Measuring Educational Service Quality Using Analytic Hierarchy Process

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ABSTRACT
The main purpose of this study is to identify, evaluate and prioritize the educational service quality factors in public secondary schools by using parents' views. To do this, the author applied Analytic Hierarchy Process method since it offers a systematic approach for multiple criteria decision making. The findings show that individual development is the most important determinant of service quality in public secondary schools, respectively followed by educational development and physical maintenance factors. This might be seen as evidence that parents want their children gain academic and social skills simultaneously.

Keywords: Educational service quality, Analytic Hierarchy Process, Public Secondary Schools

1. Introduction

Service industry and service quality have become popular research areas in a range of research areas (Kuruüzüm, 2001; Zeithaml, 1988). This trend can be directly linked to the increased importance of service quality in today's human life. Consumers in developed nations as well as in developing ones are becoming more conscious of and seeking for quality in products and services they buy. Thus, there has been an increasing interest among researchers in measuring and improving service quality.

Although a wide array of settings, such as banking, tourism, and insurance has been examined to date to measure service quality, educational sector has been relatively neglected in studies on service quality (Shank et al., 1995). In fact, educational service quality is of paramount importance. It is because the school and education quality has a strong effect on individual earnings, distribution of income and overall economic growth of a nation (Hanushek, 2002; Pittman, 2000). Moreover, as Hong (1997) reported, the efficiency of transmitting technical and vocational skills, which are important attributes in economic development, depends on the quality of education. Another important consideration about this fact is that schools are operating in a progressively competitive environment (Bussel, 1998). Today, an institution that delivers a better quality education is more likely to acquire a competitive advantage (DiDomenico & Bonnici, 1996). Therefore, understanding of service quality in education sector becomes the most important reason underlying parents' choice of school for their children. It would seem that there is ample opportunity for a broad range of research to apply, measure and manage service quality within secondary level educational institutions. This study tries to contribute to this field. It focuses on selected secondary public schools in the city of Antalya, Southern Turkey.

Stressing the importance of the service quality for the education sector, specifically secondary level of education, this study has two objectives: first, to determine and prioritize the educational service quality

criteria within public secondary schools from parents' point of view; second, to demonstrate the relative usefulness and simplicity of AHP methodology in evaluating the quality of educational services.

This paper is structured as follows: It first discusses the measurement of service quality in education sector along with the instruments, their advantages and shortcomings. It further introduces AHP (Analytic Hierarchy Process) methodology as a powerful quality measurement tool for education sector and establishes a conceptual framework with an emphasis on parents' orientation in terms of physical maintenance, individual and educational development. Then, it provides the rationale to identify the most important quality criteria in schools using AHP model and discusses the findings with implications. The paper concludes with some limitations of the current research and offers suggestions for future studies.

2. Measuring Educational Service Quality

As it is impossible to improve what you cannot measure, service improvements usually mandate the establishment of service standards and measurement of service quality. Qualified education requires continuous improvement process through systematic and collective evaluation of the system (De Jager & Nieuwenhuis, 2005). The measurement of service quality, however, is not easy because of its intangible and elusive nature (Min & Min, 1996; Franceschini et al., 1998; DiDomenico & Bonnici, 1996). Despite these difficulties, education institutions -as service firms- have to measure service quality in order to better understand their customers' expectations. As qualified service expectations vary from one group of customer to another, various scales have been developed by several studies to identify customer expectations more deeply. Studies attempting to measure educational service quality can be examined in three groups according to instruments they use:

- • studies that used modified SERVQUAL scale (Shank et al., 1995; Owlia & Aspinwall, 1998; Wright & O'Neill, 2002; Soutar & McNeil, 1996; Cuthbert, 1996),
- • studies that used structural models with secondary data and contained variables such as expenditures per student, class size represented by student-teacher ratio, instructional materials per student, etc. (Silins & Murray-Harvey, 2000; Cahans & Elbaz, 2000; Bussel, 1998; Senthilkumar & Arulraj, 2011),
- • studies that used other service quality instruments with academic components such as HedPERF, EduQUAL, HETQMEX (Cook, 1997; DiDomenico & Bonnici, 1996; LeBlanc & Nguyen, 1997; Firdaus, 2006; Ho & Wearn, 1996; Senthilkumar & Arulraj, 2011).

