

**Jelena Legčević, M. Sc.**

Assistant

Faculty of Law in Osijek

J.J. Strossmayer University in Osijek

E-mail: legcevic@pravos.hr

## **QUALITY GAP OF EDUCATIONAL SERVICES IN VIEWPOINTS OF STUDENTS**

UDK / UDC: 378.14

JEL klasifikacija / JEL classification: I21

Prethodno priopćenje / Preliminary communication

Primljeno / Received: 26. kolovoza 2009. / August 26, 2009

Prihvaćeno za tisak / Accepted for publishing: 15. prosinca 2009. / December 15, 2009

### ***Abstract***

*Higher education is growing fast and every day it becomes more and more exposed to globalization processes. The aim of this study was to determine the quality gap of educational services by using a originally SERVQUAL instrument among students in Faculty of Law Osijek. In this study, a total of 479 students were selected randomly and asked to complete a questionnaire that was designed according to SERVQUAL methods. This questionnaire measured students' perceptions and expectations in five dimensions of service that consists of assurance, responsiveness, empathy, reliability and tangibles. The quality gap of educational services was determined based on differences between students' perceptions and expectations. The results demonstrated that in each of the five SERVQUAL dimensions, there was a negative quality gap. The least and the most negative quality gap means were in the reliability (-3,45) and empathy (-7,86) dimensions respectively. Also, there were significant differences between perceptions and expectations of students in all of the five SERVQUAL dimensions ( $p < 0.001$ ). Negative quality gaps mean students' expectations exceed their perceptions. Thus, improvements are needed across all five dimensions.*

**Key words:** *service quality, higher education, measurement, SERVQUAL*

## **INTRODUCTION**

Education is a service directly impacted on by the provider. Higher education institutions are placing greater emphasis on meeting students' expectations and needs. As universities continue to become more student oriented, student perceptions of higher educational facilities and services are

becoming more important (Anci, D.T., 2006.). Educational services quality, emphasizing student satisfaction, is a newly emerging field of concern in the universities of Croatia.

The contradictory meanings of quality education have led to the adoption of different methods for measuring quality in higher education (Tam, M., 2001). Most of the studies focused on either measuring teaching quality or evaluating students' learning experiences (Feldman, K.A., 1984; Ramsen, P.A., 1991; Marsh, H. W., Roche, L., 1993.).

Interest in the measurement of service quality is high, however, as highlighted by several researchers, service quality is an elusive and abstract concept that is difficult to define and measure ( Bolton, R.N., Drew, J.H., 1991; Glow, K.E., Vorhies, D.W., 1993; Boulding, W., Kalra, A., Staelin, R., Zeithaml, V.A., 1993.) For several years, academic researchers measured service quality by employing uni-dimensional scales; uni-dimensional scales, however, are inappropriate to measure a multi-dimensional concept like quality ( Adee, A., Bernie, O.D., 2007). Parasuraman, Zeithmal and Berry constructed a multi-item scale measuring perceived service quality. This scale is SERVQUAL. The SERVQUAL instrument represents a multi-item scale that can be used for measuring perceptions and expectations of service quality as perceived by consumers (Parasuraman, Zeithmal and Berry, 1988.). This scale assesses customers' perceptions and expectations of service quality along five dimensions: tangibles (the appearance of the school physical facilities, equipment, personal, and communication materials), reliability (the school's ability to perform the promised services dependably and accurately), responsiveness (the school's willingness to help students and provide prompt service), assurance (the knowledge and courtesy of school office staff/faculty and their ability to convey trust and confidence), and empathy (the school office staff's and faculty's ability to provide a caring and individualized attention to students) (Adee, A., Bernie, O.D., 2007).

Berry (1995) suggests that service plays an important role in enhancing value, and can positively influence a firm's success. Understanding and measuring customer expectations and performance are an essential component that can be used to enhance a company's service provision (Berry, L.L, 1995.). The aim of this study was to determine the quality gap of educational services by using originally SERVQUAL instrument among students in Osijek, University J.J.Strossmayer, Faculty of Law. This study helps to locate areas of performance where improvements are needed, or areas where resources could be better utilized.

Parasuraman et al., (1988) defined service quality as the gap between consumers' expectations and perceptions. Gap analysis is not new in a higher educational context, and a number of studies have been influenced by the work of Parasurman et al (1988.). For example, Long et al (1999) used "gap analysis" to develop a number of questions in order to compare what students "look for"

(expect) and what they "experience" on a course. Sander et al. (2000) meanwhile examined undergraduates' expectations and preferences in teaching, learning, and assessment. LaBay and Comm (2003) also developed a number of measures to evaluate student expectations and perceptions, concerning their tutor, on a sample of undergraduate and distance learning students.

