Global Business and Management Research: An International Journal
Vol. 6, No. 2 (2014)

Improving Service Quality in Special Education Institutions: Servqual Scale

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Abstract
Purpose: The purpose of this research is to compare the perceptions and expectations of parents about the service quality of special education institutions for handicapped students and to put forward suggestions to improve the education quality in these institutions.
Design/Methodology/Approach: For this purpose, the perceived and expected service quality in four state institutions giving special education service to handicapped students in Ankara, the capital city of Turkey, by 226 parents was assessed under five basic dimensions – physical assets, reliability, responsiveness, trust and empathy – using "Servqual scale". In the study, whether there is a difference between the perceived and expected service quality by parents in terms of their children's handicap was analysed using "t-test".
Findings: The fact that negative Servqual scores were determined between the perceptions and expectations of parents about the service quality of special education institutions and their perceptions and expectations in the five dimensions of service quality shows that the service quality of special education institutions they made use of didn't meet their expectations. Considering the Servqual scores, it was determined that reliability dimension was the most important factor among service quality dimensions affecting satisfaction in parents negatively. It was also found that there was no significant difference between the perceptions and expectations of parents about service quality dimensions in terms of their children's handicap.
Originality/Value: There are numerous studies to improve service quality in education sector using Servqual method. This study is important in that it is intended to improve the service quality of special education institutions for handicapped students. Protecting the education right of handicapped students and improving the service quality of the related special education institutions will enable these institutions to take on a more effective role in reintegrating handicapped students into the society.

Keywords: Servqual Scale, Service Quality, Education, Handicapped Students, Special Education Institutions

Paper Type: Case Study

Global Business & Management Research: An International Journal

Vol. 6, No. 2, 2014
pp. 169-184

Introduction

Children requiring special education are defined as those having difficulty in speaking, communication and interaction, learning and grasping, those with social, emotional and behavioural disorder and attention deficit, and those who are hearing impaired, visually impaired, multiple sensorial and physically impaired (Davis and Florian, 2004). Special education is a discipline focusing on the special education need of a child with education and society oriented principles (Ainscow et al., 2006). This education involves the principle that a school-age child between the ages of three and twenty-one will be able to legally use such services as education, special transportation and speaking within the least restricted environment. General education is assessed as a separate system and handicapped children are generally separated from kindergarten time in order to meet their specific needs (Wilmshurst and Brue, 2005). In special education institutions, depending on the disability of a child, special tools are used and education is conducted by teachers possessing special education knowledge and experience. Within special education process, small units may sometimes be attached to general schools on the condition of providing separate premises and specific times. Thus, handicapped children are integrated to others during certain activities (Save the Children, 2002).

Education is a right and it is supposed to be provided. All children should be provided with education of a good quality, education programs should be determined according to their needs, appropriate and required equipment and resources should be provided and children should be enabled to make use of this education at maximum level. The education right of children should be respected. Any regulation or decision that will damage the education right of handicapped children shouldn't be applied. Collective or individual educational barriers should be removed (Unicef, 2012).

There are numerous studies on improving education quality (Borges, Santos, Leal, 2014; Foropon, Seiple, Kerbache, 2013; Hall, 2006; Fattahi, Dahlan, 2013; Summers et al., 2005; Forrester and Parkinson, 2004; Chua, 2004; Krach, 2003). The trend in improving the service quality in education sector is based on student-centeredness (Berrio and Henderson, 1998). Special education institutions that aim improving the ability of handicapped individuals to move independently within the least restricted environment and integrating these individuals into the society provide their services through cooperation of the stakeholders within this education process. The family that assures the active participation of the handicapped individual into this education process, the teacher who uses an educational program, method and tools appropriate for the handicapped individual's characteristics and needs, health officers who follow the physical and mental development of the handicapped individual, the other workers in an education institution and the state that provides legal and tangible supports to improve special education services are among the major stakeholders. Improving the service quality in special education facilitates faster and easier achievement of the aims determined for handicapped individuals (British Columbia Ministry of Education, 2013; The Massachusetts Department of Education, 2001). Since the disability levels and characteristics of the children in need of special education are different from one another, the quality of the service provided by the related institutions should be so as to support the development of all students.