There are some common characteristics of these studies and instruments. First, a review of these studies demonstrates that these studies generally tend to focus on higher education institutions and their problems. In comparison, the studies on primary and secondary level education are still hazy. Second, these studies and instruments all have a quantitative approach. However, the measurement of educational service quality must be holistic. Using qualitative techniques would provide more detailed and clear information about opinions, perceptions and expectations of subjects. Third, widely used instruments, such as SERVQUAL, SERVPERF and HedPERF, have a non-comparative perspective. In order to make a comparative analysis, they require the collection of several sets of data. For example, if SERVQUAL is used to conduct a comparative analysis of three firms, three sets of questionnaires are required: each with 44 statements- assuming the original 22 items of Parasuraman et al., 1988 (Chow & Luk, 2005).

To overcome underlined shortcomings, a comparative evaluation model that combines both qualitative and quantitative methods with a focus on secondary level of education was used in this study. The study is built upon the Analytic Hierarchy Process (AHP) methodology to measure the important criteria of service quality. The AHP, developed by Thomas L. Saaty (1980), is a decision-making method for prioritizing alternatives when multiple criteria must be considered. This method was often used in numerous research

areassuch as marketing, production, management (Kuruüzüm & Atsan, 2001). In recent years, it has been also used in education setting as a multi criteria decision-making method (Tsinidou et al., 2010; Altunok et al., 2010). The AHP provides a rigorous examination of parents' views of quality factors and ranks those factors and sub-factors. The strength of the methodology is that it can integrate both quantitative and qualitative information. The other important advantages of AHP are its simplicity, robustness and ability to incorporate intangibles into the decision-making process. It is also applicable to both individual and group decision making, and it can make consistency checks upon pairwise decision judgments and sensitivity analysis capability (Zakarian & Kusiak, 1999; Tsinidou et al., 2010).

3. The Application of the Analytic Hierarchy Process (AHP) Methodology

The analytic hierarchy process is a decision-making methodology for ranking and selecting decision alternatives when multiple decision making criteria must be taken into consideration. It makes it possible to rank alternative courses of actions based on the decision maker's objective and subjective judgments concerning the importance of the criteria. The application of the AHP methodology involves four steps (Zahedi, 1986):

1. Developing a hierarchical structure of the decision problem in terms of overall objective, criteria, sub-criteria and decision alternatives,
2. Collecting input data with pairwise comparisons of decision elements in the hierarchy,
3. Using the eigenvalue method to estimate the relative weights of the decision elements,
4. Aggregating the relative weights of decision elements to arrive at a set of final ratings.

