Indicators Development for Accreditation of Teacher Education Programs in Thailand

Chanicha Chaiyaphumthanachok*, Kamonwan Tangdhanakanond*, Siridej Sujivana

*Chulalongkorn University, 254 Phayathai Rd. Patumwan, Bangkok 10330, Thailand

Abstract

This study investigated the perception of faculty members and public officers about the indicators for accreditation of teacher education programs. The purpose of this study was to identify the indicators for accreditation of teacher education programs in Thailand. A total of 145 administrators and faculties of the higher education institutions in Thailand (HEIs) and staffs of Office of the Higher Education Commission (OHEC) participated in this study. Online survey questionnaire was used to collect the data which was described the important indicators using for accreditation of teacher education programs in Thailand. The accreditation indicators of teacher education programs consisted of 5 domains, namely, institutional context, program design, program delivery, program outcomes and quality assurance. As the result for confirmatory factor analysis (CFA), it was found that for accreditation of teacher education programs factor structure was showed the acceptable fit to the data ($\chi^2=2.93$, df= 3, $p=0.40$, CFI= 1.00, RMSEA= 0.00 RMR= 0.005). Findings of this study could be used in accreditation of teacher education programs in Thailand in the future.

Keywords: Indicators, accreditation, teacher education program

* Corresponding author. Tel.: +6-683-697-0949
E-mail address: sineinfinity@hotmail.com
1. Introduction

All Asian countries have developed their own quality assurance systems by setting up national accreditors whose principal role is to accredit local higher education institutions (HEIs) and academic programs. (Hou, Y.C., Morse R., Ince M., Chen H.J, Chiang C.L. & Chan Y., 2013). Most countries have been influenced by U.S accreditation system. In Thailand, the Office for National Education Standards and Quality Assessment (ONESQA) a public organization serves as an external and neutral body for quality assessment, whereas the Office of the Higher Education Commission (OHEC) is particularly responsible for internal quality assessment.

Higher Education Commission recognized accreditation as an important tool and mechanism to implement under present law, rules, procedures, and some conditions which have been enforced to monitor HEIs in order to maintain the standards of higher education. At the beginning stage, an accreditation will be conducted at program level and institutional level (Tongroj, 2012). The regulation of accreditation and certification bodies in the past had been controlled by law concerning with the application for certification and accreditation of private higher education institutions in 2008, which has been carried out only at the institutional level. Moreover, the accreditation of various programs of study should also be implemented. Therefore, developing indicators and criteria for the program accreditation should be conducted to ensure the transparency and accountability of various programs.

The most important issue in developing an accreditation of teacher education programs is indicator which is used in accreditation. Although the Offices of The Teachers' Council of Thailand (TCT) accredit only bachelor degree level, teacher education programs have not been accredited at graduate program levels. Therefore the accreditation of every program levels is significant for quality of teacher programs. Indicators for accreditation of teacher education programs in Thailand should be developed by conducting literature review, and standards and accredited processes in many organizations internationally to develop the key indicators for system determining. In this study, the developed indicators for accreditation of teacher education programs in Thailand were synthesized from the general indicators and criteria of Germany (Accreditation Council, 2013) The Association to Advanvance Collegiate Schools of Business (AACSB, 2015) Accreditation Board for Engineering and Technology (ABET, 2013) and European Foundation for Management Development (EFMD, 2014), as well as the specific criteria of National Council for Accreditation of Teacher Education (NCATE, 2008).

2. Purpose of the Study

This study investigated the perception of faculty members and public officers about the indicators for accreditation of teacher education programs. The purpose of this study is to identify the indicators for accreditation of teacher education programs in Thailand.

3. Method

3.1 Participants

145 participants included 16 administrators and 65 faculties of the higher education institutions (HEIs) in Thailand and 64 OHEC staffs participated in this study.

As a whole, 145 respondents, 57 male (39.31%) and 88 female (60.69%) were administrator 16 (11.03%) faculty 65 (44.83%) and OHEC staffs 64 (44.14%), undergraduate 19 (13.10%) graduate 77 (53.10%) and doctor 49 (33.79%). In order to arrive at findings and conclusions. The demographic information of the respondents were important indicators using for accreditation of teacher education programs through frequencies and percentage.

3.2 Instrument

Questionnaire was used to collect the data concerning the important indicators using for accreditation of teacher education programs in Thailand. The questionnaire was five-point rating scale, ranging from 1 to 5 (most important to less important). Five dimensions synthesized from the related literature were mentioned in the
questionnaire, i.e., institutional context (4 components, 37 items) program design (7 components, 28 items), program delivery (4 components, 17 items), program outcomes (7 components, 18 items), and quality assurance (5 components, 14 items). Five experts were selected to judge the face validity and content validity of the items of scale which was found highly reliable IOC value of each item ranged from 0.4 to 1.00. Subsequently, the item with the IOC of 0.4 was revised by following the experts’ comments.

3.3 Procedure

The questionnaires were distributed to the respondents who have basic knowledge and experience in quality assurance and teacher programs. The respondents were given enough time for completing the questionnaires. The mean response value along with standard deviation was calculated to identify the relative importance of quality indicators. Confirmatory factory analysis (CFA) is a statistic tool to test whether the indicators for accreditation of teacher education programs are consistent with 5 domains. By using a chi-square statistics, CFI, RMSEA, and SRM EA to prove that the 5 domains are fit for the model.

