic investigation, found that novice teachers are not well prepared to teach. The lack of preparation is on the teaching aspect, namely pedagogical content knowledge as well as the pedagogical knowledge itself. Student teachers who were on practical found not able to promote

active learning in their class (Goh & Wong, 2014). These findings are part of the factors that contribute to the finding that teachers are still not ready to implement and align with the up to date teaching practices. The weaknesses and the unsuccessful story of teacher education in Malaysia in preparing a pre-service teacher to teach need immediate attention. The "how" student teachers were moulded needs further investigation as there are studies that argue on the impact of how student teachers were taught with the novice year performance in the classroom in teaching aspect (Goh & Blake, 2015; Harris & Sass, 2007; Soini et al., 2015). One of the solutions is to revamp the training at the teacher education programme (Nazarudin, Benjamin Abdullah, & Noordin, 2017) and it should start with the teaching aspect by the teacher educators themselves who will connect the future generation to the new world (Billingsley, Griffin, Smith, Kamman & Israel, 2009).

Teacher educator is an important player in the ecology of teacher education (Lunenberg, Korthagen & Swennen, 2007) thus they need dynamic development to establish both important cores, as well as the most in current content in their teaching practices. At the same time, pedagogies need to change given the changing nature of knowledge, learning, a profile of learners, and the new environment (Goh & Blake, 2015). A more student-centred rather than teacher-centred mode of teaching, which emphasises the different learning styles and needs of students has strongly advocated (Kassim & Furbish, 2010). The changes require the teacher educators to demonstrate not just as content-pedagogical expertise but also a more definitive understanding of the different learning styles and needs of children and how to address them pedagogically (Futrell, 2010). The Ministry of Education is well aware of how important are the roles of teacher educators in moulding a future teacher for the country.

How student teacher was prepared to be a teacher, has a critical influence on what teacher can do in the future (Ong, Nurulhuda, Rosdy, Nor'ain, Razak & Ahmad Nazri, 2017).

1.4   Teacher Education in Malaysia

In Malaysia, teacher education and planning were under the jurisdiction of the Ministry of Education (MOE) before the establishment of the Ministry of Higher Education (MOHE) on 27 March 2004 (Jamil, Razak, Raju & Mohamed, 2007). Currently, secondary and primary school teacher preparation programmes were separated and given to MOHE and MOE, respectively. The MOHE prepares secondary school teachers through universities, whereas MOE prepares primary school teacher through the Institute of Teacher Education (IPG). Before the separation, the Teacher Education Division (BPG) monitored teacher education programmes, which implement the standard curriculum set up by the Ministry of Education (Goh & Blake, 2015). The monitoring covers all aspects of teacher preparation programmes, including deliverance and teaching practices in the classroom. It is to ensure that each of the institutions sings the same song. After the separation, the Teacher Education Division (BPG) has no control over the teacher preparation programmes conducted by the universities. In fact, since July 2015 BPG no longer had control over teacher preparation programmes at IPG level since it has been taken over by the Institute of Teacher Ministry of Education (IPGM).

The monitoring of the teacher education programmes needed in ensuring the IPGs as well as universities produces quality teachers as envisioned in the Malaysia Education Blueprint 2013-2025. To date, there is no central agency to monitor universities' teaching practices in Malaysia besides the standard and quality control imposed by the Malaysia Qualification Agency (MQA). MQA was formed to ensure the deliverance of quality education in higher education (Mohd. Deni, Zainal, & Malakolunthu, 2014). The agency is responsible for the accreditation and certification of universities that have fulfilled the outlined requirement, but as argued by Mohd. Deni et al. (2014) accreditation may improve the quality of teaching in higher education, but their potential as a catalyst to quality teaching remains unclear. Thus, one mechanism to guide teacher educators at the university level needs to be developed.

The need to revise the university's teacher teaching approach is corresponding to the government aspiration as stipulated in the MEB 2013-2025. Findings by the Higher Education Leadership Academy (AKEPT), 2011, School Inspectorate and Quality Assurance (JNJK), 2012 and Result Report; Cambridge Baseline English Language in Malaysian Schools, 2013 have shown that teachers in Malaysia are still weak in teaching competency. These findings concur with the findings of underprepared novice teacher to teach as found in Goh (2013), Goh and Wong (2014), Goh et al. (2012), Goh and Matthews (2011) and Jamil et al. (2007). It raised another question of whether or not teacher preparation programmes in Malaysia able to prepare teachers to be ready for the demands and evolving global landscape (Zachariah, 2013). Therefore, it is time for a teacher education programme conducted by the universities in Malaysia to have at least one common framework that is hoped to guide teacher educators on the current trend, which align to the policies and the real situation in

schools. The idea of having a common teaching framework is not new; it is a current trend in the transformation of education globally.

