International and Culturally Diverse Learning Environment Element in Teaching and Learning

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Abstract

The purpose of this study is to explore the importance of international and culturally diverse learning environment element in Teaching and Learning Guiding Principles (TLGP). The study employed a survey design and was administered to 350 Malaysian teacher educators from ten Malaysian higher teacher education institutions which were selected using cluster sampling technique. Confirmatory Factor Analysis (CFA) was used to test for model fit, reliability and validity of the construct measured namely the international and culturally diverse learning environment. The CFA results yielded four items of international and culturally diverse learning environment, indicated goodness of fit indices (TLI=1.002, CFI=1.000, RMSEA=0.000) with all factor loadings were more than 0.5 as well as high item reliability and internal consistency (AVE=0.60, CR=0.83). This study provides an indication for the evidence of the importance of the international and culturally diverse learning environment element in teaching and learning guiding principles. Offering an atmosphere of international and culturally diverse learning environment in teaching and learning may contribute to greater meaningful learning and diverse culturally environment that can be explored and experienced by the students individually with multi-layered culture around them.

Keywords: Teaching and learning guiding principles; international and culturally diverse learning environment; teacher educator; higher teacher education institution; confirmatory factor analysis

Introduction

In this study, one of the six themes of teaching and learning guiding principles (TLGP) were chosen to provide the structure and methodology of institutional teaching and learning excellence which are interrelated and interdependent namely *"To offer an international and culturally diverse learning environment"*. Basically, the TLGP are based on the National Philosophy of Education, the Philosophy of Teacher Education as well as the National Education Transformation Plan. The principles described holistic components of the teaching and learning process that reflect the balance of evidence in the research literature on the conditions under which student learning thrives. Each principle has a direct bearing on the

quality of students' intellectual development and their overall experience of university life and beyond as they embark on a process of lifelong learning. The ultimate objective of teaching and learning programs is to prepare quality teachers for future with distinctive attributes that enable them to contribute to ever-changing global context in a meaningful and positive way (University Education Research Laboratory, 2014). Figure 1 shows the teaching and learning guiding principles.
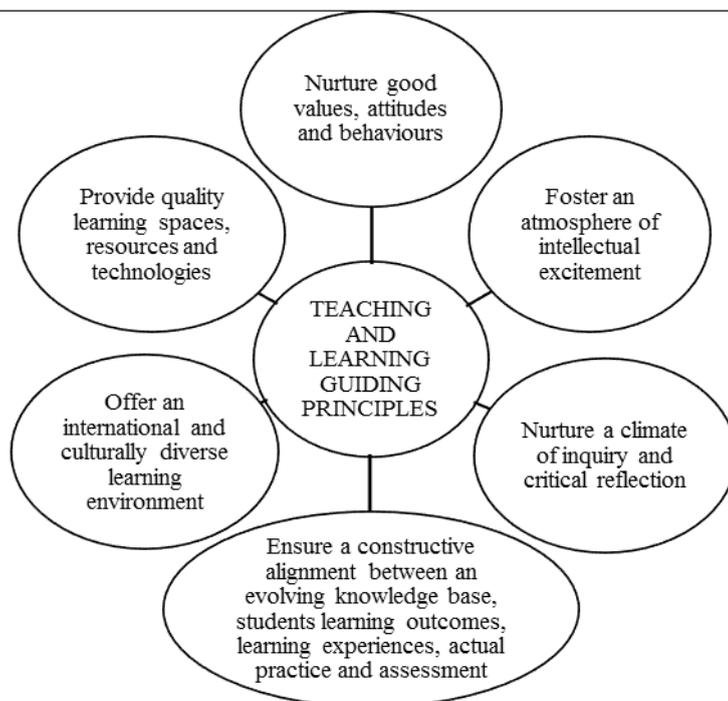

Figure 1 Teaching and Learning Guiding Principle

Halpin and Croft (1963) stated that the climate and culture of the school can reflect the personality of the teacher and how teachers are trying to achieve organizational objectives of the school. School climate and culture as a social agent influenced the behavior of people surround it (Howard, 1974). Abdul Rahman an- Nahlawi (1995) stressed that the school climate is able to realize an efficient integration and harmony among students of different socio-economic status.

