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A Greek Evaluation Of The Course Experience Questionnaire: Students' Conceptions Of The Teaching Quality Of Higher Education Accounting Studies

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ABSTRACT

Purpose
This study reveals the results of the validation of the Course Experience Questionnaire (CEQ) within the Greek accounting context. The specific instrument has been used extensively in other contexts to investigate the teaching-learning environment in Higher Education Institutions (HEIs).

Design/methodology/approach
A convenience sample of 268 students from 3 Higher Technological Educational Institutions (ATEIs) participated in this study during the 2016-2017 academic year. The validity and reliability of the CEQ were investigated through exploratory factor analysis and the Cronbach alpha coefficient. The overall course satisfaction was used as an external criterion in order to strengthen the instrument's validity. Additionally, students' experience from their accounting studies was explored in relation to a number of demographic characteristics; gender, age, intention to attend postgraduate and professional studies, internship scheme and intention to follow the accounting profession.

Findings
The exploratory factor analysis identified four constructs reflecting good teaching, generic skills, appropriate assessment and clear goals and standards. Age, internship scheme and intention to attend postgraduate studies were revealed as predictors of CEQ subscales

Research limitations/implications
The research population is limited and data was collected only from ATEIs students, so the generalization of findings needs attention

Originality/value
To the best of our knowledge the present study is the first attempt to adapt the CEQ in accounting studies in Greece.

1. Introduction

There are many reasons why the teaching quality in HEIs should be constantly investigated and monitored. From the students' perspective, curriculum, teaching and assessment are the key determinants of students' approaches to learning and their learning outcomes, which in turn affect students' employability rates (Lizzio, et al.,

2002; EU, 2009a, b). Additionally, students need accurate information about educational quality to help them choose between different courses of study. From the academics and university administrators' standpoint, they need information to help them monitor and improve their courses and programs, to raise institutional performance.

For an academic institution, high institutional performance can reinforce its position, can support it in developing strategies that will reach students' expectations, and can raise its fame and status for the

benefit of students and staff (Elliot & Shin, 2002; De Shields et al., 2005). Additionally, institutions need information about quality to help them benchmark and market their performance. Governments and other bodies need information to assist in decisions on funding, policy development and accountability. Knowing the level of the teaching quality and students' satisfaction rate will help the country align with other European countries in the framework of the Bologna Agreement.

Academics have widely explored teaching quality and effectiveness (Entwistle and Ramsden, 1983; Spencer & Schmelkin, 2002; Onwuegbuzie et al., 2007; Scarboro, 2012; De Jager and Gbadamosi, 2013; Milton-Wildey et al., 2014), mostly through the students' eyes of individual and environmental factors such as teacher enthusiasm and passion, course interest, teacher preparation and availability, concern for students, clear communication, assessment type, work load, and fair grading (Sheehan, 1999; Crumbley et al., 2001; Greimel-Fuhrmann and Geyer, 2003; Okpala and Ellis, 2005; Gerkin and Kierkus, 2011; Alhija, 2016). The design and use of ratios to provide insight on teaching quality is a difficult undertaking (Papadimitriou, 2011); on the contrary, survey instruments administered to students provide accurate, valid, multidimensional and relatively unbiased results (March, 1987; Wachtel, 1998).

CEQ was developed by Ramsden (1991) and amended by other researchers (Eley, 2001; Griffin et al., 2003; Ginns et al., 2007; Wilson et al., 1997). Marton and Saljo (1976) and Entwistle and Ramsden (1983) provided the theoretical foundations on teaching and learning concepts, for the development of CEQ, which is also used in conjunction with the students' approaches to learning tools (Ramsden, 1991; Trigwell & Prosser, 1991; Biggs, 1989; Lizzio et al., 2002). The CEQ is intended to assess whole degree programs, not specific courses or units of studies or the teachers themselves. Its extensive use and validation include many Western academic contexts and Anglo-Saxon countries like Australia (Ramsden, 1991), UK (Richardson, 1994), Canada (Kreber, 2003), the Netherlands (Jansen et al., 2013), Ireland (Byrne & Flood, 2003), Italy (Barattucci & Zuffo, 2012) and others. CEQ has been partially validated in non-European academic environments, such as Malaysia (Thien & Ong, 2016), China (Law & Meyer, 2011), Chile (González, et al., 2012), Nigeria (Andrew, 2010) and India (Chakrabartya, et al., 2016).

Byrne and Flood (2003) have evaluated the 23-item version of CEQ and have confirmed its use in the Irish accounting educational setting. We are unaware of any attempts to adapt the CEQ in accounting studies in Greece. It is noted, however, that the CEQ was validated in tourism industry studies in Greece (Stergiou and Airey, 2012), using the 31-item instrument of Möller (2002). Since various studies confirm that the CEQ validity and reliability is equally related to the field of study and the culture and tradition of the academic setting (Richardson, 2005; Barattucci and Zuffo, 2012; Parpala et al., 2011), we investigated its use in Greek accounting studies.

The first aim of this study is to explore the validity and reliability of the CEQ and its psychometric properties for the accounting degree programs in Greece. The second aim is to investigate the relationships between the teaching and learning environment (CEQ subscales) in relation to demographic and local educational system characteristics; gender, internship scheme, students' intentions for post-graduate or professional studies and overall course satisfaction.

With respect to the structure of this publication, the sections following this introduction will present: the background to the study (section 2); the methodology and the data collection methods of the study (section 3); the data analyses (section 4); the discussion of the results (section 5); and, finally, the conclusions reached and suggestions for further research on the topic (section 6).

2. Background to the study

2.1 Literature Review

Higher education institutions have been striving in the last decades to improve student satisfaction of their learning experience. Informed HEIs can intervene, if necessary, to make their curriculum more responsive to the needs of a changing marketplace (Eyck et al., 2009; Witowski, 2008).

The Course Experience Questionnaire (CEQ) is one of the most established instruments for assessing student experiences and obtaining feedback on teaching quality. The CEQ has evolved from the Course Perceptions Questionnaire (CPQ) used at a British University (Ramsden, 1979). In that study Ramsden found that students in different departments had different perceptions of their learning context and that their perceptions were associated with their approaches to study. Ramsden amended and developed the CEQ in Australia (1991) and since then it is used as a national graduate survey instrument. The original CEQ contained 30 items (CEQ30) based on five scales, involving good teaching (8 items), clear goals and standards (5 items), appropriate workload (5 items), appropriate assessment (6 items) and emphasis on independence (6 items). The emphasis on Independence scale was later abandoned and the Generic Skills Scale was included in order to reflect the necessity to measure the development of generic competences of graduates within a complex globalized work environment (Ainley & Long, 1994).

