TEACHING QUALITY AS STUDENTS' COURSE EXPERIENCE DETERMINANT: EVIDENCE FROM MALAYSIAN HIGHER EDUCATION INSTITUTIONS

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ABSTRACT

The purpose of this study was to investigate the underlying factors of course experience in six selected Malaysian public higher education institutions. The relationship between Teaching Quality Initiative (TQI), the mediating factor, Quality Assurance Initiative (QAI), and the dependent variable, Course Experience (CE) was examined. The research used a survey instrument and employed simple random sampling technique with a quantitative research design. Statistical techniques including SPSS version 20.0, Confirmatory Factor Analysis (CFA), and a full-fledged Structural Equation Modeling (SEM) with Analysis of Moment Structures (AMOS) software version 22.0 were used to analyze the received questionnaire, address the research questions, and test the hypotheses. TQI represented two distinct factors, i.e., enthusiasm and group interaction; QAI was indicated by three dimensions, quality practices, facilitators, and obstacles; and CE represented three variables, student empowerment, good teaching, and appropriate assessment. The result also demonstrated the validity and reliability of each factor. The proposed theoretical model of course experience was tested using SEM technique. The results were indicative of the direct causal effect of TQI and QAI on CE, as well as the indirect causal effect of TQI on CE through the mediation of QAI.

Keywords: Teaching Quality, Quality Assurance, Course Experience, Malaysia, Higher Education Institutions

INTRODUCTION

Since teacher quality is recognized as the most influential factor of learning outcome, development of quality teaching has been a common trend since the later part of the twentieth century. Even if it is a student-oriented learning environment, teaching quality is still ensured through different means in the classroom. As a result, assurance of teaching quality (TQ) has become one of the major themes for renovation of higher education institutions (HEIs) worldwide, whereas teacher attributes are widely considered as significant indicators of teaching quality in HEIs (Carlucci et al., 2019; Dinh Tho, 2017). In addition, TQ assurance works as one of the main evaluation systems of higher education. This is because its evaluation results give constructive feedbacks and critical outcomes helpful to identify, plan, and implement the prospects of institutions.

Taking examples from European higher education sector, for the purpose of assuring TQ, eleven recommendations have been suggested by Pouyioutas (2014). Much of the success of quality teaching support is dependent upon teachers' acceptance of quality awareness. This is because it provides teachers a chance to reflect upon their role in teaching performance and enhancing its quality. Thus, teachers function as the central spot for reflection on the evaluation of TQ (Henard, 2010). However, there are gaps in bringing awareness of enhancing quality in teaching even in HEIs since it is not given considerable priority in higher education (Henard et al., 2012). Even though there have been reports and researches (Fraser & Fraser, 1998; Webb, 2009; Zerihun et al., 2012; Chou et al., 2021) which put forward a variety of recommendations, concerns over TQ initiatives still prevail to a great extent.

In Malaysia, the Ministry of Higher Education (MOHE) has come up with various QA initiatives to ensure that the tertiary education lives up to its expectations in maintaining its quality while disseminating its knowledge-oriented services (MQA, 2022). However, to what extent these programs are effective is arguably still questionable in a sense that few studies have focused on students and their perspectives on quality. In other words, there is a considerable lack of recipient-focused studies on the quality of Malaysian tertiary level institutions. As such, this study investigates whether TQ and QA initiatives have any influence on students' course experience (CE) in Malaysian HEI context.

Teaching Quality in Higher Education
Teaching quality involves a variety of aspects, such as effective curriculum and course design, a variety of learning environments (for instance, guided independent study, project-based learning, collaborative learning, experimentation, etc.), gathering and utilizing student feedback, and efficient assessment of learning outcomes. It also comprises well-adapted learning environments and student support services (OECD, 2013). The term in this study refers to all positive attributes of teaching giving proper meaning and scaffolding to the learning context of those who are taught.

Much have been said and discussed about teaching quality in the HE sector since 1980s until recent years (Ramsden, 1987; Pratt, 1997; Felder and Brent, 1999; Riportella et al., 2001; Keane & Labhrainn, 2005; Ramsden, 2006; Ginns et al., 2007; Chong & Ho, 2009; Allan et al., 2009; Hightower et al., 2011; OECD, 2012; DeMonte, 2013; UNESCO, 2014; Dihn Thou, 2017; Zhao & Ko, 2020). All the studies have highlighted the concept and praxis of teaching quality in HE context, taking various cases. Among the research studies on teaching quality in HEIs from students' perspectives, the study by Ginnes et al. (2007) at the University of Sydney was distinguished mainly by introducing a questionnaire called Student Course Experience Questionnaire (SCEQ) developed and modified from the traditional Course Experience Questionnaire (CEQ) by Ramsden (1991). Being one of the robust systems of higher education administration, the case of Australia has been deeply studied and reviewed by many authors (see for instance Ramsden, 1991; Chalmers, 2008; Webb, 2009; Hischberg et al., 2011; Zerihun, 2012).