According to the original proposal of Saaty (1980), a complex problem system is divided into sub-systems and expressed in a hierarchical form (see Figure 1). In this hierarchical leveling of quality determinants, the top level of the hierarchy represents the overall objective/goal of the decision process. The elements in intermediate levels are the selection criteria or sub-criteria. Finally, the bottom level presents alternative decisions to be evaluated. This process of constructing the hierarchical structure of the decision problem is the first step of AHP.
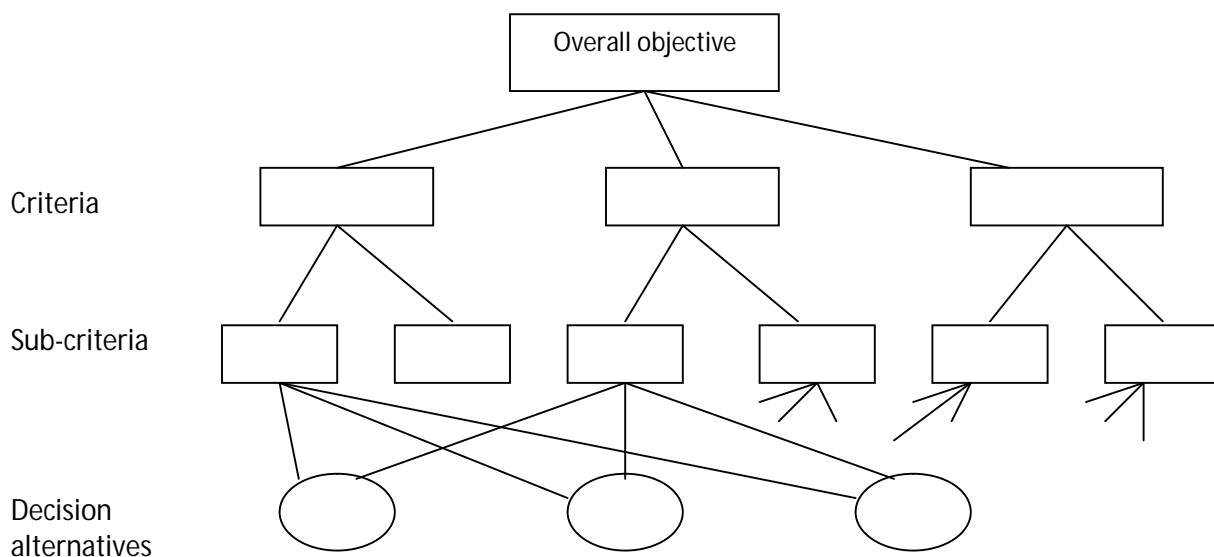

Figure 1. The typical hierachical structure of a decision problem

In the second step of AHP, pairwise comparisons are used to determine the relative importance of each alternative in terms of each criterion (Wind & Saaty, 1980). If the determined level of the hierarchy includes n elements, then, a total number n (n-1)/2 pairwise comparisons should be made. These pairwise comparisons are made according to the 1-9 preference scale introduced by Saaty (1980) and they are transformed to pairwise comparison matrices (see Appendix).

After the pairwise comparison matrices are formed, the next step is to calculate the priority (relative weight) of each compared element. This part of the AHP is called "synthesis". In terms of matrix algebra, synthesis phase consists of calculating the largest eigenvalue and corresponding eigenvector of the matrix, and then normalizing it to sum 1.00 or 100 percent. This is done by dividing the elements of each column by the sum of that column (normalizing the column) and then adding the elements in each resulting row (to obtain "row sum") and dividing this sum by the number of elements in the row (to obtain "priority weight").

Another important consideration in terms of the quality of final decision is the consistency of the judgments formulized by decision makers. Being consistent is accepted as a precondition of rational thinking. However, it is impossible to be completely consistent in practice. AHP does not require a perfect consistency. It allows inconsistency, but it also provides a measure of inconsistency in each judgment. A consistency ratio of 10 percent or less, which is proposed by Saaty, is generally the acceptable level of consistency of judgments (Saaty, 1980). The detailed knowledge about the mathematical aspects of synthesis process and consistency ratio is provided by Saaty (1980; 1994).