The most widely used version is the short form (CEQ23) which comprises the following scales: Good Teaching (6 items), Clear Goals and Standards (4 items), Appropriate Workload (4 items), Appropriate Assessment (3 items) and Generic Skills Scale (6 items). Long and short versions of the instrument (CEQ36, CEQ30 and CEQ23) have been validated by Wilson et al., (1997) using large multidisciplinary samples in Australia. Further evidence of all versions of CEQ is provided by examining the relationship between CEQ scores and an external criterion such as the overall student satisfaction from the quality of the course.

CEQ has been criticized for not including other major aspects of the teaching-learning environment (Yorke, 1995, 1996). Researchers attempted to improve the original instrument either by altering question format and phrasing (Eley, 2001) or including new scales in order to capture broader features of the learning context. For example Griffin et al., (2003) added the following scales: student support, learning resources, learning community,

graduate qualities and intellectual motivation while Ginns et al., (2007) revised the instrument so that it can be used for currently enrolled students (SCEQ). Grace et al. (2012) examined SEC dimensions in conjunction with a global student satisfaction measure developed specifically for that study.

Richardson (1994), using the 30-item CEQ, broadly identified the five factor scales reported by Ramsden (1991), however he mentioned problems with the composition of appropriate assessment sub-scale and its low alpha coefficient (0.47). Despite this problem, Richardson concluded that the instrument could be used in the British educational environment. Wilson et al. (1997), who investigated and validated both the 36 and the 23-item CEQ, in their Australian survey, referred to items cross-loading, indicating the potential for further improvement in sub-scales. In their study involving UK medical students, Broomfield and Bligh (1998) reported satisfactory construct validity and reliability. Factor analysis yielded 6 factors (the good teaching was split into two factors), with alpha values ranging from 0.37 (clear goals and standards scale) to 0.78 (good teaching scale). In Ireland, Byrne and Flood (2003) surveyed an accounting group of students, using the 23–item CEQ, resulting in items loading in the intended factors except the one item; *'my course helped to develop the ability to plan my own work'*, and Cronbach alpha values ranging from 0.66 to 0.78. In the Netherlands, Jansen et al. (2013) used the 23–item CEQ to survey 956 students across nine faculties. They reported satisfactory alpha coefficients ranged from 0.75 to 0.87, while the original five factor structure of CEQ was confirmed. In Italy, Barattucci & Zuffo (2012) used the 30-item SCEQ with a sample of 622 students from different faculties. In the original 30-item version, the SCEQ did not provide satisfactory results, however after the elimination of the Clear Goals and Standards Scale which presented unsatisfactory reliability (0.51), the 23-item SCEQ version was found to be a reliable measure of the respective constructs. The authors concluded that despite the clear differences between the Italian context with the British and Australian ones, and although in need of further improvement, these instruments can be useful in the Italian academic environment. In Greece, Stergiou and Airey (2012), used a 31-item CEQ, comprising six scales and adapted by Möller (2002) for hospitality degree students in the UK. The CEQ exhibited a five-factor structure and satisfactory internal consistency.

Non-European countries like Nigeria validated the Student CEQ (SCEQ) with alpha coefficients ranging from 0.61 to 0.88 but with items cross-loading on scales other than intended (the good teaching scale), a pattern seen also in Wilson et al. (1997). Authors concluded that the modified SCEQ is applicable for use with Nigerian undergraduate students (Andrew, 2010). In Japan, Fryer et al.'s (2011) study resulted in 4 scales (good teaching, generic skills, appropriate workload, and appropriate assessment). However, the authors took into consideration other findings which concluded that the student learning theory (associations between students' approaches to learning and their perceptions of the learning environment) constructs may be constituted differently in the Japanese context and therefore further research was recommended.

A study in mainland China (Price et al., 2011) using the 36-item CEQ concluded in two-factor dimensions with regards to academic quality: perceptions of student support (a=0.92) and perception of course demands (a=0.88). Another study by Law and Meyer (2011) used the 36 item CEQ to investigate post-secondary students. Their study explicitly indicated a four-factor structure and a high degree of overlap among the items. Lower Cronbach alpha values were measured than in other studies (good teaching 0.77, clear goals 0.23, appropriate workload 0.56, appropriate assessment 0.60, generic skills, 0.78, independence scale 0.47). The authors proposed further development of CEQ for application in Hong-Kong. Yin et al. (2014) used the 36-item CEQ to reveal acceptable construct validity after deleting item 19; *'we are generally given enough time to understand things we have to learn'* and Cronbach alpha remained lower than 0.60 in three CEQ factors (clear goals and standards, emphasis on independence, appropriate assessment). The authors suggested two possible reasons: firstly, the negative-coded items and secondly, the influence of cultural context on the psychometric qualities of CEQ in a non-Western context. Yin & Wang (2015) conducted a study using the 36-item CEQ and 3 more scales: university level environment, overall satisfaction scale and academic efficacy scale, and found an acceptable level of internal consistency ratings (a=0.60). Their study confirmed construct validity of the intended six factors for CEQ.

In Pakistan, Ullah, Richardson and Hafeez (2011) and Ullah et al. (2016) used the 36-item CEQ in conjunction with other scales to measure student perception of teaching quality. The studies confirmed only four factors while clear goals and the role of independence were not identified by the student responses, supporting the notion these ideas are not (yet) part of the discourse on non-Western countries. It should be mentioned that the negative worded items were reworded in a positive form since the negative format caused difficulties to the Pakistani students. The 36-item CEQ was distributed to West Bengal students (Chakrabarty et al., 2016) and identified four constructs (good teaching, generic skills, student support and appropriate workload) with Cronbach alpha values ranging from 0.53 (appropriate workload) to 0.81 (good teaching) and as authors suggested the reduced version of CEQ can be recommended as a measure of student perception of the academic quality of programs. Finally, in Malaysia, Thien & Ong (2016) attempted to validate the 23-item CEQ that was distributed to 190 students. Their findings raised serious questions regarding the reliability and construct validity of the CEQ for a Malaysian public university. Only two out of the five scales showed satisfactory level of reliability with scales of clear goals and standards, appropriate workload and appropriate assessment showing very low reliability while six items failed to load on the intended scales. Serious overlapping of the factor structures indicated the absence of construct validity. Overall the short form of CEQ was not applicable to the Malaysian context and the extended version of CEQ should also be considered.