## **ROLE OF STUDENTS AND SERVICE QUALITY IMPLICATIONS**

Viewing university students as customers has created some tensions in universities (Tan, 1996). Many academics did not believe that students were 'just customers' or that universities were 'to just give students what they wanted', including jobs (Tan, 1996). This was making universities too much aligned with businesses. It was then a view, not too far removed, for academics to be viewed as customers of university administration. Thapisa and Gamin (1999) examined the extent to which university staff perceived students and academics as customers in Australia. It was found that administrative staff has ambivalent feelings towards treating academics as customers and interpersonal skills between the two groups were highlighted as a major challenge to facilitating customer service. On the other hand, administrative staff was more accepting of students as customers and staff incorporated a mentor role into the processes of dealing with students. Administrative staff related more closely to students as customers than to academics as customers (Waugh, 2001). Leveson (2004) identified a complex teacher--student relationship in higher education and in addition raised the idea that students are just one of many stakeholders and that they all may have different needs and expectations of the education system. The organization must have well defined processes to provide the resources and environment to satisfy each of the important stakeholders, where possible. Student perceptions of the higher education experience have become increasingly important as colleges and universities attempt to become more student oriented. Previous research has examined general perceptions of students concerning dissatisfaction of all students with the university experience (e.g., Hatcher *et al.*, 1992; Hendershott, Wright & Henderson, 1996) and dissatisfaction of a specific university subgroup (e.g., Lapidus & Brown, 1993). However, there has been little research seeking to identify key factors of educational quality from the student viewpoint. A lack of knowledge of these key factors by administrators might lead to their misallocating resources while attempting to improve their university's quality. Such efforts could result in student dissatisfaction with the university, with subsequent deleterious consequences (Weir & Okun, 1989).

## SERVQUAL

According to Parasuraman, Zeithaml and Berry (1985,1988,1991,1994), regardless of the type of service, consumers basically use the same criteria to assess quality. Service quality is a general opinion the client forms regarding its delivery, which is constituted by a series of successful or unsuccessful experiences. Managing gaps in service will help the company improve its quality. But gaps are not the only means clients use to judge a service. They can also use five broad-based dimensions as judgment criteria: reliability, tangibility, responsibility, security and empathy (Badri et al. 2005). These dimensions are briefly commented below (Kilbourne et al 2004):

- *Reliability*: is the company reliable in providing the service? Does it provide as promised? Reliability reflects a company's consistency and certainty in terms of performance. Reliability is the most important dimension for the consumer of services;
- *Tangibility*: how are the service provider's physical installations, equipment, people and communication material? Since there is no physical element to be assessed in services, clients often trust the tangible evidence that surrounds it when making their assessment;
- *Responsibility*: are company employees helpful and capable of providing fast service? It is responsible for measuring company and employee receptiveness towards clients;
- *Assurance*: are employees well-informed, educated, competent and trustworthy? This dimension encompasses the company's competence, courtesy and precision; and
- *Empathy*: this is the capacity a person has to experience another's feelings. Does the service company provide careful and personalized attention?

These elements clearly have a highly subjective factor linked to the person who perceives the service. In reality, according to Kilbourne *et al.* (2004), every type of service can have determining factors that are considered more important than others, which will depend on environment characteristics or type of activity. It is difficult to measure the quality of service operations because they have the characteristic intangibility. Aimed at solving this problem, Parasuraman, Zeithaml and Berry (1985) developed a methodology in which there is a comparison between several orders of expectations and perceptions of service quality by the consumer.

The SERVQUAL scale (questionnaire) has two sections: one to map client expectations in relation to a service segment and the other to map perception in relation to a certain service company (Sagnéy et al, 2004). The original SERVQUAL scale uses 22 questions to measure the five dimensions of service quality: reliability, tangibility, security, empathy and responsibility.

Quality is measured as performance minus expectations for each pair of questions and the summary score across all questions was the measure of quality. Parasuraman et al. (1988) also tested their SERVQUAL scale for reliability and validity. The major test of reliability is coefficient alpha of Cronbach's Alpha.

The coefficient  $\alpha$  is best conceptualised with the average of all possible split half reliabilities for a set of items. A split half reliability is the reliability between two parts of a test or instrument where those two parts are halves of the total instrument. The coefficient  $\alpha$  measures the extent of internal consistency between or correlation among, the set of questions making up each of the five dimensions, such as the five reliability questions. The suggested cut-off point for coefficient alpha values is 0.70 indicating that the scale exhibits desirable levels of internal consistency. High reliabilities, such as 0.90 or above, are favourable.