In this study, Servqual Scale developed by Parasuraman, Zeithhaml and Berry to measure the service quality of special education institutions was used. The service quality is based on the mean Servqual score determined out of the difference between the perceived and expected service. In this study, the service quality levels perceived and expected by the parents of handicapped students in four state institutions that provide special education service in Ankara were compared. These parents were asked to grade the statements in the scale and the analyses were conducted taking the Servqual scores into account.

The study comprises of four parts. In the first part, the problem of the difference between the perceived and expected quality of the service provided by the above mentioned institutions is explained. In the second part, the concepts of special education applications for handicapped students and service quality are analysed. In the third part, the model in which the parents' perceptions and expectations about the quality of the service provided by the above mentioned institutions, analysis applications and research findings are presented. The last part involves assessment of the results.

Special Education Applications for Handicapped Students

Special education process is a type of education designed upon certain stages. First of all, if a student is suspected to be handicapped, s/he should be sent to Special Education Committee or Preschool Special Education Committee. The committee assesses the abilities and needs of the students and upon this assessment, it is decided whether the student should follow special education service and program. If it is decided that the student should have special education, s/he is to be provided the individualized education program that will meet her/his needs at the closest centre to her/his house and in the least restricted manner. Afterwards, assessments are made about the benefit the student gets from the education programs and services and about the performance (Gloeckler, 2002).

Special education requires one-to-one education, different learning materials, special equipment, expert staff and effective strategies (Keslair and McNally, 2009). In special education, teachers use special methods and teaching skills aimed for handicapped children (Save the Children, 2002) so as to provide an appropriate education program differentiated according to the disability of the student. Hearing and visually impaired children are exposed to an almost similar education program to general education programs. Also, additional education programs and methods required for this program process are taken into account. Special education programs are required in meeting the education needs of mentally handicapped children (Banerjee, 2006). On the other hand, severely handicapped children cannot perform their daily routine on their own due to their severe disabilities; therefore, their education is a challenge and so they require more attention. However, they are generally ignored or confined. Educations for independent activity are rare (Gentry and Parks, 1977). Special techniques are used in educating such children. Accordingly, it is seen that special education services are more sensitive to the needs of handicapped children and their families, also provides a more effective and fruitful learning (Rosenbloom, 1980).

Barriers for handicapped children in special education processes should be removed. For example, precautions should be taken at schools to prevent abuse of, violence and maltreatment against handicapped children (Unicef, 2012). Also, some of the major barriers in delivery of special education are not being able to access to a special education institution, the school's far location from where the handicapped child lives, the teachers' not being at the desired expertise level, lack of appropriate teaching and learning materials, lack of support for the handicapped children in the education environment, negative attitude of some families towards the disability, feeling of social shame due to the disability and poverty (Croft, 2010).

All stakeholders in the special education process should act together. Especially the local authorities should come up with local policies for handicapped students to take full advantage of a high quality education. In this context, they should provide them with the required facilities, financial support and necessary resources. The culture, policies, applications of and entrance requirements for these schools should be made well-known easily by everyone. Families should send their children in need to special education centres should support their education and help the proceedings. Children should be able to take

advantage of these educational opportunities, should support their peers in need of a similar education and should be open to cooperation with them. Civil society should support and contribute to the improvement of society-oriented education (Unicef, 2012). In order to achieve the goals determined for handicapped children and to reintegrate them into the society, the quality of the service provided at every level of special education institutions should be raised.

Servqual Analysis for Service Quality of Special Education Institutions

Because a service has its own characteristics, it is difficult to define service quality precisely. Quality is a concept that is difficult to grasp and define, shows discrepancies from person to person according to service type and is in a continuous change. Measurement of service quality is only possible through determining customer satisfaction. Parasuraman, Zeithaml and Berry (1988), as a result of their studies, found the following about service quality:

- Customers' service quality perceptions are a result of comparison of their expectations prior to having a service with the actual service experiences.
- How a service is delivered to the customer is important.
- Assessments about service quality do not wholly rest upon service output, but they also involve the assessment of service delivery process. That is, customers assess not only the service output but also the way it is delivered. The service is regarded as a whole with all its elements.