3.1. Developing the Educational Service Quality Hierarchy

As discussed above, in the Analytic Hierarchy Process, a decision problem is decomposed into a hierarchy where overall objective, criteria, sub-criteria and decision alternatives are shown (see Figure 1). In the case of educational service quality evaluation, the overall objective is to determine the most important educational service quality factors. In order to identify the criteria that are important in measuring service quality in public schools, parents of secondary school students (actual customers), parents of private and public kindergarten students and parents of primary school senior students (potential customers) were interviewed. A customer-focused approach to quality measurement is, naturally, based on opinions of people who use a service or product (Owlia & Aspinwall, 1998). In considering the service provided by a secondary school, parents are seen as primary customers since they are dominant decision makers acting on behalf of their children in elementary and secondary level education. Thus, it becomes important to identify determinants or critical factors of service quality from the stand point of parents being the primary customers. In this study, a group of 200 parents were selected with quota sampling, and they were asked to give their opinions and mention their expectations from public secondary schools. They were encouraged to list all the factors that influenced their perception according to their experience. Using the views obtained together with the review of the quality literature in education, the determinants of service quality were specified. These determinants are illustrated in a proposed framework for AHP model in Figure 2.
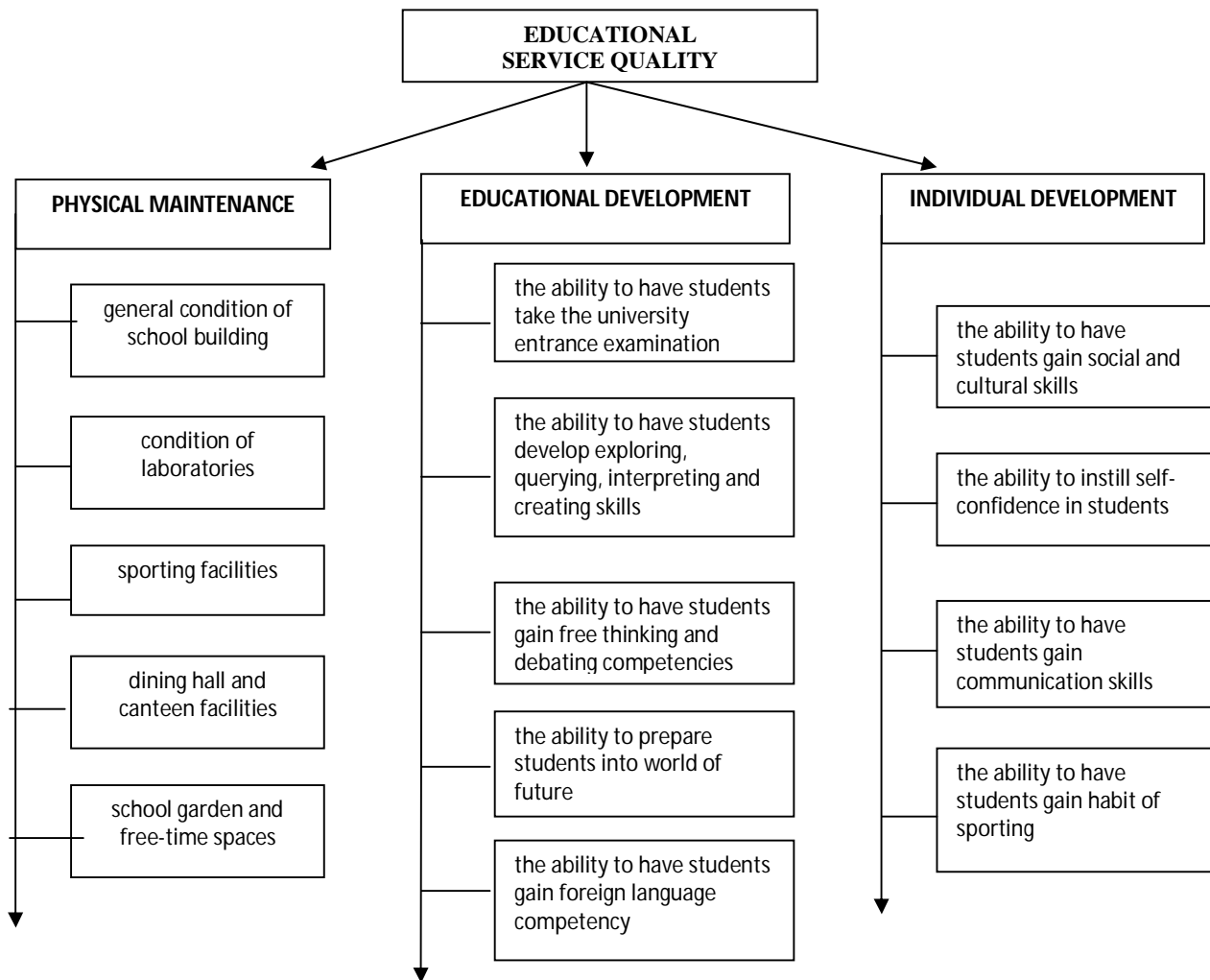
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                          ┌─────────────────────────┐
                          │      EDUCATIONAL         │
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PHYSICAL MAINTENANCE	EDUCATIONAL DEVELOPMENT	INDIVIDUAL DEVELOPMENT
general condition of school building	the ability to have students take the university entrance examination	the ability to have students gain social and cultural skills
condition of laboratories	the ability to have students develop exploring, querying, interpreting and creating skills	the ability to instill self-confidence in students
sporting facilities	the ability to have students gain free thinking and debating competencies	the ability to have students gain communication skills
dining hall and canteen facilities	the ability to prepare students into world of future	the ability to have students gain habit of sporting
school garden and free-time spaces	the ability to have students gain foreign language competency	