## METHODOLOGY

This exploratory study analyzed the students' expectations and perceptions of service quality provided by the Faculty of Law in Osijek (FL) in Croatia. Questionnaires were designed according to the SERVQUAL model of measuring the gap between customers' expectations and perceptions (Parasuraman et al., 1995, 1988, 1991). The definition of service quality adopted in this study is "the degree of discrepancy between customers' normative expectations for service and their perceptions of the service performance" (Parasuraman et al., 1988).

Students were asked to rate statements that would measure their expectations of the services provided by an ideal service higher education organization. Then they were asked to rate another set of statements that would measure their perception of the actual services delivered to them FL.

The survey instrument (self-administered questionnaire) consisted of three sections:

- (1) statements focused on student expectations of higher education institutions in general,
- (2) statements focused on student perceptions of service quality at FL, and
- (3) demographic data about the respondents (mode of study, year of study, gender, lectures attended).

Statements were positively and negatively worded and pre-tested for wording, layout and comprehension. A totally new instruction page was prepared and a 5-point Likert scale adopted rather than the 7-point scale used originally. The scale was arranged so that "strongly agree" was coded as five, while "strongly disagree" was coded as one. Each question was associated with the number one to five and to complete their answers users were asked to circle the number that best matched their opinion.

## SAMPLE CHARACTERISTICS

Service quality surveys were conducted at the end of winter semester in the academic year 2007/2008 at FL. Students were given verbal and written instructions, and completed the questionnaires during the first few minutes of class. The respondents remained totally anonymous. The student respondent profile was represented in the Table 1.

## RESULTS

The statistical package, SPSS (15.0), was used to analyze the data received from the questionnaire. To enable ease of data entry, questions were pre-coded beforehand. Data were analyzed using descriptive and multivariate statistical analysis. Paired samples statistics comparing the service statements were performed to see if there were any significant differences among them. The 22 service quality variables in relation to their gap scores (perceptions minus expectations) were factor analyzed to determine the existence of underlying dimensions of service quality. A principal component analysis with orthogonal varimax rotation was conducted on the 22 expectations (expectations scale) and 22 perception statements (perceptions scale) measuring the service quality of higher education at FL in Croatia. Factors with an eigenvalue equal to or greater than 1 were chosen for interpretation. Only variables with factor loading coefficients of 0.45 were considered; that is, items with less than 0.45 were excluded. A reliability analysis (Cronbach's alpha) was performed to test the reliability and internal consistency of each of the expectation and perception attributes. Alpha ranges from 0 to 1, and is a measure of the internal consistency of multi-item scales. A coefficient alpha of 0.50 or higher is considered to be adequately reliable for group data purposes.

The aim of this study was to determine the quality gap of educational services using a originally SERVQUAL instrument among students in University J.J.Strossmayer, Faculty of Law in Osijek. As the results show in all of the five SERVQUAL dimensions, there is a negative quality gap. This confirms the results of the Marković, 2002, Bradley, 2007, and Clare Chua, 2007 studies. Negative quality gaps mean students' expectations are greater than their perceptions, and it indicates dissatisfaction. Thus, improvements are needed across all five SERVQUAL dimensions.

In this study, the least and the greatest negative quality gap are in the reliability and empathy dimensions respectively (Table 3). In a similar study conducted by Ruby, there were negative quality gaps in the reliability, assurance, responsiveness and empathy dimensions, but there was a positive quality gap in the tangibles dimension; in this dimension, students' perceptions of the educational services quality was greater than their expectations (Carl, A.R., 1998). The result of Ruby's study in the tangibles dimension doesn't support the

result of this study in this dimension. In the Ruby study, the most negative quality gap was in the reliability dimension, followed by the responsiveness and empathy dimensions, and the least negative quality gap was in the assurance dimension. In the Clare Chua study concerning the educational services quality at Ryerson University in Toronto, the greatest negative quality gap was in the assurance dimension, followed by the responsiveness, tangibles and empathy dimensions, and the least negative quality gap was in the reliability dimension .

