ACADEMIC PAPER

Evaluating the quality of undergraduate hospitality, tourism and leisure programmes

Jeou-Shyan Horng (t10004@ntnu.edu.tw)
Department of Human Development & Family Studies, National Taiwan Normal University;
College of Tourism and Hospitality, Jinwen University of Science and Technology,
99 Anchung Rd, Hsintien City, Taipei County 23154, Taiwan

Chih-Ching Teng (075097@mail.fju.edu.tw)
Department of Restaurant, Hotel and Institutional Management, Fu-Jen Catholic University,
510 Chung Cheng Rd, Hsinchuang City, Taipei County 24205, Taiwan

Tom Baum (t.g.baum@strath.ac.uk)
Department of Tourism and Hospitality Management, University of Strathclyde,
94 Cathedral Street, Glasgow G4 0LG, Scotland

Abstract

In this study, an instrument for measuring the quality of undergraduate programmes in hospitality, tourism and leisure (HTLP) was developed and empirically cross-validated. The study considered how total quality management (TQM) and context-input-process-product (CIPP) perspectives could be integrated to develop the framework, using documentary analysis, focus groups and content validity. Survey responses from 430 full-time teachers were used to verify the instrument for HTLP (IHTLP) via exploratory and confirmatory factor analysis, and six standards, 12 dimensions and 63 indicators were identified. The six standards, in terms of relative importance, are curriculum and instruction; faculty; strategic planning; administrative management; student achievements; and resources. The implications for HTLP are also discussed.

Keywords: educational quality; instrument; hospitality; tourism, leisure; educational evaluation

---

Jeou-Shyan Horng is a former professor of the National Taiwan Normal University. She now serves as dean of the College of Tourism and Hospitality, Jinwen University of Science and Technology, and is the president of APacCHRIE. She has a Masters degree from Ohio State University and a PhD from Iowa State University. Her research interests relate to tourism and hospitality management, with a special focus on education, and she has published widely in this field.

Chih-Ching (Chris) Teng is assistant professor of restaurant, hotel, and institutional management at Fu-Jen Catholic University in Taiwan. She has a Masters degree from Pennsylvania State University and a PhD from National Taiwan Normal University. Her research interests relate to tourism and hospitality management, with a special focus on education. Her work has been published in several journals in this field.

Tom Baum is professor of tourism and hospitality management at the University of Strathclyde. He has a BA and MA from the University of Wales and a PhD from Strathclyde. His research interests relate to people and work in the context of tourism and hospitality, with a special focus on education and training, and he has published widely in this field.

Introduction

Recently, the number of undergraduate hospitality, tourism and leisure programmes (HTLPs) has risen rapidly around the world. Taiwan has experienced dramatic growth in the number of such programmes since 1998, and the number is still rising (Department of Statistics, 2007). However, the increase in the number of both universities and undergraduate programmes has led to problems with quality control in education (Horng, Teng, Lee, & Liu, 2006). As Robbins (2005) points out, a major issue facing higher education (HE) is how to ensure quality. Society has high expectations of HE, and educational evaluation/accreditation has become a significant quality assessment approach for HTLPs in order to remain strong and competitive (Bosselman, 1996).

It was not until 2005 that the Taiwan Assessment and Evaluation Association (TWAEA) and the Higher Educational Evaluation and Accreditation Council of Taiwan (HEEACT) began to act as alternatives to the Ministry of Education when they conducted a nationwide review of HE programmes. TWAEA and HEEACT are non-profit organisations that provide HE evaluation services. TWAEA is authorised to review programmes in vocational and technological universities and colleges, while HEEACT evaluates programmes in HE institutions. However, since there is still no quality assessment tool for HTLPs in Taiwan, the quality of HTLPs cannot be effectively evaluated or ensured.

A major challenge for HE is to develop a valid instrument that identifies dimensions and indicators in order to measure the quality of education (Rao, Solis, & Raghunathan, 1999). The need to evaluate HTLPs accurately has become ever more important in Taiwan and in the rest of the world. The complexity of HE and its multidimensional nature makes it very difficult to evaluate and measure, so there has been little empirical investigation of educational quality (Winn & Cameron, 1998). Moreover, there is no quality measurement for HTLPs (Becket & Brookes, 2008). Previous research has investigated how total quality management (TQM), for example, the Malcolm Baldrige National Quality Award (MBNQA), is applied in HE (Badri et al., 2006). However, it seems there is a need to modify TQM dimensions to meet the needs of educational programmes (Mizikaci, 2006). In addition, traditional education evaluation models, such as the context-input-process-product (CIPP) model by Stufflebeam (2000), need to be refined for programme-specific measurement of HTLPs and to respond to the trends in TQM usage in HE. Furthermore, a new quality model for HE might use new perspectives which integrate the philosophy of quality management and the theory of education research in order to adapt to the modern HE context (Srikanthan & Dalrymple, 2007). When considering the integration of TQM and CIPP perspectives, it is important that both internal and external evaluation employ a theoretically and empirically validated instrument to measure the quality of education.

Self-assessment is a critical aspect of quality assurance systems in HE (Harvey, 2004). The faculty, as internal stakeholders in HTLPs, should be able to assess the quality of their own programmes. Faculty members may also act as peer-reviewers, evaluating other HTLPs based on the standards and evidence provided. This study, then, used a sample of faculty members to verify an instrument for measuring the quality of HTLPs, referred to as an *instrument for hospitality, tourism and leisure programmes* (IHTLP). From a measurement perspective, faculty members are familiar with the programmes they work on and are capable of assessing their quality in order to verify the instrument. Academics are also very aware of the dimensions of quality in HE. However, their views as stakeholders have been largely neglected, while the views of other stakeholders such as students and administrative staff have often been investigated (e.g. Pereda, Airey, & Bennett, 2007; Badri et al., 2006). It is therefore meaningful to investigate academic views on the quality of HTLPs since "the HE institutions themselves need to be able to measure, monitor, confirm and enhance their academic standards" (Robbins, 2005, p. 452).

The aims of this study were to develop and verify an instrument for measuring the quality of HTLPs and to examine the relative value attached to each of the dimensions of quality by the HTLP faculty in Taiwan. More specifically, we aimed to identify quality dimensions by integrating TQM and CIPP perspectives, as well as through examining the commonality

found in international HTLP evaluation/accreditation standards. This study fills a void by defining and validating the multidimensional nature of educational quality in HTLPs, and also provides insights into the relative importance of each quality standard from an academic perspective. The implications of this study provide HE institutions and external quality assurance agencies with a valid tool to undertake internal and external evaluation of HTLPs.