Quality Assurance and Malaysian Higher Education Institutions

Quality assurance (QA), according to Materu (2007), is a planned and systematic review process of a programme or institution to see if accepted standards of education, scholarship, and infrastructure are met, maintained, and improved in line with intended goals. In an institutional context, it is connected to properly review the process of all main dimensions of education ensuring its standard level. Vroeijenstijn (1995) viewed it as the practice of attention to quality in a systematic, well-structured, and continuous manner with regards to the maintenance and improvement. In the context of this study, QA is defined as an organized and scientific procedure maintained by institutions to identify key dimensions which influence their further development.

The conceptual approach of Flippakou (2011) towards QA has asserted that the need for assuring quality has been a central practice among universities worldwide. Nevertheless, without considering only the market-oriented or management-oriented dimensions of QA, he argued that there are profound epistemological and social consequences for this approach.

In relation to the HE system of Malaysia, the Malaysian Qualification Agency (MQA) plays a cardinal role is its quality assurance system (MQA, 2022). The agency was established on 1st of November 2007 by the endorsement of MQA Act 2007, followed by its official launching on the next day by the then minister of higher education Dato' Mustapa Mohamed (MQA, 2013). The MQA standards and core values are implemented through the Malaysian Qualification Framework (MQF) as a foundation for assuring quality of the HE and a reference for the national standard for qualifying the institutions (Negara, 2004). Following the policies, currently, MQA is working to ensure the quality of HEIs in nine areas (MQA, 2013): vision, mission, institutional goals, and learning outcomes; programme designing and delivery; student selection and support; student assessment system; academic staff; educational resources; programme monitoring and review; leadership, governance, administration; and overall continuous quality improvement.

Based on the explanations given by the Malaysian Ministry of Higher Education (2018), MQF functions as a foundation for the higher education quality assurance programs. It is also a consulting body for the qualification and accreditation programs at national level. In addition, this framework is considered as an instrument capable of classifying versatile qualifications according to certain specified criteria which are approved on national and global grounds. Such criteria are recognized and utilized for all qualifications that are awarded by an established higher education provider. Thus, MQF is meant for clarifying the level of academic aspects, the outcomes of learning, and credit systems based on the academic loads born by students. This is a way to integrate all the qualifications pertaining to national higher education sector. Moreover, MQF also stands as an interlocutor between these qualifications and the current framework by giving conceivable educational pathways (MOHE, 2018).

The higher education quality concerns have been addressed by the Ministry through the introduction of SETARA in 2007, with particular focus on the teaching quality of HEIs. Students can review and critically appraise their teaching faculties, looking towards multiple dimensions of staff quality in which their punctuality and students' satisfaction on subject delivery are considered cardinal. SETARA also assists the HEIs to perform the three fundamental functions related to the academic environment (teaching, research, and services) by employing the right metrics of evaluation (MQA, 2016; MOHE, 2018). Different scopes including teaching and learning, research capacity, and services and income generation are rated under this system (MOHE, 2018). However, this study investigated only teaching and learning related dimensions being both have been specifically given importance in the context of Malaysian education.

Course Experience and CEQ

Course experience (CE) in education is conceived as the overall experience of students in relation to their learning environment (Ramsden, 1991). It refers to students' experiences of courses they get from their learning contexts

i.e., institutions. In other words, CE is a concept by which the extent of quality in teaching and learning can be determined.

The quality evaluation of an educational institution lies upon the assessment of CE to a great extent, and it has been a common phenomenon in HEIs for a decade (Talukdar et al., 2013) to use Course Experience Questionnaires (CEQ) for this purpose. Several countries including UK, Australia, Norway, China, Hong Kong, and Singapore have been implementing CE evaluation by providing students with different CEQs (Richardson, 1994; Harris & James, 2006; Diseth, 2007; Dennis, Jan & Meyer, 2013; Koh et al., 2013; Talukdar et al., 2013, Yin et al., 2014).

CEQ was originally developed at Lancaster University by Ramsden (1991) as a follow up to the Course Perception Questionnaire-CPQ (Ramsden & Entwistle, 1981) for measuring students' perceived experiences with their courses at British HEIs. In the questionnaire, the scales included good teaching (clarity in explanation, pitching level of course material, teachers' enthusiasm, and help with problems concerning studies), openness to students, freedom in learning, clear goals and standards, and appropriate workload.