The negative quality gaps in all of the five SERVQUAL dimensions and their items indicate that in order to improve educational services quality, some measures need to be taken. The greatest negative quality gap was in the empathy dimension. This dimension indicates the faculty's willingness to help students and provide prompt services; it also reflects the sensibility and cautions to students' demands, questions and complaints (Chua Care, 2007., Millson, F., 1996.) The greatest negative quality gap in this dimension and its items indicates that supervisors are not accessible when students need them, students don't have easy access to the administrator to express their viewpoints and suggestions regarding the curriculum, students' viewpoints and suggestions are not considered in curriculum, little attention is paid to introducing suitable references to students for reading, and the supervisor's counseling hours are not aptly and properly specified.

Negative quality gaps in other dimensions indicate that responsibilities have not been fulfilled well to meet students' expectations. Given the viewpoints of most students and the negative quality gap in each of the five SERVQUAL dimensions, the following educational workshops are suggested in order to reduce these gaps: "how to communicate with students", "increasing staff skills", and "effective communication of faculty members and students". On the other hand, supervisors should have a schedule for counseling the students and students should be informed of it. Also the administrators should plan working hours of faculty members so that they have enough time for counseling, faculty members should be accessible outside of class to answer students' questions, students should have easy access to the administrator to express their viewpoints and suggestions concerning the curriculum and educational problems, and finally students' viewpoints and suggestions should be considered in curriculum.

The paired samples statistics (Table 4) was used to test the significant mean difference (gap) between students' expectations and perceptions of service quality. Paired samples t-test confirmed the hypothesis that there is a statistically significant difference between average ratings of expectations and perceptions by the students at the *FL*, suggesting that respondents distinguished between SERVQUAL dimensions.

As shown in Table 5 and 6 the study used factor analysis to reduce the 22 statements into a set of underlying dimensions or factors that portray the expectation and perception of the law students in Croatia. In addition, for the purpose of quality control of the factors, the data were first tested by Bartlett's

test, a statistical test for the overall significance of all correlations within a correlation matrix. This indicated that factor analysis could be performed to further analyze the data.

Factor analysis was applied to 22 statements on expectations and 22 statements on perceptions of higher education services, with responses on 5-point Likert scale. Principal component analysis with varimax rotation was used in the analysis. Suitability of factor analysis was determined by correlation and alpha reliability. The criteria for the number of extracted factors were based on the characteristic value, variance percentage, factor importance and factor structure. Significant factors were considered to be those with characteristic value equaling or exceeding one. All factors with a value less than 1 will be considered insignificant and should be disregarded. The result amounting to at least 45 per cent of the total cumulative variance was considered a satisfactory solution. It is considered that a variable has practical importance and that it can be included in a factor when its correlation degree equals or exceeds 0.50 (Nunnally, 1967).

Varimax rotation defined 4 significant factors on the expectations scale and 3 significant factors on the perceptions scale. High factor coefficients indicate correlation of variables with the factors they define. Community of each of the variables is relatively high, ranging from 0.50 to 0.82, and this indicates the variance of original values being covered with factors as well.

A four-dimensional solution in expectations scale, results in the following factors (refer to Table 5):

Factor 1: *Empathy and Responsiveness* (8 statements, eigenvalue = 6,641, 30,188 per cent of variance, alpha = 0.816),

Factor 2: *Reliability* (5 statements, eigenvalue = 1,750, 7,952 per cent of variance, alpha = 0.769),

Factor 3: *Assurance* (4 statements, eigenvalue = 1,522, 6,916 per cent of variance, alpha = 0,785 ),

Factor 4: *Tangibles* (4 statements, eigenvalue = 1,214, 5,520 per cent of variance, alpha = 0,687),

Varimax rotation defined 4 factors on the perception scale. (Table 6)

Factor 1: *Assurance* (9 statements, eigenvalue = 9,592, 43,600 per cent of variance, alpha = 0,881),

Factor 2: *Reliability* (8 statements, eigenvalue = 1,614, 7,335 per cent of variance, alpha = 0,891),

Factor 3: *Tangible* (4 statements, eigenvalue = 1,380, 6,275 per cent of variance, alpha = 0,782),



The situation in the perception scale confirms three SERVQUAL factor while in the expectation scale; factor analysis at Faculty of Law confirm four factor SERVQUAL dimensions.

Also, reliability analysis was conducted to measure the inside of each of the factors. The results indicate that all factors exceed the recommended level of 0.50, ranging from 0.69 to 0.89. Alpha coefficient for the total expectations scale totals 0.867, and for the perceptions scale totals 0.931.