Theoretical framework for measuring the quality of HTLPs

There has been an increasing demand for accountability, in relation to educational quality, from the public, parents and students (Mok, 2000). However, it has been difficult to define the quality of HE since the concept lacks explicit and consistent dimensions across different programmes and institutions (Birnbaum, 1998). Very broadly, educational quality refers to the input, processing and output of an educational system and the service the system provides to fulfil stakeholders' expectations (Cheng & Tam, 1997). Quality can also be defined in terms of (a) excellence, (b) threshold, (c) fitness for purpose, (d) fulfilment of an institution's aims and objectives, (e) meeting customer requirements, (f) transformation, and (g) value for money (Harvey & Green, 1993). These definitions reflect various concerns as well as different measures of quality assurance. Tribe (2003) defines quality as that judged by an institution's ability to produce evidence to support its educational claims. To refine the judgment, there is a need to redefine the quality dimensions (including standards and indicators) for HTLPs. Standards are essential statements of quality made by an institution or a programme, statements that elaborate its educational philosophy, system of administrative management, teaching faculty, student body, teaching resources and professionalism (Houghton, 1996). Indicators are concrete statements that describe the anticipated results of educational operations and the specific characteristics of an educational system (Bogue, 1998). Hence, quality measurement such as evaluation and accreditation should be carried out in accordance with valid, relevant, measurable and manageable standards and indicators (Hamalainen, 2003).

In an attempt to develop a holistic quality framework and elements for HTLPs, the CIPP model and the MBNQA framework were integrated. CIPP has made a great impact on educational evaluation and has been widely used in programme evaluation (Al-Turki & Duffuaa, 2003). Through a systematic approach, CIPP includes four elements (context, input, process and product) and feedback evaluation to enable policy makers to understand the process and context in the educational phenomenon (Stufflebeam, 2000). The MBNQA framework has been widely recognised as an effective quality management framework in business sectors (Meyer & Collier, 2001) and focuses on customer satisfaction and the promotion of performance excellence. In 2004, education criteria based on the MBNQA were established, comprising the seven categories (a) leadership, (b) strategic planning (c) student, stakeholder and market focus, (d) measurement, analysis and knowledge management, (e) workforce focus, (f) process management, and (g) results, to measure the quality of educational institutions (National Institute of Standards and Technology, 2007). The MBNQA provides institutions with guidance for self-assessment and systematic feedback to improve quality (Woodhouse, 2007). To some extent, both CIPP and the MBNQA are management-oriented and operate using a systematic approach. Koslowski III (2006) suggested that HE could learn from the quality and assessment procedures used by industry, which emphasise issues such as accountable leadership, continuous improvement, and political and economic accountability. In addition, there appears to be a need to find a new approach that better integrates teaching and learning with the benefits of TQM to assess and enhance the quality of HE (Becket & Brookes, 2008). Therefore, a new perspective which integrates the dimensions of CIPP and the MBNQA should be addressed as the basis for developing a quality framework for HTLPs.

There is scope for debate on precisely what constitutes educational quality and therefore what should be measured (Robbins, 2005). Some studies have provided useful information to explore the dimensions, but these are still not able to fully solve the problem of measuring overall programme quality. For example, Heiman and Sneed (1996) proposed a conceptual framework for the impact of accreditation on American HE hospitality programmes, including its people (students and teachers), resources (facilities, finances, library and learning

resources) and processes (planning, curriculum, teaching, administrative management and evaluation). Assante, Huffman, and Harp (2007) investigated the factors affecting the quality of undergraduate hospitality programmes and identified five categories (students/alumni, curriculum, faculty, industry support, facilities) as key dimensions. However, little research has used rigorous construct development procedures to identify and confirm the dimensions of quality in HTLPs, and it remains unknown whether the dimensions of previous measures are distinct and independent.

Some internationally recognised evaluation/accreditation systems for HTLPs have been developed. These include the Accreditation Commission for Programmes in Hospitality Administration (ACPHA), the TedQual Certification by the United Nations World Tourism Organisation (UNWTO), the National Recreation and Park Association (NRPA) and the UK Quality Assurance Agency subject review process, which have provided various sets of criteria to assess the quality of HLTPs. Nonetheless, previous evaluation/accreditation systems seem to lack a theoretical and empirical base to develop a set of valid criteria for HTLPs. As such, the measures are often used on an ad hoc basis and do not conform to systematic procedures for construct development.

Apart from the Quality Assurance Agency for Higher Education (QAA) review processes, these systems appear only to apply to single subjects, such as hospitality programmes, and thus do not allow for the possibility of grouping similar subjects (such as hospitality, tourism and leisure) together as one unit in a quality review process. The QAA reports that hospitality, leisure, sport and tourism programmes combine the study of management and technical disciplines in a service context in a specific subject area (QAA, 2000a). Aside from sport, it is recognised that although HTLPs show some variations between institutions, much of the provision has common content and objectives, and these can therefore be considered to be a unit of specialised programmes in Taiwan (HEEACT, 2008). Accordingly, HTLPs can be appropriately classified as a grouping of specialised programmes. Since many HTLPs have different titles and objectives, one advantage of using a new integrated instrument is to reduce the repetitive assessment work carried out by different evaluation/accreditation agencies, which focus only on single subject programme.

Although international evaluation/accreditation systems have set a good example in aiming to assure the quality of HTLPs, refining these into a new instrument in order to obtain more accurate information is desirable. This study draws on internationally recognised evaluation/accreditation systems for HTLPs, including ACPHA in the US, TedQual under the UNWTO, NRPA in the US and the QAA subject review in Hospitality, Leisure, Recreation, Sport and Tourism (HLRS&T) in the UK, in order to develop its own quality framework. While there are differences, this study has found that the above evaluation/accreditation systems share commonality in their definitions and dimensions (standards) of quality for HTLPs. The common quality dimensions in these systems comprise factors such as aims and objectives, curriculum, faculty, teaching and learning, student achievements, resources and administration (see Table 1). In light of this commonality, the study has drawn on US and European experiences in order to develop an internationalised quality instrument for HTLPs in Taiwan.

In sum, programme quality can be better understood through evaluating CIPP elements in the organisation, whereas the MBNQA emphasises the TQM dimensions such as leadership, strategic planning, process management and performance to measure the quality of an institution. The multidimensional nature of the educational quality phenomenon suggests that it might require a second-order construct. A benefit of proposing programme quality as a second-order construct is that the relative significance of each of the dimensions of overall quality can be ascertained (see Kwan & Walker, 2003). This study accordingly attempted to propose and validate a second-order construct for HTLP quality (i.e. the IHTLP) and also sought to examine the relative value attached to each of the dimensions by academics.

