

Turkish Version Of The Distance Learning Service Quality Scale (DLSQ): The Validity And Reliability Study

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ABSTRACT

The aim of this research is to examine the validity and reliability of the Turkish version of the Distance Learning Service Quality Scale (DLSQS; Shaik., Lowe. & Pinegar, 2006). The sample of this study consisted of 435 university student. The results of confirmatory factor analysis demonstrated that the 23 items loaded on three factors and the three-dimensional model was well fit ($\chi^2= 475.46$, $df= 217$ $p= .00$, $RMSEA=.052$, $NNFI=.95$, $CFI=.96$, $IFI=.96$, and $SRMR=.054$). The internal consistency coefficients was .88 for the overall scale. The corrected item-total correlations of DLSQS ranged from .30 to .56. Overall findings demonstrated that this scale is a valid and reliable instrument for measuring individuals' disposition to distance learning service quality.

Keywords: Distance learning, validity, reliability, confirmatory factor analysis

INTRODUCTION

Quality management (QM) used in production sector started to be applied in other sectors such as service, health and education. Organizations that desire to produce quality products and services need to prioritize the concept of quality that focuses on constant transformation and development in order to reach their goals in the ever increasing competitive environment and to leave their competitors behind. In line with this, total quality management approach comes into prominence in educational organizations (Numanoğlu, 2001). According to Chang (1993) benefits are QM can be listed as decreasing waste by providing the use of resources at minimum level, increasing product and service quality, providing opportunities during the process for constant improvements and increasing customer satisfaction regarding process and product (Tezsürücü & Aybarç-Bursaliolu, 2013:101). Hämäläinen et Jaku-Sihvonen (1999) cites quality based educational factors as the objectives of education and training, effectiveness of the educational program, learning environment and learning experiences, student qualifications, cooperative teaching methods, outcomes, products and results of training-education, independent, alternative assessment methods including the evaluation of learning process, practice based system for effective education and training and economic resources to ensure all these elements (Doğan, Apaydın & Önen, 2006). Concept of "procuring" which is specific to educational organizations is emphasized in quality education in the place of quality assurance systems' "guarantee", implementation of quality services in education and focusing on educating qualified individuals (Güleş, Kabasakal & Kuzu, 2011).

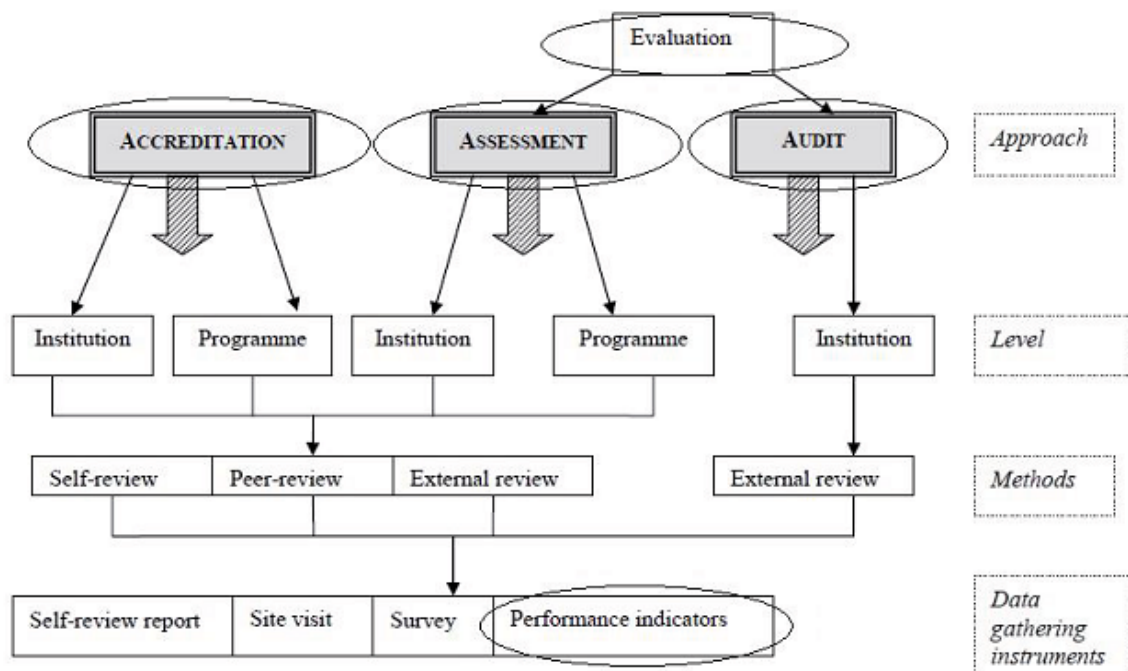
Radical changes and developments take place in today's globalized world in all sectors as well in the sector of education in line with advances in science and technology. In the changing constructs, concept of quality has started to be discussed in the name of quality education in higher education institutions which have started to be documented through QM system. Quality assurance and QM approaches are developed in line with the needs of the stakeholders according to recent conditions in higher education institutions in terms of adapting quality to education. In this process, higher education institutions should adapt their quality assurance work to the system of education and adopt transparency and accountability in their management approaches. It will be possible to achieve success in the competitive environment only in this manner. Requirements and suggestions of stakeholders should be taken into consideration in the development of educational programs for higher education institutions and plans for educational programs should be made according to the characteristics of the labor force needed for different sectors by interacting with industrial organizations and trade associations, practical information should also be emphasized in programs and practices along with theoretical knowledge, learning and research should be ongoing, individuals should be supported to learn how to access information in addition to learning information and apply what they have learned and process of finding employment and career development should be monitored with the help of graduate tracking

