Original Paper

Human Factor as a Quality Criterion in Secondary Education: An Approach within the Framework of the European Model of Administrative Excellence EFQM

Marina Kaldi[1*] & Maria Darra[2]

[1] Hellenic Open University, Patras, Greece

[2] Department of Primary Education, University of the Aegean, Rhodes, Greece

[*] Marina Kaldi, Hellenic Open University, Patras, Greece

Abstract

The main purpose of this work is to analyze the perceptions and attitudes of secondary school education units regarding the qualitative characteristics of human resources, both in relation to the existing and the desired situation so that the administration is effectively carried out in the framework of the principles of Total Quality Management (TQM) and based on the specifications that the European Model of Administrative Excellence (EFQM) defines. The survey was conducted in the framework of the quantitative research approach from April 24 to May 26, 2017 by using the anonymous written questionnaire method, which was completed by 214 secondary education teachers in the prefecture of Arcadia. The results of the survey show that moral rewards are low, while financial rewards are completely absent from school units. At the same time, there is a low level of good communication, lack of competition on a personal level, a low degree of cooperation and exchange of views and honesty, while most respondents stated that the above mentioned are quality features that they would wish to be present in school units. Finally, the majority of respondents said that the dissemination of information and the transferring of it through various techniques, the encouraging and supporting of human resources to participate in activities (educational programs, innovative actions) aimed at improving the educational unit are quality features, which the sample prioritizes as very important and imperative to be adopted by the educational units.

Keywords

Total Quality Management, Human Resources, EFQM European Model of Excellence, Quality in Education, Qualitative Human Resources Characteristics

1. Introduction

The quality of education is directly linked to the quality of teachers and its improvement implies a continuous improvement of the human force (Mavroyogoros, 1999; Zogopoulos, 2010). Quality education can be provided by those training units that develop quality systems of operation with a Total Quality Management (TQM) philosophy, aiming at the continuous improvement of the educational services which are provided and it is addressed to all interested parties. Quality schools, ones that have adopted the principles of total quality, strive for a performance that approaches perfection, based on the human resources who are employed in the school units (Zavlanos, 2003; Altinzis & Mouratidou, 2011; Altunay, 2016).

The implementation of the TQM in education aims mainly at the satisfaction of the parties involved in education, continuous improvement, effective management, the possibility of change, the linking of the outcome to the system and the full and active involvement of human resources (Dahlgaard, Kristensen, & Kanji, 1995; Madsen & Carlsson, 1995; Zavlanos, 2003).

Human resources which function as the center of processes for quality improvement are influenced by factors such as meeting their needs, recognizing their work, rewarding, cultivating team spirit, developing collaboration, effective communication and decision-making (Crosby, 1984; Pasiardis, 2004; P. I., 2008; Toremen, Karakus, & Yasan, 2009; Yau & Cheng, 2013).

The study of relevant literature shows that the TQM is based on a series of principles and concepts that focus on all areas of the educational process, the most important of which is the human factor, under the guidance of a quality administration and a system that empowers and rewards (Calvo-Mora, Leal, & Roldán, 2006; Ngware, Wamukuru, & Odebero, 2006; Pour & Yeshodhara, 2009).

It also revealed that human resources need to feel the need for training, continuous professional development, self-improvement, self-evaluation and participation in a lifelong learning process by seeing themselves aiming at a continuous qualitative improvement in educational and learning processes (Riordan, Gatewood, & Bill, 1997; Detert & Jenni, 2000; Creemers, 2002; Koltsakis, 2008; Ejionueme & Oyoyo, 2015).

More specifically, from the examining of the relevant literature, surveys were found regarding the importance and the significance of the human factor in the improvement of the quality of education within a quality system. The most important results of these surveys are summarized below.

Teachers are interested in information and the improvement of communication networks. Collaboration, team spirit and mutual support contribute to problem solving and a positive climate that promotes quality (Roussi, 2007; Toremen, Karakus, & Yasan, 2009; Haque, Sarwar, & Yasmin, 2013).