Since 1993, an adapted version of the CEQ is distributed by annual basis to all new Australian university graduates. This new version instrument consists 17 of the original 30 items. Nevertheless, the instrument includes an extra scale consisting of six items related to fostering generic skills. This 23-item version is normally added by another item which seeks whether or not the respondents are satisfied with their courses in general. For the sake of research, Wilson et al. (as cited in Richardson, 2005) proposed that the old version of CEQ with 30 items should be added with the Generic Skills scale to have a 36-item questionnaire.

Notably, there are different courses in which the CE evaluation has been conducted for examining their quality, validity, and reliability. There have been studies in consumer behaviour (Petkus, 2010), psychology (Diseth, 2007), medical programs (Lyon & Hendry, 2002), accounting program (Byrne & Flood, 2003), and physiotherapy (Tucker et al., 2008). However, none of these studies were conducted in Malaysian tertiary education, except in a private higher education context (Thien et al., 2021) focusing on deep learning constructs. Moreover, the review on the mentioned variables led to the conclusion that few studies have concentrated on TQI, QAI, and CE. As such, the following hypotheses were put forth:

H1: Factors of TQI construct are valid and reliable in the context of Malaysian HEIs.
H2: Factors of QAI construct are valid and reliable in the context of Malaysian HEIs.
H3: Factors of CE construct are valid and reliable in the context of Malaysian HEIs.
H4: There is a significant direct effect of TQI on CE.
H5: There is a significant direct effect of QAI on CE.
H6: TQI significantly affect CE through QAI.

METHODOLOGY

The instruments for this study were based on three constructs as depicted in Table 1 below. Altogether there were three constructs comprising Teaching Quality Indicator (TQI), Quality Assurance Initiative (QAI), and Course Experience (CE). Most of the instruments were Likert scale based, adopted and adapted from their respective sources.

The items for TQI as adopted from Marsh (1982) included three underlying dimensions, enthusiasm, organization, and group interaction. The main construct was restricted to these three dimensions and measured by a Five-point Likert scale (1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree).

Table 1
Constructs, Number of Instruments, and Sources

Constructs	No. of Instruments	Sources
Teaching Quality Indicator (TQI)	12 items	Adopted from Marsh, 1982
Quality Assurance Initiative (QAI)	14 items	Adopted from Materu, 2007
Course Experience (CE)	23 items	Adopted from Ramsden, 1991a, 1991b; Ramsden & Entwistle, 1981)

QAI is measured by 14 itmes, with two underlying dimensions namely, general dimensions and facilitating or hindering factors. The first dimension was measured by five itmes with a response category from *very poor* to *very good* (i.e. 1=very poor; 2=poor; 3= neutral; 4=good; 5=very good). Meanwhile, nine items indicated the second dimension, with a response category rating 1 to 3 as *obstacle*, *not important*, and *facilitates* (1= obstacle; 2= not important; 3= facilitates). It should be noted that different response categories have been included to consider and take causion against potential biases that might occur due to random responding. Response bias is a probable threat to validity and power of educational and psychological research (Osborne and Blanchard, 2011).

In relation to CE, there are 23 items to measure the construct adopted from Ramsden (2012) with its five underlying dimensions namely good teaching, clear goals and standards, generic skills, appropriate workload, and appropriate assessment. These were selected based on previous studies that have highlighted them as the most frequent ones (See for instance: Yin, 2014; Law & Meyer, 2011; Wilson et al., 1997; Diseth et al., 2010). In addition, these dimensions have been formed as a higher order structure for CE studies (Wilson et al., 1997). Each item was measured using a Five point Likert scale (1= strongly disagree; 2= disagree; 3= neutral; 4= agree; 5= strongly agree).

Samples and Procedures
A total number of 1200 undergraduate students from Faculty of Education were sampled while 1168 of them responded to the survey. The researchers ensured that there was no systematic bias in choosing the sample size by carefully knowing where the subset should be selected from. The sample size was determined based on the criteria suggested by Vockell and Ashner (1995) and Ferguson (1981) as they contended that narrowing the confidence interval increases the expectations denoting an accurate measurement. In other words, the lesser the interval, the lesser the chance of error are. For the current study, the confidence interval was set at 95% level and a margin of error at ±3%.

Data Analysis

Pilot Test Analysis
The survey items were administered to a sample of more than 150 undergraduate respondents to verify and establish the psychometric properties and suitability of the instrument. The pilot data were examined for missing values and errors before the analysis. While doing a descriptive statistical analysis with this data set, it was discovered that 19 items had missing values. This was followed by an accuracy checking, looking at minimum and maximum values which should fall within 1 and 5 for items seeking course experience and teaching quality, and 1 and 3 for items seeking quality assurance. As observed, none of the items fell outside the mentioned ranges. The standard deviations ranged between 0.53 and 1.000 indicating that the respondents were relatively similar in their views. Also, the values showed that the variables can be subjected to further analysis.

