Determining the Competencies of Educational Administrators in Turkish Education System and These Competency Degrees by Multi-Criteria Decision Making

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Abstract

The main aim of this research is to determine the dimensions, the importance level and the weight of the main competencies of sub-competencies that educational administrators should hold. And to propose a systematic model for assignment of educational administrators is another aim. To reach this aim, literature is reviewed, expert opinion is gotten and eight main competencies and sub-competencies of them are identified. One of the ''Multi-Criteria Decision Making'' methods – ''Analytical Hierarchy Process '' which allows evaluation of subjective and objective qualities together – is used. Depending on ''Analytical Hierarchy Process '' method, the competencies are derived by a group of 10 people containing academics and educational administrators who have at least 10 years of field experience. According to the results, main competencies that educational administrators should hold are leadership, administration of educational programs and environment, creating an effective communication and working environment.

Introduction

Education, through the axis of contemporary development, is under going through significant changes in terms of its theory, content and practice. As a result of these changes, all countries are restructuring their own educational systems. Within this period, educational leaders hold a critical position by providing quality education to meet or even exceed expectations. In this respect, educational leaders have responsibilities in a wide variety of areas such as identifying their own visions, ensuring their personal and professional developments, motivating students and improving the professional competencies of teachers (OECD, 2009).

According to Drucker (1996), developments in scientific and technological fields in the 21st century are increasing rapidly and doubling in numbers every four years. Individuals who can adapt to this rapid development should be endowed by qualities such as being able to access information as soon as possible, transforming this information into new knowledge and being able to use it (Yeniçeri & İnce, 2005). It comes up as a necessity for the schools to train the individuals with such features that the configuration of the goals and functioning of these schools should be compatible with these facts.

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On the other hand, since the schools are located in the center of the education system, the effectiveness of the school indicates the effectiveness of the entire education system (Aytaç, 2000). As for that, one of the most important tasks of the educational administrators is to make the schools effective and efficient (Ağaoğlu, Altınkurt, Yılmaz, & Karaköse, 2012; Leithwood & Jantzi, 1999; Özmen, 2002; Usdan, 2000). Educational administrators try to provide expected outcomes with their existing knowledge, abilities and experiences as well as providing effectiveness in administration, the environment of trust and cooperative learning (Gareis & Tschannen-Moran, 2005 as cited in Ağaoğlu et al., 2012).

Effective school management seems to be possible with the presence of educational administrators who are able to comprehend and adapt to sociological and technological changes and have competencies to manage these changes (Agut, Grau, & Peiró, 2003). As school leaders and administrators are responsible for the change and transformation in schools, they have to be equipped with various qualifications to be able to execute this process. Although the teacher factor is seen as one of the most important factors affecting the success of the students, education administrators also play an important role in terms of the development of the teacher (Cheney, Davis, Garrett, & Holleran, 2010).

From a general point of view, the competencies of educational administrators represent a whole composed by attitudes and values such as behaviors that are necessary to achieve organizational effectiveness and the knowledge along with abilities. However, these competencies may vary according to both the changes in administrative science and the adopted understanding and the philosophy (Ağaoğlu et al., 2012; Bursalıoğlu, 2015; Güçlü, 2003; Gümüşeli, 2006a; Gökçe, 2008). So, it is hard to talk about universally accepted competencies in terms of educational administrators' competencies. On the other hand, on countries that accepted education administration and school administration as a field which needs specialty, some competence fields are determined and administrators are assigned according to these competencies.

In general terms, it is hard to connect administrative competency with theoretical and hypothetical background. Because while the standard management theories based on organization structure prioritize the organizational and technical competencies, the theories based on human relations put emphasis on administrative competencies on a psycho-social dimension. According to modern and post-modern management theories, organization structures and processes vary depending on time and situation, so the competencies also change (Bursalıoğlu, 2015; Güçlü, 2003; Gümüşeli, 2006b).

Competencies have their own limits. For example, it is less and less evident for organizations to consider competencies alone as tools for achieving knowledge, abilities and perfection on recruitment applications. Development of competencies in the future requires a debate on how certificates and diplomas are systematically supported and completed by other means and methods, and how individuals better document and present their abilities and competencies than those that are considered official.

The competencies of school administrators and leaders, throughout all levels of education, are one of the most important factors determining both the quality of learning and teaching as a process and the quality of the outcome of the education as a result. Therefore, programs aiming to train school administrators and leaders are prepared comprehensively, including administrative, economical, legal and personal aspects of education (Bitterová, Hašková, & Pisoňová, 2014).

If we were to look at the subject matter from the perspective of Turkey, it is seen that the subject of educational administration as the matter of appointment and by who this appointment should be used is rather discussed as centered.

According to Bursalıoğlu (2015), the basic competencies a school administrator should possess; having the knowledge of modern administration theories, effective decision making and leadership abilities. However, according to Aslanargun (2011), the qualities, values and educational philosophies

of educational administrators are disregarded as they have been given a role as an implementer of central policies. Therefore, in our country, matters related to power and politics in the way of by whom and how the school administrators are to be appointed are rather more important than the factors such as leadership ability, ethical values, pedagogical formation (Peker & Selçuk, 2011). In his work, in order to determine the necessary competencies for school administrators according to the views of the scholars, Uslu (2013) states that the school administrators should possess qualities such as management processes, financial and organizational competencies as technical competencies, qualities such as motivation, teamwork, individual psychology as humane competencies, and qualities such as philosophy of education, management and organization theories and theories of leadership as conceptual competencies.

When the literature related to the competencies of the school administrators in Turkey is analyzed, more research can be found which determine the competency of the administrators in the specific area of competency and fewer can be seen which determine the competency of the administrator overall. In Table 1 below, the results of the research aiming to determine overall competency of educational administrators is shown and in Table 2, the results of the research aiming to determine the competency of educational administrators on specific area is presented.

Table 1. Research aiming to determine the overall competency of educational administrators

Basic Competency Areas	Writer
• The usage, protection, maintenance of buildings, facilities and fixtures of the school • Administration of school according to managership principles, • Management of the school staff, • Behaviours of leadership, • Creating a positive atmosphere at school and providing subsidiary services, • School-environment relations, • Providing discipline and continuation.	Bursalıoğlu, 1981
• To explain the goals and the philosophy of the school, • To identify and promote the policy of the school, • To provide for school activities, • To develop the attentive and democratic management in the school, • To form relationships between individuals and groups at school, • To plan teaching and training activities, • To examine environmental values and to gain their support, • To provide communication and coordination between the elements in and out of the school, • To develop and implement an effective business management, • To monitor and evaluate the studies done.	Kaya, 1993
• Administration of the school according to managership principles • Leadership, • Creating a positive work environment, • Planning the works of education and training in and out of the school • Evaluating the education and training exercises impartially • Making attempts on research, development and revision • Coordination of teaching activites at school and in its environment	Aksüt, 1997
• Technical competencies, • Humane competencies, • Decisional competencies.	Başar, 2000

Table 1. Continued

Basic Competency Areas	Writer
• Educational leadership, • Research and professional development, • Management of human resources, • Relations between school and surroundings, • Communication, • Student affairs, • School managership, • Personality characteristics.	Şahin, 2000
• Communicating with people-working effectively, • Preparing sufficient school buildings and surroundings, • Service for the profession, • An effective organization administration, • Administration of the training program and its environment,	Ağaoğlu, Gültekin, and Çubukçu, 2002
• To have a vision, • To be able to make a difference, • Having the ability to adapt to changes, • Being aware of own strengths and weaknesses, • Being able to reflect self-confidence, • Being able to coordinate, • Establishing a balance between moral and professional values.	Dönmez, 2002
• Educational leadership, • Research and professional development, • Management of human resources, • Relations between school and surroundings, • Communication skills, • School managership.	Şener, 2004
• Having a vision, • Being versatile, • Planning, • Organizing, • Communication, • Objectivity/ impartiality.	Onural, 2005
• Decision making, • Planning, • Organizing, • Communication, • Coordination, • Influencing, • Evaluating.	Barut, 2007
• Deciding on topics related to school management, • Planning of educational and training activities inside and outside of the school, • Organizing the educational activities for both school and surroundings, • Creating communication inside and outside of the school, • Co-ordination of education and teaching activities in school and around, • Education and teaching activities that are applied at in and out of school, • Solving problems related to authority and responsibility, • Behaviour of leadership, • Being able to create a positive atmosphere at school, • Creation, study and evaluation of social clubs,	Kombıçak, 2008

Table 1. Continued

Basic Competency Areas	Writer
• Student guidance and counseling services, • Providing discipline and continuation, • Management of school staff, • School-environment relations, • Research-development-renovation, • Administrating the school according to managership principles, • Providing assisting services, • Usage, protection and maintenance of the buildings, facilities, fixtures of the school.	Kombıçak, 2008
• To form a common school culture, • To get help from institutions outside the school, • To set and carry out school policies, • To plan efficiently, • To reach goals of the school,	Abat, 2010
• Communication skills, • Sociability, • Honesty, • Being rationalistic/structural oriented, • Sincerity/ tolerance, • Leadership, • Being fair, • Supporting • Loyalty toward values, • Being innovative, • Problem solving, • Diligence.	Karadağ, 2011
• Management of the presentation of curriculum, • Management of the staff, • Continuous professional development, • Resource management, • School, family and community relations, • Management of the students, • System of values of the school, • Administrative management.	Peker and Selçuk, 2011
• Technical, • Humane, • Conceptional.	Uslu, 2013
• Knowledge of modern management theories, • Deciding effectively, • Leadership.	Bursalıoğlu, 2015

When Table 1 is examined, educational leadership, business management, vision management, supporting professional development, having ethical values and effective communication skills, effective decision making ability, being fair and objective can be given as examples of the competencies that school administrators should have.