1.5   The Need for the Teaching Framework

Kek and Huijser (2011) suggested that the impetus of any changes in education is the Malaysian government aspiration and initiatives. Hence, teacher educators should always uphold the aspirations that stipulated in Malaysian education policies. It is because teacher educator is the individual that preparing future teacher. What has been taught to the student teacher might affect the way they are teaching in the classroom. It has been proven that excellence in teaching is increasingly important aspects of institutional branding in higher education (Lindberg-Sand & Sonesson, 2008). Like other professions, teaching involves the performance of contingent functions (Squires, 2004). Therefore, in line with the rapid changes and demands on teaching in higher institutions, teacher education institutions around the globe have developed and continuously developing structures to improve teaching in various forms. Malaysia is not exempted from this development since her independence in 1957. Various policies and changes have been attempted to offer quality education from the philosophies, policy documents, standards etc. AKEPT, for example, has taken a relevant action by developing the National Teacher Qualification Framework to assist teachers enhancing their teaching which is meant to be a guideline for all university teachers across all the courses and disciplines. Thus, the idea of having one teaching framework for teacher educators in Malaysian universities is worth considering. This study is intended to develop one teaching framework, based on the teaching constructs conceptualised from

the document analysis and the interview with key-informants, policymakers, and teacher's mentors and teacher educators. This is to respond to the government's aspiration to elevate the teaching profession to a higher level through teaching practices in preparing the teacher for the future. The teaching framework is not intended to guide teacher educators prescriptively of what teaching is but to suggest the elements that need to be considered before one teacher educator starts to plan to prepare a student teacher. The elements embedded in the teaching framework are a collective view from the teachers in schools, key-informants, policymakers, and teacher's mentors and teacher educators.

What has aspired in the policies was the generic aspiration that is hoped to navigate the direction of education in the country. The universities, which are preparing future teachers, need to consider these aspirations into consideration in the development of their curriculum and teaching approach to develop a future quality teacher. Therefore, there is a need to consolidates the views and suggestions on how teacher educators guide student teacher should be a teacher in one document, such as a framework for teaching. It is quite not possible for teacher education in Malaysia to have one common framework. This is because the programme conducted by IPGs is monitored and supervised by the Ministry of Education under the Malaysia Teacher Education IPGM jurisdiction, whereas the teacher education programme at the university level is conducted and monitored by the university itself with recognition and accreditation by the Malaysia Qualification Agency (MQA) and other certifications bodies. Each university has its autonomy to initiate and enforce its way of conducting the programme. Therefore, it is quite challenging for the MOE to monitor what is happening at the university level, especially when teaching is a concern. Mohd. Deni

et al. (2014) proposed for the MQA to monitor and evaluate overall student's learning experiences through university teacher's pedagogical skills, learning environment, and learning outcome. This suggestion is to correspond to the aspiration in uplifting the teaching to the highest par.

Malaysian universities have taken various initiatives in ensuring that quality teaching is improved, from accreditation to obtaining ISO certification, etc. However, this does not guarantee that quality teaching is happening within the classroom. Hence, universities that are responsible for moulding future teachers for public secondary schools in Malaysia need to work very closely with the education communities around them. A recent study conducted on the knowledge dissemination and application of 519 academics from public and private universities in Malaysia proved that university teachers are working in isolation and not comfortable in asking and sharing information (Mohd. Deni et al., 2014). Therefore, one of the significant steps that that can be considered by the universities, involved in a teacher preparation programme, is a formation of communities of practice in which teaching experience and dilemmas are shared and reflected. The teacher is a learner himself or herself (Cox, 2014) thus it is the time for teacher educators to open their doors to their educational surroundings particularly school teachers, key informants and teacher's mentor for them to see the real-classroom teaching practices to be imparted to their student teachers. Thus, the development of the teaching framework that considering the views of these group of people is necessary.

The teacher education programme at the university should not be emphasising only on theory and highlights a concerning lack of practical interaction between theory