Figure 2. Proposed framework for educational service quality factors for the case study.

At the first level of the hierarchy, there are three educational service quality factors: physical maintenance, educational development and individual development.

At the second level, there are sub-criteria that contribute to each main factor:
- condition of laboratories, sporting facilities, dining hall and canteen facilities, general situation of school building, school garden and free time spaces.
- the ability to have students take the university entrance examination, the ability to have students develop exploring, querying, interpreting and creating skills, the ability to have students gain free thinking and debating competencies, the ability to have students prepare into world of future, the ability to have students gain foreign language competency
- the ability to have students gain social and cultural skills, the ability to instill self-confidence in students, the ability to have students gain communication skills, the ability to have students gain habit of sporting.

3.2. Determining the Relative Importance (weights or priorities) of Educational Service Quality Criteria and Sub-Criteria

After developing the educational service quality hierarchy, decision makers have to determine the relative weights (importance) of quality criteria and sub-criteria. This study includes three public secondary schools which have the largest student group in the province. Saaty (1980) suggested interviewing relevant evaluators and taking their views for pairwise comparisons in using AHP. Chin et al. (1999) reviewed the literature and stated that three to seven evaluators are usually selected as a representative sample of members to assign relative scales. Thus, from each school, five parents who are members of school council and also conscious of the development of their children and improvement of the school they are educated in were interviewed and asked to fill the pairwise comparison forms using a preference scale (see Appendix). Those pairwise comparison forms had four parts and were prepared considering the hierarchical structure seen in Figure 1.

The first form was designed to make a pairwise comparison of physical maintenance, educational development and individual development criteria, which are under the main goal of service quality in education. The second form was used to make a pairwise comparison of the sub-criteria which are related to general conditions of school building, the conditions of laboratories, sporting facilities, dining hall and canteen facilities, school garden and free-time spaces and which are under the physical maintenance criterion. The third and fourth forms were used to make a pairwise comparison of the sub-criteria placed under the educational development and individual development. In this way, 15 pieces of (3 schools * 5 parents) pairwise comparison matrices were obtained.

To have a better understanding of the methodology, pairwise comparison matrices and priority weights of one of the parents among the group (labeled as T1 in Table 5) were given in Table 1,   Table 2, Table 3 and Table 4 respectively.

TABLE 1. Pairwise comparison of educational service quality goal criteria

	A	B	C	Priority weight
A	1	1/3	1/5	0.097
B	3	1	1/5	0.202
C	5	5	1	0.701
				C = 0.10

A: Physical maintenance
B: Educational development,
C: Individual development

TABLE 2. Pairwise comparison of physical maintenance sub-criteria

	D	E	F	G	H	Priority weight
D	1	3	5	7	3	0.474
E	1/3	1	5	3	3	0.261
F	1/5	1/5	1	2	1/2	0.081
G	1/7	1/3	3	1	1	0.072
H	1/3	1/3	1/2	1	1	0.112
						C = 0.06

D: General condition of school building,
E: Condition of laboratories,
F: Sporting facilities
G: Dining hall and canteen facilities,
H: School garden and free-time spaces