Customers' service quality perceptions arise from comparison of their expectations prior to having a service with the actual service experiences. If the expectations are met, the service is satisfactory. Service quality is defined as the difference between the perceived quality and expected quality. If the service perceived by the customer meets the expectations, there will be very little, if any, differences between what is perceived and expected. If the expectations are low and perceptions are high, there is high quality; if the expectations are met completely, there is accurate quality; and if the expectations are high but perceptions are low, there is low quality (Parasuraman and Berry, 1985; Parasuraman, Zeithaml and Berry, 1988). Parasuraman et al. made a study to determine the common dimensions of service delivery focusing on group interviews about customer expectations in banking, credit cards, broker, telephone and good repairing and maintenance services and determined 10 determinants of perceived service quality as tangibles, reliability, responsiveness, competence, courtesy, reliability, security, access, communication and understanding/knowing the customer. The surveys in the study were assessed using factor analysis and it was determined that some determinants of service quality were related to one another, and thus, they came up with Servqual service quality scale of 22 statements by reducing service delivery to tangibles, reliability, responsiveness, assurance and empathy (Parasuraman et al., 1988). These five determinants of perceived service quality are summarized below:

- *Tangibles:* Image of the institution's premises, equipment and staff used during service delivery,
- *Reliability:* Competence of the institution to deliver the service it has promised accurately and reliably,
- *Responsiveness:* Willingness to help customers and to provide prompt service,
- *Assurance:* Knowledge and courtesy of employees and their ability to convey trust and confidence,

- *Empathy:* Assessing the employees from the perspective of customers and the employees' ability to give individualized attention to customers (Parasuraman et al, 1998).

Servqual scale is an assessment method advocating the fact that the key to assure excellent service quality is to meet customer expectations completely or even to go beyond those expectations. Servqual scale allows determining the delivered service quality by putting forth the differences between customer perceptions and expectations and the direction and magnitude of the differences. The first of these differences arises from the differences between customer expectations and perceptions of the institution management about the expectations. The second stems from the differences between the perceptions of the institution management about customer expectations and service quality standards. The third difference is due to the differences between service quality standards and service delivery. The fourth comprises of the differences between service delivery of the institution and its communication with external environment. The last difference is the difference between the expected and perceived service (Parasuraman, 1985).
Because Servqual scale determines service quality through the difference between the expected and perceived performance and it allows both detailed information and easy upgrading, it is used extensively in education sector and in researches to determine service quality (Kitchroen, 2004).

A Case Study of Special Education

The aim of the study is to compare the perceptions and expectations of parents about the service quality of special education institutions for handicapped students and to put forth suggestions to raise the education quality of these institutions. For this purpose, the service quality dimensions in the Servqual scale of Parasuraman, Zeithaml and Berry (1985 and 1988), in which they grouped them under 5 dimensions based on customer expectations, are adapted to special education institutions for handicapped students. The research model to be used in the study to determine the service quality of the relevant institutions in terms of reintegrating the students in need of special education into the society is given in Figure 1.

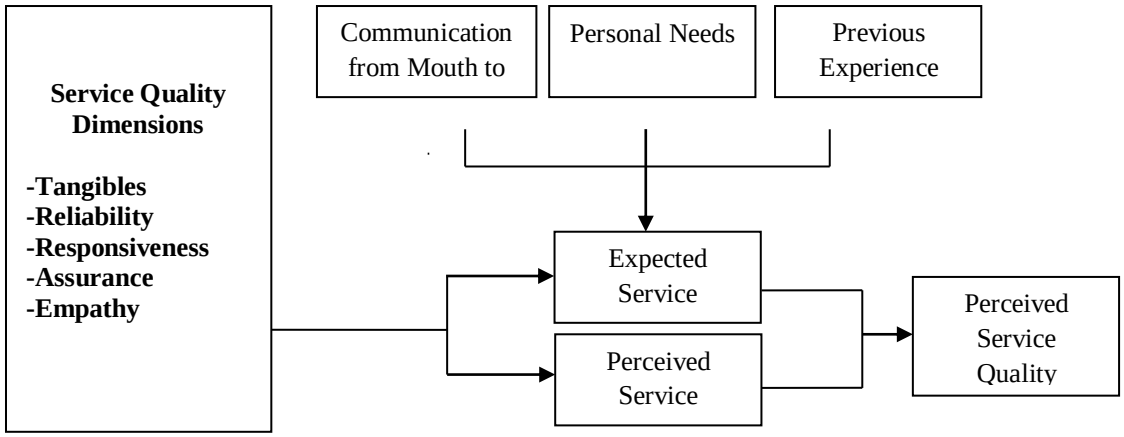

Figure 1: Dimensions of Perceived Service Quality
(Source: Parasuraman et al., 1985: 48)