and practice (Goh & Blake, 2015) that might not be relevant in Malaysian's classroom. Real practices in the real-life classroom at the school level also need to be considered in mapping the course outline for the teacher education programme in one's university. Teacher educators cannot teach pedagogy and psychology just by telling them what pedagogy and psychology are about but need to connect it with the school practice (Ko, Sammons, & Bakkum, 2013). The connection between what pedagogy and how to apply it need to be mastered by teacher educators, particularly those who are teaching content knowledge to the student teachers. They need to be in the know of a real classroom situation by getting involved with teacher educators who are taking care of pedagogy in the university as well the education communities. They cannot leave the pedagogical aspects to the pedagogical teacher educators while delivering content in their programme. Teacher educators should have a school teaching in mind but know of no better account for higher education (Shulman, 1987). For example, English language teacher educator needs to know how to make Grammar lesson enjoyable by applying exciting approach in their classroom by looking at what their student teacher needs to do while handling the same experience the real class at school level, this is concurring with the belief that teacher teach the way they learned (Kassim & Furbish, 2010). Student teacher that enrolled teacher education programme have preconceived notion about teaching (Fives & Gill, 2014). In Malaysia, they have been in school for at least for 11 years, and the experience as a student and how they have been taught in school fossilised in themselves (Kroll, 2004) . They are naive views on teaching as telling and learning as copying or memorizing what is "true" (Kroll, 2004). Factors that shaped teacher educators and student teacher understanding about teaching is shown in diagram 1 below. So, when a teacher educator teaches in not so interesting teaching approach, their student teachers tend to do the same while they are in school.
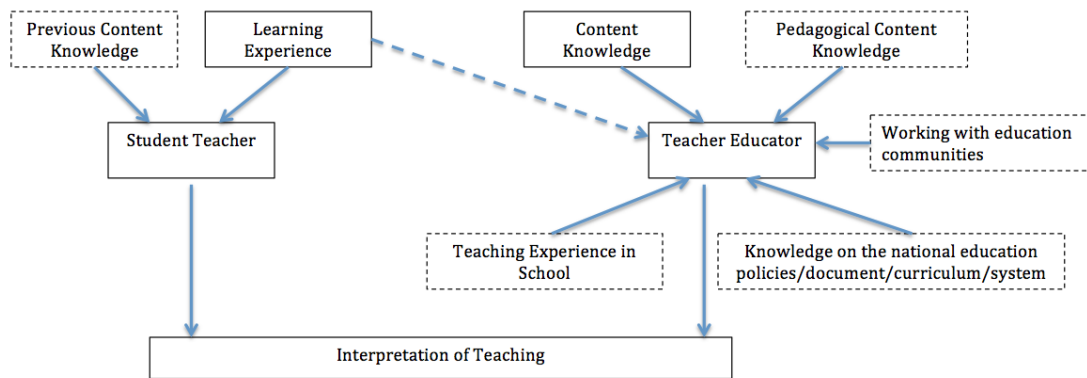
Source: Adopted from the 'International Handbook of Research on Teachers' Beliefs 2014

Indicator:
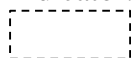
Not a strong factor – sometimes exist

Indirectly contribute to the understanding of teaching

Figure 1.1. Possible Factors Influenced Student Teacher Understanding About Teaching.

When the understanding of what teaching is not clear student teacher who has undergone the teacher preparation programme will also interpret teaching as to how they have been taught before. Hence the teaching framework is hoped can divert the understanding of what teaching is to the new perspective. The framework that encapsulates the views of those who are involved in teaching, especially a policymaker, in-service teacher and teacher trainer is hoped can be a guide for teacher educator.

The teaching framework that intended to be developed and validate is not a prescriptive framework and limits teacher educator creativity in the class. It is to articulate the theory, constructs, and values that will guide the teaching activities in preparing teacher for the future. The fundamental question that needs an answer is, why we need one common teaching framework for teaching in preparing student teacher to teach? The arguments of the need for a common framework for teaching are:

1. to respond to teaching issues that affected local educational landscape (e.g. novice teacher readiness to teach, an underprepared new teacher to deal with a real-classroom setting, etc;

2. to have one guideline that was developed based on research to assist teacher educators in preparing future teacher;

3. to respond to the challenge in the Malaysian government aspiration in the expectation of a high-quality teaching profession in Malaysia education system;

4. to meet the requirement set by the stakeholders for a quality graduate teacher who will be teaching in the public school; and

5. to explore the implications, take advantage of and extend the latest research findings on effective teacher education.

To be in tandem with the Ministry of Education's aspiration, the teaching framework is seen to be one of the solutions that might give a new spectrum or at least gather all the necessary practices in one guideline to use by the teacher educators in preparing teacher.

This study intends to develop a teaching framework based on the teaching constructs conceptualised at the early stage of the study. These constructs were conceptualised based on critical and comparative analysis of selected national and international teacher education institutions (Adnan, Masuwai, Tajudin, & Rahman, 2015). The documents from selected institutions were analysed and provisional teaching constructs developed.

As such, this study will employ the descriptive survey amongst in-service teacher get their views on the constructs that were conceptualised. The views will be analysed support by the literature as a step in forming a framework. The developed framework is hoped can be a guide for teacher educators in implementing what is expecting to be the best practices in teaching, particularly in shaping the next generation teacher.

