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The Simple and Multiple Relationship Between the Quality of Face-to-face Tutoring Services and Distance Learners' Achievement

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Abstract: The present study is an attempt to investigate simple and multiple relation between the quality of face-to-face tutoring services and distance learners' Achievement in Payame Noor University. For this province of Tehran, Guilan and Ardabil Payame Noor Universities were selected using the multi-phase clustering method among Payame Noor Universities. The sample volume was measured as 476 students based on Krejcie and Morgan table considering $\alpha = 0.05$. The study is correlation method in terms of its statistical analysis. Tutoring quality data was measured as a gap between expectation state and perception state using a 22-question servqual questionnaire with the framework of 5 components and the reliability of perception and expectation questions calculated $\alpha = 0.96$ and $\alpha = 0.98$ respectively. For data analysis, Pearson coefficient correlation and multiple regression in enter model were used. The results showed that Face-to-face tutoring quality was positively and significantly related to distance learners' academic achievement ($R = 0.602$, $F_{(5,570)} = 53.36$ and $p < 0.01$); next there was a significant relation amongst all components of tutoring service quality and academic achievement ($p < 0.1$).

Key words: Distance education · Face-to-face tutoring · Service quality

INTRODUCTION

During the past decades, distance education has become an accepted educational technique and its main mission is to provision educational courses for individuals who are interested in acquiring a college education or a professional qualification but are unable, don't want to, or for some other reason cannot be present in an academic complex [1]. Most theorists believe that the system's prosperity depends highly on the quality of students' support services [2- 4] because in the case of weak support service, learners would lose hope and dropout of their educational setting [5, 6]. Authors believe that the learners support services include a series of facilities and activities that are intended to aid the learning process [2], make it appear attractive for learners [7] and improve the quality of learning [8]. Tait believes that distance education support offers three kinds of services: Cognitive services which enhance learning; Emotional services which enhance self-confidence and self-esteem; and systematic services which help learners meet their educational needs and improve studying skills and learning techniques [9]. Face-to-face tutoring is one of the most significant support services.

Most theorists believe that the lack of face-to-face communication in distance education is one of disadvantages of this technique [10], thus distance education designers must improve educational experiences and incentives of learners through holding face-to-face tutoring sessions in academic complexes [11]. Chen, Shang and Harris have emphasized on the positive effects of face to face sessions and have acknowledged that the meetings should be established physically. [12]. In such sessions, tutors evaluate endeavors and the assignments of the learners and offer necessary hints about the nature and quality of curricula [13]. Academic face-to-face sessions would be continued if according to the learners' viewpoint, the service was satisfactory. According to the authors' beliefs, the quality of service is an important factor for the growth of the organization, its prosperity and maintenance. It has also been looked at as a strategic and comprehensive issue which has been

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prioritized on agendas of managers of all organizations [14-16]. Considering that quality of service is a key factor for their success, it is the maintenance and stability of the service that some experts believe that the quality of service of each educational system is synonymous with ability to gain desired results [17]. Today, it is supposed that customers are the main elements for an organizations' development and they, (the customers) receive organizational outputs and results [18]. As a result, focusing on the customer and the customer-centered activities are the most important components of organizational management in the current era, [19, 20] and the best way to achieve long-lasting success is meeting the customer's expectations. Customers of higher education are students, employees, faculty members, families, industries and the society as a whole, however amongst them, students are considered the main customers [16, 20]; whilst in distance education there are learners who either are not committed, or they intend to partake in face-to-face sessions. Therefore, the offered services must be high quality, particularly because distance education is a student-oriented system. Identification of requirements and meeting them and hence satisfying students in order to keep them proficient are the main and necessary conditions of this kind of educational system.

There are three major perspectives in analyzing academic quality: Analyzing quality based upon the fulfillment of desires, analyzing quality based on statistical indices and analyzing quality based on expectations being met. Briefly, it may be said that in most theories and studies, the quality is considered based on the expectations and the customer's satisfaction [14, 20, 21]. Accordingly, service quality is related to customer's insight of actual performance of services against his/her own expectations. On other words, the quality of service would be defined based on the customer's satisfaction, as stabilizing our differences and the expectations or common demands and his/her perception of actual performance of services. These statements are known as $Q = P - E$[1] equation; where Q: received quality, P: customer's perception from service quality and E: Customer's expectation from the service. This paradigm is so called as servqual paradigm which has been invented by Parasuraman, Zeithaml and Berry during 1985 to 1994. Many experts and researchers have confirmed the potential and efficiency of the servqual paradigm and have emphasized that this paradigm is a standard technique for measuring customer's satisfaction of services and in other words measuring quality of service, particularly measuring and evaluating quality of service in higher education [14, 19, 22]. This paradigm measures quality of service through the following five dimensions: 1) Tangibility: including physical appearances of classroom facilities and equipment, masters (tutors) and communicational devices. 2) Reliability: Including the ability to conduct the promised services actually and certainly. 3) Responsiveness: Including the masters' willingness to help students and proposing services in the shortest possible time. 4) Assurance: Refers to masters' knowledge and politeness as well as their capability to transfer assurance to students. 5) Empathy: Refers to the precision and attention of the masters to meet the students' educational needs.