PAF's final and updated runs generated results that were satisfactory and met the criteria for running the analysis. Three crucial assumptions of factor analysis—Kaiser-Meyer-Olkin (KMO), Bartlett's test of sphericity, and the intercorrelations between the items—were examined before moving on to the interpretation of the finalised factor structure. First, the KMO's indication of adequate sampling was checked, as it should be above the minimum criterion 0.5. In this analysis, the KMO value was 0.87 and is viewed meritorious indicating that the respondents obtained were adequate for running a PAF analysis. Second, based on the conjecture that the original correlation matrix is not an identity matrix, which is supported by Bartlett's test of sphericity, it was believed that this assumption is statistically significant Bartlett's test of sphericity was found to be statistically significant in the analysis (X^2 = 3668.63, 630, p= 0.000). Third, the inter-correlations between the items were examined to determine whether there were any significant multicollinearity problems. The majority of the items had moderate correlations, with values below an average of 0.8. In other words, fewer than 1% of the correlations were greater than 0.8. Therefore, there was no multicollinearity problem with the data collected from the respondents. The items in the final factor structures also showed acceptable communalities as values ranged between .295 and .840. Thirty (30) items exhibited communality greater than 0.5 while the remaining six items ranged between .29 and .49.

A clean eight-factor structure free of cross-loading or unimportant loading was obtained via the Promax rotation. 35 items from the original 49 represented the solution and explained 61.56 % of the variance in the course experience data. The accompanying table (Table 2) displays this eight-factor structure together with the factor loading, eigenvalues, variance explained, and internal consistency indices of the dimensions.

Table 2
Finalized Factor Structure, Factor loadings, Eigenvalues, Variance Explained, and Internal Consistency Index

Factor and indicators	Factor loading	Eigen-values	Variance explained	Reliability index
Factor 1: Student empowerment		**10.581**	**29.391**	**.91**
The course developed my problem-solving skills	.986			
The course sharpened my analytical skills	.863			
My course helped me develop the ability to plan my own work	.775			
The course improved my skills in written communication	.751			
As a result of my course, I feel confident about tackling unfamiliar problems	.667			
I usually had a clear idea of where I was going and what was expected of me in this course	.638			
The course helped me develop my ability to work as a team member	.627			
Factor 2: Obstacles		**3.878**	**10.772**	**.90**
Low commitment and support of academic community for quality	.879			
Low commitment and engagement of students for their learning	.865			
Lack of resources (E.g., finance, expertise)	.810			
Lack of institutional commitment and support for quality	.769			
Factor 3: Good teaching		**2.628**	**7.301**	**.88**
The lecturers worked hard to make their subjects	.904			

interesting				
My lecturers were extremely good at explaining things	.817			
The lecturers made a real effort to understand difficulties I might be having with my work	.766			
The lecturers of this course motivated me to do my best work	.728			
The lecturers normally gave me helpful feedback on how I was going	.563			
Factor 4: Quality practices		**2.033**	**5.564**	**.85**
Communicating quality improvement policies to students	.816			
Demonstrating its commitment to provide a high quality of teaching	.784			
Setting clear goals for maintaining quality of education	.665			
Establishing mechanisms that facilitate quality of students' learning	.621			
Promoting shared values about quality education among students and staff	.608			
Factor 5: Group interaction		**1.820**	**5.056**	**.87**
Students were invited to share their ideas and knowledge	.885			
Students were encouraged to express their own ideas and/or question the instructor	.805			
Students were encouraged to ask questions and were given meaningful answers	.700			
Students were encouraged to participate in class discussions	.654			
Factor 6: Enthusiasm		**1.695**	**4.709**	**.80**
Instructor was dynamic and energetic in conducting the course	.770			
Instructor's style of presentation held my interest during class	.707			
Instructor was enthusiastic about teaching the course	.694			
Instructor Enhanced presentations with the use of humor	.576			
Factor 7: Facilitators		**1.415**	**3.932**	**.70**
University leadership	.845			
Higher education law	.773			
Institutional policy environment	.621			
Factor 8: Appropriate assessment		**1.128**	**3.133**	**.72**
The lecturer seemed more interested in testing what I had memorized than I had understood	.758			
Too many staff asked me questions about just facts	.679			
There was a lot of pressure on me as a student of this course	.560			

As observed, there are eight (8) factors loaded to measure the main dimensions, course experience, teaching

quality, and quality assurance. From these eight, three (3) factors, namely *student empowerment*, *good teaching*, and *appropriate assessment*, with 15 items are meant for measuring the outcome variable, i.e., course experience. Consequently, the other two proposed factors, *generic skills* and *appropriate workload* were removed. Meanwhile, teaching quality is indicated by two (2) factors labelled as *enthusiasm* and *group interaction* with eight (8) items, whereby another proposed factor, *organization* was removed from the revised questionnaire. As for the mediating variable, i.e., quality assurance, there were three (3) sub-dimensions, *quality practices*, *facilitators*, and *obstacles* with 12 items.