According to this research model, the following hypotheses are developed for the service quality of four state institutions of special education in the city of Ankara:

H_1: There is a significant difference between the perceptions and expectations of the parents about the special education services.

H_2: There is a significant difference between service perceptions and expectations of the parents in service quality dimensions.

H_3: There is a significant difference between student disability and perceptions-expectations of the parents about service quality dimensions.

Servqual scale in the study comprises of four parts. In the first part, there are 32 questions to determine whether there is a significant difference between the perceptions and expectations of the parents about the special education institutions. In the second part, the parents of handicapped students are asked to grade the 5 dimensions of service quality so as to be total 100 points. In the third part, there are questions to determine the disability of the student in need of special education while the questions in the fourth part are to determine the demographic characteristics of the parents. The questionnaire is 5 Likert type scale with expressions (1) Totally disagree (2) Disagree (3) Undecided (4) Agree (5) Totally agree. The replies are analysed using SPSS 15.0 for Windows.

The population of the study comprises of 539 parents of handicapped students at four state special education institutions in Ankara for handicapped students. In terms of time and cost, simple random sampling is used. Since the population is 539 parents, taking p=0.5, q=0.5, d=0,10 and z=1,96, with the help of equation (1), minimum sampling size is determined as 82 parents (Işık A, 2006).

$$n = \frac{Nz^2 pq}{Nd^2 + z^2 pq} \quad (1)$$

By applying the Servqual scale to the parents of handicapped students for fifteen days, 226 questionnaire forms are obtained, which gives the adequate sampling size. Applying the reliability analysis on the data acquired from the survey questions, Cronbach's Alpha coefficient is found % 95,5, which shows that the scale is reliable (Sipahi et al., 2010). Also applying factor analysis, it is determined that the 32 statements are grouped under 5 factors with eigenvalues bigger than 1 (tangibles, reliability, responsiveness, assurance and

empathy). Table 1 shows the values of expected and perceived Cronbach's Alpha and factor loads of the dimensions determined as a result of the test. Cronbach's Alpha values are determined ***0,832*** for expectations in tangibles dimension and ***0,849*** for perceptions; whereas they are determined ***0,875*** for expectations in reliability dimension and ***0,860*** for perceptions. While they are determined ***0,859*** for expectations in responsibility dimension and ***0,802*** for perceptions; they are determined ***0,867*** for expectations in assurance dimension and ***0,870*** for perceptions. Cronbach's Alpha values are determined ***0,882*** for expectations in empathy dimension and ***0,901*** for perceptions. The Servqual scale used in the study can also be considered reliable in terms of its dimensions.

Table 1: Factor Analysis and Cronbach Alpha Coefficient (n=226)

Factors	**Factor loads**	**Cronbach Alpha**	
		Perceptions	**Expectations**
Factor 1 : Tangibles		**0,832**	**0,849**
Tngbls-1	0,744		
Tngbls-2	0,531		
Tngbls-3	0,765		
Tngbls-4	0,744		
Tngbls-5	0,729		
Tngbls-6	0,719		
Tngbls-7	0,665		
Factor 2: Reliability		**0,875**	**0,860**
Rlblty-8	0,730		
Rlblty-9	0,576		
Rlblty-10	0,506		
Rlblty-11	0,681		
Rlblty-12	0,641		
Rlblty-13	0,635		
Rlblty-14	0,778		
Factor 3: Responsiveness		**0,859**	**0,802**
Rspnsvnss-15	0,642		
Rspnsvnss -16	0,549		
Rspnsvnss -17	0,691		
Rspnsvnss -18	0,651		
Rspnsvnss -19	0,742		
Rspnsvnss -20	0,716		
Rspnsvnss -21	0,518		
Rspnsvnss -22	0773		
Factor 4: Assurance		**0,867**	**0,870**
Assrnc-23	0,575		
Assrnc-24	0,692		
Assrnc-25	0,675		
Assrnc-26	0,743		
Factor 5: Empathy		**0,882**	**0,901**
Empthy-27	0,787		
Empthy-28	0,714		
Empthy-29	0,736		
Empthy-30	0,662		
Empthy-31	0,698		
Empthy-32	0,615		