Human resources recognize training as the stepping stone of their professional development with the aim of improving quality in education but note the lack of training and educational programs for them, themselves from educational institutions (Calvo-mora et al., 2006; Roussi, 2007; PI, 2008; Anastasiadou & Zirinoglou, 2015; Eyridice, 2015; Ejonueme & Oyoyo, 2015). Above all, human resources are trained

and empowered to introduce changes through self-motivation, motivating personal professional development and satisfaction (Koltsakis, 2008).

Recognizing, rewarding, encouraging and supporting human resources in their undertaking of activities are elements that do not exist in training units (Detert & Jenni, 2000; Osseo-Asare & Longbottom, 2002; Calvo-Mora et al., 2006; Ngware, Wamukuru, & Odebero, 2006; Wani, 2014). The lack of incentives and recognition prevents human resource initiatives and actions from being undertaken in schools which are characterized by passiveness and introversion (P. I., 2008).

Teachers wish to participate actively in all the activities of the educational process. At the same time, they want to participate in decision-making and action planning, shape the schooling process and to have personal engagement and self-commitment to achieving excellence (Calvo-Mora et al., 2006; Ngware et al., 2006; Roussi, 2007, 2008; Pour & Yeshodhara, 2009; Toremen et al., 2009; Karaliolou, 2011; Haque et al., 2013; Alzhrani, Alotibie, & Abdulaziz, 2016).

As can be seen from the bibliographic review, manpower is shown to be satisfied with training, motivation, communication and active participation. These seem to be the basis for a quality educational process and personal satisfaction, data which promote quality and cultivate quality methodologies for improving and developing quality education systems.

Based on the above, it appears that the necessity to improve the quality of education and the importance of human resources in its formation make it important to explore human qualities according to the EFQM model, which has been adapted to educational units as there is no research into the Greek educational reality, which focuses on the specific benchmark of the EFQM model for education. This is the purpose of this paper.

2. Theoretical Framework

2.1 The Human Factor as a Component of a Qualitative and Developmental Process in Education

The human factor in a suitable working environment, led by leadership, empowerment, motivation, encouragement and the recognition of its work, the strengthening and meeting of its needs, its engaging in decision-making and open communication, pushes the educational process in qualitative results (Irgis, 2008; Tasar & Celik, 2011; Chauhan & Sharnma, 2015; Aggarwal, 2016).

Quality conditions lead to the abandoning of traditional teaching, the introduction of innovative methods, the exploitation of experiential learning, the exploitation of new technologies, the interest in professional development and self-improvement leading to a qualitative educational process (Darling-Hammond, 2000; Wenglinsky, 2000; Papanaoum, 2003; Dahil & Karabulut, 2013).

Professional development is the foundation of the process, which makes the teacher the main factor of the educational project, which leads to the improvement and development of schools and to the cognitive and emotional development of students (Nye, Konstantopoulos, & Hedges, 2004). The basis for effective professional development is learning, participation, collaboration and action through which teachers experience and promote their professionalism (Sachs, 1997).

226

Human resources promote quality since they are trained and efficient professionals with the following skills: diagnostic skills, professionalism and honesty, self-motivation, ability to interact, the using of the appropriate tools, planning and delivering lessons for the acquisition of knowledge, identifying the hidden potential of students and their needs, adaptability to change and thus create a blending of qualities those of a teacher, a counselor, a companion, a supervisor, an auditor and a contributor of learning services (Logothetis, 1995, p. 485).

Human resources are a vehicle for quality and school improvement which is based on criteria, such as high qualifications, knowledge of the subject, mutual respect, collectivity, support, strong motivation for self-improvement and lifelong learning, directly linked to the needs of school and society (Cheng & Walker, 1997; Creemers, 2002; Herdeiro & Silva, 2013).

2.2 The EFQM Model and Its Application in Education

EFQM (European Foundation Quality Management) has created the EFQM Business Excellence Model, well known in Europe, as a basis for continuous improvement, efficiency and successful implementation of IOs in organizations (Jancikova & Brychta, 2009).