system (Tezsürücü & Aybarç-Bursalioglu, 2013). Concept of quality in higher education can be defined as the sum total of efforts to educate intellectual individuals that can generate labor force with quality, qualified, productive as well as with modern mindsets who will contribute to the development of the country.

According to Mok (2000), quality and quality assurance concepts have been regarded as two highly important concepts in higher education in recent years. Higher education institutions and administrators consider quality processes important and contemplate about how they can implement quality assurance systems in their institutions effectively (Tezsürücü & Aybarç-Bursalioglu, 2013).

Total quality system in higher education is composed of three operations: monitoring, assessment and review. Needs of stakeholders benefiting from higher education services are tried to be met through these three operations. Priority is given to the provision of quality services and generating trust. Input for higher education is assessed through accreditation in terms of quality assurance system whereas assessment evaluates outputs. Total quality system also designs, plans and implements quality processes (Karahan, 2013). According to Johnson and Golomskilis (1999), quality policies in higher education should be examined based on four main elements. First of these is the quality of the educational programs. The others are the quality of educational management, quality of teaching and quality of research (Doğan, Apaydin & Önen, 2006). Main factors of quality assurance systems in higher education are accreditation, assessment and monitoring (Bernhard, 2012). Effects of these three factors are presented in Figure 1 as approach, level, methods and data collection tools.

Figure 1. Major Elements of Quality Assurance Systems in Higher Education



Source: adapted from Bernhard 2012, p.50

According to Hämäläinen et Jakku-Sihvonen (1999), there are four approaches in the assessment of quality in education: self-assessment, internal assessment, external assessment and international assessment. Self-assessment is the assessment provided by the educational institutions themselves, internal assessment is the assessment of operations in the institution, external assessment is the evaluation of the institution by independent evaluators independent of the institution and international assessment is the development of individual quality evaluation systems by institutions in the framework of the partnership of countries and evaluating their education-training practices based on these systems (Doğan, Apaydin & Önen, 2006).

QM should be included in higher education both in all the practices of education-training framework and in all phases of scientific research undertaken in the institution. QM in higher education is practiced in organizational/institutional development, selection, assignment and development of academic, administrative and technical personnel, provision of academic buildings and facilities such as libraries and laboratories and provision of physical infrastructure such as open areas, development and implementation of educational programs and improvement of university-industry-society interactions (Kalaycı, 2008).

Higher education institutions have important roles and responsibilities in today's globalization process to be

effective in social and individual contexts with the help of information economy and information technologies and to become prominent in the economically competitive environment. High quality higher education systems are needed in order to undertake these tasks and to achieve success especially in information economy. Rapid transformations in information technologies and in the field of communication that are highly important for higher education institutions are followed by these institutions and used effectively. Internet access is provided on campus, student portals are generated, access to online resources are available and distance education is provided out of campus in the framework of web-based education (Yılmaz, 2013). In this context, quality assurance and accreditation of both on-campus services as well as out of campus services provided with the help of web-based education are important in higher education institutions.

Since educational services are offered to students, students are at the center of education sector in which they are considered to be the clients. Other clients in the sector of education are educators, work environment and the society. It is important to make a note here that (Tribus, 1997) the product of education sector is not the student but the education of the student. Therefore, assessment during the process of quality assurance will be provided based on educational services provided to students and quality of education will increase as a result of assessing expectations and views of students. Students who are included in the educational process are effective members of ongoing development and quality improvement (Yenen & Gözlü, 2003). In this context, evaluating student views obtained by development and implementation of assessment measures to identify student views on quality education is crucial. Purpose of this study is to develop distant education service quality measure for higher education students.

METHOD

Participants

The sample of this study consisted of 435 (280 female and 155 male) Sakarya University student.

Procedure

Primarily translation of the DLSQS into Turkish was based on the recommendations of Shaik., Lowe & Pinegar (2006). As the first step two specialists who were a native Turkish speaker fluent in English translated English version into Turkish. Discrepancies in initial translations were addressed with the assistance of a third independent translator. The Turkish version of the DLSQS was then translated back into English by three English-speaking language specialists who were blinded to the original scale and the objective of the study. The differences between translated versions were evaluated and a satisfactory compliance with the original scale was achieved by consensus of the translators. The completed Turkish version was evaluated for cultural appropriateness by three academicians from department of English Language and Literature, controversial items were determined and necessary modifications were done. The updated version was reevaluated by the original group of expert reviewers, to finalize the Turkish version used in this study.