## **DISCUSSION**

The negative quality gap in service dimensions can be used as a guideline for planning and allocation of resources (Campbell, J.L., Ramsay, J., Green., J., 2001). Thus, the five SERVQUAL dimensions can be classified to three priority groups for allocation of resources and organizational attempts to eliminate or reduce negative quality gaps, so that the responsiveness dimension is placed in the first priority, the assurance, empathy and tangibles dimensions are placed in the second priority, and the reliability dimension is placed in the third priority. If the afore mentioned priorities are taken into account and the quality gap is attended to, the resultant improved will benefit other dimensions as well; the negative quality gap (or quality improvements) in one dimension, in the customers' viewpoint, can affect the negative quality gaps (or quality improvements) in other dimensions (Lamei, A., 2000.).

Due to the diversity of courses and educational levels in other universities and having different facilities, equipment, staff and faculty members, the results of this study are not generalizable to all. Hence it is recommended that every university carry out a similar study so that a model with more conformity will be produced for planning to improve educational services quality.

## REFERENCES

- Adee A, Bernie OD. Exploring graduates' perceptions of the quality of higher education. 2007. <http://www.aair.org.au/jir/May94/Athiyaman.pdf>
- Anci DT. How satisfied are our students? *Quality management unit Office for institutional effectiveness university of Johannesburg, Johannesburg, South Africa*. 2006.
- Badri, M.A.; Abdulla, M.; Al-Madani, A.,(2005), "Information technology center service quality, International Journal of Quality and Reliability Management, 22(8), p.819-848.
- Berry LL. Relationship marketing of services-Growing interest, emerging perspectives. *Journal of the Academy of Marketing sciences*. 1995;**26**:767–86.
- Bolton RN, Drew JH. A Multistage Model of Customers' assessments of service quality and value. *Journal of consumer research*. 1991;375–384. doi: 10.1086/208564.
- Boulding W, Kalra A, Staelin R, Zeithmal VA. A dynamic process model of service quality: From expectations to behavioral intentions. *Journal of Marketing Research*. 1993;**30**:7–27. doi: 10.2307/3172510.
- Bradley RB. Analyzing service quality: The case of post-graduate Chinese students. 2007. [http://lubswww.leeds.ac.uk/researchProgs/fileadmin/user\\_upload/documents/Barnes.pdf](http://lubswww.leeds.ac.uk/researchProgs/fileadmin/user_upload/documents/Barnes.pdf)
- Campbell JL, Ramsay J, Green J. Age, gender, socioeconomic and ethnic differences in patients' assessments of primary health care. *Quality in Health Care*. 2001;**10**:90–95. doi: 10.1136/qhc.10.2.90. [PubMed]
- Carl AR. Assessing Satisfaction with Selected Student Services using SERVQUAL, a Market-Driven Model of Service Quality. *NASPA Journal*. 1998;**35**:331–341.
- Carman, J. M., (1990,) "Consumer perceptions of service quality: An assessment of the SERVQUAL dimension", *Journal of Retailing*, 69(2): 33-55.
- Chua Clare. Perception of Quality in Higher Education. AUQA Occasional Publication. 2007. <http://www.auqa.edu.au/auqf/2004/program/papers/Chua>
- Feldman KA. Class size and students' evaluation of college teachers and courses: A closer look. *Research in Higher Education*. 1984;**21**:45–116. doi: 10.1007/BF00975035.
- Glow KE, Vorhies DW. Building a competitive advantage for service firms. *Journal of services marketing*. 1993;**7**:22–32. doi: 10.1108/08876049310026079.
- Hatcher, Larry, Kimberly Kryter, Joseph S. Prus, And Vicki Fitzgerald (1992). Predicting College Student Satisfaction, Commitment, And Attrition

From Investment Model Constructs. *Journal Of Applied Social Psychology*, 22 (16): 1273-1296.

Hedndershoot, Anne B., Sheila P. Wright, And Deborah Henderson (1992). Quality Of Life Correlates For University Students. *NASPA Journal*, 30 (1): 11-19.

Kebriaei A, Roudbari M. Quality gap in educational services at Zahedan university of medical sciences: students viewpoints about current and optimal condition. *Iranian Journal of Medical Education*. 2005;5:53–60.

Kilbourne, W.E., (2004), The applicability of SERVQUAL in crossnational measurements of health-care quality, *Journal of Service Marketing*, 18(7); p. 524-533.

LaBay DG, Comm CL. A case study using gap analysis to assess distance learning versus traditional course delivery. *The International Journal of Education Management*. 2003;17:312–317. doi: 10.1108/09513540310501003.

Lamei A. *Total Quality management in health care*. Ministry of Health and Education of Iran, Quality Improvement Unit; 2000.