Notes: Principal component analysis with a varimax rotation .
Kaiser Meyer-Olkin measures sampling adequacy: 0,912
Bartlett's test of Sphericity: 5423,601 p<0,000

Table 2 shows the findings about the demographic characteristics of the parents of handicapped students and about the disabilities of the handicapped students. As seen in Table 2, 40,7% of the students are mentally handicapped, 18,6% are autism, 22,6% are hearing impaired, 4,0% are visually impaired, 8,4% are physically handicapped and 5,8% are multiply handicapped.

Table 2: Demographic breakdown of sample (n=226)

	Frequency (F)	Percentage (%)
Gender		
Female	136	60.2
Male	90	39.8
Total	226	100.0
Age		
Below- 25	17	7.5
26-35	77	34.1
36-45	87	38.5
46-55	36	15.9
56-above	9	4.0
Total	226	100.0
Level of education		
Primary school	60	26.5
Secondary school	67	29.6
High school	72	31.9
University	20	8.8
Master/doctorate degree	7	3.1
Total	226	100.0
Annual income		
৳ 1500 or less than ৳1500	136	60.2
৳1501-2500	76	33.6
৳2501-3500	12	5.3
৳3501-4500	1	0.4
৳4501 or above	1	0.4
Total	226	100.0
Marital Status		
Married	198	87.6
Single	28	12.4
Total	226	100.0
Disability		
Mentally Disabled	92	40.7
Autism	42	18.6
Hearing impaired	51	22.6
Visually impaired	9	4.0
Physically handicapped	19	8.4
Multiply handicapped	13	5.8
Occupation		
Governmental employees	38	16.8
Private Sector	95	42.0
Retired	13	5.8
Housewives	80	35.4
Total	226	100.0

Since Servqual scale measures the difference between the perceptions and expectations of customers in service quality assessment, Servqual scores are based on calculation of the difference between the scores given to "**perception – expectation"** statement pairs as "***Servqual score= Perception score- expectation score"***.

By this way, two types of Servqual score can be computed. The first one is unweighted Servqual score computed without taking the importance determined by parents about quality dimensions into account (the scores of the 5 questions in the third part of the questionnaire are taken into account) and the second one is weighted Servqual score computed by taking the importance determined by parents about quality dimensions into account.

The former score is acquired in three steps. Firstly, the Servqual scores given by each customer to the statements of the relevant dimension are added and then divided by the statement number of that dimension. Secondly, these numbers acquired in the first step for sample volume "n" are added and then divided by sample volume. Finally, the Servqual scores computed for service quality dimensions are divided by total dimension number to get unweighted Servqual score. To compute the weighted Servqual score, the mean of importance level determined by each customer for each service quality dimension is computed.

The Servqual scores computed for service quality dimensions are multiplied by the mean of importance level of the relevant dimensions and the results are added to get weighted Servqual score. When the Servqual score is close to 0, it is interpreted that the service perception is close to the expectations. As seen in Table 3, the weighted Servqual score is computed ***-0.65219*** by adding the numbers acquired by multiplying mean Sevqual scores of service quality dimensions with importance level of each service quality dimension.