Curriculum Development Centre of Malaysia (1981) also defines the climate of the school as a good school atmosphere when everybody felt comfortable, peaceful, friendly and happy. But there is a big challenge to realize it in the group of people with different ethnis, races and background such as in Malaysian classroom that consisted of Malay, Chinese, Indian and Bumiputera citizens with the different religion and economic status. In the Fourth Malaysian Plan (1981 – 1985) (Ministry of Education, 1984), it had been spelt out that:

1. The emphasis in education and training programme - is aiming at improving the teaching and learning process.
2. The use of Bahasa Malaysia (the National language) as the main medium of instruction will continue to be progressively implemented in primary, secondary and tertiary levels.
3. Islamic Religious Education will continue to be compulsory for Muslim Students. Non-Muslim Students will be thought Moral Education and Ethic.

This progressive attempt had given a big impact in Malaysian society today that lead all the citizens to attaining the development in the country with peacefully and harmony.

Recently, ideas and values does not take place in a disembodied domain but individuals may bring to intellectual debate a very broad range of cultural backgrounds and experiences, which vary according to factors such as ethnicity, gender, and socio-economic status. Educational activities that do not respect and value these multiple perspectives are limited and narrow (Tajudin et al., 2014). According to Goh (2015), Malaysian classroom nowadays are becoming more culturally diverse. The challenge for teachers is to manage educational processes so that individuals feel supported and learn to explore difference with civility, honesty and fairness in multi-ethnic. All levels in schools including students, teachers and principles need to be aware of the importance to develop a good climate in school environment to create an atmosphere of high learning motivation and managed to prepare students who excel in academics and character (Razak, 2006).

In this study, internationally and culturally diverse learning environment embedded in teaching and learning principles to prepare teachers to teach in a multicultural students' backgroud and original sensitivity??? to their understanding of the learning environments (Goh, 2015). This element of TLGP namely the international and culturally diverse learning environment (IC) also included in other guiding principles institutions such as Melbourne University, Griffith University, Hong Kong University, Nottingham University, and Carroll University. The IC element respectively surrounded in the principle as shown in Table 1.

Table 1
Principles for International and Culturally Diverse Learning Environment

Study / University	Principle
TLGP	• Teaching and learning could offer an international and culturally diverse learning environment (IC)
Hong Kong University	• Intercultural understanding and global citizenship. • Cultivate students' appreciation of their own culture and other cultures and the inter-relatedness among cultures. • Enable students to see themselves as members of global as well as local communities and to play an active role as responsible individuals and citizens in these communities.
Melbourne University	• An intensive research and knowledge transfer culture permeating all teaching and learning activities. • An international and culturally diverse learning environment • A vibrant and embracing social context.
Nottingham University	• A global perspective. • Appreciating diversity. • Equality of access and opportunity.
Griffith University	• Provide learning experiences that develop inter-culturally capable graduates who can make a difference as socially and ethically responsible global citizens.
Carroll University	• Culturally Sensitive teachers use differences in student social and cultural backgrounds to design instruction that enhance both teaching and learning.

	• Multicultural teachers use curricula and design instruction to explore and embrace a variety of cultural perspectives, including, but not limited to, the cultures of their students.
Kanuka (2002)	• Learning that include diverse and/or multiple perspectives. • Learning that include diverse ways of knowing.

Due to the importance of international and culturally diverse learning environment element in teaching and learning, this study attempts to assess the IC construct in TLGPI and the items that are included in this construct are based on teacher educators views. Spesifically, the research objectives of this study are as follows:

1. To assess for model fit and reliability of IC construct in TLGPI using CFA.
2. To assess the convergent validity of the construct using CFA.
3. To finalise the items obtained in IC construct in TLGPI.