After that a study of language equivalence was executed and then the validity and reliability analyses of the scale were examined. In this study confirmatory factor analysis (CFA) was executed to confirm the original scale's structure in Turkish culture. Also concurrent validity, internal consistency reliability and the item-total correlations were examined. Data were analyzed using LISREL 8.54 and SPSS 17.0 package programs.

RESULTS

Construct Validity

The results of confirmatory factor analysis indicated that the model was well fit ($\chi^2= 475.46$, $df= 217$ $p= .00$, $RMSEA=.052$, $NNFI=.95$, $CFI=.96$, $IFI=.96$, and $SRMR=.054$). Factor loadings and path diagram of Turkish version of DLSQS are presented in Figure 2.

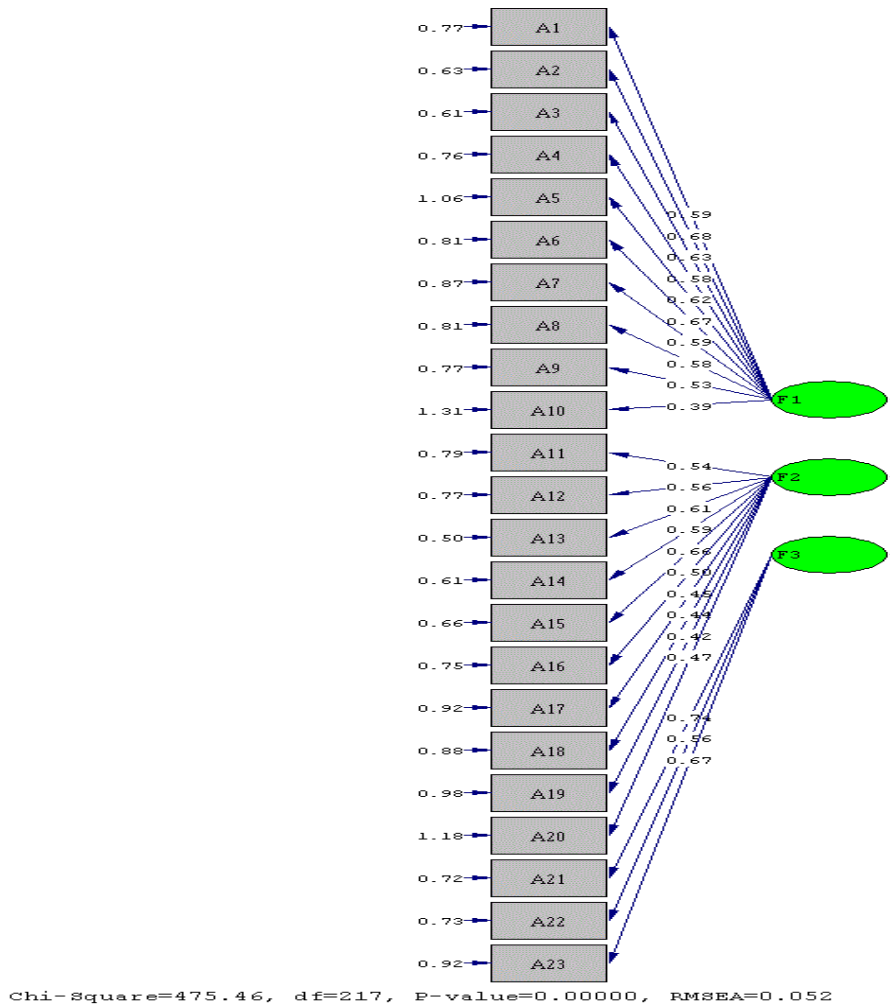


Figure 2. Factor Loadings and Path Diagram for the DLSQS

Reliability

For reliability of the Turkish version of the DLSQS internal consistency coefficient was calculated. The Cronbach’s Alpha internal consistency of the scale was .88 for whole scale. The corrected item-total correlations of DLSQS ranged from .30 to .56.

DISCUSSION

The purpose of this study was to adapt the DLSQS into Turkish and examine its psychometric properties. Confirmatory factor analysis demonstrated that the factor structure was harmonized with the factor structure of the original scale. Thus, it can be said that the structural model of the DLSQS which consists of three factors was well fit to the Turkish culture (Bentler & Bonett, 1980; Hu & Bentler, 1999; Schermelleh-Engel & Moosbrugger, 2003). The internal consistency reliability coefficients of the scale were high (Büyüköztürk, 2010; Kline, 2000). Considering that item total correlations having a value of .30 (Büyüköztürk, 2010). Overall findings demonstrated that this scale had high validity and reliability scores and that it may be used as a valid and reliable instrument in order to measure the individuals’ disposition to distance learning service quality. Nevertheless, further studies that will use DLSQS are important for its measurement effectiveness.

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