Table 2. Research Aiming to Determine the Competencies of Educational Administrators in Specific Areas

Competency Area	Writer
Competencies in terms of information Technologies	Artul, 2003
Knowledge management	Celep and Çetin, 2003; Özsarıkamış, 2009
Conflict management	Elma, 1998
Change management	Ak, 2006; Argon and Çelik, 2008; Gökçe, 2008
Supervision	Öncel, 2006
Education and teaching	Deniz, 1997; Saçal, 2002
Human resources management	Karaca, 2009
Human relations and communications	Okutan, 1988; Öksüz, 1997; Topluer, 2008
Leadership	Arslan and Beytekin, 2004; Babaoğlan and Litchka, 2010; Gümüşeli, 2006a, 2006b; Güngör, 2001; Kırılmaz, 2005
Competency in managing school's monetary resources	Göndelen Yozgat, 2009;
Competency in the organization of school directors	Toprakçı, 2001
Social skills	Çelik, 2004; Kara, 2000
Competency related to roles on technological leadership	Artul, 2004; Sezer, 2011; Yılmaz, 2008
Meeting management	Şencan, 2008
Competency in expertise	Çetin and Adıgüzel, 2006
Administration-management processes	Barut, 2007; Demircan, 2001; Seçkin, 2003

According to the results of various studies, the results of the studies aimed at determining the competencies of educational administrators in specific areas can be seen when Table 2 is examined.

When practices in Turkey from past to present are examined, although there is a custom created where educational administrators are taken into consideration by their qualifications, there is still an ongoing practice where the administrators rise in ranks on management based on their both performance and experience as a teacher (Balcı & Çınkır, 2002).

Ethics transformational leadership and values come into prominence when interpretivist approach is substituted by positivism which can be characterized as a paradigm shift. Thus, social facts such as good, beauty, aesthetics and justice which cannot be measured from a rational point of view have become important in education as well and administrators who are able to create an organizational culture based on these values in education and who prioritize moral development have been preferred (Aslanargun, 2011)

When the education system of different countries is examined, it is seen that there are three basic applications in the appointment of school administrators. According to the findings of OECD, Slovenia, Finland, Germany, Spain and Belgium can be given as examples for countries where training in management is compulsory before appointment. As for the countries where the training in management is compulsory after the appointment are Austria, Belgium, Czech Republic and Sweden. Along with Turkey, Norway, Denmark and Netherlands are examples of countries where education for management is not given (Balkar & Kalman, 2015).

It is seen that it is handled and applied as in-service training in the appointment regulation of number 30455 (21 June 2018) even though the topic of educational administration is discussed frequently as it should be considered as to be an area of expertise on the 19th Ministry of National Education Council (2-6 December 2014). Legal arrangements twice in 2004, once in 2006, once in 2007, twice in 2008, three times in 2009, twice in 2013, twice in 2014 and once in 2018 have been made by Ministry of National Education fourteen times in order to regulate the process of election, appointment and promotion of the administrators to be assigned into schools and institutions. The arrangements made until 2013 are related to the appointment to duty, and the regulations after this date are related to the forms of appointment (Ergün, 2019).

It is seen in the related literature that the development, selection and appointment of the school administrators should be done according to their achievement of the necessary qualifications of the time in terms of leadership and management or the determined standards. (Açıkalın, 2006; Aydın, 2002; Balcı,

2008; Bursalıoğlu, 2015; Çelik, 2002; Florida Department of Education [FDE], 2018; Gümüşeli, 2004; Hoy & Miskel, 2010; Interstate School Leaders Licensure Consortium [ISLLC], 2008; Şimşek, 2002).

There is a need to develop a systematic approach to determine the competencies of educational administration. The approach to be developed should both reduce the amount of time used and provide a consensus among decision makers. Although there are many studies on the competencies of an educational administrator in the related body of literature, there are no studies that are related to the importance level and severity of the main and sub-dimensions of these competencies. In this study, Analytical Hierarchy Method, which is one of the Multi Criteria Decision Making methods, is used to determine the competencies of educational administrators.

The aim of this study is to determine the extent of the competency areas of the educational managers, who have an important role in the materialization/realization of an effective and efficient management process, and how or which method should be used while determining the importance and severity levels of these main and sub competencies.

It is believed that this study has a unique value to it because of the lack of an example in the educational administration area with the same method. In addition, it is predicted to be an example for future studies in field of educational administration and will contribute to literature.

The results of the research are limited to the personal opinions of the working group and data collection tools. The responses of the research team has been assumed to be sincere and objective.

Method

This study consists of two parts. In the first part of the study; the competencies of educational administrators in Turkey perspective have been evaluated in accordance with the descriptive analysis method with data obtained from related literature. As a result of this evaluation, the main and sub-competency areas of the educational administrators have been tried to be revealed. In the second part; an alternative decision model has been proposed in order to determine and rank the importance of the main and sub-competency areas of educational administrators. In the creation of this model, Analytical Hierarchy Process (AHP), which is one of the methods of Multi Criteria Decision Making (MCDM), has been utilized. The most important advantage of the AHP method is to determine the relative importance levels through the comparison based on the view of expert and its ability to evaluate both the objective and subjective qualities together.

The study group of the research consists of a team of 10 experts consisting of academicians working in the field of education including the researcher and education administrators with at least 10 years of experience. Chin, Chiu, and Tummala (1999) stated that samples of 3-7 people would give more consistent results. However, when the relevant literature is examined (Lee & Kozar, 2006; Wong & Li, 2008; Toksarı & Toksarı, 2011), it is seen that 10 and more decision-makers are working with a sample group and reliable results are reached. It can be said that the selection of the members constituting this team is made in accordance with the objective criterion sampling method which is one of the non-random sampling methods. Demographic characteristics of the participants of the study group are shown in Table 3.

Table 3. Demographic Characteristics of Participants

Study Group	Gender	Title	Study Field
P1	Male	Dr. Faculty Member	Education Administration
P2	Male	Dr. Faculty Member	Education Administration
P3	Male	Associate Professor	Education Administration
P4	Male	Associate Professor	Education Administration
P5	Male	Associate Professor	Education Administration
P6	Male	Dr. Faculty Member	Administration and Organization
P7	Male	Principle	School Administrator
P8	Male	General Manager	Education Administration
P9	Female	Research Assist.	Education Administration
P10	Male	Research Assist.	Education Administration

The forms prepared by the researcher according to AHP method have been answered by the research group and transferred to computer environment. Ms excel program has been used for data analysis.

Decision making forms the core for all administration functions and making the best decision is a difficult task for a decision maker. Decision makers has to choose the most appropriate option among the alternating options which have different goals, sometimes which may conflict with each other, or they have to sort these alternatives according to their importance levels. In this situation MCDM methods help the decision maker. MCDM consists of three steps; determination of the criteria and the alternatives related to problem status, calculations of the effects of criteria on the alternatives and the calculation of the relative importance levels of these criteria and also numerical calculation process in order to determine the order of each alternative (Karaatlı, Ömürbek, Aksoy, & Atasoy, 2015). The main purpose of the MCDM problems is to come up with the most satisfactory alternative with regard to all criteria related to decision (Chatterjee & Chakrabarty, 2012). Primary aim of the MCDM is to identify the criteria and prior standards for alternatives by obtaining the data which can compare the alternatives (Kaya, 2004). In addition, decision makers evaluate and sort out the alternatives which have different features according to determined criteria in MCDM method (Özden, 2009). AHP allows the decision maker to put experience, understanding and intuition into practice in a correct and logical manner on the problem by showing the relations between aim, criteria, sub goals and alternatives, modeling it in a hierarchical structure (Özdemir & Saaty, 2006).

AHP, which was developed by Saaty (1980), is a method that allows for the structuring, measurement and synthesis of a multi-criteria problem. AHP method can be used on selection, prioritization and evaluation problems (Forman & Gass, 2001) and it has been successfully applied in literature, in areas such as product selection, supplier selection, project selection, selection of structure of organization, factory location selection, performance evaluation of technological selection, personnel evaluation, project evaluation, resource allocation problems, benchmarking problems, quality management and strategic problems and areas. The aim of AHP method is to develop a simple systematic approach for decision makers to be able to decide on complicated problems (Kahraman, 1995). For AHS method, first the problem is described in detail and configured using hierarchy consisting of several components. After that, the relative effects of the components, which are located at the bottom level of the hierarchy, on the goals located at the highest level is determined. It is based on a series of paired comparisons and finding comparative weights for each hierarchical level (Evren & Ülengin, 1992).

The AHP method helps the decision maker's configuration of his thoughts and also it helps the decision maker to organize the approached problem with ease. It is a method that has been well accepted by decision makers because of its simplicity and easy usage. AHP method allows the problem to be converted into a hierarchical structure which is composed by sub problems where they can be understood more easily and can be evaluated subjectively (Saaty, 1980, 1990). AHP is a method which takes the thoughts of decision makers and the consistency between paired comparison that is in process into consideration to determine the importance levels of evaluation criteria and alternatives.

The AHP method has four basic stages (Saaty, 1980, 1990):

- Establishing the hierarchical structure of the problem: The hierarchical structuring of the problem of the decision forms the basis of the AHP method. The problem is shown in a diagram where the objective, criteria, sub-criteria and alternatives are presented in hierarchical order. At the top of the hierarchical structure, the objective of the problem, and at the bottom of this structure, the alternatives to be compared are located. There are various criteria and sub-criteria between these two levels. The decision maker compares the elements on each level, in their own rights, against each other. Allowing of the problem to be solved in parts this way, is a powerful feature of the AHP method.