Methodology
Research Design
This study employed a descriptive research design using the survey method as our interest to obtain the teaching and learning guiding principles. Teacher educators responded to the survey to gather information about what local teacher educators think are important in teaching and learning. In addition, the confirmatory factor analysis (CFA) was used to examine the underlying factor structure of the data. According to Schumacker and Lomax (1996); Wang and Ahmed (2004); and Byrne (2013), CFA is reckoned as a best-known statistical procedure for testing a hypothesized factor structure.

Sample
A total of 350 of teacher educators from ten public universities (PU) and teacher training institutions (TTI) in Malaysia were selected to be involved in this study. They were selected based on a proportional stratified random sampling. Malaysia was divided into five zones which are Northern, Southern, Western, Central/Eastern, Southern and Sabah/Sarawak zones. Each zone was then calculated to the proportion number of teacher educators in PU and TTI. The number of sample required in each zone was calculated. This step was followed by a cluster sampling technique to randomly select the PU and TTI in each zone. The mailed survey was administered to the samples.

Instrumentation
A set of 5-point Likert scale (ranging from 1 = "not at all important" and "5 – "extremely important") instrument, namely the Teaching and Learning Guiding Principles Instrument (TLGPI) was administered to the samples. The samples were required to response to the 44 items which may address an early indication of the importance of each domain to establish teaching and learning guiding principles.

The instrument comprised of six themes that obtained from the related literature to generating the items from. There were eight items to assess teaching and learning should foster an atmosphere of intellectual excitement (Theme 1); the following eight items to assess the teaching and learning should provide quality learning spaces, resources and technologies (Theme 2); the next five items to assess the teaching and learning should ensure a constructive alignment between an evolving knowledge base, students learning outcomes, learning experiences, actual practice and assessment (Theme 3); seven items to assess the

teaching and learning should offer an international and culturally diverse learning environment (Theme 4); three items to assess the teaching and learning should nurture a climate of inquiry and critical reflection (Theme 5); and the last seven items to assess the teaching and learning should nurture good values, attitude and behaviors (Theme 6). The mean and standard deviation for IC construct are 4.02 and 0.93.

Result

IC construct as a latent variable with seven observed variables were measured on the instrument. Figure 2 shows the measurement model for IC construct. The measurement model will assess the degree and numbers of indicators representing a measured construct through CFA. The CFA was tested for model fit, reliability and construct validity of the construct measured. To examine the model fit of this study, the CFA encompassed four indices namely TLI>0.90, CFI>0.90, RMSEA<0.08 and Chisq/df<5.0 and the factor loading should be above 0.5.
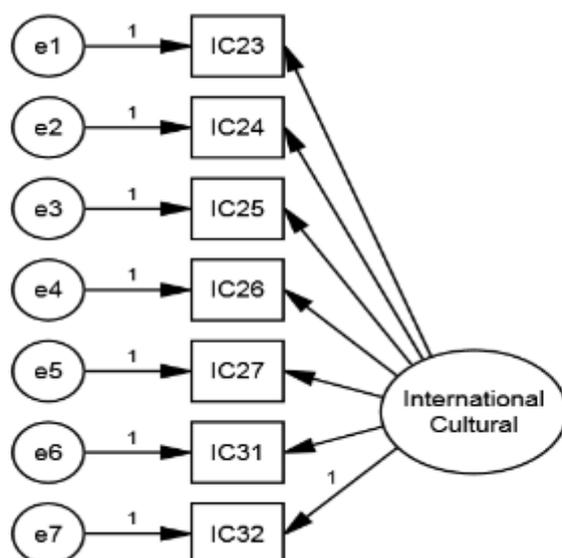

Figure 2 Measurement Model for International Cultural

Objective 1: To assess for model fit and reliability of IC construct in TLGPI using CFA.