The CEQ instrument is also broadly used in parallel to learning approach tools in order to explore relations between student approaches to learning and

experiences of the teaching–learning environment. Relative researches in Western contexts indicate that a positive experience is associated with a deep approach and negatively related to a surface approach to learning (Kreber, 2003; Parpala et al., 2010; Karagiannopoulou & Christodoulides, 2005).

Richardson in his review (2005) argued that the CEQ in general was a reliable and valid instrument for evaluating student perceptions of academic quality. Ramsden (1991) suggested that the CEQ offers a reliable tool for determining the perceived teaching quality of academic units "in systems of higher education that are based on British models" (p. 129). In the above non-Western country studies evidence was provided that concepts settled in Western environment such as clear goals and standards, appropriate assessment, student independence, appropriate workload, are not yet developed in those countries therefore the CEQ instrument may not adequately reflect the local academic culture.

2.2. The Greek Educational context

Greece has no a nationwide instrument to measure teaching quality as part of a quality assurance framework such as happens in other countries (CEQ in Australia and New Zealand, NSSE in USA, National Student Survey in UK) (Jansen et al., 2013). Each University is free to adapt its own instrument from an original questionnaire provided by the Hellenic Quality and Accreditation Agency (HQAA). The digitalized form of the questionnaires has resulted in limited student participation in the evaluation procedure, making it impossible to retrieve reliable and adequate data from these tools. Students themselves have little or no faith in these surveys because they do not believe that their opinion is considered. Therefore, there is no way to benchmark teaching quality or student satisfaction among Greek HEIs.

There are two types of Higher Education in Greece: Universities and Higher Technological Educational Institutes (ATEI). The basic differences with regards to students' learning between the two types of institutions concern the work placement and the workshops. Students at ATEIs undertake a mandatory 6-month work placements in the last semester of studies. Additionally, students have to attend related workshops for many of their courses. University students have an optional work placement, typically for a 2-4 month period, while workshops comprise a small proportion of overall studies. The present research applied the instrument to three ATEIs Accounting and Finance departments.

The Greek academic system is mainly teacher-centered, the accounting studies are especially focused on information and technical regulation reproduction with little effort to develop higher order thinking skills (Asonitou, 2015a, b; Asonitou & Vitouladiti, 2015). Although systematic collection and processing of evaluative data is well-established in most Australian and UK universities, the educational environment in Greece is quite different. However, Greek Law 3374 (2005) established the Hellenic Quality Assurance and Accreditation Agency for Higher Education (http://www.adip.gr) in order to evaluate Greek higher education (Asonitou & Tromaridis, 2015). To the best our knowledge there is no integrated program to evaluate

procedures for teaching effectiveness in Greek higher education, but individual professors may voluntarily measure student satisfaction in order to obtain feedback on their teaching. There is therefore scope for validating an instrument to assess teaching quality for purposes of accountability, comparison between institutions and benchmarking with similar academic units abroad.

3. Methods

Participants: This cross-sectional study was conducted in 3 out of 10 Technical Educational Institutes (TEI) that offer accounting and financial studies in Greece. The sample consisted of undergraduate students at the Departments of Accounting and Finance in the TEIs of Piraeus, Epirus, and Eastern Macedonia and Thrace. A higher percentage (56.6%) of students enrolled in the seventh semester; 43.4% of study participants were attending an eight or higher semester. Data collection was conducted during the 2016-2017 academic year and was based on convenience sampling. Students in Piraeus voluntarily participated in the study and were asked to complete a self-completion and anonymous questionnaire on their learning experience. Questionnaires were distributed by the researchers during class hours, following the assent of the class instructor. Before submission, students were given general instructions on the questionnaire. Students in Epirus and Eastern Macedonia and Thrace received an online questionnaire, sent by researchers to their email addresses. A follow-up letter was sent two weeks later to maximize the received responses.

Measures: The CEQ23 instrument was used in this study and an agreement/disagreement 5-point scale from 1 (strongly disagree) to 5 (strongly agree) was used. Based on previous literature on the questionnaire, five scales were included. The Good teaching scale (GTS), consisted of six items measuring lecturer efforts to increase student interest and provide feedback to students in order to motivate and guide them toward success. The Clear goals and standards scale (CGSS), consisted of four items on the students' perceived degree of clarity in relation to graduation requirements. The Appropriate assessment scale (AAS) consisted of three items capturing student perceptions of the assessment methods' adequacy. The Appropriate workload scale (AWS) included four items assessing the perceptions of sustainability of the overall academic workload. Finally, the Generic skills scale (GSS) comprised six items measuring the level of development of student analytic, problem-solving and communication skills. The coding of seven negatively worded items was reversed so that higher scores corresponded to more positive ratings. It is important to mention that an external criterion was used to examine the relationships with CEQ scores in order to empower the validity of the instrument (Wilson et al., 1997). Specifically, overall course satisfaction (1 =*not all* to 5 = *extremely satisfied*) has been used as a criterion as done in previous studies (Ramsden, 1991; Wilson et al., 1997).

Cultural adaptation: The original CEQ tool was written in UK English (Ramsden, 1991) while, in our case, the target version was in Greek. The translation process was based on Brislin's back-translation model, which consists of four techniques: 1) back-translation, 2)

bilingual technique, 3) committee approach, and 4) pre-test procedure (Brislin 1970). In achieving cross-cultural equivalence, the comparability of language, similarity of comprehensibility and similarity of interpretation between the back and original versions of CEQ were rigorously analyzed.

A first phase involved two independent researchers fluent in the English language. One was a professor of public university specializing in accounting education and the other was a research fellow specializing in instrumentation. The researchers had studied the literature review on the CEQ questionnaire and they made some changes in the wording in order to fit the local-response context. Subsequently, the two translations of CEQ were compared, and a draft of the first agreed version was produced. The next stage (2nd phase) involved the back-translation of the Greek version to English, performed by a professional translator, with the original version of the questionnaire concealed. The back-translated and the original version of the questionnaire were compared by the researchers, and subsequent discrepancies relating the comparability of the used language, similarity of interpretation and the degree of comprehensibility were resolved via teleconference. In the third phase, the content of the second version was reviewed by a group of researchers (committee approach) also fluent in Greek and English. The goal was to convey the conceptual meaning of the original while rendering it culturally explicable in the Greek context, rather than seeking linguistic equivalence. In the fourth phase, a pilot study with 40 students was conducted to test whether items were understandable. The pilot study used a test-pretest technique to measure the validity of the Greek version. The current researchers reviewed the comments by members of the pilot sample and adapted the questionnaire accordingly. Some items of the CEQ, investigating students' perceptions of the education system had notable cultural, institutional, and organizational specificity related to the British university system, and not matching the Greek system, therefore the wording of propositions had to change accordingly.