Evaluation/ accreditation system	US ACPHA	WTO TedQual certification	British QAA subject review in HLRS&T (2000-01)	US NRPA
Established organisation	CHRIE	UNWTO	QAA	NRPA and AAPAR
Year of establishment	1988	1995	1997	1974
Quality standards	1. Mission and objectives 2. Evaluation and planning 3. Administration and governance 4. Curriculum 5. Faculty/ instructional staff 6. Student service and activities 7. Resources	1. Employers (society and industry) 2. Student 3. Curriculum (pedagogic system) 4. Faculty 5. Infrastructure 6. Management	1. Curriculum design, content and organisation 2. Teaching, learning and assessment 3. Student progression and achievements 4. Student support and guidance 5. Learning resources 6. Quality management and enhancement	1. Unit characteristics 2. Philosophy and goals 3. Administration 4. Faculty 5. Students 6. Instructional resources 7. The curriculum (foundation understandings and professional competencies)
Review procedures	1. Programme self-study 2. Review team visitation 3. Team judgment	1. Programme self-study 2. Review team visitation 3. Team judgment	1. Programme self-study 2. Review team visitation 3. Team judgment 4. Follow-up review	1. Programme self-study 2. Review team visitation 3. Team judgment

Table 1: Summary of major evaluation/accreditation systems for HTLPs
Sources: CHRIE (2007), NRPA (2007), QAA (2000a, 2000b) and UNWTO (2007)

In the preliminary framework (see Figure 1) the higher-order construct (programme quality) reflects seven common standards referred to in CIPP, the MBNQA categories and international HTLP quality systems worldwide (ACPHA, TedQual, NRPA and QAA). Standard 1 (strategic planning) is a key component of the MBNQA, which establishes a foundation for individual HTLPs to accurately measure programme quality and effectiveness (Al-Turki & Duffuaa, 2003). Standard 2 (curriculum), Standard 3 (teaching and learning), Standard 4 (resources), Standard 5 (faculty) and Standard 6 (student achievements) represent CIPP components such as input, process and output in an educational system as well as reflecting common dimensions of HTLP evaluation/accreditation systems. Finally, Standard 7 (administrative management) reflects the quality of process management in an education system (Badri et al., 2006).
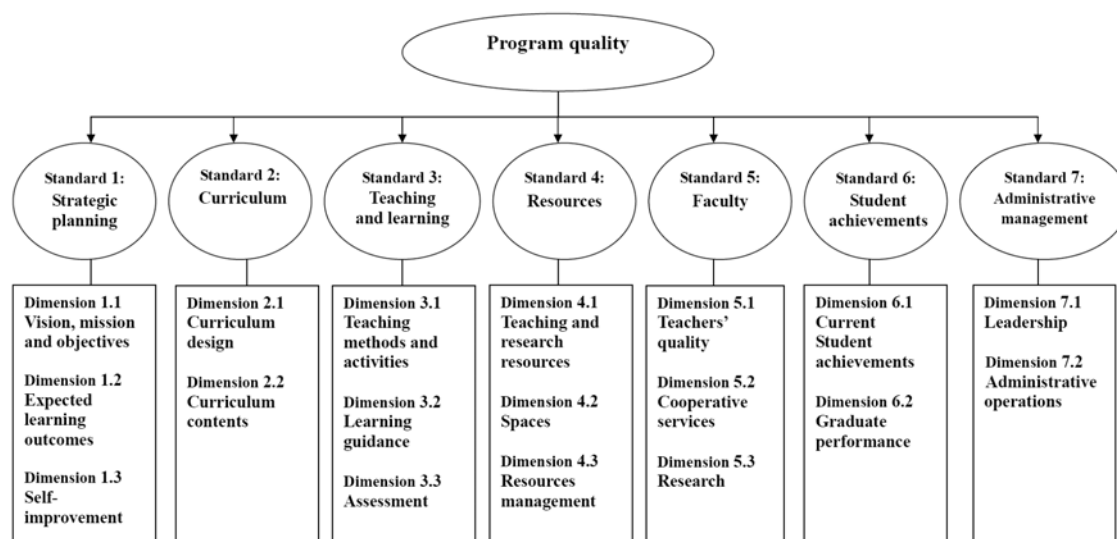
Figure 1: Preliminary quality framework for HTLPs

In addition, dimensions categorised under the seven standards are identified from the variables considered in previous educational studies related to CIPP (e.g. Al-Turki & Duffuaa, 2003; Walberg & Zhang, 1998), the MBNQA (e.g. Badri et al., 2006; Winn & Cameron, 1998) and international HTLP quality systems. For example, teaching and learning refers to the processes through which teachers deliver curriculum, assess student learning outcomes and provide assistance and feedback to students (QAA, 2000b). They reflect the quality of the student learning experience and are essential to education evaluation (Horng et al., 2006). Standard 3 (teaching and learning) is thus composed of three dimensions which are identified within the concept of teaching and learning, including teaching methods and activities, learning guidance, and assessment. Following the same logic, a total of 18 dimensions were developed and used to reflect seven quality standards at this stage.

Methodology and results

This study adopted construct development procedures (Lewis, Templeton, & Byrd, 2005) to develop and validate the IHTLP. This method comprises three stages (see Figure 2).

Stage I: Domain specification and item generation

A list of dimensions representing the construct components of this study were specified. Information was derived from various sources, including documentary analysis and three focus groups, for the specification of the construct domain. The aim was to develop the preliminary quality framework, its underlying dimensions and generated indicators (item statements) for each dimension of the HTLPs.

Stage II: Instrument construction

Item statements in each dimension were converted into items on the instrument. The study employed a pilot test and expert validity test to further modify and confirm the items of the IHTLP. These steps were taken to assess and purify the measurement scale.

Stage III: Evaluation of measurement properties

According to Lewis et al. (2005), data should be collected from different samples in order to assess the measurement properties of the instrument. Following a strategy of triangulation, both exploratory and confirmatory techniques were applied sequentially to different samples in order to achieve the best results. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used to assess the reliability and validity of the instrument in order to conduct cross-validation of the IHTLP. Data was collected from faculty members of hospitality programmes in Taiwan in Sample 1 and their counterparts in tourism and leisure programmes in Sample 2.

Data collection (Sample 1)

In order to purify the instrument, a questionnaire survey was conducted using respondents who were full-time academics employed for more than a year in hospitality management programmes. The questionnaires were distributed and collected between March and May 2007. According to the Department of Statistics (2007), there are 34 hospitality management programmes in Taiwan. The research team telephoned each programme office to request a staff list or acquired the information via the programme's website. Of the 355 questionnaires distributed, 197 were returned but 13 were invalid because of incomplete responses. Thus a total of 184 valid questionnaires were obtained, yielding a valid return rate of 51.8%.

Data collection (Sample 2)

Questionnaires were distributed to full-time academics employed for more than a year in tourism and leisure management programmes. Survey procedures similar to those used with Sample 1 were employed. A total of 246 valid questionnaires were obtained which gave a valid return rate of 42.8%.
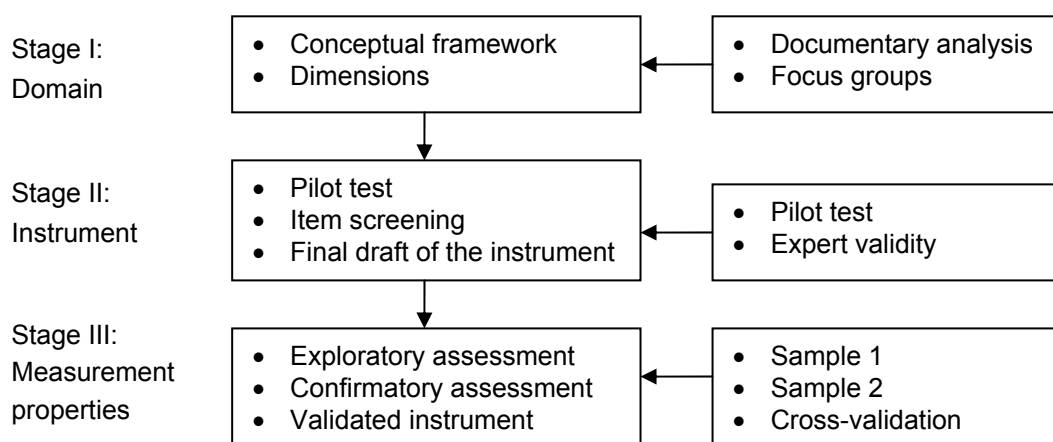
Stage I: Domain	• Conceptual framework • Dimensions	←	• Documentary analysis • Focus groups
Stage II: Instrument	• Pilot test • Item screening • Final draft of the instrument	←	• Pilot test • Expert validity
Stage III: Measurement properties	• Exploratory assessment • Confirmatory assessment • Validated instrument	←	• Sample 1 • Sample 2 • Cross-validation