- Creation of paired comparison matrices: Once the hierarchical structure is established, criteria are compared between each other and each element in the hierarchy is compared with its parent as pairs. The scale which is used by decision makers during the paired comparison (Saaty, 2001) is shown in the Table 3.

Table 4. Paired Comparison Scale Used in AHP

Importance level	Description	Explanation
1	Equally Important	Importance levels for both factors are equal
3	Moderately Important	According to experience and judgement, one factor is more important than the other factor.
5	Strongly Important	One factor is strongly important than the other factor.
7	More Strongly Important	One factor is more strongly important than the other factor.
9	Extremely Important	One factor is absolutely more important than the other factor.
2,4,6,8	Values in Between	In-between values of the degrees above for two factors.
Mutual Value	*If any value (x) is/was given when it is compared with j, then when j is compared with i, the value to give would be (1/x)*	

Forming a group decision matrix with the geometric mean method: It is necessary to make a group decision by combining the responses of the participants to the binary comparison matrices into a single matrix. Saaty (2001) recommends taking a geometric mean for the group decision. In many studies (Forman & Peniwati, 1998; Saaty, 2001; Macharis, Spirngael, Brucker, & Verbeke, 2004; Toksarı & Toksarı, 2011; Tektaş Sivrikaya & Ünal, 2018) AHP group decision was made using geometric mean.

The AHP method uses eigenvalue method to calculate the severity level, and according to this method, paired comparison matrices that are formed by the decision maker are used when calculating the severity level of the criteria. Firstly, in this matrix, normalization is performed by dividing each element into its column total. After this process, by averaging the values of its row, the severity of the element is calculated.

Consistency Analyses of matrices: The paired comparisons made by decision makers in the AHP method are controlled under the name of consistency analysis before the calculation of the problem is completed. For example, criteria A, B and C are put in a paired comparison. Assuming criteria A as moderately important compared to criteria B (according to scale: 3), and criteria B as between equally and moderately important than C (according to scale: 2). There has to be consistency in the comparison between criteria A and criteria C and with these two comparisons (comparisons between A-B and B-C). In other words, the expected evaluation from the decision maker should be that the criteria A is strongly or more strongly important than criteria C (according to scale: 6). However, the decision makers may not always be able to make consistent comparisons. Therefore, the consistency analysis ensures that the comparisons are logical and consistent. Saaty stated that in order to obtain reliable results, the consistency ratio should not exceed the value of 0,10. If this value is exceeded, the paired comparison should be performed again. To sum it up, after the determination of the problem and the establishment of hierarchical structure, the comparison of the criteria with each other, the comparison of the sub criteria with the criteria on high levels and the comparison between the alternatives and the elements at the bottom level of the structure are done. Then, the consistencies of all comparison matrices are checked. Once all comparisons are decided to be consistent, final severity values for each alternative are obtained by multiplying and summing the priority level of each element with its parent element until it reaches to the highest level. Finally, the alternative with the highest importance level is decided to be chosen.

Diagram 1 shows the general frame of the group decision making model.
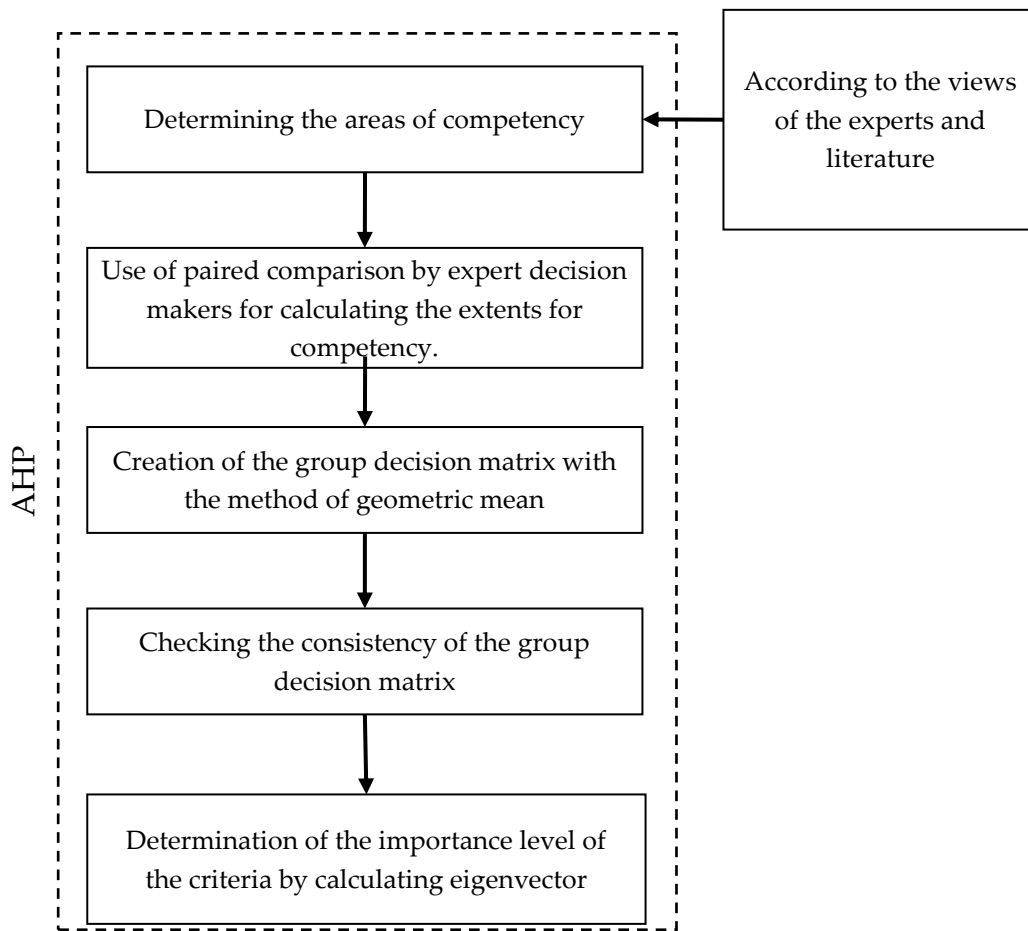
Diagram 1. Recommended group decision making model for the prioritization of the competencies of the educational managers (Saaty, 1980, 2008; Zahedi, 1986)

In this study, in which the problem of the selection of educational managers according to their main and sub competencies is taken into consideration, the size of eight main competency and sub competencies that belong to these sizes, which are given in Table 4, are determined by scanning the literature, analyzing the works which are shown in Table 1 and Table 2 and also by taking the views of the experts into consideration.

Table 5. Main and Sub Dimensions for

Main Dimension	Sub-Dimension
Leadership	Creating and developing an organizational culture
	Ensuring the development of self and the staff
	Motivating the school members
	Determination and presentation of school policies
	Creating a common vision
	Making changes and managing when necessary
	Planning and developing human resources.
Management of programs and setting of education and training programs	Planning education and training activities
	Managing and developing the process of execution and development of education and training programs in a way to reach the goals.
	Creating proper environment for education and training
	Being supportive of students, workers and partners in order to fulfill the achievement and the skills that are located within the education and training program
	Coordination of scientific, social, cultural and sports activities.
	Being able to follow the current developments related to learning and teaching

Table 5. Continued

Main Dimension	Sub-Dimension
Creating effective communication and working environment	Respecting different opinions
	Surveillance of the legal rights of workers
	Effectively using tools for communication
	Creating effective communication between his/her employees
	Writing and speaking understandably, openly, truthfully and coherent.
	Prioritizing scientific data, expectations of partners and effective communication on decisions
	Managing conflicts effectively
	Creating a safe working environment
Management of monetary resources	Knowing and executing the evaluation methods for personnel.
	Ensuring the regular operation of the supportive departments in the school such as cleaning, security and protection departments.
	Facilitating the use of school equipment and devices
	Being able to create resources for the school in legal boundaries
	Having skills in financial management
Management of both internal and external environment of school and collaborators	Developing positive collaborations with professional associations and Civil Society Organization (CSO)
	Ensuring communication and coordination in school and environment outside the school
	Providing an effective guidance service for the students and their families
	Developing strategies that can bring qualified teachers and students to the institution
	Organizing activities intended for parents and students
	Creating a system for monitoring and evaluating the requests and complaints of the teachers, students and parents
Student Focality	Working in order to increase the success of the students
	Creating a way to monitor graduates
	Providing the conditions of a student-centered education environment
	Supporting the students for their attendance in the decision-making process
	Meeting the necessary conditions in order to give a student-centered education
	Preparing a proper teaching environment for students who need special education
Technological competency	Providing the school with sufficient technological equipment
	Creating an online learning environment and benefitting functionally from technology while carrying out education and training programs
	Being a model in terms of using technology with the aim of increasing performance
	Benefitting from technology at all periods.
	Ensuring the equality of opportunity for the accessibility to technology
Institutional Communication	Creating a positive image for the inner and outer target audience (Identification of Corporate Identity)
	Creating a continuous and positive communication and good relations between students, parents, employees and school management
	Creating and developing quality indicators related to the quality difference of the school
	Carrying on with works that should bring success in academics, sports and art both nationally and universally
	Ensuring the security of school
	Ensuring the use of mass media at the right time with the right methods
	Carrying out social responsibility projects

It is seen that the eight main competencies that educational administrators need to have for leadership are the management of education and training programs and environment, creating an effective communication and working environment, management of monetary resources, administration inside and outside of school environment and cooperation, learner focality, technological competencies and institutional communication, when Table 4 is examined.