Data analysis: Statistical analysis was performed with descriptive statistics and bivariate analysis. The results are presented as absolute (n) and relative (%) frequencies for the nominal and ordinal variables and as mean values for the quantitative variables.

The present study adopted a conservative approach to the validation process. The focus, in particular, was on the psychometric properties of its constituent scales as revealed by the standard application of item-correlation analyses and exploratory factor analysis. In order to test the compatibility of the data for factor analysis, Kaiser-Meyer-Olkin (KMO) and Barlett Sphericity tests were used. According to bibliography, the accepted KMO statistic variables should be greater than 0.50. Moreover, KMO values between 0.8 and 1 indicate the sampling is adequate, values less than 0.6 indicate the sampling is not adequate and that remedial action should be taken, values close to zero means that there are large partial correlations compared to the sum of correlations. In other words, there are widespread correlations that are a large problem for factor analysis (Hutcheson, Sofroniou, 1999). For these data, the value of Kaiser-Meyer-Olkin test statistics was 0.858, which shows the very good

suitability assessment. Additionally, Bartlett's test of sphericity (1954) was implemented and showed statistical significance ($x^2 = 1410,443$; p<0.01). The data follow the normal distribution.

In order to reveal the factor design of the scale, Principal Components Analysis and Oblique Rotated Component Matrix was chosen as the factor analysis (Cattell, 1978). Analysis showed that 23 items with the eigenvalue above value 1, has the same factor distribution as the original scale. A factor loading for a variable is a measure of how much the variable contributes to the factor; thus, high factor loading scores indicate that the dimensions of the factors are better accounted for by the variables. According to a rule of thumb, using an alpha level of .01 (two-tailed), a rotated factor loading would need to be at least .32 to be considered statistically meaningful (Tabachnick & Fidell, 2007). A factor loading of .32 gives approximately 10% of the overlapping variance.

For the assessment of the questionnaire's internal consistency, the coefficient alpha Cronbach was used (Cronbach, 1951). The relationship between CEQ scales was explored via a correlation analysis with Pearson product-moment correlation. Student's *t*-test has been performed in order to determine the significant differences between the CEQ scales and characteristics of the sample and overall satisfaction from accounting studies as well.

Multiple regression analyses using the backward method were conducted to investigate: a) the associations of CEQ scales (dependent variables) and characteristics of the sample (independent variables), b) the associations of overall satisfaction from accounting studies (dependent variables) and CEQ scales (independent variables). The SPSS 21.0 software was used for statistical analyses.

4. Results

Sample profile: The majority of the sample is female (58.6%). The mean age is 23.7 (S.D. 4.5). 35.4% of students had finished their internship obligation. A high percentage (69.4%) has decided to follow the accounting profession, but a low percentage (26.1%) has decided to attend a postgraduate program, while 38.4% has not yet arrived at a decision. Additionally, 35.1% of the sample stated that they will continue studying for a professional qualification and 32.8% has not yet decided on that. The mean study hours per week are 5 hours (S.D.5.2) and the mean grade score until now is 6.6 points out of 10 (S.D. 0.8) with range from 5 to 9.4 points.

Factor and Reliability Analyses: Exploratory factor analysis was applied to the 23 items of the Greek Course Experience Questionnaire. Values of sampling appropriateness (KMO = .837) and Bartlett test of sphericity ($x^2 = 1602,993$, p < .001) showed the adequacy of the sample.

Six factors were extracted, explaining 55.8% of the variance. Items from the generic skills scale (items 2, 5, 9, 10, 11, 21) were loaded on the 1 factor (explained variance = 25.2%). This factor reflects the development of student employability-related skills through their studies. Factor 2 (explained variance = 9.08%) showed salient loadings on three of the six items from the good teaching scale (items 7, 16, 15) one item from the appropriate workload

scale (item20). The composition of the second factor suggested that the students associated lecturer teaching quality with the pressure of teaching staff in order to do well in courses. Factor 3 (explained variance = 6.8%) showed salient loadings on one item from the appropriate workload scale (item14), one item from the good teaching scale (item3) and one item from the clear goals and standards scale (item1). Reviewing these items suggested that the third factor involved student perceptions as far as the motivation, the standard of work expected and the time to understand things. Factor 4 (explained variance = 5.2%) showed salient loadings on all three items from the assessment scale (items 18, 12, 8) and one item from good teaching (item19).

This factor reflects the interpretation factual knowledge associated with the interesting lesson of teaching staff. Factor 5 (explained variance = 4.9%) showed salient loadings on one item from the appropriate workload scale (item22) and one item from the clear goals and standards scale (item13). The composition of the fifth factor suggested that the students associated the understanding of accounting studies with the sheer volume and the teaching staff's expectations. The last factor (explained variance = 4.5%) showed salient loadings on one item from the appropriate workload scale (item4), two items from the clear goals and standards scale (items 6, 23) and one item from good teaching scale (item17). The composition of the sixth factor suggested that the students associated the workload with teaching staff expectations and good teaching. From the above

analysis is understood that items of scales are not fitted correctly based on instructions of CEQ instrument. However, the Cronbach's alpha of overall questionnaire met the criterion of 0.781, which means adequate reliability, but except from good teaching scale (Cronbach's alpha = 0.803) and the generic skills scale (Cronbach's alpha = 0.784) all the others scales were poor, with range from 0.418 to 0.124. Due to the issues highlighted by exploratory factor analysis and reliability analysis, items of the appropriate workload scale were excluded from analyses.

A new exploratory factor analysis of the 19 items and the four scales of the Greek CEQ were carried out. Table 1 shows factor loadings of the CEQ items. Four factors were obtained accounting for 52.18% of the variance. Factor loadings lower than .35 are not reported. Factor analysis showed that the 19 CEQ items represented the expected four-factor structure. The extracted factors were named, respectively: Factor 1, good teaching scale (explained variance = 29.56%; five items) and the range of factor loadings are between 0.762 and 0.550; Factor 2, appropriate assessment scale (explained variance = 9.39%; four items) and the range of factor loadings are between 0.720 and 0.479; Factor 3, generic skills scale (explained variance = 7.61%; six items) and the range of factor loadings are between -0.806 and -0.530; Factor 4, clear goals and standards scale (explained variance = 5.62%; four items) and the range of factor loadings are between -0.815 and -0.561.