Figure 2: Construct development procedures

Stage I: Domain specification and item generation

Documentary analysis

Information was collected from government publications, journals, HTLP accreditation/evaluation handbooks and official websites. After analysing and comparing the information, a conceptual framework and explanations were developed (see Figure 1).The research team (including a university president, a dean of student affairs, a professor and three doctoral students) then drafted a total of 99 indicators in the form of benchmark statements that could be used as a reference during follow-up focus group discussions.

Three focus groups

Three separate focus groups were set up in the north, centre and south of Taiwan. In each session, participants examined and discussed the accuracy, clarity and applicability of each dimension and indicator in the preliminary framework. Participants included educational evaluation experts, directors of HTLPs, industrial managers and government representatives with programme review experience. A total of 34 experts participated in the focus groups, with an average of 10 to 13 in each session. In addition, three educational evaluation experts were invited to review and contribute suggestions via written correspondence.

To retain information validity, all three focus group discussions were recorded and transcribed verbatim. The research team then began discussions and identified disparities between the preliminary framework and expert opinions from the focus groups in order to further modify the quality standards, dimensions and indicators. At this stage, the seven standards remained unchanged while the number of indicators was reduced from 99 to 91 by rephrasing, consolidating and deleting original statements.

Stage II: Instrument construction

Pilot test, expert validity and item screening
The first draft of the self-assessment questionnaire was based on the quality indicators in the preliminary framework. The questionnaire with its 91 items was appraised via a pilot test to purify the instrument. Faculty members (respondents) were asked to rate the statements relating to their programmes on a scale from 1 to 5, with 1 meaning strongly disagree and 5 strongly agree. This study added one box to the scale, not applicable (N/A), for respondents not familiar with the statements regarding their programmes, in order to reduce bias.

In December 2006, a pilot test was conducted with HTLP academics and 53 questionnaires were analysed. At this stage, two tasks were performed: (a) referring to the questionnaire responses, items that were often unanswered or often felt to be difficult to answer were deleted; and (b) the retained items underwent corrected item-total correlation (value over 0.30) and internal consistency analysis (Cronbach's α > 0.70). This step was used to empirically screen the items on the instrument. This study removed 10 items and thus reduced the total to 81.

Furthermore, three HTLP professors from the UK and US who were familiar with HTLP accreditation and evaluation (two of them had once served as programme directors) were invited to certify the instrument's validity. After the pilot test revisions, the experts were sent a list of the items from the updated instrument and asked to evaluate the wording and relevance of each to the construct. Any item regarded as being inappropriate was discussed and was either retained, added to or deleted when the research team reached a common consensus. Given this screening procedure, the research team decided to remove eight items and added one new item so the final questionnaire consisted of 74 items.

Stage III: Evaluation of measurement properties

Item reduction and exploratory factor analysis (EFA)
EFA on Sample 1 (N = 184) was conducted in two steps. Following the suggestion of Hair, Black, Babin, Anderson, and Tatham (2006), a principal axis factoring in conjunction with oblique rotation was used in order to extract factors from each quality standard. Eigenvalues of greater than 1 and scree test of the percentage of variance explained were used to decide the number of emerged factors. In addition, items with a factor loading of over 0.50 were kept. The results of the EFA suggested that two standards (curriculum; teaching and learning) should be consolidated into one, and a total of 12 factors (dimensions) were extracted rather than the original 18. The results also showed that 11 items should be removed due to low factor loadings.

The second EFA was then conducted on the remaining 63 items using the same method. The results showed that the modified model retained six standards, 12 dimensions and 63 items (see Appendix). The mean scores of the dimensions were all above the average (M > 3) and this indicates that faculty members perceived the performance of these dimensions in their programmes as positive. The explained variance of each standard in the IHTLP ranges from 51.88% to 67.25%. In terms of construct reliability, the Cronbach's α value of each standard range of 0.80 to 0.95 indicates that first-order constructs in the IHTLP have good internal consistency.

Re-analysis of modified model via confirmatory factor analysis (CFA)
A further second-order CFA on Sample 2 was conducted to find out the stability of the relationship between measurement variables in the IHTLP and for the purpose of cross-validation, the IHTLP was analysed using the LISREL 8.80 software package and the maximum likelihood method. A CFA was conducted to ensure that the standards and dimensions of the modified model matched the distribution of actual observation data (Jöreskog & Sörbom, 1993). A higher-order CFA was used because it is parsimonious and consistent with the assumption of the multidimensional framework of the IHTLP. Given this assumption, the six standards in the IHTLP represent first-order constructs, which share a common variance captured by a second-order construct (i.e. programme quality). The 12

dimensions consisting of 63 items (indicators) indicate measurement variables of corresponding latent constructs.