Demographic Characteristics
Out of the total respondents, there were 244 male students (20.9%) 924 female students representing 79.1 %. Majority were in their third year (N=987, 84.5 %), while others were in their fourth year (N=181, 15.5%). All of them were from different backgrounds in their undergraduate studies, including Islamic education, guidance and counselling, art and design education, science education, early childhood education, mathematics education, home economics, living skills etc. However, four courses including guidance and counselling (N=217, 18.6 %), science education (N=100, 8.6 %), special education (N=103, 8.8 %), and TESL (N=179, 15.3 %) outnumbered others though with small percentages.

Confirmatory Factor Analysis for TQI, QAI, and CE
For validating each latent construct with the mentioned population, a Confirmatory Factor Analysis (CFA) was done for TQI, QAI, and CE constructs. The degree of correspondence between the theoretical constructs and the evidence observed was first determined. The results gained from the analysis are shown in Figure 1, and the fit statistics indicates adequate fit between the hypothesized model and the data ($\chi 2/df$ = 3. 447, CFI= .935, TLI= 0.929, and RMSEA= .046). Table 3 outlines the mentioned values with possible justification from the literature.

Table 3
The Fitness Indices for Model 1

Name of category	Name of index	Index value	Threshold values	Justification
Absolute fit	RMSEA	.046	.03-.09	Hair, et. al (2010)
Incremental fit	CFI	.935	>.90	Tabachnick and Fidell (2007)
Incremental fit	TLI	.929	>.90	Awang (2015)
Parsimonious fit	Chisq/df	3.447	<5.0	Awang (2015)
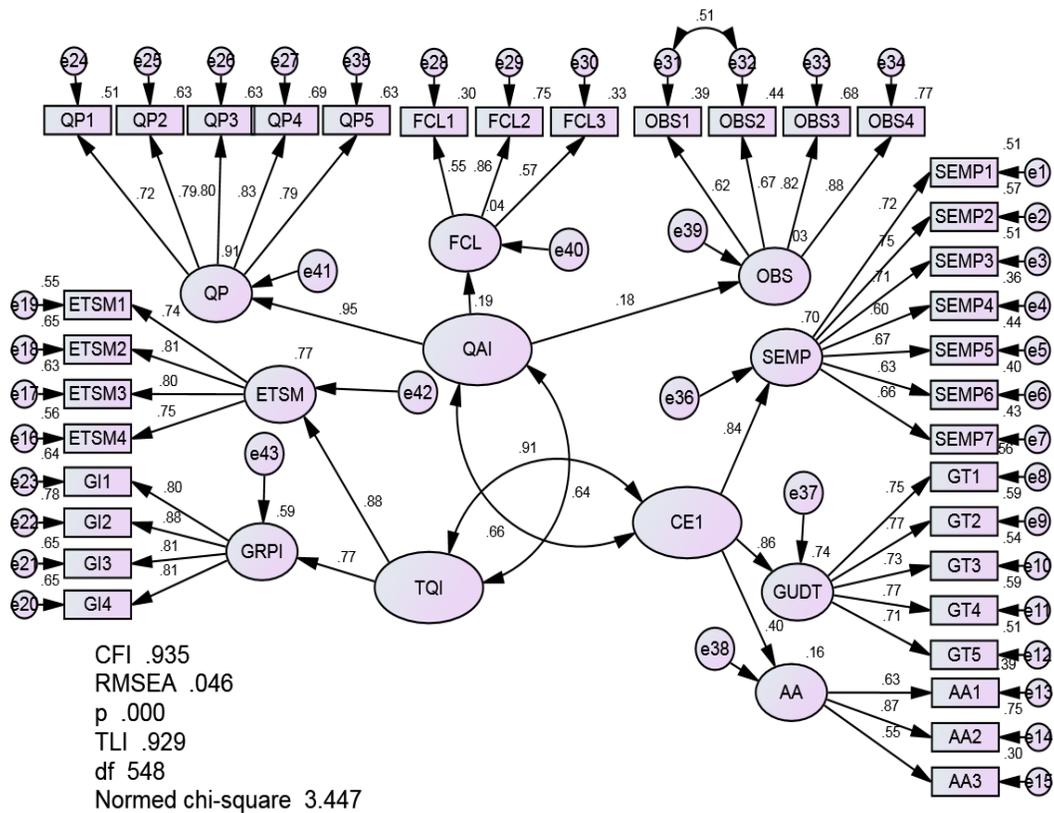
Figure 1. *Model 1*

However, the analysis of parameters showed certain inadequacies. Looking to the misspecification, the correlation between TQ and CE was observed to be beyond the recommended value, which is less than 0.85 (Bagozzi et al., 1991). That is, the correlation value between the two was seen as 0.91, demonstrating the lack of discriminant validity between TQ and CE. Nevertheless, the misfit does not significantly contribute to the model improvement as observed in the second model (Figure 2).