Table 1: Factor structure of CEQ item scores

	Components			
	GTS (1ˢᵗ factor)	**AAS (2ⁿᵈ factor)**	**GSS (3ʳᵈ factor)**	**CGSS (4ᵗʰ factor)**
The staff made a real effort to understand difficulties I might be having with my work	0,762			
The staff put a lot of time into commenting on my work	0,749			
The teaching staff normally gave me helpful feedback on how I was going	0,698			
The teaching staff worked hard to make their subjects interesting	0,572			
The teaching staff of this course motivated me to do my best work	0,550			
The staff seemed more interested in testing what I had memorised than what I had understood		0,720		
It was often hard to discover what was expected of me in that course		0,670		
Too many staff asked me questions just about facts		0,628		
To do well in this course all you really needed was a good memory		0,479		
My course helped me to develop the ability to plan my own work			-0,806	
The course developed my problem solving skills			-0,787	
The course sharpened my analytical skills			-0,729	
The course improved my skills in written communication			-0,695	
The course helped me develop my ability to work as a team member			-0,582	

As a result of my course I feel confident about tackling unfamiliar problems			-0,530	
I usually had a clear idea of where I was going and what was expected of me in this course				-0,815
It was always easy to know the standard of work expected				-0,674
The staff made it clear right from the start what they expected from students				-0,670
My lecturers were extremely good at explaining things				-0,561

CEQ, Course Experience Questionnaire; GTS, Good Teaching Scale; AAS, Appropriate Assessment Scale; GSS, Generic Skills Scale; CGSS, Clear Goals and Standards Scale

Cronbach's alpha coefficient and the Pearson product moment correlation analysis were applied in order to determine the internal consistency reliability for survey instrument (table 2). All scales were positively correlated with each other. Cronbach's alpha value for the total scale is 0.817; GTS is 0.781, AAS is 0.535, GSS is 0.784, and CGSS is 0.688. As far as the low reliability of assessment scale is concerned, we find this as not surprising, since it was also the scale containing the fewest items, and it is well known that the value of coefficient alpha tends to vary directly with the number of items (Cronbach, 1951). Additionally, based on instructions of Nunnally (1979) for the coefficient of internal reliability, values such as 0.5 and 0.6 are considered acceptable for the initial stages of a survey.

Table 2: Reliability and Correlation Analysis

	Cronbach alfa	Correlation Analysis		
		ASS	GSS	CGSS
GTS	0.781	0.109*	0,563**	0,609**
AAS	0.535		0,145*	0,195**
GSS	0.784			0,487**
CGSS	0.688			

*. Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed); GTS, Good Teaching Scale; AAS, Appropriate Assessment Scale; GSS, Generic Skills Scale; CGSS, Clear Goals and Standards Scale

CEQ, Students' Characteristics and Overall Course Satisfaction; This section presents the analysis of CEQ scales associated with the characteristics of the sample and the overall course satisfaction. Concerning the mean score of CEQ, results show that students have a positive perception of their studies (M=3.3, S.D= 0.5). Specifically, the mean score of good teaching was 3.05 (S.D. 0.77), which showed that there are good practices in studies. The mean score of assessment scale was 3.33 (S.D. 0.67) highlighting a positive perception about the extent to which assessment promotes intellectual skills rather than the recall of information. The mean score of generic skills scale was 3.43 (S.D. 0.69), indicating that the development of these skills was satisfactorily achieved during their studies. Finally, the mean score of clear goals and standards scale was 3.55 (S.D. 0.65) demonstrating a positive respondents' perceptions of the clarity with which teaching staff communicated expected academic standards and program goals.

Internship: Statistically-significant differences were found between students having finished their internship obligation and scales of good teaching, generic skills and clear goals and standards. The mean score of good teaching scale for students that had finished their internship was 3.20 while for those that had not finished was 2.97 (p value = 0.024). Similar were the results for generic skills scale and for clear goals and standards scale. Students that had finished their internship scored 3.66 and 3.69, while students that had not participated in internship had a mean score of 3.30 and 3.50 respectively (p value ≤ 0.001 and p value = 0.022).

Career in accounting: Students who responded as determined to follow the accounting career scored higher in appropriate assessment scale, in clear goals and standards and in generic skills scale. Table 3 below presents the significant differences for the above group of students.

Table 3: Intention to follow career in accounting and CEQ subscales

	Yes	No	*P value*
Appropriate Assessment Scale	3.24	2.88	*0.003*
Clear Goals and Standards Scale	3.43	3.16	*0.001*
Generic Skills Scale	3.57	3.10	*0.002*

Intention to attend postgraduate studies: Students that had decided to attend a postgraduate program scored

significantly higher in the appropriate assessment scale, clear goals and standards scale and generic skills scale (table 4).

Table 4: Intention to attend postgraduate program and CEQ subscales

	Yes	No	*P value*
Appropriate Assessment Scale	3.41	3.11	*0.009*
Clear Goals and Standards Scale	3.74	3.43	*0.005*
Generic Skills Scale	3.58	3.29	*0.012*

Intention to acquire professional qualifications: Students that had decided to acquire a professional qualification (i.e. ACCA) are more likely to score higher in clear goals and standards scale (3.67, p = 0.010) and generic skills scale (3.56, p = 0.006) than the other students (3.39 and 3.27 respectively).

Regression analyses: Multiple linear regression analyses using the backward method was conducted in

Table 5: Models of linear regression analyses in CEQ subscales and characteristics of sample

Dependent variables	Independent variables	Unstandardized Coefficients		P value
		B	**Std. Error**	
Good Teaching Scale	(Constant)	2,321	0,270	*0,001*
	age	0,031	0,011	*0,006*
Assessment Scale	(Constant)	3,141	0,064	*0,001*
	Postgraduate Programme	0,187	0,047	*0,001*
Generic Skills Scale	(Constant)	3,309	0,052	*0,001*
	Internship scheme	0,356	0,086	*0,001*
Clear Goals and Standard Scale	(Constant)	3,418	0,071	*0,001*
	Internship scheme	0,170	0,083	*0,043*

B, beta; Std. Error., Standard error

Satisfaction: 53.4% of students declared very/extremely satisfied and 32.8% moderately satisfied in accounting

5. Discussion

The teaching quality and the subsequent student satisfaction is a major interest in most countries. In Greece, despite repeated calls for improving the teaching quality in Higher Education from various sources, there is no nationwide instrument for evaluation, accountability and benchmarking. This study evaluated the accounting courses teaching quality using the 23-item CEQ.

order to determine whether CEQ subscales can be predicted, based on sample characteristics (table 5). Four models are realized where the dependent variable is each CEQ subscale and the independent variables are: gender, age, internship, career in accounting, intention to attend a postgraduate program or a professional qualification program.

studies. Correlation analysis was conducted between CEQ subscales and overall course satisfaction and showed that all scales are correlated with the satisfaction criterion (table 6).