This study adopted multiple criteria to determine the fit of the measurement model, including the degrees of freedom of a chi-square distribution ($\chi 2$ /df), goodness of fit index (GFI), comparative fit index (CFI), normed fit index (NFI), non-normed fit index (NNFI), root-mean-square error of approximation index (RMSEA) and standardised root-mean-square residual index (SRMR). It is desirable that $\chi 2$ /df be under 3, GFI, CFI, NFI, and NNFI over 0.90, and PGFI over 0.50 (Anderson & Gerbing, 1988). A RMSEA and SRMR under 0.10 is acceptable (Byrne, 2001).
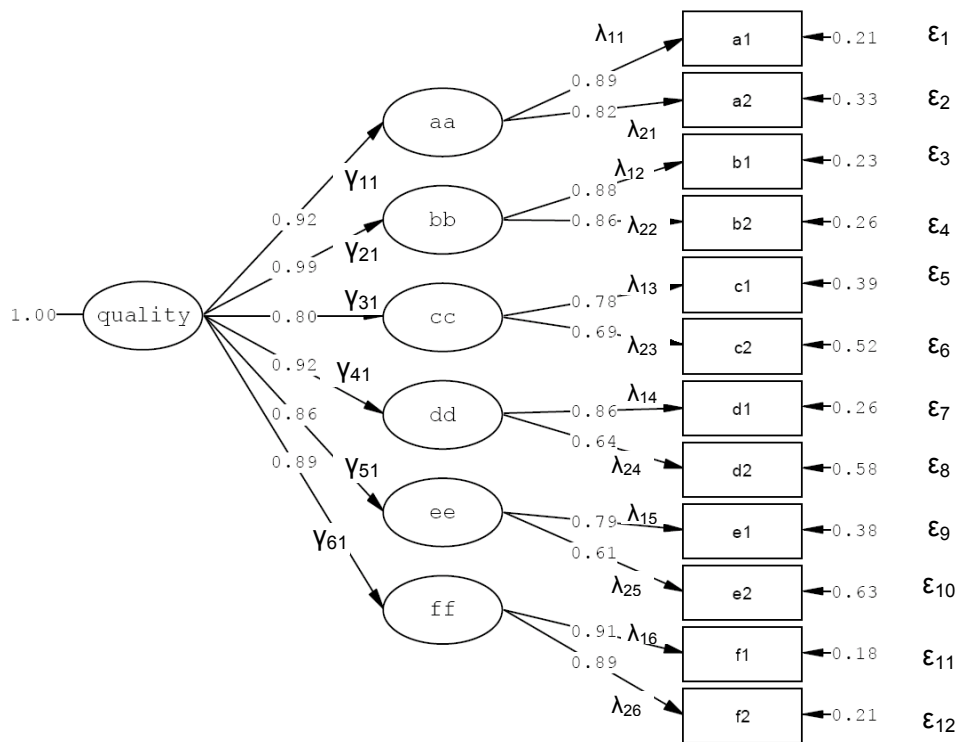

Figure 3: CFA standardised solution (Sample 2)
Note: quality = programme quality (second-order construct); aa = strategic planning; bb = curriculum and instruction; cc = resources; dd = faculty; ee = student achievements; ff = administrative management (six first-order factors). a1 and a2 denote aa's two underlying dimensions; the same logic holds for the rest.

Figure 3 indicates the standardised solution results of using Sample 2 to examine the IHTLP. It was found that the IHTLP possesses good psychometric properties and had good overall model-fit. The results of the CFA showed that all goodness-of-fit indices were above acceptable standards; thus $\chi 2$ = 106.60, df = 48 (p < 0.01), $\chi 2$ /df = 2.22, GFI = 0.93, CFI = 0.99, NFI = 0.98, NNFI = 0.98, PGFI = 0.57, RMSEA = 0.07, SRMR = 0.03. The cross-validation results of the new sample provided strong evidence that the IHTLP was a theoretical model with good fit.

As Kline (1998) stated, standard second-order loading is the standard regression weight of each of the first-order factors' loading onto the overall higher-order construct. The factor loadings (Gamma) of programme quality relative to each first-order construct are the relative value attached to each of the quality dimensions by faculty who responded to the survey. As shown in Figure 3, all the six first-order factors (standards) load very well onto the second-order programme quality construct. The regression weights are very close and range from 0.80 to 0.99. In other words, the quality of programme perceived by faculty members could explain the relative importance of each dimension of the IHTLP through conducting a second-order CFA. The results supported the notion that six quality standards of the IHTLP all contribute greatly to a programme's quality.

Fit of internal structure of model

According to the CFA results, standardised factor loadings (lambdas) of underlying factors (ranging from 0.61 to 0.91) and measurement errors (epsilon) of the observed variables reached significant levels (t > 1.96, α = 0.05) (shown in Figure 3), which indicates that the IHTLP had good convergent validity (Fornell & Larcker, 1981). Correlations among the first-order constructs were statistically significant, but were not overly close to 1.00 (see Table 2), which indicates discriminant validity existing among dimensions (Smith, Milberg, & Burke, 1996). Therefore, the process of using EFA and CFA with an independent sample provides support for the convergent and discriminant validity for the IHTLP.

	aa	bb	cc	dd	ee	ff
aa. Strategic planning	1.00					
bb. Curriculum and instruction	0.91	1.00				
cc. Resources	0.74	0.79	1.00			
dd. Faculty	0.85	0.91	0.74	1.00		
ee. Student achievements	0.79	0.85	0.68	0.79	1.00	
ff. Administrative management	0.82	0.88	0.71	0.82	0.76	1.00

Table 2: Correlations among the six programme quality standards
Notes: p < 0.01

Discussion and conclusions

Building on the rigorous construct development procedures, support was found for the propositions that the IHTLP is composed of multiple dimensions (Winn & Cameron, 1998) and can be integrated with CIPP and MBNQA perspectives (Srikanthan & Dalrymple, 2007). The IHTLP consists of six quality standards (strategic planning, curriculum and instruction, resources, faculty, student achievements, and administrative management). Twelve dimensions come under these standards: vision, mission, aims and objectives; self-improvement; curriculum; teaching and learning; resources and management; spaces; teachers' quality; teachers' performance; students' and graduates' performance; alumni feedback; administrative leadership; student management. Finally, 63 indicators come under the corresponding dimensions. The IHTLP has been cross-validated as an assessment tool which could provide useful information when judging HTLP quality.

The IHTLP redefines dimensions of HTLP quality by considering CIPP elements, and transforms these elements into tangible items that describe and assess the expected outcomes of an educational system. Furthermore, the IHTLP is also infused with MBNQA dimensions and this is in line with the TQM approach used in current educational evaluation/accreditation. This study, to some extent, also responds to the call for greater harmonisation between the quality of administrative service functions and the core of teaching and learning (Becket & Brookes, 2008).

The consolidation of curriculum and teaching and learning standards is consistent with curriculum and instruction principles (Lumby, 2001). Since curriculum, teaching and learning complement each other, these critical components would affect the teaching effectiveness and student outcomes to a considerable degree, which may in turn influence the quality performance of educational institutions (Kaplan & Owings, 2001). In addition, this new standard is in line with the curriculum dimension of TedQual (UNWTO, 2007) and ACPHA (CHRIE, 2007), which contains not only curriculum content and design, but also teaching, learning and assessment aspects.

Specifically, this study provides insights into the relative value attached to each of the IHTLP dimensions by academics. The factor loadings of programme quality relative to each first-order construct indicate the relative importance of each quality standard. The results showed that each standard has a very high factor loading (shown in Figure 3). Among the six standards, curriculum and instruction ($\gamma 21 = 0.99$), faculty ($\gamma 41 = 0.92$) and strategic planning

($γ11 = 0.92$) had the highest loadings. Next were administrative management ($γ61 = 0.89$) and student achievements ($γ51 = 0.86$). The standard with the lowest loading is resources ($γ31 = 0.80$). Thus it is clear that the HTLP academics questioned perceived these six quality standards to make a significant contribution to a programme's quality.

The respondents believed that the inputs, such as curriculum and faculty, and processes such as instruction, are very important factors in determining the quality of HTLPs. The results support the view that curriculum quality, effective teaching and the enhancement of student learning outcomes are essential elements in the management of education quality (Lumby, 2001). The IHTLP confirms that HTLPs should give priority to the quality management of curriculum, teaching and learning as well as to the faculty in order to meet students' needs. There is a need to keep attention focused on what makes a good teacher and a good learning experience as well as on overall student learning experience (Airey & Tribe, 2005).