1.6   Statement of the Problem

When preparing teacher is a concern, teacher educator is one of the pillars that teacher education institution relies on (Lunenberg et al., 2007; Roberts-Hull et al., 2015). Unfortunately, some studies found that teacher educators at the university level still lacking the skill needed to guide student teachers (Vethamani, 2011) and that causes the critics to the teacher education institution itself. The argument is they still apply a traditional approach in handling teaching in their classrooms which still practising the one-way interaction of teaching (Rahman, Masuwai, Ong, & Adnan, 2016; Smart, Witt, & Scott, 2012). The lacking a suitable model in teaching amongst teacher educators claimed due to the lacking support material such as teaching framework as well as coaching for them in preparing student teachers (Loughran, 2014). It is not new to see, most of teacher education institutions around the world persistently initiated various ways to assist teacher educators in improving their teaching, and one of them is a teaching framework. The framework encompasses the curriculum, teaching, the assessment, and other aspects of teacher education that is a core of preparing teacher is a concern. These frameworks generally are a research-based, where the development

of the framework has been through stages from conceptualising the constructs to the development of the framework.

National Institute of Education, Singapore, for example, has developed the "VSK Framework" which "…graphically represented by the central pillar of values (V), encircled by skills (S) and knowledge (K)…" (Goodwin, 2013, p.29). This framework consists of six key elements. The elements such as underpinning philosophy, the desired outcomes of the teacher, curriculum, and academic pathway form the base in developing this framework. The grassroots of the framework is a collaborative shared value of teacher learning and education research, as stated in the in the framework.

In the USA, Darling-Hammond and Bransford (2005) also suggest "A Framework for Understanding Teaching" to the National Academy of Education Committee. Described graphically with the three rings overlaps to each other the framework highlighted the three cores; (1) Knowledge of Learners and their Development in Social Contexts, (2) Knowledge of Subject Matter and Curriculum Goals, (3) Knowledge of Teaching. Adapting Dewey's (1998) notion, this suggested framework focuses on the lens of the teacher as a mediator in child's need and the demands of the curriculum. The framework is intended to provide the guideline to the teacher to reflect on any teaching situation and to improve their practice (Darling-Hammond & Bransford, 2005).

Whereas, Finland has aligned its teacher education framework to the framework of the European Higher Education Area (Jakku-sihvonen & Niemi, 2006). The

framework focuses on balancing the development of student teacher's personal and professional competence in ensuring the graduated teacher will possess knowledge and skill for a quality teaching (Sahlberg, 2012).

The persistent effort shows by the teacher education around the globe in developing a framework for their institution is an alarm to teacher education in Malaysia not to be left behind. Unfortunately, to date, there is no apparent teaching framework for teaching, particularly for teacher educators, has been developed or published to guide teacher educators in Malaysia. This claim based on the search for the teaching framework from the database on the university websites as well as the document from a few local teacher education institutions in Malaysia.

Nevertheless, Malaysia has taken various efforts on ensuring the quality of teaching not compromised. One of the efforts undertaken by the ministry is the conceptualisation and subsequently, the publication of an important document which provides the production of quality teachers in Malaysia, namely the Malaysian Teacher Standards (MTS). MTS developed and launched in December 2009 by the Teacher Education Division, under the Ministry of Education jurisdiction. The standard is described as guidelines for teachers to measure their teaching practices and how they should align it to the expected standard (Goh et al., 2012). It is seen at the broader spectrum where the teaching is benchmarked with a certain standard to be at par at the international level as mentioned by Asariah the former Deputy Director General, Ministry of Education quoted in Chapman (2009). The underlying contents of the MTS are (1) Professional values within the teaching profession, (2) Knowledge and understanding of education, subject matter, curriculum and co-curriculum, and (3)

Skills of teaching. This standard is focusing on the four aspects in its requirement component which are: (1) Training Programme (2) Assessment and Evaluation (3) Collaboration and (4) Infrastructure and Infostructure (Bahagian Pendidikan Guru, 2009). The content and aspect of the requirement of the MTS are generic, which navigates to the standards that need to be achieved by the teachers. Thus, to meet the standards, there is a need to have one teaching framework to assist teacher educators as proposed by Darling-Hammond (2006). The teaching framework that developed based on the constructs which gather the "…statements on the scholarship of teaching and a reference guide to good practice." (Rahman et al., 2016). This framework is hoped to assist teacher educators in instilling distinctive attributes to student teachers that will enable them to deal with the ever-changing teaching practices in a meaningful and positive way.

Thus, the development of a teaching framework for teacher educator should be considered as a vital move in aligning the quality of teaching for future teachers. As such, to embark on the process of developing the teaching framework, the constructs which interweaved theories, philosophy, and best practices should be taken into account. Examples can be seen in the models retrieved from the renowned teacher education institutions around the globe like Singapore, Finland, Australia, and the United Kingdom. Ragan (1999), Kennedy (1997) and Fullan (1993) have a strong recommendation that constructs is a must to ensuring the framework is worth to be developed. Ratnavadivel, Hoon, Salih and Low (2014) also proposed a provisional guiding principle underpinning the development of the Teacher Education Model for Preparing Quality Teachers for the Future 2014-2018. Therefore, it is now a need to

conceptualise a list of teaching constructs that will be a crust of development of teaching framework for teacher educators.