Table 6: Correlation Analysis between CEQ scales and overall course satisfaction

	Overall course satisfaction
Good Teaching Scale	0,479**
Appropriate Assessment Scale	0,252**
Generic Skills Scale	0,473**
Clear Goals and Standards Scale	0,416**

**. Correlation is significant at the 0.01 level (2-tailed).

In order to determine the impact of CEQ scales on overall course satisfaction, multiple linear regression analysis was performed. The findings are showed in table 5.

Table 7: Model of linear regression analyses in CEQ scales and overall course satisfaction

	Unstandardized Coefficients		Sig.
	B	**Std. Error**	
(Constant)	0,332	0,318	0,298
Good Teaching Scale	0,363	0,074	0,001
Assessment Scale	0,248	0,071	0,001
Generic Skills Scale	0,370	0,083	0,001

B, beta; Std. Error., Standard error

The study reached a four–factor structure after eliminating the workload scale due to its low reliability and the cross-loadings of factors. Item 13 ('*It was often hard to discover what was expected of me in that course*') loaded in the Appropriate Assessment Factor while item 17 ('*My lecturers were extremely good at explaining things*') loaded in the Clear Goals and Standards Factor indicating that students considered that teachers were good at explaining the goals and expectations from the course. The "appropriate workload" factor was not identified by

the student responses, which is a result not usually met in similar studies. Low reliability ratings for certain scales and the inability to reach the intended five-scale or six-scale structure (depending on the long or short form of CEQ) is met in the study of Barattucci & Zuffo (2012) in Italy, the studies of Price et al. (2011), and Yin et al. (2014) in China, the studies of Ullah, et al. (2011) and Ullah et al. (2016) in Pakistan, and the study by Chakrabarty et al. (2016) in West Bengal.

Students were not able to identify the "appropriate workload" factor. This may be due to the negative wording of 3 out 4 appropriate workload items as indicated in other studies (see Yin et al., 2014; Ullah et al., 2011). Another reason for this may be the high rate of absenteeism and the prolonged duration of studies noted in HEIs in Greece (Katsikas & Panagiotides, 2011). Absenteeism, especially in the later years of (accounting) study, may render students incapable of estimating the workload; there were cases where students would attend class a few times in the whole semester since they focus solely on final exams. Absenteeism is a widespread phenomenon and occasionally it can reach 90% (Psacharopoulos, 1988), while the number of students that complete studies at the expected length of degrees range from 12% to 27% (Katsikas and Katranides, 2006). Absenteeism from classes lead students to lose contact with the material and the workload they have to manage. Usually students do not balance the workload during the semester period and try to catch up on the material during the examination period at the end of the semester. The prolonged years of study causes alienation and dissociates students from the academic environment.

The examination of course experience for accounting students shows that they rated moderately their overall satisfaction (M=3.3), while they rated fairly higher their perceptions about clear goals and standards (M=3.55) followed by the generic skills (M=3.43), the proper assessment (M=3.33) and good teaching (M=3.05). These results may mirror the teacher-centered academic system, in which clear goals represent the "one book manual", the specific pages and exercises to study and the information reproduction system. We examined two groups of students; those who have finished their 6 month internship obligation and those who have not. Results demonstrate that student perception of teaching-learning environment is influenced by age, internship, intention to become accountants, intention for further studies in accounting while gender does not seem to affect student perception.

Evidence of the validity of the Greek CEQ is provided by examining the relationships between CEQ scores and external criteria, such as overall course satisfaction (Ramsden, 1991). All the Greek CEQ scales showed a significant positive correlation with overall satisfaction, strengthening the instrument's validity for use with Greek accounting students. Regression analysis revealed that the Generic Skills scale had the higher impact on student satisfaction, perhaps due to the strong

professional orientation of accounting courses followed by good teaching and the assessment scale.

A limitation of this study has been the convenience sample and the relatively small number of students (268). Given that the study did not include accounting students from universities but only students from ATEIs, the generalizability of the results needs to be examined in future work.

In response to the above empirical findings we propose the need for more research in order to confirm these results for Greek accounting student experience and further validation of CEQ. If the same findings persist, supplementary research should examine the impact that arises from the difficulty in assessing workload on the learning outcomes of students, since these are interconnected with the learning approaches (deep – surface approach). A revised translation of the workload scale could provide better results, as would an evaluation of how reforming negative items to positive assists students in their answers, as done in other studies (Yin et al., 2014; Ullah et al., 2011; Ullah et al., 2016). Future research should also examine how students from different disciplines evaluate teaching quality (Parpala et al., 2011; Barattucci & Zuffo, 2012).

6. Conclusions

Evaluations of the teaching quality should be an imperative for the Greek academic community. CEQ quantitative results should be supplemented with more qualitative data on rate of attendance and duration of studies that may seriously affect the learning process and perception of the teaching and learning environment. Greece signed the Bologna Agreement in 1999 and initiated education reform to harmonize the Greek education system in line with those requirements, mainly following the British academic system (Asonitou & Tromaridis, 2015). Within this framework, the ECTS system was established, which is closely related to learning outcomes and the associated workload, intimately linked to the assessment and assessment criteria (European Commission/EACEA/Eurydice, 2015). These issues are integral to the correct application of a credit system. The results from the present study not only shows that the Greek CEQ could possibly be used in other cases, but may also reveal a lag in the proper implementation of the EU requirements for the modernization of Higher Education in Greece, which subsequently has implications on teaching quality in those same institutions.

References

Ainley, J., Long, M., & Education and Training. Higher Education Division Australia. Dept. of Employment. (1994). *The course experience survey 1992 graduates.* Canberra: DEET.

Ajamieh, A., Benitez, J., Braojos, J., & Gelhard, C. (2016). IT infrastructure and competitive aggressiveness in explaining and predicting performance. Journal of Business Research, 69(10), 4667-4674.

Alhija, F. (2016). Teaching in higher education: Good teaching through students' lens. Studies in Educational Evaluation, 54, 4-12.

Andrew, N. P. (2010). Applicability of the student Course Experience Questionnaire (SCEQ) in an African context: The case of Nigerian Universities. Literacy Information and Computer Education Journal (LICEJ), 1(3), 143-50.