The results of this study show that the IHTLP consolidates the dimensions of research and co-operative services under the faculty standard in order to assess the performance of HTLP academics. Such consolidation appears to correspond with the view of Law and Chon (2007) that HTLPs are applied subjects. It is therefore felt that faculty members should be acknowledged for participating in a wider range of academic and service activities, including university or government-sponsored projects, seminars and workshops, in order to continue to enhance their professional knowledge, teaching skills and personal development. Furthermore, the results indicate that reasonable teaching loads and faculty professional development need to be considered to enhance the academic competitiveness of a programme. As noted by Airey and Tribe (2005), the key factor for success in tourism education is the quality and development of academic staff both as teachers and researchers. More important, it is how teachers' qualifications, research activities and industry experience are reflected in the courses taught that can improve the student learning experience (Stuart-Hoyle, 2005).

Respondents also believed that strategic planning and administrative management have an impact on quality. Traditional evaluation theories do not emphasise strategic management or leadership, but IHTLP considers these components as measurement variables. This confirms the core elements and benefits of a TQM-based educational quality framework, including leader commitment, strategic planning, operational management and self-improvement mechanisms (Badri et al., 2006; Becket & Brookes, 2008). The dimensions of administrative leadership and student management are deemed part of the transformation process of a programme, and this process will affect an organisation's culture and overall quality. The performance of students and alumni reflect educational outcomes (Bosselman, 1996). This output factor has been identified as student achievement in the IHTLP and student achievement should be considered as a category of HTLP evaluation/accreditation systems in order to assess student outcomes.

Finally, resources are considered to be relatively less important among the six standards, although this standard also carries a large weight. This result is consistent with the findings of Pereda et al. (2007) that respondents believe that resources and their management have relatively little impact on HTLP quality. Resources are the basis of educational 'input'. However, resources alone cannot guarantee a high quality of education since they do not automatically transform into good learning experience (Pike, 2004). These results may also be attributed to the fact that the items under resources are less valued by leisure and tourism programmes. Some items, such as professional training labs and management, are important to hospitality programmes but may not be a prerequisite of leisure and tourism programmes in terms of course design. Given this situation, the diverse characteristics of various HTLPs will lead to different needs for resources. Furthermore, HTLPs are practice-oriented and most of them provide students with industrial internship opportunities. A HTLP's internal resources may thus have less impact on its overall quality.

In terms of practical implications, the IHTLP can serve as an important reference for both the internal and external evaluation of HTLPs. First, the IHTLP can be used as a self-

assessment tool to guide and provide information to assist a programme's self-evaluation process. Second, for external evaluation to be effective, the quality indicators of the IHTLP can serve as benchmarks for quality assurance systems as a basis for evaluating HTLP quality. Third, as the IHTLP can reflect the multiple dimensions of educational quality, researchers or programme directors could use it as a scale to assess HTLPs' overall quality and its specific quality dimensions. Last, since HTLPs are highly diversified, the use of this comprehensive quality instrument as a specialised programme evaluation/accreditation tool may eliminate the drawbacks found from multiple scrutinies of different kinds of quality assurance systems.

Limitations and directions for future research

Although this study has adopted rigorous procedures in developing its measures, some research limitations still remain. First, the study uses specific institutions and group sample in Taiwan, which may limit the possibility of generalising the results. However, both the approach and the results provide a good starting point for understanding the multidimensional structure of HTLP quality, which could be transferable beyond Taiwan. Future research may extend to a range of samples from different countries to investigate the feasibility of using IHTLP as a cross-national quality assessment tool.

Second, although this study uses different types of stakeholders involved in the development and validation of the IHTLP, students are not included in the sample. This may limit the use of this tool in measuring quality dimensions relating to teaching and learning to understand students' perspectives. However, as noted in previous research, faculty members may be the most appropriate sample to evaluate the overall quality of HTLPs since they are the 'insiders' of the organisation. Future research may bring in students' views in order to provide further insights to the dimensions that they value.

Third, the range of items included under the resources dimension is rather narrow, with little mention of the library, journal stocks, online sources, IT facilities and programmes, for example. The above items were initially covered in the resources dimension, but were deleted during EFA procedures (factor loading < 0.5). Future research should incorporate these items into the resources dimension and reconfirm their stability and reliability.

Fourth, regarding the applicability of the instrument, the IHTLP contains a relatively large number of items thus respondents may be reluctant to complete the task. The multidimensional nature of educational quality usually leads to a large number of indicators. Researchers in future may attempt to design a shorter version of the IHTLP in order to facilitate its use.

References

Airey, D., & Tribe, J. (2005). Issues for the future. In D. Airey, & J. Tribe (Eds.), *An International Handbook of Tourism Education* (pp. 501-506). Oxford, England: Elsevier.

Al-Turki, U., & Duffuaa, S. (2003). Performance measures for academic departments. *The International Journal of Educational Management, 17*(7), 330-338. doi:10.1108/09513540310501012

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411-423. doi:10.1037/0033-2909.103.3.411

Assante, L. M., Huffman, L., & Harp, S. S. (2007). Conceptualisation of quality indicators for US based four-year undergraduate hospitality management programs. *Journal of Teaching in Travel & Tourism, 7*(2), 51-71. doi:10.1300/J172v07n02_04

Badri, M. A., Selim, H., Alshare, K., Grandon, E. E., Younis, H., & Absulla, M. (2006). The Baldrige Education Criteria for performance excellence framework: Empirical test and validation. *International Journal of Quality & Reliability Management, 23*(9), 1118-1157. doi:10.1108/02656710610704249

Becket, N., & Brookes M. (2006). Evaluating quality management in university departments. *Quality Assurance in Education, 14*(2), 123-142. doi:10.1108/09684880610662015

Becket, N., & Brookes M. (2008). Quality management practice in the higher education - What quality are we actually enhancing? *Journal of Hospitality, Leisure, Sport & Tourism Education, 7*(1), 40-54.doi:10.3794/johlste.71.174

Birnbaum, R. (1988). How colleges work: The cybernetics of academic organisation and leadership. San Francisco, CA: Jossey-Bass.

Bogue, E. G. (1998). Quality assurance in higher education: The evolution of systems and design ideals? *New Directions for Institutional Research, 99*, 7-18. doi:10.1002/ir.9901

Bosselman R. H. (1996). Current perceptions of hospitality accreditation. *FIU Hospitality Review, 14*(2), 77-84.

Byrne, M. B. (2001). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Mahwah, NJ: Lawrence Erlbaum Associates.

Cheng, Y. C., & Tam, W. M. (1997). Multi-models of quality in education. *Quality Assurance Education, 5*(1), 22-31. doi:10.1108/09684889710156558

CHRIE (2007). *Handbook of accreditation*. Retrieved March 26, 2007, from http://www.chrie.org/public/about/Accreditation/accreditation.html

Department of Statistics (2007). *University Statistics Data Search System, Ministry of Education, Taiwan*. Retrieved January 14, 2007, from http://www.edu.tw/EDU_WEB/Web/ STATISTICS/index.php

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement errors. *Journal of Marketing Research, 18*, 39-50. doi:10.2307/3151312

Hair, J. F., Jr., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Pearson Education.