TABLE 3. Pairwise comparison of educational development sub-criteria

	I	J	K	L	M	Priority weight
I	1	5	5	5	9	0.556
J	1/5	1	3	2	5	0.197
K	1/5	1/3	1	2	4	0.119
L	1/5	1/2	1/2	1	3	0.090
M	1/9	1/5	1/4	1/3	1	0.038
						C = 0.06

I: the ability to have students take the university entrance examination
J: the ability to have students develop exploring, querying, interpreting and creating skills
K: the ability to have students gain free thinking and debating competencies
L: the ability to prepare students into world of future
M: the ability to have students gain foreign language competency

TABLE 4. Pairwise comparison of individual development sub-criteria

	N	O	P	Q	Priority weight
N	1	1/5	3	7	0.241
O	5	1	5	7	0.617
P	1/3	1/5	1	1	0.080
Q	1/7	1/7	1	1	0.062
					C = 0.10

N: the ability to have students gain social and cultural skills
O: the ability to instill self-confidence in students
P: the ability to have students gain communication skills
Q: the ability to have students gain habit of sporting

Each pairwise comparison matrices was evaluated using the Expert Choice Version 2000 software package. Priority weights were calculated. Priority weights obtained and normalized for 15 decision makers are presented in Table 5.

TABLE 5. All the normalized priorities of criteria and sub-criteria

	T1	T2	T3	T4	T5	U1	U2	U3	U4	U5	V1	V2	V3	V4	V5	Average weights
A	0.10	0.33	0.09	0.14	0.32	0.06	0.14	0.06	0.06	0.14	0.22	0.43	0.33	0.10	0.10	0.174
B	0.20	0.33	0.30	0.58	0.46	0.47	0.43	0.47	0.24	0.43	0.46	0.43	0.34	0.39	0.45	0.399
C	0.70	0.34	0.61	0.28	0.22	0.47	0.43	0.47	0.70	0.43	0.32	0.14	0.33	0.51	0.45	0.427
D	0.47	0.17	0.25	0.28	0.22	0.17	0.13	0.22	0.34	0.19	0.56	0.44	0.41	0.38	0.52	0.317
E	0.26	0.28	0.46	0.39	0.24	0.37	0.19	0.58	0.14	0.26	0.11	0.14	0.20	0.25	0.26	0.275
F	0.08	0.15	0.17	0.09	0.29	0.18	0.24	0.08	0.24	0.15	0.11	0.14	0.11	0.13	0.09	0.150
G	0.07	0.17	0.04	0.08	0.11	0.11	0.24	0.08	0.16	0.14	0.11	0.14	0.07	0.06	0.05	0.109
H	0.11	0.23	0.08	0.16	0.14	0.17	0.20	0.04	0.12	0.26	0.11	0.14	0.21	0.18	0.08	0.149
I	0.55	0.31	0.21	0.19	0.34	0.09	0.10	0.07	0.38	0.21	0.07	0.15	0.04	0.06	0.06	0.189
J	0.20	0.02	0.37	0.20	0.28	0.35	0.28	0.38	0.32	0.24	0.41	0.22	0.30	0.22	0.29	0.283
K	0.12	0.19	0.19	0.17	0.21	0.35	0.26	0.23	0.12	0.21	0.29	0.28	0.30	0.38	0.35	0.243
L	0.09	0.19	0.13	0.32	0.10	0.16	0.29	0.27	0.12	0.18	0.18	0.28	.030	0.27	0.22	0.206
M	0.04	0.12	0.10	0.12	0.07	0.05	0.07	0.05	0.06	0.16	0.05	0.07	0.06	0.07	0.08	0.077
N	0.24	0.25	0.18	0.22	0.3	0.34	0.23	0.22	0.11	0.39	0.16	0.24	0.20	0.18	0.34	0.240
O	0.62	0.25	0.60	0.58	0.3	0.34	0.38	0.49	0.6	0.39	0.47	0.31	0.52	0.37	0.44	0.444
P	0.08	0.25	0.15	0.13	0.1	0.22	0.13	0.13	0.24	0.15	0.28	0.31	0.20	0.31	0.14	0.188
Q	0.06	0.25	0.07	0.07	0.3	0.10	0.26	0.16	0.05	0.07	0.09	0.14	0.08	0.14	0.08	0.128

In Table 5, T1, T2, T3, T4 and T5 variables were used for the views of parents from first school; U1, U2, U3, U4 and U5 variables were used for the views of parents from the second school and V1, V2, V3, V4 and V5 variables were used for the views of parents from the third school. The explanations of the variables A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q can be seen in the Appendix.