Even though there are studies that have been conducted to develop a construct for teaching, the one focusing on teacher education in Malaysia is still lacking (Adnan et al., 2015). Rahman et al. (2016) claimed that before the teaching constructs that were conceptualised by the Niche Research Grant Scheme (NRGS) project, there are no apparent teaching constructs found particularly in teacher education in Malaysia. Therefore, there is a need to explore, conceptualise, validate, and develop constructs as the core for the development of a teaching framework. To enhance the rigorousness of the constructs, further validation needed by taking the views of those who are involved in teaching. This is done by interviewing the policymakers and taking into consideration the in-service teacher's point of view in the survey. The finding will be argued with literature support to form a teaching framework for teacher educators. With this, the teaching framework that will be developed is rigour and formed by a wider spectrum.

1.7   Purpose of this Study

This study seeks (aims) to develop a teaching framework for teacher educator. Therefore, literature-based initial constructs on teaching are explored, validated by experts and by exploratory factor analysis, before being confirmed by confirmatory factor analysis. The confirmed constructs will then form the basis for the teaching framework for teacher educators. Accordingly, the purposes entail the following:

1. developing the constructs on teaching by means of document analysis, an interview with the policymakers, teacher educators, teacher's mentors and Ministry of Education (MOE) personnel;

2. validating the constructs by using the confirmatory factor analysis (CFA); and

3. developing the framework based on the confirmed teaching constructs.

1.8   Objectives of the Study

Given the aim of the study in developing a framework for teaching, this study has three objectives, which are:

1. to identify the teaching constructs through document analysis and expert interviews;

2. to confirm the validity and reliability of the teaching constructs by means of confirmatory factor analysis; and

3. to develop a teaching framework based on validated teaching constructs.

1.9   Research Questions

To achieve the research objectives, the following research questions were prepared:

1. What do the constructs of teaching framework emerge from the document analysis and the interview?

2.   Do the underlying factors of the teaching framework constructs valid and reliable in the Measurement Model (CFA)?

     2.1   Do the Intellectual Excitement (IE) suggested has validity and fit the with study data?

     2.2   Do the Quality Learning Spaces (QL) suggested has validity and fit the with study data?

     2.3   Do the Constructive Alignment (CA) suggested has validity and fit the with study data?

     2.4   Do the Internationally and Culturally Diverse (IC) suggested has validity and fit the with study data?

     2.5   Do the Climate of Inquiry and Critical Thinking (CR) suggested has validity and fit the with study data?

     2.6   Do the Good Value (GV) suggested has validity and fit the with study data?

3.   What is the teaching framework for teacher educators in higher teacher education institutions?

1.10   Research Hypotheses

Based on the research question number two, the hypotheses for the study are:

1.   H1 Measurement Model for Intellectual Excitement suggested has validity and fit the with study data.

2.   H1 Measurement Model Quality Learning Spaces suggested has validity and fit with study data.

3. H1 Measurement Model Constructive Alignment suggested has validity and fit with study data.

4. H1 Measurement Model Internationally and Culturally Diverse suggested has validity and fit with study data.

5. H1 Measurement Model Climate of Inquiry and Critical Thinking suggested has validity and fit with study data.

6. H1 Measurement Model Good Value suggested has validity and fit with study data.

1.11 Significance of the Study

The significant of the study is to:

1. respond to the rapid changes and demands in teaching approach internationally and locally;

2. realise the Malaysian government aspiration outlined in Malaysia Education policies and plan particularly expectation of a high-quality teaching profession in Malaysia Education System;

3. meet increased stakeholder's hopes for a quality graduate and accountability in the public sector, including education sector; teacher produced by the higher institution will be working in the public school which is part of the education sector; and

4. explore the implications, take advantage of, and extend the latest research findings on effective teacher education.