After the modification and improvement in model 1, the revised model fit indices (Figure 2) showed adequate fit between the model and data ($\chi 2/df$ = 2.947, CFI = 0.948, TLI= 0.944 and RMSEA = 0.41). The difference is remarkable since the value of normed chi-square has improved significantly, whereas RMSEA, CFI, and TLI values have improved with a slight variation. Table 4 depicts the revised summary of fit indices for the second model of CFA.
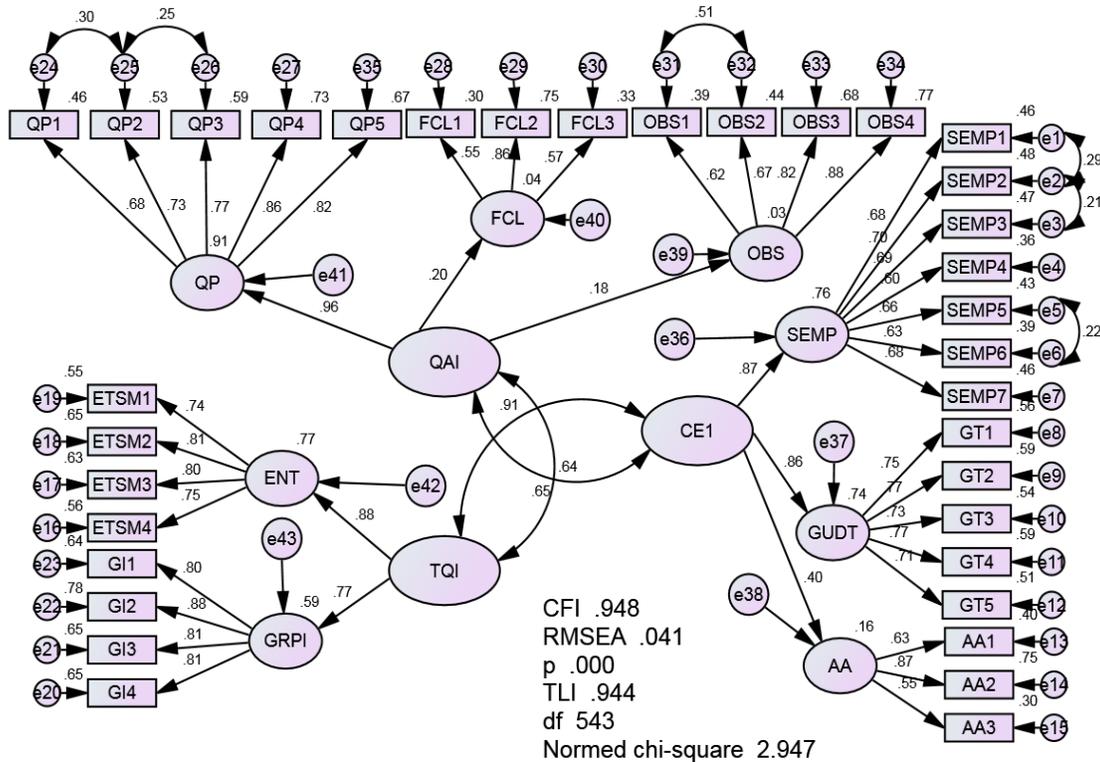
Figure 2. *Model 2*

Table 4
The Fitness Indices for Model 2

Name of category	Name of index	Index value	Threshold values	Justification
Absolute fit	RMSEA	.041	.03-.09	Hair, et. al (2010)
Incremental fit	CFI	.948	>.90	Tabachnick and Fidell (2007)
Incremental fit	TLI	.944	>.90	Awang (2015)
Parsimonious fit	Chisq/df	2.947	<5.0	Awang (2015)

Convergent and Discriminant Validity

For identifying and reporting the convergent validity of the model, standardized factor loadings for the final measurement were checked. All loadings were above the threshold of 0.5, indicating the primary evidence of convergent validity. Also, the p-values for each indicator showed the statistical significance of all items. In addition, the CR value has gone over the predetermined value of 0.7; and the AVE values are observed to be acceptable since they are either close to (for instance, the values for STDEMP and AA are 0.43 and 0.48 respectively.) or above 0.5.