Table 3: The mean of importance levels of each service quality dimension given by the parents of handicapped students and the weighted Servqual score

Servqual Service Dimensions	**Means**	**Weighted Servqual Scores**
Tangibles	19.94690	(-0,60872) x (0.1994690)=-0.12142
Reliability	19.16372	(-0.78824) x (0.1916372)=-0.15105
Responsiveness	20.30088	(-0.66372) x (0.2030088)=-0.13474
Assurance	20.24779	(-0.52987) x (0.2024779)=-0.10728
Empathy	20.34071	(-0.67699)x (0.2034071)=-0.13770
Weighted Servqual Score		***-0.65219***
Unweighted Servqual Score		***-0.65351***

As seen in Fig. 2 and 3, in terms of perceived service quality, the most important dimension affecting the satisfaction level of parents negatively is reliability dimension among weighted and unweighted service quality dimensions. In both cases, the dimensions causing dissatisfaction after reliability dimension are as follows empathy, responsiveness, tangibles and assurance dimensions.

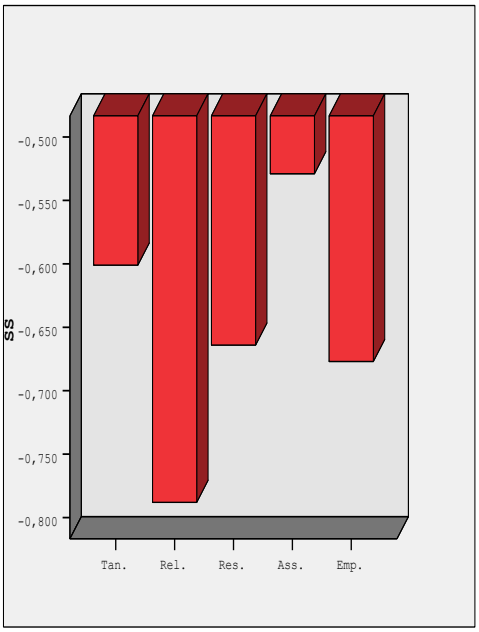

Figure 2: Comparison of Servqual Scores of Service Quality Dimensions

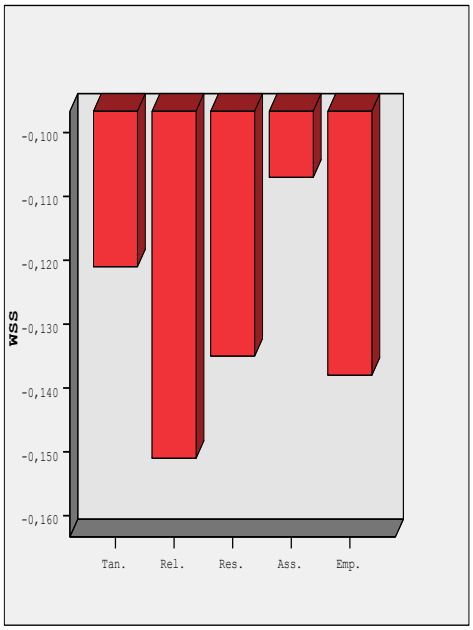

Figure 3: Comparison of Weighted Servqual Scores of Service Quality Dimensions

As seen in Table 4, although not very big, certain gaps are apparent in all five dimensions between the expectations and perceptions of the parents of handicapped students about the service quality of special education institutions.

The negative gaps show that the service quality perceived by the parents of handicapped students is below their expectations. Especially the gap in reliability dimension is at a higher level (***-0.78824)*** than the others. "**Reliability** Rlblty13: There should be a permanent medical staff" and "G14: The teachers should exchange information about the treatment process with the doctors who treat the students" statements in reliability dimension, compared with the other statements in the same service dimension, have a higher gap (***-1.34957; -1.25221*** respectively***)***. It is desired that a permanent medical staff be employed in special education institutions and that the teachers exchange information about the treatment process with the doctors who treat the students. However, analysing the Servqual scores of the statements above, it is seen that the service quality perceived by the parents of handicapped students is below their expectations.

Functionality of the education programs appropriate for the characteristics of handicapped students in special education institutions is important in terms of student-centeredness. However, the fact that students are handicapped requires participation of their families in the education process so as to have a successful educational process. This point is assessed in responsiveness dimension. The negative gap in the responsiveness dimension in special education process (***-0.66372)*** means that the teachers and the other staff are not prompt in responding the needs and demands of the students and that families are not provided with the necessary enlightenment. It also shows that the communication skills, expertise and educational competence of the teachers are not at a desired level. On the other hand, it is also expressed that the theoretical and practical information provided for the students is not up-to-date or applicable, the duration of educational and developmental programs is not utilized properly and the number of students and teachers in classes is not at a desired level.