The model is a multi-tool through which organizations quantify their positive and negative points. Through its implementation, it aims to improve business processes with the involvement of all those actively involved (customers and employees), and to improve goods and services with flexibility, adaptation and increased competitiveness (Kefis, 2005).

According to Osseo-Asare and Longbottom (2002, p. 27), the model provides organizations with a high security mechanism for their long-term success and according to Nealy and Oakland (as mentioned to Osseo-Asare & Longbottom, 2002) is a "diagnostic tool" of the current state of the organization, because through its self-assessment it has the power to set its priorities, to effectively transfer its resources and to define the action plans in order to achieve its priorities. According to Zogopoulos (2012), "The self-assessment process allows a school unit to identify its strengths but also those that need to be improved and proceed systematically with a continuous self-improvement program".

The evaluation of the model is based on 9 criteria (Schema 1), which are divided equally in terms of enablers and results "that define and ensure the survival and well-being of an organization" (Kefis, 2005, p. 61). The four elements of the results identify the purpose of the organization, while the five "enablers" offer a holistic course for adopting methods to achieve the results (Sandbrook, 2001, p. 84).
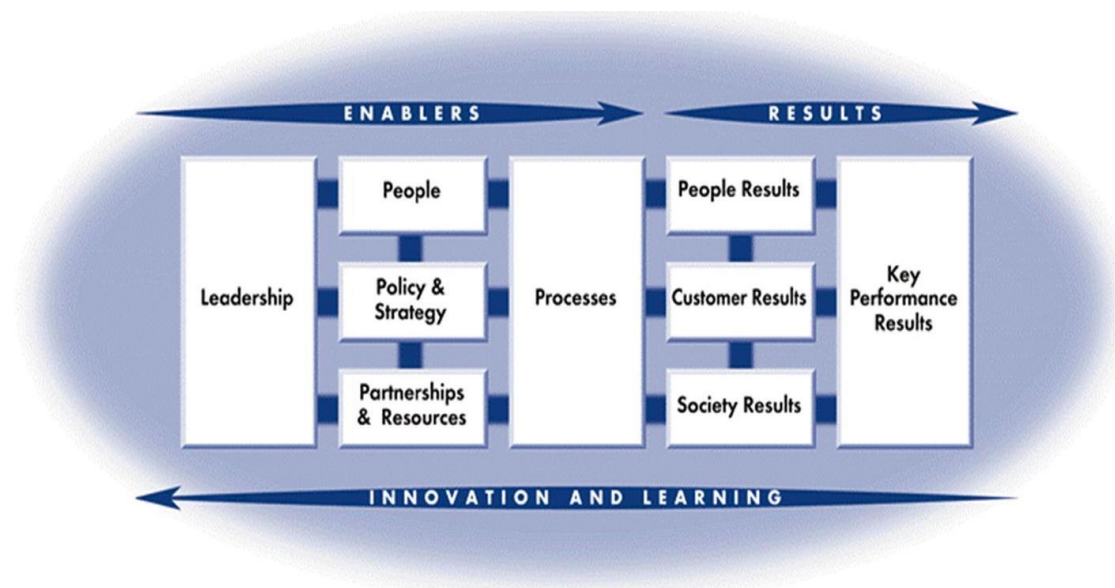
Figure 1. The 9 Criteria of EFQM Excellence Model (EFQM, 2010)

The pilot application of the model in a school in Denmark in 1990 concluded that the IOP can be followed by the training units through an effective adaptation of the EFQM's Administrative Excellence Model (Zavlanos, 2003). The importance of the model is seen through its structure, "it recognizes the existence of panspermia and intense differences, both between organizations with different orientations and between states ..." (Kriemadis-Thomopoulou, 2012, p. 153).

The model includes both service and product sectors. In the service sector education services are also entailed which can be used for evaluation. According to Zavlanos (2003, p. 59), the implementation of the model may be use the relevant data from its application in private enterprises, with the aim of changing the way in which education operates. "The model is a holistic approach to the educational organization with parameters which are determined at a strategic level and diffused in all levels of administration and operation" (Zogopoulos, 2012, p. 8).