These reasons are to respond to teaching and learning issues that affected local educational landscape (e.g., novice teacher readiness to teach, an underprepared new teacher to deal with real-classroom setting). Therefore, the finding of this study will benefit the institution and individual that involve in the teacher education programme, directly and indirectly, such as:

1.11.1 Teacher Educator

The framework developed is hoped can be a new guideline for teacher educators to apply in the classroom atmosphere. Use a framework for teaching as assisting tools for teacher educators to conduct lesson effectively and to equip teacher educators with the instructional strategies needed for effective classroom instruction. The teaching framework hoped can be a guideline to interactive learning, integration of technology into the educational system, and collaborative study activities. The end product of this study is a teaching framework that will provide a philosophical foundation for the development of better teaching practices in the preparation of future teacher in Malaysia. The framework produced is hoped can be a guideline to implement better teaching practices and complete a cycle of quality teaching. The framework is not intended to guide teacher educators on the steps teaching guidelines but to suggest the elements that need to be considered before one teacher educator starts to plan to teach a student teacher. It is also not a prescriptive framework that limits teacher educator's creativity in the classroom but rather to articulate the theory, constructs and values that will guide the teaching and learning activities in shaping future teacher. It is a guide to

good practice in empowering the teaching quality in teacher education (Rahman et al., 2016).

1.11.2 Student Teacher

The framework can assist student teacher with the best of educational deliverance and at the same time will prepare them with the skills and necessary knowledge. The framework is designed to give specific guidance as to what teachers should know and be able to do in the quest to maximise their learning, and that of their students learning as well (Elmore, 2004). Since the framework used by the teacher educator in navigating the teaching and learning in the setting "teaching how to teach," the well-guided student teacher will also hope can do the same to their future student in school.

1.11.3 Teacher Education Programme

The finding of the study is to produce a framework for teaching as a guide for teacher educator, teacher education programme, in general, can benefit this framework. The framework was developed based on a set of teaching and learning constructs, which expect to provide a philosophical foundation in designing a teacher education. Hence, a teacher education programme can use all the elements in the framework in planning and designing teaching and learning strategies in one institution. It is also a positive step in ensuring that the curriculum developed by the programme will be delivered

accordingly by using and implementing the framework for teaching by the teacher educator.

1.11.4 The Ministry of Education

Since the development of this framework navigated by the Ministry of Education's aspiration, it is somehow or rather will benefit the ministry in the effort of uplifting quality of the teacher in the country. The constructs that underpinned this framework can be a booster to boost the teaching and learning at the teacher education institution all over Malaysia.

1.11.5 In-service Teacher

The framework hoped can be a guideline for teachers who are already in schools. The developed framework expected can also be a guideline for them to assist a new posted teacher in their school. The teacher also can adopt and adapt the teaching framework by considering all the constructs needed in ensuring that learning is taking place in the classroom.

1.12 Conceptual Framework of the Study

A conceptual framework is used to depict a vision and the purpose of the study. It described how the essential elements relate to each other (Cohen, Manion, & Morrison,

2011). It helps to ensure that the conduct and reporting of the study efforts are thoroughly conceived, have firm grounding, and can meet established objectives. Since the study focuses on a framework for teaching, it embarks from the teaching constructs that were conceptualised by gleaning at the renowned teacher education institution as well the policy documents which is the aspiration of the Malaysian Ministry of Education. The constructivism theory appears to underpin the constructs. The elements of the reflective teaching model, technology integration, and internationally and culturally environment were intertwined in the constructs which rendered from the theory employed.

Six themes emerged from the document analysed, which are:

1. Teaching should nurture good values, attitudes and behaviour.

2. Teaching should foster an atmosphere of intellectual excitement in students.

3. Teaching should nurture a climate of inquiry and critical reflection.

4. Teaching should ensure a constructive alignment between an evolving knowledge base, student learning outcomes, learning experiences, actual practice, and assessment.

5. Teaching should offer an international and culturally diverse learning environment.

6. Teaching should provide quality learning spaces, resources, and technologies.

These themes then further developed and discussed to form some items that further explain each of the themes. These items were validated by the experts, and a set of questionnaires are framed around the themes emerged. The survey was distributed

to the teacher to gain their view on the importance of these themes. The finding was discussed and elaborate in chapter 4 of this study.

The conceptual framework of this study is shown in Figure 1.2, which interweaving the elements of Reflective Model, Internationally Culturally Diverse Learning Environment and Technology Integration in the pipeline of constructivist.

Theory:
Constructivist

Concept & Model:
• Reflective Model
• Internationally & Culturally Diverse Learning Environment
• Technology Integration

The Constructs:
• Intellectual Excitement
• Quality Learning Spaces, Resources & Technology
• Climate Inquiry & Critical Reflection
• Internationally & Diverse Learning Environment
• Constructive aligment
• Good Values, Attitudes & Behaviour