Table 4: Tabulation of data (*5 Likert type scale)

	Questions	Perceptions						Expectation						
		Frequency of Responses						Frequency of Responses						
		1*	2*	3*	4*	5*	Perception Average	1*	2*	3*	4*	5*	Expectation Average	(P-E)
Tangibles	1	13	18	51	9	54	3.68142	8	4	5	58	151	4.50442	-0.8230
	2	10	18	43	106	49	3.73451	1	6	9	55	155	4.57965	-0.8451
	3	7	12	30	101	75	3.99115	7	4	10	56	149	4.48673	-0.4955
	4	4	14	37	91	80	4.01327	2	6	6	57	155	4.57965	-0.5663
	5	6	19	53	88	60	3.78319	1	3	13	55	154	4.58407	-0.8008
	6	2	10	31	86	97	4.17699	0	3	6	47	170	4.69912	-0.5221
	7	5	7	19	67	128	4.35398	2	3	18	46	157	4.56195	-0.2079
Average							**3,96207**						**4,5708**	
													Average Tangibles	*-0,60872*
Reliability	8	1	11	41	90	83	4.07522	2	3	9	56	156	4.59735	-0,52212
	9	3	13	39	81	90	4.07079	1	5	8	55	157	4.60177	-0.53097
	10	4	6	39	99	78	4.06637	1	8	7	69	141	4.50885	-0.44248
	11	2	14	50	87	73	3.95133	0	3	11	59	153	4.60177	-0.65044
	12	4	24	40	80	78	3.90265	2	3	13	55	153	4.67257	-0.76991
	13	50	25	41	46	64	3.21681	2	4	12	69	139	4.56638	-1.34957*
	14	39	30	42	66	49	3.24779	2	4	12	69	139	4.5	-1.25221*
Average							**3.79014**						**4.57838**	
													Average Reliability	*-0.78824**
Responsiveness	15	4	13	45	88	76	3.96903	2	2	11	61	150	4.5708	-0.60177*
	16	2	14	53	91	66	3.90708	2	2	13	68	142	4.53097	-0.62389*
	17	4	15	39	92	76	3.97788	0	2	8	58	158	4.64602	-0.66814*
	18	3	13	42	107	61	3.9292	1	3	6	66	150	4.59735	-0.66814*
	19	3	9	52	88	64	3.84513	0	2	9	64	151	4.61062	-0.76549*
	20	2	13	63	86	62	3.85398	2	0	16	54	154	4.58407	-0.73009*
	21	4	10	48	103	61	3.91593	0	1	11	63	151	4.61062	-0.69469*
	22	22	13	34	75	82	3.80531	13	3	15	53	142	4.36283	-0.55752*
Average							**3.90044**						**4.56416**	
													Average Responsiveness	*-0.66372**
Assurance	23	6	16	43	89	72	3.90708	1	5	10	55	155	4.58407	-0.67699
	24	2	10	41	87	86	4.08407	1	2	10	65	148	4.57965	-0.49558
	25	3	8	35	94	86	4.11504	0	1	16	61	148	4.57522	-0.46018
	26	3	10	43	85	85	4.05752	0	2	14	69	141	4.54425	-0.48673
Average							**4.04093**						**4.5708**	
													Average Assurance	*-0.52987*
Empathy	27	4	9	31	93	89	4.12389	0	4	6	67	149	4.59735	-0.47345
	28	3	14	38	85	86	4.04867	0	5	7	63	151	4.59292	-0.54425
	29	3	14	39	96	74	3.99115	0	1	10	66	149	4.606195	-0.61504
	30	2	10	33	111	70	4.04867	0	3	12	56	155	4.606195	-0.55752
	31	3	12	40	103	68	3.97788	0	3	8	67	148	4.59292	-0.61504
	32	44	29	36	57	60	3.26549	0	7	10	67	142	4.522124	-1.25664
Average							**3.90929**						**4.58628**	
													Average Empathy	*-0.67699*
Overall Average = -0.65351														

Comparison of perception, expectation and gaps may not be sufficient. Therefore, a hypothesis test is required that allows probabilistic decision making process. "*H_1: There is a significant difference between the perceptions and expectations of the parents about the special education services."* hypothesis is found statistically significant (t=15.565; p<0.01).
The results of t-test conducted to determine whether the difference between the perceptions and expectations of the parents of handicapped students about service quality in service dimension is statistically significant are shown in Table 5.