3.3. Calculating the Average Weights

AHP allows one to evaluate the judgments of a group of people in the pairwise comparison process. This is a critical issue since each member of a group, as it is in our study, makes a judgment for all criteria and these judgments should be combined in a way to provide consensus. There are some approaches proposed in the literature to gather the judgments of several people. These are (Saaty, 1980; Rangone, 1996; Liberatore et al., 1997; Zakarian & Kusiak, 1999; Armacost et al., 1994; Wilson, 1994):

- To enable group members to come to a consensus by debate
- To resort to a facilitator who has the task to arrive at a consensus on the judgments of the members
- To aggregate the individual paired judgments on the basis of mathematical operations like a geometric or arithmetic mean.

When there are a large number of factors or people in the group, using geometric mean increases the number of calculations. Therefore, after calculating the priority weights of the judgments of each person, their arithmetic mean was taken and average weights were found. Average weight values calculated for each criterion and sub-criterion are presented in the last column of Table 5 .

3.4. Analyzing the Comparative Results

In this last phase, the average weights were evaluated. As it is seen from Table 5 and Table 6, with respect to the criteria of the hierarchy, the most defining factor that affects the physical maintenance criterion was the general condition of the school building with a weight of 0.32. Sporting facilities and school garden & free time spaces are equally important with 0.15 weights. The ability to have students develop exploring, querying, interpreting and creating skills (0.28) and the ability to have students gain free thinking and debating competencies (0.24) were respectively found to be the most defining factors of educational development criteria. The most important factors that affect individual development appeared to be the ability to instill self-confidence in students (0.45), the ability to have students gain social and cultural skills (0.23), the ability to have students gain communication skills (0.19) and the ability to have students gain the habit of sporting (0.13) respectively.

The most important criterion that affects the main goal was found to be the individual development with a weight of 0.43. While educational development ranked the second, the criterion which has the least influence on service quality in public schools was found to be physical maintenance.

In conclusion, we can say that among the determinants of the educational service quality in selected public schools, individual development proved to be more important than physical maintenance and educational development criteria.

Table 6. Educational service quality determinants with overall priorities

Educational Service Quality Factor Criteria	Overall Priorities
Physical Maintenance	*0.17*
General condition of school building	0.32
Condition of laboratories	0.27
Sporting facilities	0.15
Dining hall and canteen facilities	0.11
School garden and free-time spaces	0.15

Educational Development	*0.40*
the ability to have students take the university entrance examination	0.19
the ability to have students develop exploring, querying, interpreting and creating skills	0.28
the ability to have students gain free thinking and debating competencies	0.24
the ability to prepare students into world of future	0.21
the ability to have students gain foreign language competency	0.08
Individual Development	*0.43*
the ability to have students gain social and cultural skills	0.24
the ability to instill self-confidence in students	0.44
the ability to have students gain communication skills	0.19
the ability to have students gain habit of sporting	0.13