Table 6. Educational Administrator Competencies AHP Matrice

Educational Administrator Competencies	Leadership	Training programmes and environmental management	Creating effective communication and work environment	Management of financial resources	Management of internal and external environment and cooperations	Student focus	Technological competencies	Institutional communication
Leadership	1							
Training programmes and environmental management		1						
Creating effective communication and work environment			1					
Management of financial resources				1				
Management of internal and external environment and cooperations					1			
Student focus						1		
Technological competencies							1	
Institutional communication								1

Table 7. Leadership Ability's Sub Dimensions' AHP Matrice

Leadership	Creating and developing organizational culture	Ensuring the development of himself and his staff	Motivating school members	Determining and introducing the policy of the school	Creating a shared vision	Making and managing change at school as needed	Human resources planning and development
Creating and developing organizational culture	1						
Ensuring the development of himself and his staff		1					
Motivating school members			1				
Determining and introducing the policy of the school				1			
Creating a shared vision					1		
Making and managing change at school as needed						1	
Human resources planning and development							1

Results

Eight main competency dimensions and a total of fifty sub competencies that belong to these dimensions used in this work were evaluated with the AHP method by a ten-person expert decision-making group of academicians and educational administrators with at least ten years of experience that work in this field.

The normalized AHP matrice is created by dividing the column totals in Table 8 into each element in the column that belongs to the total. The normalized AHP matrice for the main competence dimensions is given in Table 9.

Table 8. Main Competence Dimensions AHP Group Decision Matrice

Geo mean (a) education manager competence	Leadership	Training programs and environmental management	Creating effective communication and work environment	Management of financial resources	Management of internal and external environment and cooperations	Student focus	Technological competencies	Corporate communications
Leadership	1	3,14214317	3,380015159	4,715454628	4,715454628	3,970330014	4,375827296	4,058732545
Training programs and environmental management	0,318254117	1	2,479396987	3,596021848	4,168486483	2,187913648	4,594221859	4,058732545
Creating effective communication and work environment	0,295856661	0,403323875	1	3,393645137	3,970330014	2,479396987	3,868254151	3,614753156
Management of financial resources	0,212068629	0,278085074	0,294668405	1	1,91947122	1,180767206	3,068254809	1,851780633
Management of internal and external environment and cooperations	0,212068629	0,239895224	0,251868232	0,520976814	1	1,345900193	3,589645843	1,777219815
Student focus	0,251868232	0,457056429	0,403323875	0,84690699	0,742997145	1	3,650556766	3,731839293
Technological competencies	0,228528215	0,217664717	0,258514555	0,325918172	0,278579014	0,273930818	1	1,734603662
Corporate communications	0,246382335	0,246382335	0,276644063	0,540020768	0,562676598	0,267964379	0,57650057	1
Total	2,765026818	5,984550824	8,344431276	14,93894436	17,3579951	12,70620324	24,72326129	21,82766165

Table 9. Main Competence Dimensions AHP Normalized Group Decision Matrice

Column normalization	Leadership	Training programs and environmental management	Creating effective communication and work environment	Management of financial resources	Management of internal and external environment and cooperations	Student focus	Technological competencies	Corporate communications	**Average**
Leadership	0,361660145	0,525042441	0,405062376	0,31564845	0,271658944	0,312471785	0,176992317	0,18594445	**0,319**
Training programs and environmental management	0,11509983	0,167096918	0,297131932	0,240714589	0,240147924	0,172192559	0,185825883	0,18594445	**0,201**
Creating effective communication and work environment	0,106999563	0,067394177	0,119840402	0,227167667	0,228732062	0,195132798	0,156462131	0,165604233	**0,158**
Management of financial resources	0,076696771	0,046467159	0,03531318	0,066939134	0,11058139	0,092928405	0,124103967	0,084836418	**0,080**
Management of internal and external environment and cooperations	0,076696771	0,040085753	0,03018399	0,034873737	0,05761034	0,105924655	0,145193055	0,081420532	**0,071**
Student focus	0,091090701	0,076372721	0,048334495	0,056691221	0,042804318	0,078701716	0,147656764	0,17096835	**0,089**
Technological competencies	0,082649547	0,036371103	0,030980488	0,02181668	0,016049032	0,021558825	0,040447738	0,07946814	**0,041**
Corporate communications	0,089106671	0,041169729	0,033153136	0,036148523	0,03241599	0,021089256	0,023318144	0,045813428	**0,040**

When we average the line elements in the normalized AHP matrice, each main competency dimension importance level (weight) is found. According to these results, leadership was found as the most important main competence with a weight of 31,9%. The competency of leadership is folowed by training programs and environmental management (20,1%), creative efective communication and work environment (15,8%), student focus (8,9%), management of financial resources (8%), management of internal and external environment and cooperations (7,1%), technological competencies (4,1%) ve corporate communications (4%).

In line with the consistency calculations of AHP matrice; Consistency Ratio (CR) was calculated using equations 1, 2 and 3.

$$Aw = \lambda_{max} w \qquad (1)$$

$$CI = \frac{\lambda_{max} - n}{n - 1} \qquad (2)$$

$$CR = \frac{CI}{RI} \qquad (3)$$

The result of the consistency calculations is given in Table 10.

Table 10. Main Competence Dimensions Weights and Consistency Ratio

Weight (w)	Consistency	
	A*w	A*w/w
0,319	2,895231078	9,067145
0,201	1,827182874	9,112256
0,158	1,413917032	8,925307
0,080	0,69320698	8,694071
0,071	0,608004942	8,503732
0,089	0,746285158	8,377928
0,041	0,33890805	8,232379
0,040	0,343069691	8,517787
	mean (lambda max)=8,678825	
	CI=0,096975	
	CR=0,069	

When Table 10 is analyzed, it is seen that CR value is calculated as 0,069. Since this value is less than 0,10 it shows that AHP comparison matrice has consistent results. AHP matrices belonging to the sub-dimensions of the main competence dimensions were also analyzed in a similar way. Overall, consistent results (CR ≤ 0.10) were obtained in both main and sub-competence dimensions.

As a result of application of the model given in figure 1, the results given in Table 11 were obtained. Table 11 shows the importance levels of the main and sub-competencies that educational administrators should possess.

Table 11. The Main and Sub-Competencies That Educational Administrators Should Possess

Competency Main Dimension	Sub Dimension	Weight Within Dimension	General Weight
Leadership	1. Creating and developing an organizational culture	33,1%	10,6%
	2. Ensuring the development of self and staff	18,4%	5,9%
	3. Motivating the school members	15,2%	4,8%
	4. Determination and presentation of school policies	10,3%	3,3%
%31,9	5. Creating a common vision	10,6%	3,4%
	6. Making changes and managing when necessary	7,5%	2,4%
	7. Planning and developing the human resources.	5,0%	1,6%

Table 11. Continued

Competency Main Dimension	Sub Dimension	Weight Within Dimension	General Weight
Management of programs and setting of education and training programs %20,1	1. Planning the education and training activities	24,2%	4,8%
	2. Managing and developing the execution and the process of the development of education and training programs in a way to reach the goals	27,8%	5,6%
	3. Creating proper environment for education and training	15,9%	3,2%
	4. Being supportive of students, workers and partners in order to fulfill achievement and skills that are located within the education and training program	17,9%	3,6%
	5. Coordination of scientific, social, cultural and sports activities.	8,5%	1,7%
	6. Being able to follow current developments related to learning and teaching	5,7%	1,1%
Creating effective communication and working environment %15,8	1. Respecting different opinions	22,9%	3,6%
	2. Surveillance of the legal rights of the workers	25,5%	4,0%
	3. Using the tools for communication effectively	11,3%	1,8%
	4. Creating effective communication between employees	9,4%	1,5%
	5. Writing and speaking understandably, openly, truthfully and coherently	7,9%	1,3%
	6. Prioritizing the scientific datas, the expectations of partners and the effective communication in decisions	8,5%	1,3%
	7. Managing conflicts effectively	6,6%	1,0%
	8. Creating a safe working environment	7,9%	1,2%
Learner Focality %8,9	1. Working in order to increase the success of the students	37,5%	3,3%
	2. Creating a way to monitor graduates	10,7%	1,0%
	3. Ensuring that students get an education in accordance with their interests and skills	22,6%	2,0%
	4. Supporting the students for their attendance in the decision making process	9,3%	0,8%
	5. Meeting the necessary conditions in order to give a student centered education	11,8%	1,0%
	6. Preparing a proper teaching environment for students who need special education	8,1%	0,7%
Management of monetary resources %8	1. Knowing and executing the evaluation methods for the personnel	26,3%	2,1%
	2. Ensuring the regular operation of the supporting departments of the school such as cleaning, security and protection	27,2%	2,2%
	3. Facilitating the use of school equipments and devices	16,6%	1,3%
	4. Creating resources for the school in legal boundaries	18,4%	1,5%
	5. Having skills in financial management	11,5%	0,9%
Management of both the internal and external environment of the school and collaborators %7,1	1. Developing positive collaborations with professional associations and Civil Society Organization (CSO)	19,9%	1,4%
	2. Ensuring communication and coordination in school and out of school environment	21,4%	1,5%
	3. Providing an effective guidance service for the students and their families	20,6%	1,5%
	4. Developing strategies that can bring qualified teachers and students to the institution	22,2%	1,6%
	5. Organizing activities intended for parents and students	7,6%	0,5%
	6. Creating a system for monitoring and evaluating requests complaints of the teachers, students and parents	8,4%	0,6%