Lapidus, Richard S. And Jacqueline J. Brown (1993). Assessing Satisfaction With The University Experience: An International Perspective. *Journal Of Consumer Satisfaction, Dissatisfaction And Complaining Behavior*, 6(3): 187-196.

Levenson, L.,(2004) The Things That Count: Negative Perceptions Of The Teaching Environment Among University Academics, 21(3): 34-42.

Long P, Tricker T, Rangelcroft M, Gilroy P. Measuring the Satisfaction gap: Education in the market place. *Total quality management*. 1999;10:772–778.

Marković, S., (2002), Higher Education Quality measurement: A Case Study in the Application of SERVQUAL, Congress proceedings of 17th biennial international congress – Tourism and Hospitality Industry 2004 – New trends in Tourism and Hospitality Management, University of Rijeka, Faculty of Tourism and Hospitality Management Opatija, Croatia.

Marsh HW, Roche L. The use of students' Evaluations and an Individually Structured Intervention to Enhance University Teaching Effectiveness. *American Educational Research Journal*. 1993;30:217–251.

Millson F, Kirk-Smith M. The Effect of quality circles on perceived service quality in financial services Marketing Practice. *Applied Marketing Science*. 1996;2:75–88. doi: 10.1108/EUM0000000004137.

Nunnally, J. C., (1967) “*Psychometric Methods*”, McGraw-Hill Book Company.

Parasuraman, A., Zeithaml, V. A., Berry, L. L (1985), “A conceptual model of service quality and its implication for future research”, *Journal of Marketing*, , 49(4): 41-50.

Parasuraman, A., Zeithaml, V. A., Berry, L. L., (1988) "SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality", *Journal of Retailing*, , 64(3): 12- 40.

Parasuraman, A., Zeithaml, V. A., Berry, L. L., (1991) "Refinement and reassessment of the SERVQUAL scale", *Journal of Retailing*, , 67(3): 420-450.

Parasuraman, A., Zeithaml, V. A., Berry, L. L., (1994) "Reassessment of expectations as comparison standards in measuring service quality: implications for further research", *Journal of Marketing*, , 58(3) :111-124.

Parasurman A, Zeithmal VA, Berry SERVQUAL: A multiple-Item scale for measuring consumer perceptions of services quality. *Journal of Retailing*. 1988;**64**:12–20.

Ramsden PA. A Performance Indicator of Teaching Quality in Higher Education: The course Experience Questionnaire. *Studies in Higher Education*. 1991;**16**:129–150. doi: 10.1080/03075079112331382944.

Sagney, S., Banwet, D. K., Karunes, S., (2004), A SERVQUAL and QFD approach to total quality education: a student perspective, *International Journal of Productivity and performance management*, 53(2), p.143-166.

Sander P, Stevenson K, King M, Coates D. University students' expectations of teaching. *Studies in Higher Education*. 2000;**25**:309–323. doi: 10.1080/03075070050193433.

Tam M. Measuring Quality and Performance in Higher Education. *Quality in higher Education*. 2001;**7**:47–54. doi: 10.1080/13538320120045076.

Tan, D. L. (1986). The Assessment Of Quality In Higher Education: A Critical Review Of The Literature And Research. *Research In Higher Education* 24(3): 223-265.

Thapisa A. P. N., Gamini Venus (1999) Perceptions Of Quality Service At The University Of Botswana Library: *What Nova Says*, 25(4): 134-178.

Waugh, Russell F. (2001) Academic Staff Perceptions Of Administrative Quality At Universities, 2 (1): 23-32..

Weir, Rene, M. And Morris. A. Okun (1989). Social Support, Positive Brown, J. B., Koenig, H. F. (1993). Applying Total Quality Management To Business Education. *Journal Of Education For Business*, 68(7): 325-329.

## APPENDIX EXPECTATIONS

**Directions:** Could you please comment on the following: To what degree should a faculty have the below-mentioned characteristics? To circle the appropriate number from 1 to 5, please use the following scale: 1 – *I don't agree*, 2 – *Mostly I don't agree*, 3 – *I have no opinion*, 4 – *Mostly I agree*, 5 – *I agree*.

E1 Faculty should have up-to-date equipment.

E2 The facilities should be visually appealing.

E3 The employees should be well dressed and appear neat.

E4 The appearance of faculty facilities should correspond to the services provided.

E5 When faculties make a commitment to provide a service at the scheduled time, they should do so.

E6 Faculties should show consideration for students' problems.

E7 Faculties should be reliable.

E8 Services should be provided at the scheduled time.

E9 Faculties should keep their records accurately.