Asonitou, S. (2015a) Barriers to the Teaching of Skills in the Greek Higher Education Accounting Courses: Insight from Accounting Teachers, International Journal of Strategic Innovative Marketing, 2(3)

Asonitou, S. (2015b) "Employability Skills in Higher Education and the Case of Greece", Procedia - Social and Behavioral Sciences, 175, 283-290, accessed at: http://dx.doi.org/10.1016/j.sbspro.2015.01.1202 (10)

Asonitou, S., & Tromaridis, H. (2015) "Bologna Tools to promote skills and competences in Higher Education: the Greek Context, Springer Proceedings in Business and Economics, Strategic Innovative Marketing, pp. 35-43

Asonitou, S., & Vitouladiti, O. (2015) "Core Skills as Marketing and Management Tools: Evidence from the Tourism Sector", Springer Proceedings in Business and Economics, Kavoura, A., Sakas, D., Tomaras, P. (Eds), Strategic Innovative Marketing, 4th IC-SIM, Mykonos, Greece, pp. 45-53

Barattucci, M., Zuffo, R. G. (2012). Measuring learning environment perceptions: Validation of the Italian version of the approaches to studying inventory and the student course experience questionnaire. TPM, 19, 1, 15-33.

Biggs, J. (1989) Approaches to the Enhancement of Tertiary Teaching, Higher Education Research & Development, 8:1, 7-25, DOI: 10.1080/0729436890080102

Brislin RW.1970. Back-translation for cross-cultural research. J Cross Cult Psychol.1, (3):185-216.

Broomfield, D., & Bligh, J. (1998). An evaluation of the "short form" course experience questionnaire with medical students. Medical Education, 32, 367-369. DOI: 10.1046/j.1365-2923.1998.00232.x

Byrne, M., & Flood, B. (2003). Assessing the teaching quality of accounting programmes: An evaluation of the Course Experience Questionnaire. *Assessment & Evaluation in Higher Education,* 28(2), 135-145.

Cattell, R. B. (1978). The Scientific Use of Factor Analysis in Behavioural and Life Sciences (New York, Plenum Press).

Chakrabarty, A. K., Richardson, J.T.E. and Sen, M. K. (2016). Validating the Course Experience Questionnaire in West Bengal higher secondary education. Studies in Educational Evaluation, 50, 71-78.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16(3), 297-334. http://dx.doi.org/10.1007/bf02310555

Crumbley, L., Henry, B. K., & Kratchman, S. H. (2001). Students' perceptions of the evaluation of college teaching. Quality Assurance in Education, 9, 197-207. http:// dx.doi.org/10.1108/EUM0000000006158

De Jager, J. & Gbadamosi, G. (2013). Predicting students' satisfaction through service quality in higher education. The International Journal of Management Education, 11, 107-118.

De Shields, O. W., Jr., Kara, A., and Kaynak, E. (2005). Determinants of business student satisfaction and retention in higher education: Applying Herzberg's two factor theory. International Journal of Educational Management, 19 (2), 128-139.

Eley, M. (2001) The Course Experience Questionnaire: Altering question format and phrasing could improve the CEQ's effectiveness. Higher Education Research & Development, 20 (3), 293-312.

Elliot, K. M., & Shin, D. (2002). Student satisfaction: An alternative approach to assessing this important concept. Journal of Higher Education Policy and Management, 24 (2), 197-209.

Entwistle, N. J. and Ramsden, P. (1983) Understanding Student Learning (London, Croom Helm).

EU (2009a) ECTS User's Guide, Education and Training, European Communities, Luxembourg [online] at: http://ec.europa.eu/education/lifelong-learning-policy/doc/ects/guide_en.pdf

EU (2009b) Key competences in Europe: Opening doors for Lifelong Learners Across the School Curriculum and Teacher Education, Gordon J et al., (Eds), EU, Education and Training, DG, [online] at: http://www.case-research.eu,

European Commission/EACEA/Eurydice (2015) "The European Higher Education Area in 2015: Bologna Process Implementation Report". Luxembourg: Publications Office of the European Union.

Eyck, R., Tews, M., & Ballester, J. M. (2009). Improved Medical Student Satisfaction and Test Performance with a Simulation-Based Emergency Medicine Curriculum: A Randomized Controlled Trial. Paper presented at the ACEP 2008 Research Forum, October 2008, Chicago, IL.

Fryer, LK, Ginns P., Walker, RA, Nakao, K. (2011). The adaptation and validation of the CEQ and the R-SPQ-2F to the Japanese tertiary environment. British Journal of Educational Psychology, 82, 549-563.

Gerkin, M. P., & Kierkus, A. C. (2011). What Makes a Good Criminal Justice Professor? A Quantitative Analysis of Student Evaluation Forms. The Journal of Effective Teaching, 11, (2), 18-39.

Ginns, P., Prosser, M., & Barrie, S. (2007). Students' perceptions of teaching quality in higher education: the perspective of currently enrolled students, Studies in Higher Education, 32 (5), 603-615.

González, C., Montenegro, H., & López, L. (2012). Analysis of the reliability and validity of the course experience questionnaire (CEQ). Educación y Educadores, 15(1), 63-78.

Grace, D., Weaven, S., Bodey, K., Ross, M. and Weaven, K. (2012). Putting student evaluations into perspective: The Course Experience Quality and Satisfaction Model (CEQS). Studies in Educational Evaluation, 38, 35-43.

Greimel-Fuhrmann, B., & Geyer, A. (2003). Students' evaluation of teachers and instructional quality—Analysis of relevant factors based on empirical evaluation. Assessment and Evaluation in Higher Education, 28, 229–238. http:// dx.doi.org/10.1080/0260293032000059595

Griffin, P., Coates, H., McInnis C., James, R. (2003). The Development of an Extended Course Experience Questionnaire. Quality in Higher Education, 9 (3), 259-266.

Hutcheson, G., & Sofroniou, N. (1999). The multivariate social scientist: Introductory statistics using generalized linear models. London and Thousand Oaks: Calif. 224-225.

Jansen, E., van der Meer, J., & Fokkens-Bruinsma, M. (2013). Validation and use of the CEQ in The Netherlands. Quality Assurance in Education, 21(4), 330–343. http:// dx.doi.org/10.1108/qae-11-2012-0041.

Karagiannopoulou, E., & Christodoulides, P. (2005). The impact of Greek University students' perceptions of their learning environment on approaches to studying and academic outcomes. International Journal of Educational Research, 43, 329–350.

Katsikas, E. and Panagiotidis, T. (2011). Student status and academic performance: Accounting for the symptom of long duration of studies in Greece. Studies in Educational Evaluation, 37, 152-161.

Katsikas, E., & Katranidis, S. (2006). Prolonged student status at the University of Macedonia. Thessaloniki: University of Macedonia Press. (in Greek).