Table 5: T-test on the Difference between the Perceptions and Expectations of the Parents of Handicapped Students about Service Quality in Service Dimension

Service Quality Dimensions	Special Education Institutions	
	t-Value	Sig.(2-tailed)
Tangibles	-6,958	,000
Reliability	-5,689	,001
Responsiveness	-27,567	,000
Assurance	-10,680	,002
Empathy	-5,742	,002

As a result of the test, t values of service dimensions are found statistically significant (p<0,05).

"H_2: There is a significant difference between service perceptions and expectations of the parents in service quality dimensions." hypothesis is accepted. Therefore, significant differences are determined between the perceptions and expectations about the service in service quality dimensions in terms of data. Analysing the t-values in Table 5, it is seen that the difference between perception and expectation in responsiveness and assurance dimensions is higher than the difference in the other service dimensions.

"H_3: There is a significant difference between student disability and perceptions-expectations of the parents about service quality dimensions." hypothesis isn't accepted. Variance analysis results give F=0.635; p>0.05 values.

Conclusion

In this study, conducted to compare the perceptions and expectations of parents about the service quality of special education institutions for handicapped students and to put forward suggestions to improve the education quality in these institutions, H_1 hypothesis analysing whether there is a difference between the perceptions and expectations of parents about special education services is accepted. H_2 hypothesis testing whether there is a difference between perceptions and expectations in service quality dimensions is also accepted.
Determination of the negative gaps between perceptions and expectations of the parents in all five dimensions of service quality of special education institutions shows that the quality of that special education service they have been having does not meet their expectations. The biggest gap between the service quality dimensions belongs to reliability dimension, which means that;

- when the students are faced with problems, the teachers and the other staff of the institutions do not approach them sympathetically or in an analytic way,
- the institution isn't regarded reliable for students and families,

- the education service isn't provided within the stated process or duration,
- records of the education process aren't kept accurately and meticulously,
- the teachers aren't equipped with the required knowledge and experience in the relevant education services,
- there is no permanent medical staff employed in the institution,
- the teachers do not exchange information about the treatment process with the doctors who treat the students.

The fact that the biggest gap is found in "There should be a permanent medical staff" and "The teachers should exchange information about the treatment process with the doctors who treat the students" statements in reliability dimension is appalling in terms of physical, psychological and social development of handicapped students.

Also, the second biggest problem determined in this study in service quality dimensions is the gap in responsiveness dimension. The fact that the disabilities of the handicapped students in special education institutions are various and at different levels requires the participation of their parents into the education process actively. However, the analysis shows that the teachers;

- are not prompt in responding the needs and demands of the students,
- do not provide the necessary enlightenment to the families that participate into the education process,
- cannot form communication with the students at an adequate level,
- do not have adequate level of expertise and educational knowledge,
- do not provide their students with up-to-date and applicable theoretical and practical information,
- do not utilize the time of educational and developmental programs properly,
- conduct their lessons with inappropriate number of students in class,
- and the other staff of the institution are not willing to help the students.

On the other hand, since no significant different is observed between the disability of the students and the perceptions and expectations of parents about service quality dimensions, H_3 hypothesis isn't accepted.

Accordingly, it is suggested that special education institutions should try to raise their service quality for handicapped students to be able to act independently, to be reintegrated to the society and to enjoy a better life quality. A wider evaluation with a bigger sample and different city in future studies might reveal more detailed results. It will also compared state and special institutions giving special education service to handicapped students.

Acknowledgments:
The authors of this study would like to thank Mr. Sinan Tunçbilek, the director of special education institution for handicapped students for his sincere contributions and supports.

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To cite this article:

Behdioğlu, S. & Şener, H.Y. (2014). Improving Service Quality in Special Education Institutions: Servqual Scale. *Global Business and Management Research: An International Journal*, 6(2), 169-184.