E10 Working hours of a faculty should not be expected to be adjusted to all students. (-)

E11 It is not realistic to expect prompt service from faculty employees. (-)

E12 Faculty employees are not obliged to help students at all times. (-)

E13 It is acceptable that faculty employees are too busy to answer students' requests. (-)

E14 Students should have confidence in faculty employees.

E15 Students should feel confident while performing transactions with faculty employees.

E16 Faculty employees should be polite.

E17 Faculty employees should be provided adequate support by faculty in order to perform their jobs successfully.

E18 Faculties are not to be expected to give students individual attention. (-)

E19 Faculty employees are not to be expected to give each student individual attention. (-)

E20 It is not realistic to expect faculties to know the students' needs.(-)

E21 It is not realistic to expect faculties to take thoughtful care of the students. (-)

E22 Faculties should not be expected to inform students about the time of a service to be provided. (-)

## PERCEPTIONS

**Directions:** The following questions refer to your opinion about FL. You are expected to indicate to what degree you think that FL has the below-mentioned

characteristics. Evaluation system is the same as in part one. There are no right or wrong answers. We are interested in the answer closest to your perception of FL.

P1 FL has up-to-date equipment.

P2 The facilities of FL are visually appealing.

P3 The employees of FL are well dressed and appear neat.

P4 The appearance of FL facilities correspond to the services provided.

P5 When FL makes a commitment to provide a service at the scheduled time, it does so.

P6 FL shows consideration for students' problems.

P7 FL is reliable.

P8 FL provides services at the scheduled time.

P9 FL keeps its records accurately.

P10 Working hours of FL are not adjusted to all students. (-)

P11 The employees of FL do not provide prompt service. (-)

P12 The employees of FL are not always willing to help students. (-)

P13 The employees of FL are too busy to answer students' requests. (-)

P14 Students can have confidence in employees at FL.

P15 While performing transactions with employees at FL you feel confident.

P16 Employees of FL are polite.

P17 Employees are provided adequate support by FL in order to perform their jobs successfully.

P18 FL does not give students individual attention. (-)

P19 Employees of FL do not give you individual attention. (-)

P20 Employees of FL do not know your needs. (-)

P21 FL does not take thoughtful care of you. (-)

P22 FL does not inform students about the time of a service to be provided. (-)

Table 1.

## Student respondent profile (FL (n=479))

Description	Number respondents <i>Frequencies</i>	of <i>Percent</i>
Mode of study		
<i>Full-time student financed by Ministry</i>	304	63,5
<i>Full-time student personally financed</i>	169	35,3
<i>Part-time graduate student</i>	6	12
	479	100,0
Year of study		
<i>Year 1</i>	179	37,4
<i>Year 2</i>	160	33,4
<i>Year 3</i>	42	8,8
<i>Year 4</i>	98	19,6
	479	100,0
Gender		
<i>Male</i>	134	28,0
<i>Female</i>	345	72,0
	479	100,0
Lectures attended:		
<i>&gt; 75 per cent</i>	196	40,9
<i>50-75 per cent</i>	123	25,7
<i>25-50 per cent</i>	79	16,5
<i>&lt; 25 per cent</i>	81	16,9
	479	100,0

Table 2.

Service quality gap between student's perceptions and expectations in FL

Statements	Expected SQ (E) Mean score	Perceived SQ (P) Mean score	SERVQUAL gap (P-E)
V1	4.75 <sup>a</sup>	3,10	-1.65
V2	3.94	2,96	-0.98
V3	3.74	3,75	0.01
V4	4.17	3,33	-0.84
V5	4.66	3,15	-1.51
V6	4.73	2,92	-1.81
V7	4.78	3,18	-1.6
V8	4.73	3,32	-1.41
V9	4.74	3,51	-1.23
V10 (-)	4.46	3,21	-1.25
V11 (-)	4.40	3,08	-1.32
V12 (-)	4.60	3,03	-1.57
V13 (-)	3.27	3,06	-0.21
V14	4.41	3,12	-1.29
V15	4.51	3,07	-1.44
V16	4.74	2,99	-1.75
V17	4.56	3,20	-1.36
V18 (-)	4.26	2,72	-2.02
V19 (-)	4.67	3,43	-1.13
V20 (-)	3.89	2,68	-1.99
V21 (-)	4.25	2,76	-1.13
V22 (-)	4.32	2,74	-1.51

*Notes:* A negative gap indicated that students' perceptions of service were not meeting students' expectations.

a Statement with the highest mean score,

b Statement with the lowest mean score.

SERVQUAL gap is the difference between the perception and expectation scores.