4. Discussion and Suggestions

The main objective of this study was to examine the process of parental evaluation of educational service quality within public secondary schools by identifying, prioritizing and examining the criteria used by parents. The AHP methodology was used in the study as it draws on both qualitative and quantitative information. The general results of the study demonstrate that parents indicate the *individual development* as the most important quality factor in public secondary schools. *Educational development* takes the second place with a slight difference. Parents, then, seek more specific items under *physical maintenance* criterion. The findings show that despite the serious lack of financial resources, laboratory maintenance, computer and library maintenances in Turkish public schools (Gedikoğlu, 2005), parents did not evaluate physical maintenance as a prior factor of service quality. The significant point that must be underlined at this point is that parents treat individual development as important as and even more important than educational development. This refers to the responsibility of educational institutions, raising students with strong social, cultural, sporting, communication, free and creative thinking skills. Developing just academic skills of students is not enough. Students must also be inspired to develop their intellectual skills. In Turkey, up to now, transmitting academic skills and enhancing quantitative abilities have been considered to be important. Developing social skills of students has generally been neglected (Özden, 1999). However, the current study demonstrates that the parents' view has been changing. In other words, parents demand an education program providing individual and educational skills simultaneously. This might mean that there is an increase in social awareness about raising fully equipped individuals for the future of the nation. As Guile (2001) noted in the information or knowledge–based economies of the future, people will become capital rather than traditional factors of production. Therefore, full intellectual development of each student is a must. Educational institutions have the most important duty in this respect. However, the results of the study are more important and carefully taken into consideration by policy makers as they are decision makers of service quality and its improvement in education sector.

One step further in our study would be adding decision alternatives (schools) to the model. At that time, it would be possible to compare schools in terms of the quality criteria parents specified and to identify the best school. The theoretical construct of AHP methodology makes comparison, prioritization and selection of the best decision alternatives. However, the main objective of our study was not to select the schools and the best one but was to identify the educational service quality criteria and prioritize them. In this context, we tried to prove that AHP is a valuable planning and measurement tool in education sector, as well. It is presented as an alternative method to various common service quality measurement tools traditionally used to identify, prioritize and compare service quality criteria in various areas.

A suggestion for future research is to broaden the model by getting also students' and teachers' views regarding educational service quality and to integrate them to the model. As Sillins and Murray-Harvey

(2000) pointed out, "any effort to improve academic performance of students needs to be a collaborative one that involves students, their families and the school's community". Also, further studies may replicate the model in other educational settings. Specifically, a public and private school comparison would give interesting and useful results.

On the other hand, this study has several limitations. First, the data were gathered in a specific geographic area of Turkey; therefore, the results can be specific to this area. Research scope should be augmented in order to obtain a representative sample. Moreover, participants were not randomly selected. One may think this would cause bias. Also, as the number of public schools is gradually increasing, it is obvious that there is a need for a more comprehensive study.

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APPENDIX

Please take into consideration the preference scale when making pairwise comparison.

Preference weight	Definition	Explanation
1	Equally important	Two activities contribute equally to the objective
3	Slightly more important	Experience and judgement slightly favour one over another
5	Strongly more important	Experience and judgement strongly favour one over another
7	Very strongly more important	An activity is strongly favoured and its dominance is demonstrated in practice.
9	Absolutely more important	The evidence favouring once activity over another is of the highest degree possible of affirmation
2, 4, 6, 8	Intermediate values	Used to present compromise between the preferences listed above.

Source: Saaty (1980)

Form 1. Pairwise comparison form for criteria of educational service quality goal

	A	B	C
A			
B			
C			

A: Physical maintenance
B: Educational development
C: Individual development

Form 2. Pairwise comparison form for sub-criteria of physical maintenance criterion

	D	E	F	G	H
D					
E					
F					
G					
H					

D: General condition of school building
E: Condition of laboratories
F: Sporting facilities
G: Dining hall and canteen facilities
H: School garden and free-time spaces

Form 3. Pairwise comparison form for sub-criteria of educational development criterion

	I	J	K	L	M
I					
J					
K					
K					
M					

I: the ability to have students take the university entrance examination
J: the ability to have students develop exploring, querying, interpreting and creating skills
K: the ability to have students gain free thinking and debating competencies
L: the ability to prepare students into world of future
M: the ability to have students gain foreign language competency

Form 4. Pairwise comparison form for sub-criteria of individual development criterion

	N	O	P	Q
N				
O				
P				
Q				

N: the ability to have students gain social and cultural skills
O: the ability to instill self-confidence in students
P: the ability to have students gain communication skills
Q: the ability to have students gain habit of sporting