Validation:
• Interview
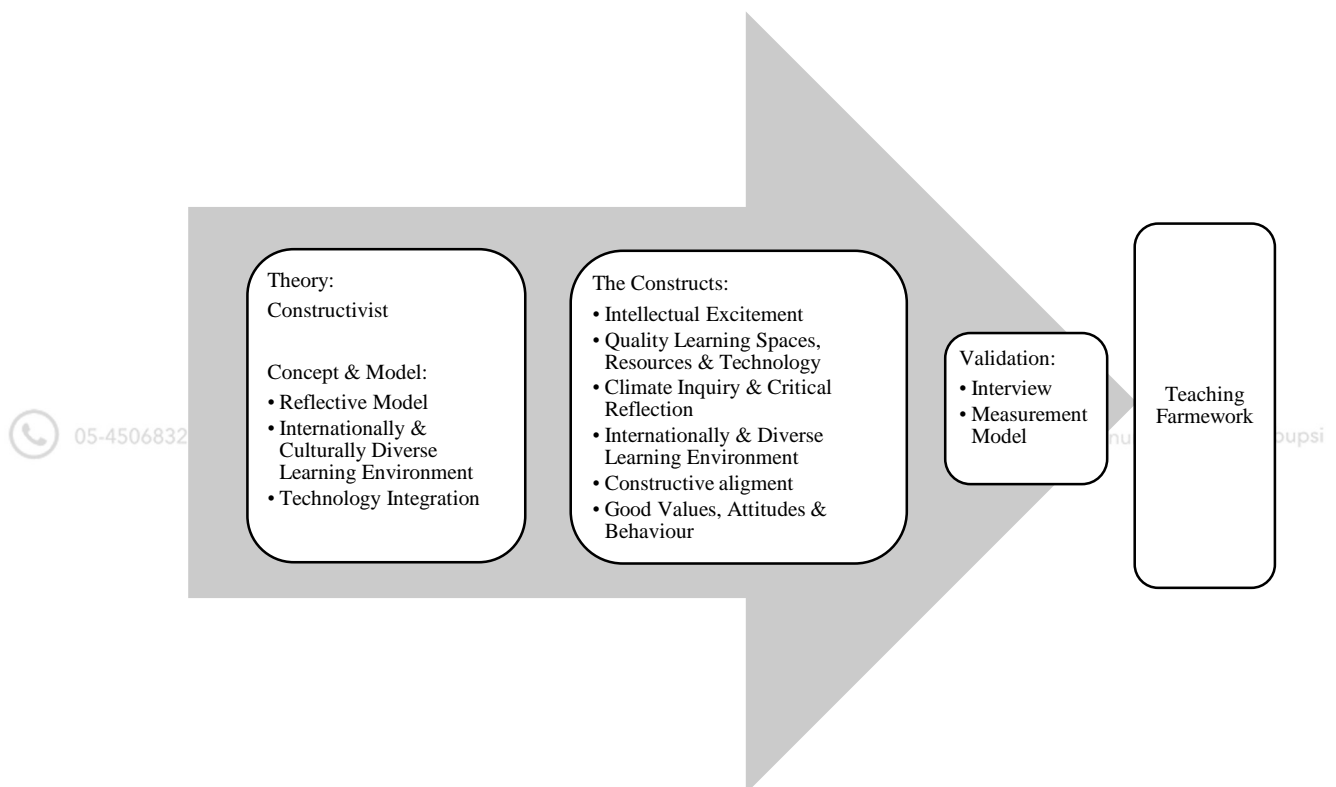• Measurement Model

Teaching Farmework

Figure 1.2. The Conceptual Framework of the Study

1.13   Limitation of Study

This study is intending to develop a framework based on the Teaching and learning constructs that employed Analysis of Moment Structure (AMOS) as confirmatory

analysis software. This software is utilised to measure the items that fit under the construct in measurement model before the teaching framework is developed. Therefore, the result might not be the same if the data is analysed with other software.

The other limitation of this study is the interview data collected from certain stakeholders who was a policymaker in the ministry of education in the past years. They gave their view based on their experience and decision made when they were a policymaker. Hence the framework that developed might not carry the same effect to be used due to the changes in the theory, philosophy, policies, and teaching practices in the future. The interview also involved teacher educators who have received an award for their best practices in teaching, to get their view on the conceptualised teaching constructs. Their opinion might not be relevant to the time when the framework entirely developed.

The developed framework also mainly focusses on being used by the teacher educators in teacher education institutions to guide them to prepare future teacher. The elements of the framework can be used by the teacher in school by adjusting and adapting with the different set of students. Thus, the outcome of this study might need to be improvised to be used to other groups of a teacher educator who might not be teaching teacher in the Higher Education Institution in Malaysia. The finding can only be generalised and use by a similar group of a teacher educator in Malaysia.

1.14   Operational Definition

There are terms in the study which need to be defined in operating the study. The terms and jargons are the cause and effect of this study. This section will define the operational terms used in this study.

1.14.1 A Constructs

For this study, constructs were conceptualised by analysing the document from teacher education around the globe. This set of constructs is claimed by Rahman et al. (2016) as a statement by the scholarship that can be a reference guide to good practice in teaching and learning. It is also can be defined as an idea to guide one organisation to achieve the goal of the institution (Masuwai, Tajudin, & Saad, 2017). Thus, it is a need to embark this study by exploring the teaching and constructs from renown teacher education institutions. These constructs will be utilising constructs to be used in collecting data for the study.