While examining the overall measurement model fitness, CR, and AVE, the CR for the three variables showed 0.7, 0.4, and 0.8 respectively; it is acknowledged that the value of 0.4 has fallen below the threshold value of >0.7. However, the lower loading of CR is compensated if the model is already in a good fit since the

measurement errors are taken into consideration (Steinmetz, 2016).

As for the AVE, it was shown with adequate loading for CE and TQI as 0.7 and 0.8 fitting to the fixed value of >0.5 (Fornell & Larckel, 1981). However, only 0.3 was loaded for QAI, which is not problematic for the validity since the importance is given to the measurement model fitness. Also, if the individual loadings are shown to give a reasonable meaning to the latent variable, low loading of AVE is negligible (Steinmetz, 2016). The validity is not affected by mere AVE, since the low loading appears when there is a large sample size (Henseler et al. 2014). Moreover, the AVE below 0.5 is considered acceptable if there is no significant discriminant validity problem when looking at other criteria such as the model fitness (Markos, 2016). As such, the first three hypotheses were supported.

Causal Relationship Among Variables

A statistical test of the hypothesized model showed the following results: TQI and CE have a causal direct association of .83, which is greater than the cutoff of .20. (Kline, 2011). However, the same relationship between QAI and CE is observed to be .12, that is below the mentioned threshold. Nonetheless, the same type of relationship was seen between the exogenous and the mediating constructs, i.e., TQI and QAI respectively, at an acceptable value of .64 which has met the required cut-off limit. Meanwhile, the causal indirect relationship between TQI and CE through QAI is seen as .76 that is less than the required value of .08 to be significant. This value is estimated based upon the theory postulated by Kline (2011) that if the standardized direct effect of X1 on Y2 (that is: TQI x QAI) is .08, then there is a significant indirect effect, and vice versa.

The result of fit indices is also exhibited in the same model, and they all show that most of the fit values have adequately met the required threshold values needed for a well-fit model (CFI= .948, RMSEA= .041, TLI= .944, df= 543, and Normed chi-square= 2.947). The revised hypothesized model, as shown in Figure 3, revealed the fit indices with slight variations and at acceptable values as required for a good model fit. The table below (Table 5) provides a summary of the updated fit indices values for the new structural model while the remaining hypotheses were also tested accordingly.
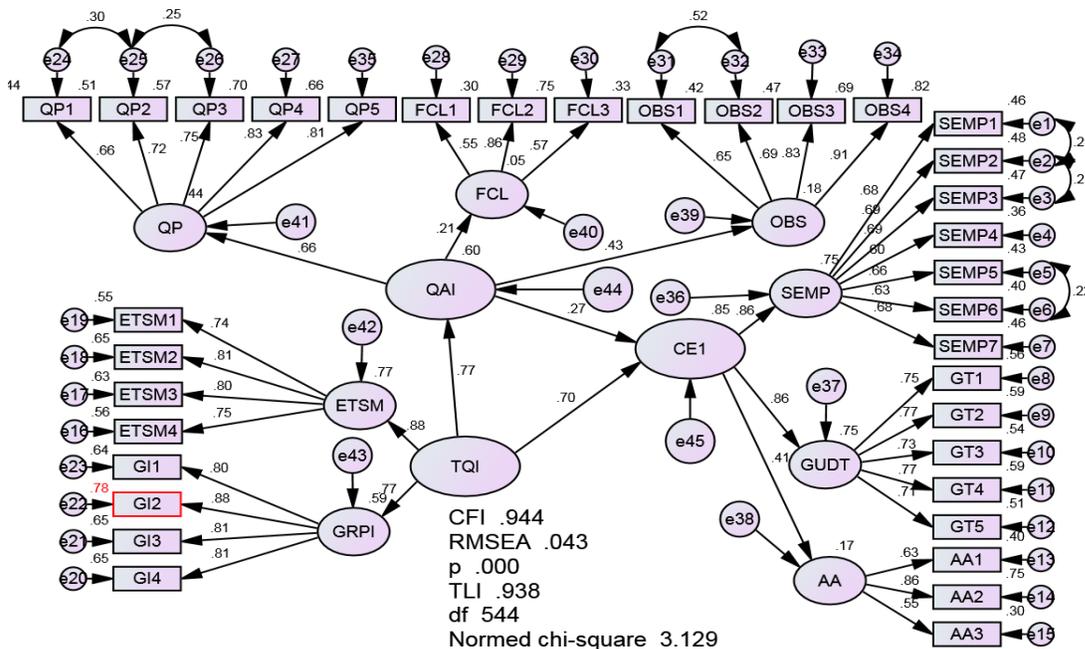
Figure 3. *Revised Model*

As observed from the model, the causal direct relationship between TQI and CE is at .70 that is above the threshold value of .20 (Kline, 2011). The result implies that Teaching Quality initiatives are correlated with Course Experience. As for the direct relationship between QAI and CE, the revised structural model showed a value of .27, greater than the required value.