The adaptation of the model to the training unit elaborated by Mandaraki, Papadopoulos, and Tsigros (2008), in the context of the qualitative upgrading of the training services provided. According to Zavlanos (2003), it can be used by teachers for self-assessment to improve the quality of their work within the class, by implementing by adapting the 9 criteria to their corresponding environment.

2.3 Human Resources as a Quality Criterion for the EFQM Model

Human resources as a criterion for EFQM's excellence management model in quality management and quality school are a key component of the endeavour for the improvement of service quality (Ahmad & Schroeder, 2002; Calvo-Mora et al., 2006). It is the foundation on which the quality of the system is based, while at the same time it is a source of inspiration and data management and through the effective use of knowledge and skills it achieves the quality objectives (Anastasiadou & Zirinoglou, 2015).

Its usage is a combination of system capacity, work environment, effective administration, and the ability to integrate change.

Its role is strategic and seeks maximum performance through the recognition of the project, empowerment, motivation, participation, and engagement in decision-making. Human resources as a strategic factor in achieving the quality work of an organization are a criterion of EFQM's excellence management model and includes sub-criteria that analyze its roles and actions in conjunction with leadership within a quality school.

3. Research

3.1 The Purpose of the Study and Research Questions

The main purpose of this work is to investigate the perceptions and attitudes of secondary school education units regarding the qualitative characteristics of human resources, both in relation to the existing and the desired situation so that administration is effectively exercised within the framework of the principles of Total Quality Management and based on the specifications that the European Model of Administrative Excellence (EFQM) defines.

In particular, the paper aims to explore the views of teachers regarding:

a. with the existing quality characteristics in their schools,

b. the existence of the desired degree of development of qualitative characteristics,

c. the degree of correlation between the demographic characteristics of teachers and their views on the existence and desired level of development of specific qualitative characteristics in the future.

The research questions that the research will attempt to answer are the following:

1st: To what extent do the teachers of the survey feel that they have the specific quality features, that the EFQM Administrative Excellence model puts forward?

2nd: To what extent do the teachers of the survey believe that the specific quality features that the EFQM Administrative Excellence model puts forward need to be developed in order to bring excellence to schools?

3rd: Is there a correlation between the demographic characteristics of teachers and their views on the existence and desired degree of development in the future of specific qualitative features as shown in the EFQM Administrative Excellence Model?

3.2 The Research Participants

The sample of the survey is comprised of 214 secondary education teachers in the prefecture of Arcadia. Specifically, the largest proportion of the sample is of the urban area (54.21%), less of semi-urban areas (23.36%) and finally (22.43%) of rural areas.

Men account for 48.1% of the respondents, while women 51.9%. The sample of the survey shares approximately equal percentage to both sexes. The majority of respondents (52.3%) are in the age category of 41 to 50 years. The age groups "31-40" and "51-60" are followed by 22.4% and 22% respectively, while lesser percentage groups 30 and below, 2.3% and 61 and above 0,9%.

229

Moreover, in terms of their total work experience, most of the sample (45.3%) has a total of 11 to 20 years of service in education, 21.5% of 21-30 years, followed by 20.6% of 6-10 years. The majority of them are married (75.2%), while single individuals are only 24.8%.

The majority of the sample comes mainly from the domain of literature teachers (55%), mathematicians (22%) and teachers of physics (26%), while the majority of the sample is 68.2%, and has permanent post in its educational unit. The other teachers in the sample belong to another category of the work force with the educational unit (10.3% substitute teachers and 8.9% teachers working by the hour).

It is worth noting that 145 participants (about 68% of the sample) hold second degree, besides the basic degree, 31% of the sample hold a postgraduate degree and only 2 are holders of a doctorate (1%).

3.3 Methodology

In the present study the quantitative approach was taken as the most appropriate because it is possible to highlight important quality features in the development of the human resources of the secondary school units but also to gather data from a large number of respondents. The survey was conducted from 24 April to 26 May 2017. The collection of primary material was done using a structured anonymous written questionnaire, whose functionality was tested by a pilot survey applied to a smaller sample of teachers.