Table 11. Continued

Competency Main Dimension	Sub Dimension	Weight Within Dimension	General Weight
Technological Competencies %4,1	1. Providing the school with sufficient technological equipment	27,8%	1,1%
	2. Creating a online learning environment and benefitting functionally from technology while carrying out education and training programs	27,1%	1,1%
	3. Being a role model in terms of using technology with the aim of increasing performance	14,9%	0,6%
	4. Benefitting from technology at all periods	12,4%	0,5%
	5. Ensuring the equality of opportunity for accessibility to technology	17,9%	0,7%
Institutional Communication %4	1. Creating a positive image for the inner and outer target audience (Identification of Corporate Identity)	25,8%	1,0%
	2. Creating a continuous and positive communication and good relations between the students, parents, employees and school management	21,1%	0,9%
	3. Creating and developing quality indicators related to the quality difference of the school	17,0%	0,7%
	4. Carrying on with works that should bring success in academics, sports and art both nationally and universally	14,7%	0,6%
	5. Ensuring the security of the school	12,2%	0,5%
	6. Ensuring the use of mass media at the right time with the right methods	5,2%	0,2%
	7. Carrying out socal responsibility projects	4,0%	0,2%

According to the results form Table 5, "Leadership" is the most important main competence dimension with a weight of 31,9% followed by "Management of environment and programs of education and training" with 20,1% and "Creating effective communication and working environment" with 15,8%. The competence dimension with the least importance level is "Corporate communication" with 4%. These three main competence dimensions are seen to be dominant with 67,8% in terms of importance levels when compared to the other five competence dimensions.

When examined, sub competencies "Creating and developing an organizational culture", which is located under the most important main dimension "Leadership", "Managing and developing the execution and the process of development of education and training programs in a way to reach the goals" which is located under the second most important main dimension "Management of environment and programs of education and training" and "Surveillance of the legal rights of workers" which is located under the third most important main dimension "Creating an effective communication and working environment" are seen at the top in terms of importance levels for sub dimensions.

Another important finding is, the two most important sub competencies that belong to the three main competencies hold 35% of the weight of all the fifty sub competencies. As it stands out that the weight total of sub competencies "Creating and developing an organizational culture" (10,6%), "Ensuring development of self and staff" (5,9%) which are located under the main competence "Leadership", "Planning education and training activities" (4,8%), "Managing and developing the execution and the process of development of education and training programs in a way to reach the goals" (5,6%) which are located under the main component "management of education and training programs and environment" and "Respecting different opinions" (3,6%), "Surveillance of the legal rights of workers" (4,0%) which are located under the main competence dimension "Creating an effective communication and working environment" are 35% of all fifty sub competencies.

An important aspect to emphasize in the study is that in order to determine the importance levels of the educational administrator competencies, the views of the experts were taken into

consideration, and the importance levels that were obtained may change if the experts or the decision makers change. Therefore, the generalization of the results that are obtained here would not be appropriate. However, if we accept each expert as a member of sample like in the case of basic statistical logic, by taking opinions from an adequate number of experts, only then the generalization of the importance levels would be possible. Despite the fact that the recommended and used model makes it able to decide as a group or to obtain views from an infinite number of experts, as it stands, the results should be evaluated peculiarly to this work (reflecting opinions from twelve experts).

Discussion

It is seen as a necessity for schools to reach the corporate goals by adapting to the rapid changes and developments of the age. The school administrators are ultimately responsible in the effective management of the alterations and developments of the school. In this context, with the study in order to determine the competencies that the school administrators should possess, by the order regarding their weights of their dimension, the eight competencies that are leadership, education training programs and environment management, creation of effective communication and environment, management of monetary resources, administration of inside and outside school environment and cooperation, learner centeredness, technological competency and corporate communication were determined. The first three competence dimensions are dominant over the other five with an importance level of 67.8%.

According to the research results, "Leadership" is relatively the most important main competence with a weight of 31.9% among all the main competencies. Studies in literature show that leadership is one of the areas of competence that the educational administrators should possess (Aslanargun, 2012; Blase & Blase, 2000; Erçetin & Eriçok, 2016; Eyal & Roth, 2011; Gümüşeli, 2001; Hallinger, 2011; Oklay, 2016; Tepe, 2017). For example, Balcı (2011) and Şişman (2002) reported in their works that leadership is the most important factor that affects the organizational structure. Effective school research similarly emphasizes that leadership is the most important factor that affects the organizational structures (Cummings & Schwab, 1973). Erçetin and Eriçok (2016) identified that leadership is the most prominent competence in their conducted works concerning the administrative competencies of the school administrators. Similarly, it is seen that leadership also stands out among the other competencies that the school administrators should have in the works implemented by Demirtaş (2005), Oğuz (2006), Pont, Nusche, and Hopkins (2008) and Şahin (2000).

Altın and Vatanartıran (2014) point out that leadership of the school administrators has an impact on the realization of the objectives of the school. Özdemir, Sezgin, and Kılıç (2015) suggest that the leadership abilities that should be present in school administrators have a very large scope because of their diverse contexts of the schools, so the school administrators should have a holistic view related to the education and administration. In this sense, Dönmez and Özer (2016) state that it is necessary to go beyond the level of knowledge, to allow the candidates to address the instances, which happened or that might happen, on their own, and to solve problems and make decisions by this way, as well as to measure the leadership abilities to determine the educational administrators. Similarly, Sezer (2016) also mentions that leadership should be one of the necessary competencies which should be taken into consideration while choosing an administrator. In addition, there are findings regarding the effects of leadership behaviors which are displayed by the educational administrators on the reliability of the school. (Arabikoğlu & Demir, 2014).

A leader administrator is expected to be both an administrator who can differentiate between what is an educational attempt and what it should be and an administrator who can use the material and human resources efficiently in his responsibility (Bursalıoğlu, 2015). In this respect, a leader administrator can be interpreted as a person who can carry out both the interests of an organization and the organization itself to a better place with leadership abilities. Similarly, a leader administrator can be seen as the most competent person because leadership corresponds with a power to manage all the resources of an educational organization (Gümüşeli, 2001).

Another important finding from the study is the sub dimension "creating and developing an organizational culture" which is under the leadership main dimension holds 10.6% of all weight of the fifty sub dimensions. Barnes and Spangenburg (2018) found in their work that bad leadership affects the organizational structure in a bad way, and causes an increase in leaves from work, and a decrease in the organizational commitment, motivation and the production. School administrators have the utmost responsibility for determining and shaping the culture within the school (Çelikten, 2006). Analysis of the studies on the role of the educational administrators in creating organizational culture reveals that there is a tendency to recognize the importance of a leader in determining the functional culture of an organization (Bipath, 2012). Kiraz (2018), in his research, which aimed to determine the views of the educational administrators on school administration, found that the majority of the administrators were in an effort to create an organizational culture.

Gürbüz, Erdem, and Yıldırım (2013) assert that creating a learning-based school culture is one of the common traits that successful school administrators have. Aslan and Karip (2014) mention that the student success is affected positively in schools where a school culture is created. Similarly, van der Westhuizen, Mosoge, Swanepoel, and Coetsee (2005) argue that success rate of the students is high in schools which share a common vision and take collaborative decisions with a student-centered organizational culture. It is known that the organizational culture positively affects the job satisfaction level of employees as well as the student success rate (Demirtaş & Yıldırım, 2010; Engels, Hotton, Devos, Bouckenooghe, & Aelterman, 2008; Williamson ve Blackburn, 2010). School leaders who determine a common vision and allow their stakeholders to develop and create a strong organizational culture can influence their teachers and increase their job satisfaction (Jung, Chow, & Wu, 2003). A positive and effective organizational culture not only increases the motivation and job satisfaction of employees, but it also creates trust in the school administration, and prevents disrupting conflicts, also increases success of the school by shaping up behaviors of students (Sergiovanni, 1984; Gümüşeli, 2006a, 2006b).

Kazak and Polat (2018) mention the important role of the school administrators on creating a school culture by stating that the school atmosphere affects both the school culture and the leadership behaviors of the school administrator. A common culture which is shared by all partners is helpful towards achieving both short and long term goals. Beyond being representative of the bureaucratic structure, it is of the utmost importance for the school managers to include school staff in the school culture as creators and developers of the common values in the school (Turan & Bektaş, 2013). On the other hand, when the literature is examined, some findings indicating that teachers regard the school managers as consistent role models for teachers who exhibit quality and high performance and who encourage perfectionist behaviors, as individuals that provide teachers with the ability to join the decision-making process, thus strengthening the perception towards the school culture have been found (Veeriah, Piaw, Li, & Hoque, 2017).

In the study, the sub dimension "Ensuring development of self and staff", which is located under the main dimension "leadership", is seen to have 5.9% of the total weight of the fifty sub dimensions. While Erçetin and Eriçok (2016) counted the human resources management as a part of the administrative abilities of the school administrators, in their work, Aslan and Karip (2014) came to the conclusion that regarding the creation of a conceptual framework for their leadership standards and determination of these standards, a good school administrator should know how to improve human resources besides managing the human resources. Similarly, Aypay and Dönmez (2016) also mention that the school teachers need to be transformed into learning leaders. In literature, it is possible to reach to the results of various research which show that the school administrators should be competent in the development of self and the staff (Helvacı & Aydoğan, 2011; Pont et al., 2008; Şahin, 2000). In addition to this, Allen, Grigsby, and Peters (2015) point out that the belief of teachers on the idea that their development will be supported by their administrators would affect the school climate positively in terms of cooperativeness and that problems in school can be overcome more easily.