Kreber, C. (2003). The relationship between students' course perception and their approaches to studying in undergraduate science courses: A Canadian experience. Higher Education Research & Development, 22, 57–75.

Law, D. C. S., & Meyer, J. H. F. (2011). Relationships between Hong Kong students' perceptions of the learning environment and their learning patterns in post-secondary education. Higher Education, 62 (1), 27–47.

Lizzio, A., Wilson, K. & Simons, R. (2002). University students' perceptions of the learning environment and academic outcomes: implications for theory and practice. Studies in Higher Education, 27, (1), 27–52.

March, H.W (1987). Students' evaluations of university teaching: research findings, methodological issues, and directions for future research. International Journal of Educational Research, 11, 253-388.

Marton, F., & Säljö, R. (1976). On qualitative differences in learning: I-outcome and process. British Journal of Educational Psychology, 46, 4–11.

Milton-Wildey, K., Kenny, P., Parmenter, G. and Hall, J. (2014). Educational preparation for clinical nursing: The satisfaction of students and new graduates from two Australian universities. Nurse Education Today, 34, 648-654.

Möller, I. (2002). The Ramsden Course Experience Questionnaire: A pilot study of final-year students on hospitality, leisure, sport and tourism degree courses. Available from: http://www.heacademy.ac.uk/assets/hlst/documents/projects/secq/ramsden.pdf

Okpala, C. O., & Ellis, R. (2005). The perceptions of college students on teacher quality: A focus on teacher qualifications. Education, 126(2), 374–378.

Onwuegbuzie, A. J., Witcher, A. E., Collins, K. M. T., Filer, J. D., Wiedmaier, C. D., & Moore, C. W. (2007). Students' perceptions of characteristics of effective college teachers: A validity study of a teaching evaluation form using a mixed-methods analysis. American Educational Research Journal, 44, 113–160. http://dx.doi.org/10.3102/0002831206298169.

Papadimitriou, A. (2011). The enigma of quality in Greek higher education: A mixed methods study of introducing quality management into Greek higher education. University of Twente.

Parpala, A., Lindblom-Ylänne, S., Komulainen, E., Litmanen, T., & Hirsto, L. (2010). Students' approaches to learning and their experiences of the teaching-learning environment in different disciplines. British Journal of Educational Psychology, 80, 269–282.

Parpala, A., S. Lindblom-Ylänne, and H. Rytkönen. (2011). Students' Conceptions of Good Teaching in Three Different Disciplines. Assessment & Evaluation in Higher Education, 36 (5): 549–563.

Price, L., Richardson, J. T.E, Robinson, B., Ding, X., Sun, X., and Han, C. (2011). Approaches to studying and perceptions of the academic environment among university students in China, Asia Pacific Journal of Education, 31(2), 159-175.

Psacharopoulos, G. (1988). Efficiency and equity in Greek higher education. Minerva, 26(2), 119–137.

Ramsden, P. (1979). Student learning and perceptions of the academic environment. Higher Education, 8, 411–427.

Ramsden, P. (1991). A performance indicator of teaching quality in higher education: The Course Experience Questionnaire. Studies in higher education, 16(2), 129-150.

Ramsden, P., Entwistle, N. (1981). Effects of academic departments on students' approaches to studying. British Journal of Educational Psychology, 51, 368-83.

Richardson, J. T. (2005). Instruments for obtaining student feedback: A review of the literature. Assessment & evaluation in higher education, 30(4), 387-415.

Richardson, J.T.E. (1994). A British evaluation of the Course Experience Questionnaire. Studies in Higher Education, 19 (1), 59-68.

Scarboro, A. (2012). Student perception of good teaching. International Journal of New Trends in Arts Sports & Science Education, 1(1), 49–66.

Sheehan, D. S. (1999). Student evaluation of university teaching. Journal of Instructional Psychology, 26(3), 188–193.

Spencer, K. J., & Schmelkin, L. P. (2002). Students' perspectives on teaching and its evaluation. Assessment & Evaluation in Higher Education, 1(1), 12–16. http://dx.doi.org/10.1080/0260293022000009285.

Stergiou, D. P., & Airey, D. (2012). Using the Course Experience Questionnaire for evaluating undergraduate tourism management courses in Greece. Journal of Hospitality, Leisure, Sport & Tourism Education, 11(1), 41-49.

Tabachnick, B. G., & Fidell, L. S. (2007). Using multivariate statistics (5th ed.). Boston, MA: Allyn & Bacon.

Thien, L. M. and Ong, Y. M. (2016). The applicability of course experience questionnaire for a Malaysian university context. Quality Assurance in Education, 24, (1), 41-55.

Trigwell, K. & Prosser, M. (1991). Improving the quality of student learning: the influence of learning context and student approaches to learning on learning outcomes. Higher Education, 22, 251–266.

Ullah, R., Richardson, J.T.E. and Hafeez, M. (2011). Approaches to studying and perceptions of the academic environment among university students in Pakistan, Compare: A Journal of Comparative and International Education, 41(1), 113-127.

Ullah, R., Richardson, J.T.E., Malik, A. R. and Farooq, S. (2016). Perceptions of the learning environment, learning preferences, and approaches to studying among medical students in Pakistan. Studies in Educational Evaluation, 50, 62-70.

Wachtel, H. (1998). Student evaluation of college teaching effectiveness: a brief review. Assessment and Evaluation in Higher Education, 23(2), 191–211.

Wilson, K. L., Lizzio, A. & Ramsden, P. (1997). The development, validation and application of the course experience questionnaire. Studies in Higher Education, 22 (1), 33–53.

Witowski, L. (2008). The relationship between instructional delivery methods and students learning preferences: What contributes to students' satisfaction in an online learning environment? Ph.D Dissertation. Retrieved on December 11, 2010 from http://gradworks.umi.com/3310726.pdf

Yin, H., & Wang, W. (2015). Assessing and improving the quality of undergraduate teaching in China: The Course Experience Questionnaire. Assessment and Evaluation in Higher Education, 40(8), 1032–1049. http://dx.doi.org/10.1080/ 02602938.2014.963837.

Yin, H., Lu, G. & Wang, W. (2014). Unmasking the teaching quality of higher education: students' course experience and approaches to learning in China, Assessment and Evaluation in Higher Education, 39(8), 949-970.

Yorke, M. (1995). Siamese twins? Performance indicators in the service of accountability and enhancement. Quality in Higher Education, 1(1), 13-30.

Yorke, M. (1996). Indicators of Programme Quality: A Project Report Prepared for HEQC. Higher Education Quality Council.