The questionnaire was mainly based on the Likert scale, which is the most widely used scale type for measuring attitudes, beliefs and views of large groups.

The original questionnaire is used abroad as a tool for self-assessment of educational organizations in the context of EFQM implementation and comes from the Sheffield Hallam University-Center for Integral Excellence (Pupius, 2005). It was adapted to the Greek reality and was used in 2005 as part of a training program for Greek teachers conducted by the Aristotle University of Thessaloniki with the Thematic Network of Research "Administration of Education".

In the present survey only part of the questionnaire was used, which refers to "Human Resources", which is one of the criteria for quality assurance, according to the EFQM Excellence Model.

The questionnaire includes 2 key modules:

A. General Information.

B. Elements of quality characteristics in the development of the human resources of the school units.

3.4 Techniques for Analyzing, Presenting and Interpreting the Results

The questionnaire was tested for its structure, format, language, clarity and reliability both during its configuration and during its pilot implementation. Specifically, the Cronbach alpha (a) index, which proved to be extremely high (Cronbach's a = 0,844), was applied to the whole of the questionnaire scales in terms of the reliability and the degree of internal relevance of the research tool. Data analysis and processing was done using the SPSS statistical analysis program (version 19).

For the analysis of the data and the presentation of the results, Frequency tables and Comparative statistical analysis were used.

An analysis and comparison of the responses given by the "younger" to the corresponding answers of the "older" teachers followed, as well as a comparison of men's and women's responses, using the non-parametric Mann-Whitney test.

Also, an X-square test was conducted to investigate the impact of total work experience and working years on the views of educators.

4. Research Results-Elements of Quality Characteristics in the Development of the Human Resources of the School Units

In answer to the question: "To what extent do the teachers of the sample of research consider that on a regular basis there is dissemination of information and transfer of good practices throughout educational unit with specific proposed ways and to what extent would you like it to exist?"

The answers of the sample are differentiated in the present and the desired situation. On an average level, the majority of responses, with regard to the current situation, are at the "enough" level. On the contrary, the desired situation is more positive, as most of the answers are, at the least, at the "much" level. This shows that teachers want more dissemination of information and transfer of good practice in the future, regardless of technique. Indicative is the fact that, on average, average values in the present situation range from 2.96 to 4.25 (see Table 1).

Table 1. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Dissemination of Information

Dissemination of information	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average
Through information by individual or group initiative	Present	2,3%	26,6%	31,3%	28%	11,7%	3,20
	Desired	0,5%	3,7%	11,7%	42,1%	42,1%	4,21
Through Incoming Documents Sharing	Present	3,3%	9,8%	27,1%	37,4%	22,4%	3,66
	Desired	0,5%	2,3%	6,5%	28,5%	62,1%	4,50
Through announcements	Present	0,9%	12,1%	23,8%	38,3%	24,8%	3,74
	Desired	0%	2,3%	7,9%	30,4%	59,3%	4,47
Through personal updates	Present	7,5%	10,7%	24,8%	33,6%	23,4%	3,55
	Desired	0%	1,9%	10,3%	27,1%	60,7%	4,47
Using an update folder	Present	12,1%	17,3%	26,6%	27,6%	16,4%	3,19
	Desired	2,3%	5,1%	8,4%	31,8%	52,3%	4,27
Through bulletin boards	Present	5,6%	12,6%	28,5%	30,4%	22,9%	3,52
	Desired	0,5%	1,9%	7%	31,8%	58,9%	4,47

		1	2	3	4	5	
Through in-school training	Present	36%	30,8%	21,5%	8,9%	2,8%	2,12
	Desired	0,9%	5,6%	8,9%	27,6%	57%	4,34
Through subscriptions to scientific and other journals	Present	64%	20,6%	10,7%	3,7%	0,9%	1,57
	Desired	7,5%	18,7%	23,4%	21,5%	29%	3,46

In answer to the question: "To what extent do the teachers of the sample of the research consider that on a regular basis, the procedures for rewarding and recognizing and caring for the members of educational unit in specific proposed ways are applied and to what extent would they like them to be?", the majority of the sample considers that there is no economic reward (82.7%), while it sees moral rewards almost non-existent in educational units (36.9%). Similarly, individual initiatives and substantial relationships are supported to a limited extent (see Table 2).