The administrators who lead their teachers towards transformation and innovation, who plan and care about their needs and who assure the creation of a common vision as a role model for them in their school are claimed to affect the teachers in a positive way (Korkmaz, 2007). It is thought that the school administrators as educational leaders have an important role in the development of the teachers besides their own personal and professional development (Hallinger & Lu, 2014). Studies conducted by Kutsyuruba and Walker (2017) and Aksoy and Işık (2008) show that the most encouraging power for the professional development of the teachers is the school administrators.

According to the results acquired by this study, the sub dimension "motivating school members" is located under the main dimension "leadership". According to Hanks (1999), the source of learning as well as change is motivation and the way to get the desired results is through motivation. Demirtaş (2005) and Oğuz (2006) list the motivation among the competence areas of the school administrators. Leithwood, Patten, and Jantzi (2010) emphasize the importance of motivating the students as well as the teachers by creating a high standard and creating a school culture which supports the success for students in achieving the goals of the school. Özdemir, Kartal, and Yirci (2014) suggest that among many factors that affect the motivation of the teachers, the school administrators are the most important factor that increases the motivation level of the teachers.

According to the results obtained from this study, "Leadership" is the most important main competence dimension with a weight of 31.9%. It is possible to say that the obtained results related to the necessary competencies such as providing the development for self and the staff, the motivation of school members and planning and developing the human resources are supported by the studies in literature.

In the work, it is seen that the weight of the main competency dimension "Management of programs and setting of education and training programs" is 20.1%. Several studies in the literature emphasize the importance of the effective school administrator in terms of the competence of the administrator in administration of the programs and the environment of education and training (Ağaoğlu et al., 2012; Aydın, 2000; Helvacı & Aydoğan, 2011). In the administration of education and training environment, the school principals know their schools, and how it works and have a good grasp on the curriculum. The idea that they should be apparent in school in order to plan, execute and develop the schooling activities, has put forward the argument that it can be used as an effective strategy (Andrews, Basom, & Basom, 1991; Carter & Burger, 1994; Gümüşeli, 2009; Sweeney, 1982). Aslan and Karip (2014) count creating an effective schooling plan or programs among the competence of the school principals while Ünver and Erdamar (2015) list the support of the program development activities among the administration features. Cobanoglu and Yurek (2018) suggest that the achievement of the predetermined goals of the school, in relation with several variations, is affected the most by the effectiveness of the school administrators who are in charge of the execution of schooling programs.

The sub competencies "Planning education and training activities" and "Managing and developing the execution and the process of development of education and training programs in a way to reach the goals" which are located under the second most important main competence area which should be present in an educational administrator come up as important sub competencies that should be present in candidates. Ağaoğlu et al. (2012) emphasizes the importance of the ability of the school principals to administrate the education programs and environments. Besides that, these abilities are emphasized by the Ministry of National Education related legislation. Accordingly, it is one of the duties and responsibilities of the school administrators to plan the educational activities in school, to ensure the implementation of the educational programs and in order to do it in the most efficient manner is to organize the educational environment. (Milli Eğitim Bakanlığı [MEB], 2017). In this respect, it is seen that the findings obtained from the study show similarities with the studies in literature and albeit partially, are supported with the current legislative regulations.

In the work, the main dimension "Creating effective communication and working environment" is ranked as the third with the weight of 15.8%. There are several studies in literature that emphasize the importance of effective competence of the school administrator in terms of creating an effective communication and working environment (Ağaoğlu et al., 2012; Aslanargun, 2012; Gürbüz et al., 2013; Tepe, 2017). It is important for school principals, who want to reach the highest level of student success rate, to communicate effectively with their teachers, to support them continuously and to create learning environments that meet the expectations of all students (Hallinger & Heck, 1998; O'Donnell & White, 2005). The school administrators who adopt the approach of creating an effective communication allow all partners to take part in decisions, value different opinions, appreciate the things done and make constructive criticism, develop and encourage their followers by listening to them (Irgens, 1995). The valuing of teachers by the school principals, hinting them that they are an equally important part of the school and encouraging them to take part in the decision-making process creates a will for them to identify with the organization and increases their organizational loyalty (Goleman, Boyatsiz, & Mckee, 2002). Aslan and Karip (2014) show the administrating the environment of learning among the competencies of the school principals and state that the school principals should be fair, objective, honest and consistent. Balyer, Özcan, and Yıldız (2017) point out that creating a working environment based on communication and trust at school is one of the ways to strengthen the teachers. It is stated that if school administrators have effective communication skills, they can create a positive atmosphere in their schools and improve the current conditions (Ada, Çelik, Küçükali, & Manafzadehtabriz, 2015). Tepe (2017) emphasizes on the importance of strengthening the leadership and communication skills of the school administrators. Because the communication skills of the school administrators are important for cooperation and trust levels (Aslanargun, 2012) as well as for their display of leadership abilities which will help them to create a harmonious human relationship (Bursalıoğlu, 2015).

In the work, the weight of the sub dimension "respecting different opinions" which is located under "creating effective communication and working environment" is identified as 3.6% in total of the fifty sub dimensions. The school administrators who want to have information about students, parents or school staff, indirectly convey the message that they respect the differences besides trying to find common points of individuals with different contexts (Minkos et al., 2017). Uslu (2013) also displays that the level of respect for the diversity by the school administrators plays and important role on motivating the school staff. A culture which is created jointly by individuals with demographic, social and cultural differences will positively affect the motivation and the performance of the staff. It is of vital importance for the school administrators to respect diversity in an organization where there is more diversity in terms of the students and teachers to support cooperation between teachers and to achieve the objectives of the school (Polat, Arslan, & Ölçüm, 2017). The administrators who can overcome social and emotional difficulties are people with high awareness of the feelings of the others and take the ideas and needs of the others into consideration in the decision-making process (Mahfouz, 2018).

According to Aslanargun (2007) the duty of the administrator is to maintain the diversity and richness, to be able to manage conflicts effectively and to prevent chaos. To develop emotions of love and trust by decreasing tension and conflicts in an organization is of high importance in the view of management. In an organization where the employees are happy, people will be productive and efficient (Aydın, 1999). Uzun and Ayık (2017) mentioned that the communication competence of school administrators affects their ways of conflict management. Erçetin and Eriçok (2016) state in their studies, which is a study on 45 articles, related to the competencies of the school administrators, that are located in the database of Turkish Academic Network and Information Center (ULAKBIM), that the respect of the school administrators for different opinions is ranked as the most important personal and moral competence in studies.

In the study, the sub dimension "surveillance of the legal rights of workers" which is located under "creating an effective communication and working environment" is determined as 4% among all the sub-dimensions. Boydak Özan, Özdemir, and Yirci (2017) mention that the fairness of the school administrators towards their employees affects organizational commitment and employee

performance. The ethical behavior, considered among the competencies of school principals (Aslan & Karip, 2014), increases the trust of teachers towards school administrators and the rise in the level of trust decreases the silence in organization (Paşa & Negiş Işık, 2017). The finding obtained in this study related to the necessity of the competency of the school administrators in creating an effective communication and working environment parallels with the studies that are in literature.

Another main dimension identified in this study is the management of material resources. In various studies, it is emphasized that the school administrators should have the ability to manage the material resources in order to create an effective education environment (Aydın, 2000; FDE, 2018; The Wallace Foundation [TWF], 2018; Şahin, 2000). Şişman (1998) points out that the most important goal of the organization administration is to use the available resources effectively and efficiently. Altunay (2017), emphasizes that the school administrators try to manage a budget with low resources and that they face difficulties in this aspect. Karakütük and Özdoğan Özbal (2017) mention that school administrators who need monetary resources in order to continue educational activities are responsible for the administration of the school resources so the administration of the school resources is considered as one of the duties of the school administrator. Similarly, Aslan and Karip (2014) also state that creating a school budget is one of the competencies of the school principals. The finding that the school administrators should have the competency in administrating the material resources coincides with the studies in literature.

According to the results of the study, administration of the inside and the outside of the school environment and cooperation is included in the necessary competencies for school administrators. The finding in the study related to the necessity of the competency in administration of inside and outside of the school environment and the cooperation for school administrators can also be seen in the literature under the topics gönersuch as environment and relations (Demirtaş & Küçük, 2014), social relation (Pont et al., 2008), school environment relations (Şahin, 2000), environment-school leadership (Aydın, 2000), competency in human relations (Başaran & Çınkır, 2013). Aslan and Karip (2014) state that the principal should know the expectations of the school environment and be able to meet the needs of the environment. Relations of the organization with the internal stakeholders are as important as the relations with the external stakeholders (Conner, Nowlin, Rabovsky, & Ripberger, 2016). Balyer (2014) asserts that the schools get affected by the social and cultural structure which they belong to and the school administrators can reach the goals of the school if they act in a cooperative manner with the other institutions, structures and organizations which are located in both the inside and the outside of the school.There is a positive relation between student success and the cooperation of the school administrators with the teachers, students and the community who are the stakeholders of the school (Demirtaş, 2010). The importance of the coordination of the school administrators with various stakeholders of the school necessitates the school administrators to have basic communication skills, social intelligence and an ability to develop empathy (Bartz & Karnes, 2018).

It was concluded that the school administrators should be learner centered. The study conducted by Yavaş, Aküzüm, Tan, and Uçar (2014) concluded that a not learner centered approach and indifference towards the students is evaluated as an indicator of incompetency. Sezer (2018) counts being fair, open to development, result oriented, democratic, easy to reach and open to communication as well as being student-centered as competencies that should be present in school principals in order to create ideal schools.