Figure 3 presents the initial CFA for international and cultural (IC) which consisted of seven items. The analysis showed poor fit (TLI=0.66, CFI=0.78, RMSEA=0.22 and Chisq/df=18.06) even though all factor loadings are more than 0.5. Therefore, the researcher removed the items IC27, IC31 and IC32 one by one in order to improve the fit according to the modification indices. The revised model (Figure 4) with four items surpassed all the criterion values (TLI=1.00, CFI=1.00, RMSEA=0.00 and Chisq/df=0.791) and showed better fit with the data.

Table 2
Fit Indices of the Revised CFA for International and Cultural

Fit Indices	Index Value	Recommended Value	Results
TLI	1.00	>0.90	Good Fit
CFI	1.00	>0.90	Good Fit
RMSEA	0.00	<0.10	Good Fit
Chisq/df	0.79	<5.00	Good Fit

Objective 2: To assess the convergent validity of the construct using CFA.

Convergent validity is achieved when all items in a measurement model are statistically significant. The convergent validity could be verified by computing the Average Variance Extracted (AVE) for every construct (Awang, 2014). The AVE (0.57), measured exceeded 0.5 and CR (0.83) larger than 0.6 indicating satisfactory validity and reliability (Fornell & Larcker, 1981; Bryne, 2010). Furthermore, all items achieved high factor loadings which above ≥0.5 (Hair et al., 2010) as showed in Table 3. This is an evidence of convergent validity of the construct indicated that the items could measure the same traits.

Table 3
Factor Loading, Average Variance Extracted (AVE) and Construct Reliability (CR) of International and Cultural (IC)

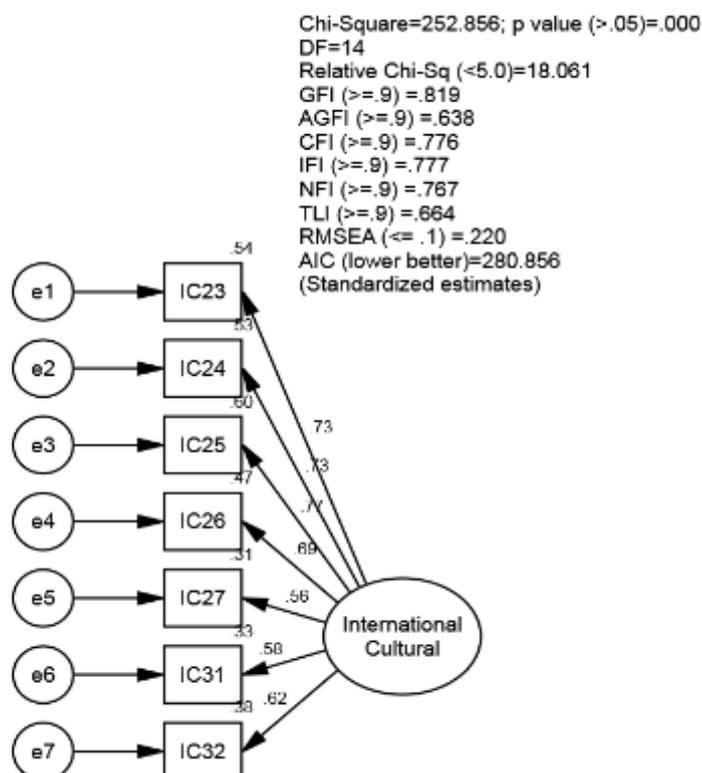| Item	Factor Loading (>0.5)	AVE (>0.5)	CR (>0.6)
IC23	0.72	0.6	0.83
IC24	0.78		
IC25	0.84		
IC26	0.67		