Hamalainen, K. (2003). Common standards for programmeme evaluations and accreditation? *European Journal of Education, 38*(3), 291-300. doi:10.1111/1467-3435.00148

Harvey, L. (2004). The power of accreditation: Views of academics. *Journal of Higher Education Policy and Management, 26*(2), 207-223. doi:10.1080/1360080042000218267

Harvey, L., & Green, D. (1993). Defining quality. *Assessment and Evaluation in Higher Education, 18*(1), 9-34. doi:10.1080/0260293930180102

Heiman, R. L., & Sneed, J. (1996). Accreditation of hospitality administration programs: An evaluation. *Hospitality and Tourism Educator, 8*(1), 61-64.

Higher Educational Evaluation & Accreditation Council of Taiwan (2008). *Protocol of program evaluation of higher education institutions in 2007*. Retrieved July 13, 2008, from http://www.heeact.org.tw

Horng, J.-S., Teng, C.-C., Lee, M.-H., & Liu, Y.-A. (2006). Higher educational evaluation in UK: Implications on professional evaluation of hospitality, tourism and leisure undergraduate studies in Taiwan. *Journal of Tourism Studies, 12*(4), 273-294.

Houghton, J. (1996). Academic accreditation: Who, what, when, where, and why? *Parks & Recreation, 31*, 42.

Jöreskog, K. C., & Sörbom, D. (1993). LISREL 8 user's reference guide [Software manual]. Chicago, IL: Scientific Software.

Kaplan, L. S., & Owings, W. A. (2001). Enhancing teacher and teacher quality: Recommendations for principles. *NASSP Bulletin, 85*(628), 64-73. doi:10.1177/019263650108562808

Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford Press.

Koslowski III, F. A. (2006). Quality and assessment in context: a brief review. *Quality Assurance in Education, 14*(3), 277-288. doi:10.1108/09684880610678586

Kwan, P., & Walker, A. (2003). Positing organizational effectiveness as a second-order construct in Hong Kong higher education institutions. *Research in Higher Education, 44*(6), 705-726. doi:10.1023/A:1026179626082

Law, R., & Chon, K. (2007). Evaluating research performance in tourism and hospitality: The perspective of university programme heads. *Tourism Management, 28*, 1203-1211. doi:10.1016/j.tourman.2006.09.022

Lewis, B. R., Templeton, G. F., & Byrd, T. A. (2005). A methodology for construct development in MIS research. *European Journal of Information System, 14*, 388-400. doi:10.1057/palgrave.ejis.3000552

Lumby, J. (2001). Framing teaching and learning in the twenty-first century. In D. Middlewood & N. Burton (Eds.), *Managing the curriculum* (pp. 3-17). Thousand Oaks, CA: Paul Chapman.

Meyer, S., & Collier, D. (2001). An empirical test of the causal relationships in the Baldrige Health Care Pilot Criteria. *Journal of Operations Management, 19*(4), 403-25. doi:10.1016/S0272-6963(01)00053-5

Mizikaci, F. (2006). A system approach to programme evaluation and model for quality in higher education. *Quality Assurance in Education, 14*(1), 37-53. doi:10.1108/09684880610643601

Mok, K. H. (2000). Impact of globalisation: A study of quality assurance systems of higher education in Hong Kong and Singapore. *Comparative Education Review, 44*(2), 148-174. doi:10.1086/447601

National Institute of Standards and Technology (2007). *Baldrige national quality program: Education criteria for performance excellence*. Retrieved June 15, 2007, from http://www.quality.nist.gov/Education_Criteria.htm

National Recreation and Park Association (2007). *Standards and evaluation criteria for Baccalaureate programmes in recreation, park resources and leisure services*. Retrieved March 26, 2007, from http://www.nrpa.org/content/default.aspx?documentId=1037

Pereda, M., Airey, D., & Bennett, M. (2007). Service quality in higher education: The experience of overseas students. *Journal of Hospitality, Leisure, Sport & Tourism Education, 6*(2), 55-67. doi:10.3794/johlste.62.160

Pike, G. R. (2004). Measuring quality: A comparison of U.S. news rankings and NSSE benchmarks. *Research in Higher Education, 45*(2), 193-208. doi:10.1023/B:RIHE.0000015695.84207.44

Quality Assurance Agency for Higher Education (2000a). *Subject benchmark statements: Hospitality, leisure, sport, and tourism*. Gloucester, England: Quality Assurance Agency for Higher Education.

Quality Assurance Agency for Higher Education (2000b). *Handbook for academic review*. Retrieved September 18, 2005, from http://www.qaa.ac.uk/reviews/academicreview/default.asp

Rao, S. S., Solis, L. E., & Raghunathan, T. S. (1999). A framework for international quality management research: Development and validation of a measurement instrument. *Total Quality Management, 10*(7), 1047-1075. doi:10.1080/0954412997226

Robbins, D. (2005). Quality assurance. In D. Airey, & J. Tribe (Eds.), *An International Handbook of Tourism Education* (pp. 451-468). Oxford, England: Elsevier.

Smith, H. J., Milberg, S. J., & Burke, S. J. (1996). Information privacy: Measuring individuals' concerns about organisational practices. *MIS Quarterly, 20*(2), 167-196. doi:10.2307/249477

Srikanthan, G., & Dalrymple, J. F. (2007). A conceptual overview of a holistic model for quality in higher education. *International Journal of Educational Management, 21*(3), 173-193. doi:10.1108/09513540710738647

Stuart-Hoyle, M. (2005). Teachers. In D. Airey, & J. Tribe (Eds.), *An International Handbook of Tourism Education* (pp. 451-468). Oxford, England: Elsevier.

Stufflebeam, D. L. (2000). The CIPP model for evaluation. In D. L. Stufflebeam, G. F. Madaus, & T. Kellaghan (Eds.), *Evaluation models: Viewpoint on educational and human services evaluation* (2nd ed., pp. 279-317). Dordrecht, The Netherlands: Kluwer Academic.

Tribe, J. (2003). Delivering higher quality: A comparative study of lecturers' perceptions and QAA subject review in tourism. *Journal of Hospitality, Leisure, Sport & Tourism Education, 2*(1), 27-47. doi:10.3794/johlste.21.43

United Nations World Tourism Organisation, UNWTO. (2007). *TedQual certification system: Executive introduction*. Retrieved March 12, 2007, from http://world-tourism.org

Walberg, H. J., & Zhang, G. (1998). Analyzing the OECD indicators model. *Comparative Education, 34*(1), 55-70. doi:10.1080/03050069828342

Winn, B. A., & Cameron, K. S. (1998). Organisational quality: an examination of the Malcolm Baldrige National Quality Framework. *Research in Higher Education, 39*(5), 491-512. doi:10.1023/A:1018745505108

Woodhouse, D. (2007). Models of accountability. *2007 International Conference on Higher Education Accountability* (pp. 9-28). Taipei, Taiwan: HEEACT.