In the study, it was concluded that the school principals should have technological competencies. According to several studies in literature, the school administrators should have technological competencies among their competence areas (Başaran & Çınkır, 2013; Erçetin & Eriçok, 2016). Aslan and Karip (2014) point out that the effective use of technology by the school administrators reduces the paperwork and saves time, effort and money. Gürkan and Toprakçı (2018), state that educational administrators in our day must take heed of technological advances. Considering the effects of using the information and communication technologies in the context of education, it is inevitable for the school administrators to become innovation leaders with technological competencies (Akbaba-Altun & Gürer, 2008). In addition to this, in the study conducted by Yu and Prince (2016), it is found

that promising school administrators perceive the use of technology in education as a necessity. Considering the fact that in-service trainings, institutional communications and some educational practices in our age are necessarily done with technological tools. The finding in this study that the importance of dimension related to the technological competencies being less compared to the other dimensions does not coincide with the importance that has been referred in literature. A lesser attached importance on this skill can be interpreted as the participants perceive the technological competence as an element that should already exist.

In the study, "Corporate communication" is determined to have the least amount of importance level with 4%. Eger, Egerová, and Pisoňová (2018) point out that corporal communication plays an important role in improving the school image. However, from a functional point of view, in a market where the students are accepted as customers, educational institutions must implement strategies to protect and improve their competitiveness (Melewar & Akel, 2005). Therefore, it can be said that the corporate communication is one of the areas that needs to be administrated effectively. However, it is possible to say that the brand perception towards school in public schools is influenced by several variables such as student and teacher profiles and the neighborhood where the school is located. Aytaç (1999) states that schools in our country is away from internal and external flexibility related to increase the student success of the school, because of the centralist education system, so this centralist understanding creates an obstacle for schools in their realization and development of corporate identity. Therefore, the obtained result that the competency in corporate communication is the least important dimension that can be said to be due to the idea that the school administrators will have less impact on the institutional perception of the school than the external factors.

The findings of the study have been formed by analzing the 8 main competencies obtained by desciptive analysis based on expert opinions and the sub-dimensions of these competencies according to AHP method analyzed by a team of 10 experts Although the findings seem to be appropriate according to the sampling, their generalizability is not possible like the studies in scanning model. Ağaoğlu et al. (2012) have aimed to determine the competencies of administrators by working with larger samples in their research.

Conclusion and Suggestions

It is necessary to determine the basic competence areas that the administrators should have in order for them to achieve the goals of the schools successfully. This research demonstrates the competencies that the school administrators need to have in order to contribute to the realization of an effective and efficient administration process.

According to results obtained, "Leadership" is the most important main competence dimension with the weight of 31.9% followed by "Management of environment and programs of education and training" with 20.1% and "Creating effective communication and working environment" with 15.8%. The competence dimension with the least importance level was "Corporate communication" with 4%. These three main competence dimensions are seen to be dominant with 67.8% in terms of the importance levels when compared to the other five competence dimensions.

Another important finding is that the most important two sub competencies that belong to the three main competencies hold the 35% of the weight in all the fifty sub competencies. As it stands out that the weight total of the sub competencies which are "Creating and developing an organizational culture"(10.6%), "Development of self and staff" (5.9%) which are located under the main competence "Leadership", "Planning education and training activities" (4.8%), "Managing and developing the process of execution and development of education and training programs" (5.6%) which are located under the main component "management of education and training programs and environment" and "Respecting different opinions"(3.6%), "Surveillance of the legal rights of workers"(4,0%) which are located under the main competence dimension "Creating an effective communication and working environment" are 35% in all 50 sub competencies.

When the results of the study are considered in a holistic way, it can be stated that the main competence areas of the school administrators are concentrated around the skills such as education leadership, communication, administration of financial resources and establishing cooperation with internal and external stakeholders.

In the light of the findings of the study, the suggestions for the practitioners and the researchers are:

- National standards for the competence of the school administrators should be established.

- These national standards should be taken into account when determining the school administrators.

- To increase the competence levels of the school administrators in the light of the findings obtained in this study, the mentorship should be implemented in order to develop these skills of the new administrators and experienced school administrators should share their knowledge with their colleagues.

- The result of the organizational psychology research show that leadership has a large share in the success of the organization. According to this, the school leaders should have a strong communication network, an ability to motivate their staff, be target oriented, be a person with vision, have the ability to think outside of the status quo, be enterprising and have the ability to create and use opportunities. The school administrators should be determined by taking these features into consideration. Considering that these skills can be acquired in the field of administration with the postgraduate education, the necessity arises for the school administrators to be subject to postgraduate education in the field of administration.

- The study should be conducted to determine at what stage in pre-service period competencies that the school administrators should carry with them should be given to them.

- Education should be given to the educational administrators in order to develop them in terms of leadership and administration.

- The assignments of the educational administrators should be performed with several areas of competency kept in mind such as the management of curriculum and preparing an efficient communication and work environment.

- Studies conducted must be aimed towards improving competence of the educational administrators regarding corporate communication.

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Appendix 1. Leadership Competency Sub-dimensions AHP Group Decision

GEO MEAN Leadership	Creating and developing organizational culture	Ensuring the development of himself and his staff	Motivating school members	Determining and introducing the policy of the school	Creating a shared vision	Making and managing change at school as needed	Human resources planning and development
Creating and developing organizational culture	1	2,870377776	4,132466006	3,68524859	3,151071684	2,426038316	4,418022039
Ensuring the development of himself and his staff	0,348386198	1	2,956154917	2,449489743	1,811020525	2,02966359	2,7689921
Motivating school members	0,241986262	0,338277265	1	2,969624057	1,304772849	3,027400104	3,734104563
Determining and introducing the policy of the school	0,271352115	0,40824829	0,336742962	1	1,542210825	2,223448598	2,069152069
Creating a shared vision	0,317352349	0,552174857	0,766416929	0,648419777	1	2,213363839	2,428455906
Making and managing change at school as needed	0,412194644	0,492692486	0,330316432	0,449751796	0,451801002	1	1,836858174
Human resources planning and development	0,226345634	0,361142237	0,267801821	0,483289757	0,411784294	0,544407845	1
TOTAL	2,817617202	6,022912911	9,789899066	11,68582372	9,672661179	13,46432229	18,25558485

Appendix 2. Leadership Competency Sub-dimensions Weights and Consistency Ratio

	Consistency		
Weight (w)	A*w	A*w/w	
0,331	2,600104315	7,855554	
0,184	1,480784348	8,029637	
0,152	1,149005014	7,569194	
0,103	0,750435403	7,275903	
0,106	0,780981475	7,398845	
0,075	0,537071205	7,203197	
0,050	0,365614791	7,38001	
		mean (lambda max)=7,530334	
		CI=0,088389	
		CR=0,065	

Appendix 3. Sub-dimensions of Education Management Group Decision Matrice

GEO MEAN TRAINING PROGRAMS AND ENVIRONMENTAL MANAGEMENT	Planning education and training activities	Managing and improving the process of implementation and development of educational programs to achieve the objectives	Ensuring the creation of appropriate educational environments	In the realization of the gains and skills included in the education and training programs; supporting students, employees and all stakeholders	Coordinate scientific, social, cultural and sporting activities	To be able to follow current developments in learning-teaching processes
Planning education and training activities	1	1,62725061	1,694533954	1,384298159	2,464991779	2,752610628
Managing and improving the process of implementation and development of educational programs to achieve the objectives	0,614533492	1	3,364852012	2,128306754	3,622883441	3,897150884
Ensuring the creation of appropriate educational environments	0,59013276	0,29718989	1	1,834395749	2,564642318	2,346901493
In the realization of the gains and skills included in the education and training programs; supporting students, employees and all stakeholders	0,722387727	0,469857081	0,545138638	1	4,342228546	3,948488105
Coordinate scientific, social, cultural and sporting activities	0,405680866	0,276023233	0,389917921	0,230296492	1	2,985021601
To be able to follow current developments in learning-teaching processes	0,363291484	0,256597712	0,426093725	0,253261495	0,335005951	1
TOTAL	3,696026329	3,926918526	7,42053625	6,830558649	14,32975204	16,93017271

Appendix 4. Weights and Consistency Ratio of Education Management Sub-dimensions

	Consistency		
Weight (w)	A*w	A*w/w	
0,241762	1,578377108	6,528651	
0,278162	1,873604178	6,735663	
0,159377	1,064461318	6,678896	
0,178535	1,165722228	6,529386	
0,085402	0,532958061	6,240588	
0,056763	0,357704332	6,301701	
		mean (lambda max)=6,502481	
		CI=0,100496	
		CR=0,08	

Appendix 5. Effective Communication Sub-dimensions Group Decision Matrix

GEO MEAN CREATING EFFECTIVE COMMUNICATION AND WORK ENVIRONMENT	Respect for different views	Observing the legal rights of employees	Effective use of communication tools	Ensuring effective communication between employees	Clear, accurate and consistent speech and writing	Prioritize scientific data, stakeholder expectations and effective communication in decisions	Ability to manage conflicts effectively	Creating a safe work environment
Respect for different views	1	2,037360941	2,617126533	3,544022818	2,688979443	2,260885221	2,356404155	1,841057547
Observing the legal rights of employees	0,490831045	1	4,693802986	4,740772189	4,029394425	2,978190649	4,632775373	1,759955424
Effective use of communication tools	0,382098453	0,213046863	1	2,635961258	2,333058079	1,724661037	1,354631737	1,19956205
Ensuring effective communication between employees	0,282165226	0,210936101	0,379368246	1	2,391626349	1,876142545	1,747160929	1,226918222
Clear, accurate and consistent speech and writing	0,371888302	0,24817625	0,428621991	0,418125515	1	1,673330035	1,779798717	1,23249589
Prioritize scientific data, stakeholder expectations and effective communication in decisions	0,44230463	0,33577434	0,57982408	0,533008541	0,59761074	1	2,627723342	1,423497814
Ability to manage conflicts effectively	0,424375419	0,215853332	0,738208011	0,572357121	0,561861288	0,380557566	1	1,519568969
Creating a safe work environment	0,543166074	0,568196209	0,833637576	0,815050247	0,811361732	0,702494932	0,658081351	1
TOTAL	3,936829149	4,829344035	11,27058942	14,25929769	14,41389206	12,59626198	16,1565756	11,20305592