Table 2. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Procedures for Rewarding and Recognizing

Procedures for rewarding and recognizing members	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average
Through moral rewards	Present	24,3%	36,9%	23,4%	10,3%	5,1%	2,35
	Desired	0,9%	1,4%	7,5%	29%	61,2%	4,48
Through financial rewards	Present	82,7%	12,1%	3,3%	1,4%	0,5%	1,25
	Desired	6,1%	5,1%	13,1%	25,2%	50,5%	4,09
Through initiative support	Present	22,4%	31,3%	23,8%	15,4%	7%	2,53
	Desired	0%	2,3%	8,4%	29,9%	59,3%	4,46
Through substantial personal relationships	Present	17,8%	34,1%	28%	14,5%	5,6%	2,56
	Desired	1,4%	1,9%	7,9%	25,7%	63,1%	4,47

In answer to the question: "To what extent do the teachers of the sample of the research consider that on a regular basis regular feedback is sought by the members of the training unit with certain suggested ways and to what extent would they like it to be present?", in the present situation, the setting of objectives is projected as the dominant way of tactical re-information (about 34.6%). On the contrary, in the desired situation the interest of the sample is increased for all practices, as they can improve the re-information of the members of the educational community (see Table 3).

Table 3. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Constant Feedback from Members of the Training Unit

Search for constant feedback from members of the training unit	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average
Through goal setting	Present	20,1%	21,8%	34,6%	11,7%	1,9%	2,43
	Desired	1,9%	4,2%	18,2%	39,7%	36%	4,04
Through questionnaires	Present	52,8%	28%	16,4%	2,8%	0%	1,69
	Desired	4,2%	11,7%	26,6%	36%	21,5%	3,59
Through interviews	Present	62,1%	25,7%	9,3%	1,9%	0,9%	1,54
	Desired	8,9%	20,6%	29,4%	22,9%	18,2%	4,46

In answer to the question: "To what extent do the teachers of the sample of the research consider that on a regular basis the creative ideas of the members of the educational unit are sought, evaluated and implemented in order to improve their performance in specific proposed ways and to what extent would they like to exist?", 64% states that functioning of a forum is non-existent in educational units, and to a small extent there is the creation of working groups. When examining differences in average values, the sample assumes that functioning of a forum (in a electronic form) can be an effective way to improve the quality of the school unit (see Table 4).

Table 4. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Searching, Evaluating and Implementing Creative Ideas in Order to Improve the Performance of the Training Unit

Searching, Evaluating and implementing Creative Ideas	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average
Through the formation of teams	Present	34,6%	31,8%	16,8%	14%	2,8%	2,19
	Desired	2,8%	4,7%	18,7%	43,5%	30,4%	3.94
Through forum function	Present	64%	22,4%	8,9%	3,7%	0,9%	1,55
	Desired	7%	4,7%	19,6%	38,8%	29,9%	3,80

In answer to the question: "To what extent do the teachers of the sample of the research consider that an effective assessment system is used for all members of the training unit with specific suggested ways and to what extent would they like it to exist?", the sample in the current situation expresses the absence of an assessment system 47.2%, and in particular the newly appointed ones 43%. Examining at the differences in average values (present-future), the sample expresses its willingness to have an evaluation system for all members of education (see Table 5).