In Farajollahi and Moenikia's study, a different method was used and the satisfaction rate of Payam-e Noor University students was higher than the intermediate level, but it was significantly lower than the quality of teaching of the Open British University [23]. Likewise in Zandi, Moenikia and Zahed's study, it was demonstrated that tutors in face-to-face sessions of Payam-e Noor University classes appear to use speech to understand academic concepts and subjects. They usually avoid mutual interaction with learners and incorporating their viewpoints [24]; while mutual relation and interaction amongst tutors and learners is the pivotal element to take learners' satisfaction in distance education [25]. As it was pointed out previously, many studies have dealt with the satisfaction of learners in distance education; these studies believe that the learners' satisfaction is an important factor of analyzing quality of education [26] and it is also believed that the quality of educational services is very important in academic achievement. Thus, authors in this study examine the following issues:

- Students' satisfaction rate about the quality of teaching services.
- Is there a relationship between the satisfaction of students in terms of the quality of teaching and their academic achievement?

MATERIALS AND METHODS

Statistical Community: Students (over their third term of the curriculum) of the Iranian Payame Noor University composed the statistical community of our study during their second semester in 2010-2011. These students were studied in all courses including B.S. M.S. and PhD's of various fields throughout Iran. They have experienced the quality of teaching services for at least two semesters.

[1]Quality = perception - expectation

Sample: The multi-phase clustering method was used for sampling. Also, Iranian provinces were then divided into three classes: developed, intermediate and deprived classes. Then, a province was selected in each class. For example, the province of Tehran was selected as a developed province, Guilan was selected as an intermediate province and Ardabil was selected as a deprived province. Out of the selected provinces, Payame Noor University of the capital city of each province and a center/unit were selected randomly. The sample volume was measured as 476 people based on Krejcie and Morgan Table through considering $\alpha = 0.05$ and cluster sampling.

Instruments: Teaching quality data was measured as a gap between expectation state and perception state using a 22-question servqual questionnaire with the framework of 5 components. The reliability of the questionnaire and its components were measured by Cronbach's Alpha (Table 1). Measured values showed that the questionnaire and its components enjoy high internal similarity in terms of both current and desired states. It must be said that the measurements over these gaps indicate low service quality in its related dimensions. Academic achievement was obtained through asking this question from students directly.

Procedure: A Descriptive-correlation method was used in this study. Data was collected through a print based instrument in paradise. The collected data was analyzed through the Pearson correlation matrix and linear multiple regression.

RESULTS

Diagram 1 shows the students' perception from service quality and expectation from the service of face-to-face tutoring service quality in classrooms and its components. The highest gap is related to tangibility (2.2) and lowest one is related to assurance (1.84).

According to results of table 2, there is a significant relation amongst all components of tutoring service quality and academic achievement ($p < 0.1$). Similarly, a relation was obtained between tutoring service quality and academic achievement ($r = -0.6$). With regards to this fact it's apparent that a larger gap shows inferior service quality; thus concerning the negative mark of correlation relations between tutoring service quality and its components with academic achievement, it can be concluded that academic achievement declines with an increasing gap or a decline in quality of service.

According to results of table 3, $F_{(5,570)} = 53.36$ shows that $R = 0.602$ with $p < 0.01$ in confidence level 99% is significant. In other words, 36% of academic achievements of distance education students are implied based on changes of teaching service quality.