4. Findings

Mean Standard Deviation and Confirmatory Factor Analysis

According to five-factor of indicators for accreditation of teacher education programs, the factor that showed highest level of mean was Institutional Context \( (M = 4.52, SD = 0.38) \), followed by Program Design \( (M = 4.48, SD = 0.46) \), Program Delivery \( (M = 4.40, SD = 0.48) \), Program Outcomes \( (M = 4.31, SD = 0.49) \), and Quality Assurance \( (M = 4.36, SD = 0.66) \), respectively. The relationship among factors ranged from 0.406 to 0.840, with highest correlation between Program Outcomes and Program Delivery \( (r = 0.840) \), followed by Institutional Context and Program Design \( (r = 0.785) \), Institutional Context and Program Delivery \( (r = 0.683) \), Institutional Context and Quality Assurance \( (r = 0.579) \), Institutional Context and Program Design \( (r = 0.590) \), Program Design and Program Delivery \( (r = 0.710) \), Program Design and Program Outcomes \( (r = 0.807) \), Program Design and Quality Assurance \( (r = 0.460) \), Program Delivery and Quality Assurance \( (r = 0.484) \), Program Outcomes and Quality Assurance \( (r = 0.554) \). In order to explore and assess the suitability of data, Bartlett’s Test of Sphericity and Kaiser-Meyer-Olkin (KMO). The results indicated that the correlation matrix was not an identity matrix (Chi-Square=518.087, df = 10, p<.05) with KMO index was 0.81 (see Table 1.1).

Table 1.1 Mean, standard deviations and correlations among variables

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Context (IC)</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Design (PDS)</td>
<td>0.785**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Delivery (PDL)</td>
<td>0.683**</td>
<td>0.807**</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Outcomes (PO)</td>
<td>0.579**</td>
<td>0.710**</td>
<td>0.840**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Quality Assurance (QA)</td>
<td>0.406**</td>
<td>0.460**</td>
<td>0.484**</td>
<td>0.554**</td>
<td>1.000</td>
</tr>
<tr>
<td>Mean</td>
<td>4.52</td>
<td>4.48</td>
<td>4.40</td>
<td>4.31</td>
<td>4.36</td>
</tr>
<tr>
<td>SD</td>
<td>0.38</td>
<td>0.46</td>
<td>0.48</td>
<td>0.49</td>
<td>0.66</td>
</tr>
</tbody>
</table>

KMO: Measurement of Sampling Adequacy=0.814
Bartlett’s Test of Sphericity: Chi-Square=518.087, df=10, p<0.00

The goodness of fit for the model was assessed using a chi-square statistics, CFI, RM SEA, and SRM EA. Acceptable fit was judged accordingly to the criteria recommended by Hu & Bentler (1999): CFI and TLI values greater than or equal to .95 and RM SEA and SRMR values less than or equal to .06 and .08, respectively.

As the result for confirmatory factor analysis, it was found that for accreditation of teacher education programs factor structure was showed the acceptable fit to the data \( (\chi^2=2.93, df= 3, p= 0.40, CFI= 1.00, RM SEA = \)
0.00 RMR = 0.005) (see Table 1.2). All factor loading were statistically significant, with highest loading on program delivery ($\beta = 0.47$), followed by program outcomes ($\beta = 0.42$), program design ($\beta = 0.37$), quality assurance ($\beta = 0.33$), and institutional context ($\beta = 0.27$), respectively. The item reliability also showed significant, ranged from (0.25 to 0.96) (see Table 1.2 and Fig. 1). The factor score equation was presented follows:

Table 1.2 Results of confirmatory factor analysis of a scale measuring

<table>
<thead>
<tr>
<th>Factor</th>
<th>$b$</th>
<th>SE</th>
<th>$t$</th>
<th>$\beta$</th>
<th>Factor Score Coefficients</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Institutional Context (IC)</td>
<td>0.265</td>
<td>0.028</td>
<td>9.409</td>
<td>0.265</td>
<td>0.038</td>
<td>0.485</td>
</tr>
<tr>
<td>2. Program Design (PDS)</td>
<td>0.377</td>
<td>0.032</td>
<td>11.944</td>
<td>0.377</td>
<td>0.184</td>
<td>0.682</td>
</tr>
<tr>
<td>3. Program Delivery (PDL)</td>
<td>0.471</td>
<td>0.030</td>
<td>15.605</td>
<td>0.471</td>
<td>1.661</td>
<td>0.956</td>
</tr>
<tr>
<td>4. Program Outcomes (PO)</td>
<td>0.420</td>
<td>0.033</td>
<td>12.656</td>
<td>0.420</td>
<td>0.236</td>
<td>0.738</td>
</tr>
<tr>
<td>5. Quality Assurance (QA)</td>
<td>0.329</td>
<td>0.052</td>
<td>6.309</td>
<td>0.329</td>
<td>0.008</td>
<td>0.251</td>
</tr>
</tbody>
</table>

$\chi^2 = 2.93$, $df= 3$, $p= 0.40$, $CFI= 1.00$, $RMSEA = 0.00$ $RMR = 0.005$

Fig. 1 five-factor of indicators for accreditation of teacher education programs
4. Discussion

Five-factor of indicators, i.e., institutional context, program delivery, program outcomes, program design and quality assurance could be adopted in accreditation of teacher education programs. This finding is relevant to Harvey (2004) who indicated that accreditation may be focused on inputs, process or outputs or any combination of these. Program accreditation tends to focus on inputs, such as staffing, program resources and curricula design and content. Sometimes it addresses the teaching process and the level of student support. Occasionally program accreditation explores outcomes, such as graduate abilities and employability. In some cases, the medium of delivery might be the key focus, especially when it differs from the norm” as well as, Yüksel and Adigüzel (2011) studied on Turkish teacher education accreditation system consisted of input, process and output standards in seven domains as teaching, personnel, students, faculty-implementing school cooperation, physical substructure, management and quality assurance.

References