Table 5. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Use of an Effective Assessment System for All Members of the Training Unit

Assessment	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average
Absence of an assessment system	Present	47,2%	24,8%	17,3%	4,2%	6,5%	1,98
	Desired	11,7%	10,3%	29,4%	28,5%	20,1%	3,35
Assessment of newly appointed ones	Present	43%	29,9%	17,3%	7%	2,8%	1,97
	Desired	3,7%	7,9%	30,8%	31,8%	25,7%	3,68
Assessment of education staff	Present	28%	35,5%	30,4%	3,3%	2,8%	2,17
	Desired	0,9%	4,7%	12,6%	31,3%	50,5%	4,26
Assessment of Candidate Teachers (ASEP)	Present	29,4%	19,6%	30,8%	14,5%	5,6%	2,47
	Desired	5,6%	4,2%	19,2%	35,5%	35,5%	3,91

In answer to the question: "To what extent do the teachers of the sample of the research consider that the training and development needs of the members of the educational unit are regularly assessed, educational gaps are identified and training actions are selected to cover them with certain proposed ways and to what extent would they want them to exist?", in the current situation the training actions are implemented to a small extent (40.7%-6.9%), while in the future there is a strong willingness to hold meetings and symposium and participation in seminars from the majority of the sample (see Table 6).

Table 6. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Selection of Training Actions to Fill Educational Gaps

Training actions to identify training needs	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average
By organizing meetings by specialty	Present	24,8%	40,7%	27,1%	7%	0,5%	2,18
	Desired	1,4%	3,3%	13,6%	39,3%	42,5%	4,18
Through voluntary participation in seminars	Present	11,7%	36,9%	33,2%	13,1%	5,1%	2,63
	Desired	0,5%	3,7%	15,4%	43%	37,4%	4,13

In answer to the question: "To what extent do the survey sample teachers consider that the members of the training unit are being encouraged and supported as individuals and as groups in order to engage in activities which are aimed at improvement with certain proposed ways and to what extent would they like to exist?", the majority of the sample expresses the need to strengthen educational programs and innovative actions (see Table 7).

Table 7. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Encouragement and Support of Individuals and Groups in Order to Engage in Activities

Encourage members of a training unit	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average
Through educational programs	Present	11,7%	30,4%	39,3%	14%	4,7%	2,70
	Desired	0%	1,9%	14,5%	40,2%	43,5%	4,25
Through innovative actions	Present	20,6%	36%	25,2%	13,1%	5,1%	2,46
	Desired	0,5%	2,8%	11,2%	40,2%	45,3%	4,27

In answer to the question: "To what extent do the teachers of the survey sample consider that equal opportunities in terms of employment between men and women and people of different religious beliefs and nationalities are given to with the specific suggested ways and to what extent would they want to exist?", the answers of the respondents are shown in the table below (see Table 8).

235

Table 8. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Equal Employment Opportunities

Equal employment opportunities	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average
implementation by the Constitution	Present	3,7%	6,5%	21%	42,1%	26,6%	3,81
	Desired	0,5%	1,9%	7%	28,5%	62,1%	4,50

In answer to the question: "To what extent do the ones question consider that the existing human resource policies actively support the strategic planning of their educational unit of study with specific suggested ways and to what extent would they want this to be carried out?", the sample is presented unanimous (present/future) regarding the role of the Ministry in the strategic planning of the school unit. The majority of the sample reflects the shortage (36.4%) of staff and the desire to strengthen the training units with adequate staff (see Table 9).

Table 9. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Existing Human Resource Policies and Support of the Strategic Planning of the Educational Unit

Strategic planning	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average
Implementation by the Ministry of Education	Present	7%	15%	24,3%	32,3%	21%	3,46
	Desired	3,3%	8,9%	26,6%	29%	32,2%	3,78
adequate staff	Present	17,3%	36,4%	35%	17,3%	3,7%	2,44
	Desired	0,5%	1,4%	9,3%	29,4%	59,3%	4,46

In answer to the question: "To what extent do the ones question consider that opportunities are being sought and that actions are taken to ensure that individuals and groups learn and function better as members of the training unit with specific suggested ways and to what extent would they like this to be carried out?", the sample responses are shown in the table below (see Table 10).