Table 1: Psychometrics features of teaching service quality questionnaire

Component	Number of questions	Reliability of perception (α)	Reliability of expectation (α)
Tangibility	4	.82	.90
Reliability	5	.92	.92
Responsiveness	4	.88	.95
Assurance	5	.89	.92
Empathy	4	.91	.87
Face-to-face tutoring (total)	22	.96	.98

Table 2: The simple correlation among tutoring service quality, its components and academic achievement

Variable	1	2	3	4	5	6	7	Mean (std.deviatin)
1. Tangibility	-							8.8 (3.7)
2. Reliability	.68**	-						9.4 (5.1)
3. Responsiveness	.65**	.84**	-					8.1 (4.1)
4. Assurance	.71**	.84**	.84**	-				9.2 (4.9)
5. Empathy	.70**	.76**	.82**	.85**	-			8.6 (4.1)
6. servequal (total)	.82**	.92**	.92**	.94**	.91**	-		44.1 (19.8)
7. Achievement	-.51**	-54**	-.54**	-.58**	-.53**	-.60**	-	14.9 (2.2)

** P < .01 n= 476

Table 3: Predicting the academic achievement on the base of Face-to-face tutoring service quality

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	838.76	5	167.75	53.36	.000
Residual	1477.52	470	3.14		
Total	2316.29	475			

	Coefficients				
	Unstandardized coefficients				
Model	B	Std. Error	Standardized coefficients Beta	t	Sig
Constant	17.9	.22	-	81.99	.000
Tangibility	-.11	.03	-.18	-3.28	.001
Reliability	-.05	.03	-.10	-1.35	.178
Responsiveness	-.06	.04	-.10	-1.26	.207
Assurance	-.12	.04	-.27	-3.02	.003
Empathy	-.01	.04	-.01	-.16	.876

$R = .602$, $R^2 = .362$, Adj. $R^2 = .355$

Predictors: (constant), Tangibility, Reliability, Responsiveness, Assurance and Empathy

Dependent Variable: students' achievement

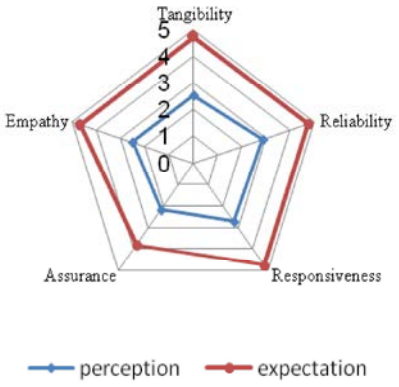

Fig. 1: Students' perception and expectation from Face-to-Face tutoring service quality

Amongst the quality of tutoring services, the shares of tangibility (Beta = -0.18) and assurance (Beta= -0.27) are significant in comparison with other components ($P < 0.01$).

DISCUSSION

Our findings showed that there is a gap amongst desired state (expected condition) of tutoring service quality and its current state as a whole in all five dimensions. Straightforwardly, students are not completely satisfied with the presented face-to-face tutoring services. This finding is seemingly reasonable on according to Zandi, Moenikia and Zahed. It was concluded that university masters in face-to-face sessions of Payame Noor University preferred dialogue in order to understand academic concepts and subjects. They usually avoid mutual interaction with learners and also incorporating their viewpoints [24]; while mutual relations and interactions amongst tutors and learners is the pivotal element to earn the learners' satisfaction in distance education [25]. Therefore masters who guide students and prepare opportunities for discussion and operation [13, 28] and invigorate positive interaction between students[29] are considered the best masters. Inferior quality of tutoring service in this study was not matched with Frajollahi, Moenikia [23]. It seems that such repugnance was because of the high precision of this study [14, 19-22] and the different samples used in them.

The next and main findings of the study showed that the quality of the masters' tutoring service was a meaningful point of reference for predicting students' academic achievement. In terms of the importance of interaction between the masters and the students in distance education and the necessity of face-to-face tutoring, these findings are seemingly reasonable in order to simplify the learning process [2], make it seem attractive for learners [7], to improve learning quality [8] and to meet educational demands of students [9]. Likewise, based on Motamedi and Tabatabeie's study which indicates the importance of face-to-face education in Payame Noor University and it's envision to run such sessions, this finding is normal [10, 30]. Jakobsdottir believes that the designers of distance education must improve educational experiences and incentives by preparing face-to-face

sessions in an academic complex [11]. Chen, Shang and Harris have focused on positive effects of face-to-face sessions and have alleged that such sessions must be held in person and physically [12]. Therefore, the authorities and masters of Payame Noor University are invited to improve tutoring quality through class sessions because most theorists believe that the prosperity of distance education relies on the quality of support service and particularly face-to-face tutoring for students [2, 3 and4]. Otherwise, learners will be disappointed and will embark to dropout [5, 6].

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