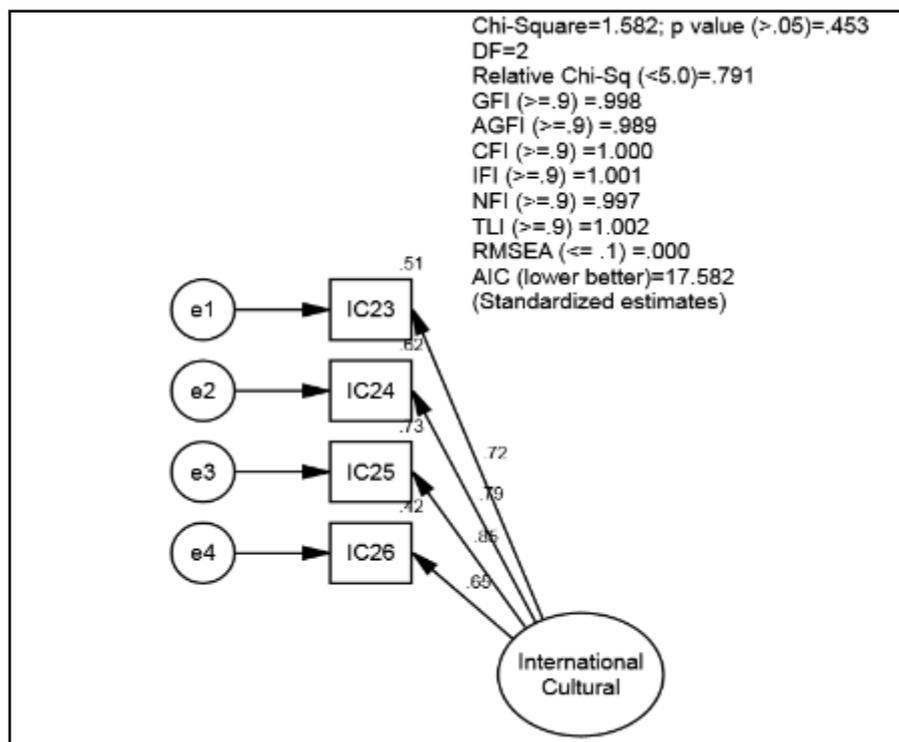Figure 3 The Initial CFA for International and Cultural

Figure 4 The Revised CFA for International and Cultural

Objective 3: To finalise the items obtained in IC construct in TLGPI.

The analysis has yielded four items of International Cultural (IC) construct. IC27, IC31 and IC32 deleted and finally four items in IC construct as shown in Table 4. This items later retained in IC construct for the final instrument of TLGPI.

Table 4
The Final Items of International Cultural (IC) Construct

Item	
IC23	I try to arrange for students from different cultural backgrounds to work together in a group.
IC24	I give assignments that encourage students to draw from their own experiences.
IC25	I encourage students to share their ideas from their own cultural perspectives.
IC26	I use books or materials produced by writers from different countries in my course.

Discussion

Goodness of fit indices of CFA indicated a good fit of the collected data and the model. This indicated that the IC construct is acceptable as an important element in teaching and learning which is based on the requirement (Hair, 2010). Significantly, international and culturally diverse learning environment as part of TLGP cannot be neglected as one of the substantial element in teaching and learning. Nevertheless, the results also shown an empirical evidence of the reliability and validity of TLGPI.

Conclusion

This study provides an indication for the evidence of the important of international and culturally diverse learning environment in teaching and learning and as one of the principle in TLGP that based on continuous improvement on empirical evidence grounded in the context of actual practice. Based on the findings, teachers might be able to embed international and

culturally diverse learning environment element in their teaching and learning practices in higher education and assist educational authorities to prepare teacher educators in education program, particularly by taking into consideration.

The present study can be extended to different settings and sample in order to achieve a better measurement model. It is hoped that by validating the TLGPI, then more upcoming related issues will be conducted in the future in order to facilitate teaching and learning practices. However, by considering triangulation in the current methodology, it gives more support in terms of measurement and evaluation of the instrument.

This study is vital in Malaysian higher education since the scope of the teaching and learning practices has changed which align with the technology development. A thorough investigation on the real classroom setting can be done so that more inputs can be obtained for the betterment of the future education.

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