Service quality gap

Table 3.

Service dimensions	Service quality gap (perception minus expectation)
Reliability	- 3,45
Assurance	-7,56
Tangibles	-4,35
Empathy	-7,86
Responsiveness	-5,85



Table 4.

## Paired samples t-test

Statements	Correlation	Sig.	t-value	Sig. (2-tailed)
V1	-,037	,417	30,021	,000
V2	-,032	,482	15,010	,000
V3	,218	,000	-,082	,934
V4	,038	,408	14,397	,000
V5	-,070	,129	26,149	,000
V6	-,023	,618	27,392	,000
V7	-,016	,733	32,108	,000
V8	-,002	,970	12,194	,000
V9	,042	,356	23,917	,000
V10 (-)	-,054	,238	19,799	,000
V11 (-)	-,015	,743	23,748	,000
V12 (-)	-,058	,206	26,962	,000
V13 (-)	,180	,000	3,136	,002
V14	-,048	,292	22,630	,000
V15	,002	,960	26,270	,000
V16	-,082	,074	29,783	,000
V17	,013	,775	27,367	,000
V18 (-)	,060	,190	26,359	,000
V19 (-)	,008	,859	23,031	,000
V20 (-)	-,005	,913	18,862	,000
V21 (-)	,066	,155	25,215	,000
V22 (-)	-,011	,803	26,320	,000

(-) negatively worded statements

Table 5.

Results of factor analysis and reliability analysis (Expectation scale)

<i>Factors and statements</i>	<i>Factor loadings</i>	<i>Cronbachs alpha</i>
Factor 1		0.816
E10	0,547	
E11	0,526	
E12	0,462	
E18	0,606	
E19	0,710	
E20	0,408	
E21	0,757	
E22	0,651	
Factor 2		0.769
E5	0,690	
E6	0,703	
E7	0,664	
E8	0,686	
E9	0,534	
Factor 3		0.785
E14	0,726	
E15	0,782	
E16	0,611	
E17	0,653	
Factor 4		0.687
E1	0,462	
E2	0,763	
E3	0,747	
E4	0,699	
Overall		0.867

Table 6.

Results of factor analysis and reliability analysis (Perception scale)

<i>Factors and statements</i>	<i>Factor loadings</i>	<i>Cronbachs alpha</i>
Factor 1		0.881
P14	0,566	
P15	0,558	
P16	0,519	
P17	0,626	
P18	0,782	
P19	0,517	
P20	0,810	
P21	0,776	
P22	0,792	
Factor 2		0.891
P5	0,656	
P6	0,577	
P7	0,589	
P8	0,727	
P9	0,701	
P10	0,610	
P11	0,727	
P12	0,559	
Factor 3		0.782
P1	0,782	
P2	0,814	
P3	0,482	
P4	0,772	
Overall		0.931

***Mr. sc. Jelena Legčević***

Asistent

Pravni fakultet Osijek

J. J. Strossmayer Sveučilište u Osijeku

E-mail: legcevic@pravos.hr

**JAZ U KVALITETI OBRAZOVNE USLUGE SA  
STANOVIŠTA STUDENATA*****Sažetak***

*Područje visokog obrazovanja brzo je rastuće te svakim danom biva izloženo globalizacijskom procesu. Osnovni cilj ovoga rada je utvrditi jaz obrazovne usluge koristeći SERVQUAL instrument. Istraživanje je provedeno na slučajnom uzorku od 479 studenata Pravnoga fakulteta u Osijeku. SERVQUAL mjerni instrument prvo mjeri percepciju ispitanika potom očekivanja kroz pet dimenzija kvalitete usluga: povjerenje, poistovjećivanje, susretljivost, pouzdanost i opipljivost. Jaz se definira kao razlika razlika percepcije i očekivanja pružene kvalitete usluga. Rezultati istraživanja pokazuju negativni jaz obrazovne usluge kroz svih pet dimenzija usluga. Najveći negativni jaz zabilježen je u dimenziji susretljivosti (-7,86), a najmanji u dimenziji pouzdanosti (-3,45). Naime, zabilježene su razlike između percepcije i očekivanja između studenata na svih pet dimenzija kvalitete usluga ( $p < 0,001$ ). Negativni jaz pokazuje da su očekivanja studenata nadmašila realno stanje te su potrebna poboljšanja kroz svih pet dimenzija kvalitete obrazovne usluge.*

***Ključne riječi: kvaliteta usluga, visoko obrazovanje, mjerenje, SERVQUAL***

***JEL klasifikacija: I21***