Appendix 6. Effective Communication Sub-dimensions Weights and Consistency Ratio

	Consistency	
Weight (w)	A*w	A*w/w
0,229	2,083111653	9,092294
0,255	2,359643976	9,251238
0,113	1,017997747	9,004279
0,094	0,816140884	8,686207
0,079	0,671836104	8,456076
0,085	0,719534505	8,449484
0,066	0,551613918	8,407854
0,079	0,686258727	8,730977
	mean (lambda max)=8,759801	
	CI=0,108543	
	CR=0,078	

Appendix 7. Sub-dimensions of Material Resources Management AHP Group Decision Matrice

GEO MEAN MANAGEMENT OF FINANCIAL RESOURCES	Knowing and applying methods of evaluating staff	Ensure regular support of school support services (cleaning, security, protection)	Facilitate the use of equipment and equipment in the school	Ability to create resources within the legal limits	To have financial management skills
Knowing and applying methods of evaluating staff	1	1,517472985	2,045610265	1,335342406	1,264555114
Ensure regular support of school support services (cleaning, security, protection)	0,658990315	1	2,785024038	1,77262133	2,133188363
Facilitate the use of equipment and equipment in the school	0,488851673	0,359063328	1	1,486491958	1,976723066
Ability to create resources within the legal limits	0,748871597	0,564136278	0,672724796	1	2,821711198
To have financial management skills	0,790791946	0,468781856	0,505887758	0,35439488	1
TOTAL	3,68750553	3,909454448	7,009246858	5,948850574	9,196177741

Appendix 8. Sub-dimensions of Material Resources Management Weights and Consistency Ratio

Weight (w)	Consistency A*w	A*w/w
0,263	1,406912425	5,356954
0,272	1,479618163	5,432676
0,166	0,892835718	5,366163
0,184	0,970324998	5,283293
0,115	0,599592058	5,215201
		mean (lambda max)=5,330857
		CI=0,082714
		CR=0,075

Appendix 9. Environmental Management Sub-dimensions AHP Group Decision Matrice

GEO MEAN MANAGEMENT OF INTERNAL AND EXTERNAL ENVIRONMENT AND COOPERATIONS	Develop positive cooperation with professional organizations and non-governmental organizations (NGOs)	To ensure communication and coordination with the in-school and out-of-school environment	Providing effective guidance services to student parents	Develop strategies to attract qualified teachers and students to the institution	Organizing activities for parents and students	Establishing a system to monitor and evaluate the wishes and complaints of teachers, students, parents
Develop positive cooperation with professional organizations and non-governmental organizations (NGOs)	1	1,555567094	1,404989864	0,932537973	2,034550752	1,161249905
To ensure communication and coordination with the in-school and out-of-school environment	0,642852375	1	2,156342968	1,15295243	2,423131275	2,226383213
Providing effective guidance services to student parents	0,711748907	0,463748121	1	1,619886477	3,580718632	3,297372809
Develop strategies to attract qualified teachers and students to the institution	1,072342391	0,867338473	0,61732721	1	4,473009056	4,100414594
Organizing activities for parents and students	0,491508997	0,412689156	0,279273549	0,223563151	1	1,388637936
Establishing a system to monitor and evaluate the wishes and complaints of teachers, students, parents	0,861141082	0,449158974	0,303271743	0,243877778	0,720130118	1
TOTAL	4,779593752	4,748501818	5,761205334	5,17281781	14,23153983	13,17405846

Appendix 10. Environmental Management Sub-dimensions Weights and Consistency Ratio

Weight (w)	Consistency	
	A*w	A*w/w
0,198678	1,279331585	6,439217
0,213588	1,411912875	6,61045
0,205867	1,354379653	6,578907
0,222173	1,430762803	6,439869
0,076185	0,485109368	6,367499
0,083509	0,522013762	6,250987
		mean (lambda max)=6,447822
		CI=0,089564
		CR=0,072

Appendix 11. Student Oriented Sub-dimensions AHP Group Decision Matrix

GEO MEAN STUDENT FOCUS	Making studies to increase student success	Graduates to follow up studies	Ensuring that students receive an education in line with their interests and abilities	Supporting students' participation in decision-making processes	Provide the necessary conditions for student-centered instruction	Preparing appropriate teaching environments for students who need special education
Making studies to increase student success	1	5,448802812	2,363791485	4,163958253	2,702133503	2,793755092
Graduates to follow up studies	0,183526553	1	0,962827769	1,032481032	0,998620672	1,146719037
Ensuring that students receive an education in line with their interests and abilities	0,423049159	1,038607353	1	3,419951893	3,216623815	3,193640083
Supporting students' participation in decision-making processes	0,240156106	0,968540795	0,292401774	1	1,330510519	1,05986197
Provide the necessary conditions for student-centered instruction	0,37007794	1,001381233	0,310884971	0,751591202	1	2,830557266
Preparing appropriate teaching environments for students who need special education	0,357941182	0,872053195	0,313122322	0,943519089	0,353287323	1
TOTAL	2,57475094	10,32938539	5,24302832	11,31150147	9,601175833	12,02453345

Appendix 12. Student Oriented Sub-dimensions Weights and Consistency Ratio

Weight (w)	Consistency A*w	A*w/w
0,375	2,425045171	6,470728
0,107	0,700347709	6,541409
0,226	1,45163084	6,41111
0,093	0,595389163	6,402793
0,118	0,733378549	6,232938
0,081	0,508804883	6,274598
		mean (lambda max)=6,388929
		CI=0,077786
		CR=0,062

Appendix 13. Technology Competence Sub-dimensions AHP Group Decision Matrix

GEO MEAN TECHNOLOGICAL COMPETENCİES	Provide adequate technological equipment of the school	Ensuring the functional utilization of technology and creating e-learning environments in the implementation of educational programs	To be a model about using technology in order to increase performance by using technology	Utilizing technology in all processes	Equal opportunity to access technology
Provide adequate technological equipment of the school	1	1,643584906	2,583416684	2,203216727	0,905723664
Ensuring the functional utilization of technology and creating e-learning environments in the implementation of educational programs	0,608426128	1	3,356538286	3,022418781	1,195980246
To be a model about using technology in order to increase performance by using technology	0,387084285	0,297925992	1	2,511341612	0,964734774
Utilizing technology in all processes	0,453881812	0,330860834	0,398193537	1	1,420433708
Equal opportunity to access technology	1,104089514	0,836134212	1,036554323	0,704010327	1
TOTAL	3,553481738	4,108505945	8,374702831	9,440987447	5,486872392

Appendix 14. Technology Competence Sub-dimensions Weights and Consistency Ratio

	Consistency	
Weight (w)	A*w	A*w/w
0,277675	1,541889259	5,552854
0,270704	1,527400131	5,64232
0,148537	0,821032624	5,527479
0,124121	0,653069516	5,261544
0,178963	0,953234936	5,326441
		mean (lambda max)=5,462128
		CI=0,115532
		CR=0,10

Appendix 15. Corporate Communication Sub-dimensions AHP Group Decision Matrice

GEO MEAN CORPORATE COMMUNICATIONS	Creating positive image for internal and external target audience (Identifying Corporate Identity)	Developing positive communication and good relationships between students, parents, employees and school management	Establishing and developing quality indicators related to the quality difference of the school	To make academic, sports and artistic achievements in national and international fields	Ensuring school safety	Ensuring the use of mass media with the right time and methods	Realizing social responsibility projects
Creating positive image for internal and external target audience (Identifying Corporate Identity)	1	2,158476921	1,794144315	1,917506864	1,78260246	4,261589957	4,74288122
Developing positive communication and good relationships between students, parents, employees and school management	0,463289642	1	2,432648174	2,058372018	1,84650823	3,164798421	4,332990638
Establishing and developing quality indicators related to the quality difference of the school	0,557368764	0,411074651	1	1,97036579	2,12810099	3,691872816	3,555175554
To make academic, sports and artistic achievements in national and international fields	0,521510519	0,485820829	0,507519977	1	2,29378154	4,297856641	3,099837975
Ensuring school safety	0,560977573	0,54156271	0,469902512	0,435961309	1	3,765726706	4,029654907
Ensuring the use of mass media with the right time and methods	0,234654204	0,315975891	0,270865236	0,232674117	0,26555299	1	2,082759488
Realizing social responsibility projects	0,210842303	0,230787482	0,281280062	0,322597506	0,24816021	0,48013225	1
TOTAL	3,548643005	5,143698484	6,756360275	7,937477604	9,56470641	20,66197679	22,84329978

Appendix 16. Corporate Communication Sub-dimensions Weights and Consistency Ratio

	Consistency	
Weight (w)	A*w	A*w/w
0,258402	1,928815865	7,464413
0,211464	1,608671635	7,607294
0,170005	1,282594946	7,544449
0,146577	1,096676062	7,481921
0,121579	0,881730338	7,252331
0,052042	0,375100264	7,207598
0,039931	0,293478848	7,349662
		mean (lambda max)=7,415381
		CI=0,06923
		CR=0,05