Table 5
Summary of the Revised Fitness Indices for the Revised Model

Name of category	Name of index	Index value	Threshold values	Justification
Absolute fit	RMSEA	.043	.03-.09	Hair, et. al (2010)
Incremental fit	CFI	.944	>.90	Tabachnick and Fidell (2007)
Incremental fit	TLI	.938	>.90	Awang (2015)
Parsimonious fit	Chisq/df	3.129	<5.0	Awang (2015)

Given the formula of Kline (2011) that if the standardized direct effect of X1 on Y2 (here, TQI x QAI) is .08 or greater, it indicates the significance of an indirect effect, the magnitude of TQI's influence on CE through QAI was examined. Since the obtained value is .20, the result revealed that TQIs significantly affect students' CE indirectly through QAIs in the context of Malaysian higher learning institutions. Hence, the hypotheses (H4, H5, and H6) were supported.

DISCUSSION AND CONCLUSION

Examining the relationship between the exogenous, mediating, and the outcome variables, the study investigated the causal direct and indirect effects among each. Specifically, all the constructs related to TQI including Group Interaction and Enthusiasm were consistent in giving the dimensional support to their main construct, TQI, as hypothesized. This was in congruent with what Drennan and Beck (2001) have already found and concluded. Also, teaching quality constructs are seriously approached in Malaysian HEIs, similar to the Western contexts (Hirschberg, 2011; Pouyioutas, 2014; Tsiligiris & Hill, 2021). Likewise, the relationship between teaching quality and students' improvement in course experience and performance are always at a high ground (Hightower et al., 2011; Daumiller et al., 2021).

Evidently, students of Malaysian HEIs perceive quality assurance initiatives as cardinal in relation to their course experience. This is in line with what Hou (2012) has found concerning QA aspects in Asian countries. In the same vein, the present findings underpin the study of Materu (2011) in affirming the two important dimensions of internal quality, facilitators and obstacles. Moreover, the result is also in conformity with the study of Yarmohammadian et al. (2011) as they have used similar indicators of quality practices, such as communicating with students about quality concerns, and promoting shared values with academic staff and students.

The findings related to CE have not only re-established the results of previous course experience studies conducted in Malaysia (Kaur and Sidhu, 2009; Khong, 2014; Thein et al., 2021), but also identified its three sub-dimensions (student empowerment, good teaching, and appropriate assessment) substantial in an Eastern tertiary level. The finding is also in congruence with what have established earlier (Kaur et al., 2022). Also, similar to the present research, the convergent and discriminant validity regarding the items of appropriate assessment was observed to be above the required value in Yin et al. (2014)'s study. In addition, the fit indices showed that their CFA model was good enough to be accepted, demonstrating the construct validity and reliability of all items they adopted from Ramsden (1991).

The result related to the direct causal relationship between TQI and CE is comparable with that of Ginns et al. (2007) who found that students who take a deep approach towards their course consider TQ dimensions appreciable, and those with a surface approach perceive them negatively. Employing the CEQ survey (Ramsden, 1991), they also found the significant predictive effect of TQ on students' CE, similar what was found by Saputra *et al*. (2021) recently.

Furthermore, the study also corresponds with previous findings concerning the direct causal relationship between QAI and CE (Filippakou, 2011; Shah et al., 2011; Shah & Jarzabkowski, 2013). That is, the QA initiatives play key roles in marking students' CE in HEIs. Nevertheless, no study was found concentrating on the QA aspects measuring its specific relationship with CE dimensions. Moreover, factors of QA including quality practices, facilitators, and obstacles have not been noticed in previous studies.

The indirect relationship between TQI and CE through QAI mirrored the study by Ko and Chung (2014) as they empirically proved that TQ has a significant indirect causal effect on academic performance since the standardized effect score was .27. However, they found this particular relationship through the mediation of learning satisfaction.

Practically, TQ deserves special attention in HEIs as it is known to be ensuring the whole quality concept and its relative outcomes among which CE is vital. This study has identified the TQ dimensions which the university leadership should give attention to, including teachers' enthusiasm, and the concept of group interaction. In Malaysian HEI context, it is expected that both dimensions could play a substantial role to ensure the quality of teaching. Moreover, since the specification and evaluation of teaching quality is under the university authorities, the current study would recommend the inclusion of these two dimensions for further TQ appraisals. Also, the meaning and explanation given for the influence of TQI on CE through QAI should encourage leaders to understand that the quality assurance policies of HEIs have a significant impact on students' experience of the courses they are provided.

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