Appendix: Results of EFA and reliability of underlying dimensions in the IHTLP

Item no.	Standards / Dimensions / Items	Mean	SD	Loading	Explained variance %	Cronbach's α
	Standard 1: Strategic planning				60.44	.90
	Dimension 1.1: Vision, mission, aims and objectives	3.86	.73			.88
1	The programme has a clear vision and an explicit mission, aims and objectives.			.782		
2	The vision, mission, aims and objectives of the programme fit the goals of higher education.			.946		
3	The vision, mission, aims and objectives of the programme fit the mid-term and long-term goals of the institution.			.866		
4	Faculty members and students understand the aims and objectives of the programmes.			.585		
5	The programme makes its aims and objectives clear to the public (i.e. by posting them on the internet).			.509		
6	The programme has established specific learning outcomes.			.522		
	Dimension 1.2: Self-improvement	3.78	.78			.86
7	Expected learning outcomes are established by teachers, students and external auditors.			.596		
8	The programme has its own self-evaluation mechanism.			.929		
9	The programme effectively operates and assesses its own self-evaluation mechanism.			.880		
10	The programme seeks feedback from stakeholders (i.e. students, alumni, practitioners) to improve the quality of the programme.			.503		
	Standard 2: Curriculum and instruction				51.88	.95
	Dimension 2.1: Curriculum	3.93	.71			.92
11	The design of the curriculum and core courses is consistent with the aims and objectives of the programme			-.689		
12	Programme curricula are consistent with international trends.			-.842		
13	Programme curricula are in line with programme development features.			-.840		
14	The programme reviews the effectiveness of its own curriculum planning.			-.627		
15	Curriculum planning meets students' needs for a wide range of choices.			-.746		
16	Curriculum design follows the principles of continuity and logical order (including the course sequence, the appropriateness of courses being provided, the ratio of required to elective courses, etc.)			-.536		
17	At the beginning of each term, students are provided with explicit course information (including a syllabus, learning objectives, the time the class meets, the teacher's teaching methods, etc.)			-.529		

Item no.	Standards / Dimensions / Items	Mean	SD	Loading	Explained variance %	Cronbach's α
18	The principles of general education, professional management, and practical experience are incorporated into the curriculum.			-.583		
19	Curricula will enhance students' problem-solving ability, both in generic subjects and in the professional hospitality, tourism and/or leisure domains.			-.524		
20	Curricula will develop students' ability to apply what they have learned.			-.549		
	Dimension 2.2: Teaching and learning	**3.87**	**.63**			**.91**
21	Teachers teach effectively to achieve learning outcomes.			.643		
22	Teachers apply their research, counselling and/or hospitality industry experience to their teaching.			.636		
23	Professional facilities and equipment are available to enhance teaching and learning.			.620		
24	Core courses and learning activities enable students to contact the hospitality industry and profession directly.			.594		
25	Teachers apply multiple teaching methods, teaching materials and teaching aids.			.603		
26	Faculty members provide appropriate guidance and feedback to students to enhance their learning.			.699		
27	Internship guidance/counselling is available to students.			.645		
28	Career guidance/counselling is available to students.			.678		
29	Faculty members adopt a variety of assessment methods that apply to students' different learning styles to evaluate students' learning.			.729		
30	Assessment criteria are fair and objective.			.656		
31	Faculty members use the results of their assessment to improve teaching and learning.			.676		
	Standard 3: Resources				**61.37**	**.84**
	Dimension 3.1: Resources and management	**3.79**	**.78**			**.85**
32	The programme sets up professional training labs (e.g. food and beverage service training labs, kitchens and hotel guest rooms).			.608		
33	The programme effectively uses professional training labs.			.770		
34	The programme implements management and maintenance methods for professional labs, equipment and materials.			.737		
35	Training facilities meet the standards and regulations of safety, hygiene and sanitation.			.855		
36	Waste from professional training courses (e.g. kitchen waste, hotel room garbage) is properly handled.			.665		
	Dimension 3.2: Spaces	**3.56**	**1.0**			**.87**
37	The department's spaces and facilities can accommodate the needs of teaching, learning and research.			.947		

Item no.	Standards / Dimensions / Items	Mean	SD	Loading	Explained variance %	Cronbach's α
38	The programme provides appropriate space allocation and planning for teaching, learning and research.			.787		
	Standard 4: Faculty				**62.53**	**.88**
	Dimension 4.1: Teachers' quality	**3.94**	**.80**			**.88**
39	All faculty members have hospitality, tourism and/or leisure related experience and specialisations.			.885		
40	Teachers' specialisations fit the aims of the programme.			.884		
41	Courses are assigned based on faculty members' expertise.			.818		
42	Faculty teaching loads are reasonably assigned.			.707		
	Dimension 4.2: Teachers' performance	**3.65**	**.74**			**.85**
43	Faculty members receive project sponsorships from university extension services.			.691		
44	Faculty members actively participate in domestic and international academic and/or professional activities, such as conferences and research paper publications.			.854		
45	Faculty members receive research grants and/or research awards.			.832		
46	Faculty members demonstrate their professional status through (for example) being appointed as judges of professional competitions and through the winning of innovative teaching awards, etc.			.617		
	Standard 5: Student achievements				**58.49**	**.80**
	Dimension 5.1: Students' and graduates' performance	**3.72**	**.76**			**.78**
47	Students receive scholarships.			.617		
48	Students obtain hospitality, tourism and/or leisure related certifications and/or licences during the school year.			.839		
49	Students receive awards from individual and/or team competitions.			.850		
50	Graduates gain a good reputation in the hospitality, tourism and/or leisure industry.			.500		
	Dimension 5.2: Alumni feedback	3.45	.89			.82
51	There is a well-managed and effective alumni organisation.			.908		
52	Alumni provide helpful feedback to the programme.			.758		
	Standard 6: Administrative management				**67.25**	**.94**
	Dimension 6.1: Administrative leadership	**4.04**	**.83**			**.92**
53	The department head demonstrates leadership ability.			.753		
54	Full-time departmental administrative staff perform efficiently.			.692		
55	The programme's administration works effectively, including recruiting, hiring, staffing and evaluating the faculty and the staff.			.960		
56	Committees that are formed to solve departmental issues work effectively.			.808		

Item no.	Standards / Dimensions / Items	Mean	SD	Loading	Explained variance %	Cronbach's α
57	The department head manages the departmental budget, including its allocations, effectively.			.880		
58	The programme's administration fully supports teaching and learning.			.534		
	Dimension 6.2: Student management	**4.02**	**.77**			**.91**
59	The administration keeps students informed of new policies, regulations and announcements.			.690		
60	The programme keeps and manages students' enrollment data.			.793		
61	The programme provides guidance and supervision to student organisations.			.903		
62	The programme establishes a feedback mechanism for students' opinions.			.754		
63	The programme sets up, manages and maintains its own website.			.776		