1.14.2 A Teaching Framework

The word "framework" is defined as a set of beliefs, ideas or rules that are used as a basis in making judgments, decisions, etc. by the Oxford Advanced Dictionary (Oxford Press, 2015). As such, result to this definition, the Framework for Teaching can be defined as a set of ideas, beliefs or rules that are generated from the data collected in

this study to complement any existing guidelines or course outlines for teacher educators in higher education institutions. This framework can be in the form of a table, diagram, or a list of guides that will benefit all the persons involved in the study. Danielson (2007) in her book "Enhancing Professional Practice: A Framework for Teaching" defines a framework for teaching as "aspects of teacher's responsibilities that have documented through empirical studies and theoretical research as promoting improved student learning." (p. 91). As for this study, the teaching framework is developed based on the constructs that were validated both psychometrically and interview.

1.14.3 Stakeholders

Lee (2007) opined the stakeholders as an extension worker, key farmers, local government officials, traders, and community leaders who know the area or certain aspects of the problem and also have an interest in the field of the discussion. The stakeholders who will be involved in this study are the two former Deputy Director General, Ministry of Education, Malaysia (MOE), personnel in the MOE who are responsible in making a decision plan in the direction of the Ministry of Education in Malaysia. The researcher tends to employ a semi-structured interview, as described in Chapter 3 (Methodology) in this study.

1.14.4 Teacher's Mentor

Teacher's mentor in this study are the School Improvement Specialist Coach (SISC), which is a new designation appointed by the Ministry of Education placed in the District Education Offices in Malaysia. Their role is to assist and facilitate teachers in improving education in schools (Ministry of Education, 2012). These groups of teachers have fulfilled the criteria set by the MOE to assist teachers in classroom instruction aspects such as improving their teaching skill based on their expertise in the teaching area.

1.14.5 In-service Teachers

For this study, a population of High Performing teachers was selected as a sample of this study. These teachers are the one who is teaching in schools all over Malaysia. It is according to numerous studies which indicated the teachers' performances affected student achievement, which, in turn, will affect the school performance (Darling-Hammond, 2000). The in-service teacher's view on the importance of the constructs suggested is essential since they have been in the education system for quite sometimes and their experience in handling teaching is a matter for this study.

1.14.6 Teacher Educators

A teacher educator is anyone who educates teachers (Hamilton, Loughran, & Marcondes, 2008). In the Malaysian context, a teacher educator also known as a lecturer who based in a teacher education institution either in a Teacher Institution at the University or in a Malaysia Teacher Education Institute (IPGM). As for this study, teacher educators who will benefit from the developed framework are those who teach on the teacher education programmes in universities.

1.14.7 Student Teachers

The student teacher is defined as that who are involved in teacher training programme throughout the training programme (Hamilton et al., 2008). These students are trained to be a teacher. For this study, student teachers will not be involved directly as a sample but are hoped to benefit the framework that was developed in this study.

1.14.8 Higher Teacher Education Institution

The Teacher Education programme is a programme which has been customised to train future teachers. The programme is a required course that will arrange and design for a certain period of study to achieve the learning outcome stated with ideal purpose and objective (Bahagian Pendidikan Guru, 2009). In Malaysia, the secondary and primary school teacher education programmes separated into two. Teacher Education Institution

will be dealing with preparing teachers for primary schools, whereas public universities are dealing with preparing secondary teachers (Ministry of Education, 2013). As for this study, the focus is on the teacher education programme in the public universities in Malaysia. In short, higher teacher education institution for this study refers to the teacher education in the universities in Malaysia.

1.15   Conclusion

Teachers are expected to be a person who can prepare next generation students with the necessary learning skills to face the demand of the new world. The teaching setting should not be the same as what it was a decade ago. The translation of teaching to transmitting knowledge might not be relevant in the next decade. To be fit in the new era of teaching, the future teacher also needs to be equipped with the necessary skills and knowledge about teaching, and it should start with the teacher education programme suggested by scholars. Therefore, the development of the teaching framework to assist teacher educators in preparing teacher for the future is very significant. This is to ensure that student teachers enrolled in teacher education institutions will be equipped with every strategy needed to fit the demand for effective classroom instruction.

As such, this study will be analysing the teaching and learning constructs that will be the base in developing a teaching framework. The comprehensive analysis of qualitatively and quantitatively is to ensure that the constructs are validated and reliable before the visualisation of the framework can be done. The teaching framework

developed might not be comprehensive, but the effort to develop a teaching framework is hoped can be a start to further improve quality teaching in line with the government aspiration.