Table 10. Distribution of Frequencies (%) and Means of the Current and Desirable Situation as Regards the Search for Opportunities and Adoption Actions

Search for opportunities and take actions to ensure that individuals and groups working better as members of the	Situation	1 not at all	2 a little	3 rather	4 much	5 very strong	Average

training unit							
Through participation in cultural/social events	Present	10,3%	36,9%	38,3%	11,7%	2,8%	2,60
	Desired	0,9%	2,3%	16,4%	39,7%	40,7%	4,17
Through coordination of the different specialties in the educational process	Present	12,6%	45,3%	24,3%	15,4%	2,3%	2,50
	Desired	0,5%	4,2%	7,9%	36,9%	50,5%	4,33

In answer to the question "Which of the following quality characteristics in the development of the human resources of the school unit do the teachers of the sample of research consider to be more significant?", according to the sample, the use of an effective evaluation system for all members of the training unit is the most important quality feature in human resource development. The hierarchy is followed by equal opportunities in employment conditions and human resource policies, while the information dissemination process is considered by respondents as a minor feature of quality.

In answer to the research question: "Is there a correlation between the demographic characteristics of teachers and their views on the existence and the desired degree of development in the future of specific qualitative features, as the EFQM Administrative Excellence model puts them forward?", In order to provide an answer checks with the non-parametric Mann-Whitney test "two independent samples" and chi-square test independence tests were made.

Through inductive statistical analysis, the respondents' answers were compared with all the independent variables to check for the existence or not of statistically significant differences between them. From the checks carried out, it follows that years of service are an independent factor. It also emerged that younger educators, to a greater extent than the older ones consider that the following quality characteristics exist in their school: a. the diffusion of information, b. re-information, c. evaluation, d. training and e. staff adequacy. At the same time, it turned out that women are more likely than men to believe that there is a diffusion of information in their school, staff adequacy, the seeking of opportunities to improve the school unit. Finally, men, to a greater extent than women, feel that there is an economic reward in their school.

5. Discussion of the Results of the Survey

Analysis of the research data showed that 37.4% of the sample is interested in information, and the sharing of documents sent to the school unit to everyone, which is in line with the findings of the Stravakou survey (2002), as it appears to contribute to a large degree to the proper functioning and quality of the school unit. Similarly, the study of Chatzipanagiotou (2008) concluded that teachers seek to be informed rather than to process laws and circulars, highlighting the importance of disseminating information to improve the quality of the educational organization. In addition, the McCarley, Peters and

Deckman (2014) research concluded that in schools where information is exchanged and distributed without hesitation, a climate of support, participation and trust is developed. Human resources in this kind of participatory environment feel appreciated and acknowledged, since its proposals are used, its queries are answered and its concerns are calculated (McCarley et al., 2014). In-school training as another information dissemination technique, according to the respondents' answers, at a 36 percentage is totally absent from secondary education schools that participated in the survey. This finding is in line with the findings of corresponding literature surveys (Roussi, 2007; P.I, 2008), conducted in the framework of research for qualitative traits.

The moral and economic reward is totally absent from schools, at a 34.9% percentage and 82.7% respectively, while support for initiatives (31.3%) and substantial personal relationships (34.1%) are found in a small extent. These results of this research appear to be in agreement with relevant literature surveys (Detert & Jenni, 2000; Osseo-Asare & Longbottom, 2002; Calvo-Mora et al., 2006; Roussi, 2007; Koltsakis, 2008; Haque et al., 2008), as well as similar researches referring to the lack of moral reward (Anastasiou, 2011), the absence of financial incentives (Kavouri, 1998; Tsiplitaris, 2000, as cited in Anastasiou, 2011), the lack of recognition of teachers' work (Xochellis, 1990, as mentioned to Anastasiou, 2011) and initiatives (Stravakou, 2002).

Good communication, lack of competition on a personal level, cooperation, exchange of views and honesty encourage the creation and the strengthening of substantial personal relationships, as Chatzipanagiotou underline (2012, p. 205) an element which is at a low level of development (34,1%) in this survey. The surveys of Alzhrani et al. (2016), Anastasiadou and Zirinoglou (2015) and Toremen et al. (2009), concluded that there was an absence of substantial personal relationships expressing the desire of human resources to improve relations.

The search for tactical feedback from the members of the training unit in specific ways (goal setting, questionnaires and interviews) is a methodology and a qualitative characteristic, which is to a small extent present in the current situation according to the sample. However, in educational organizations that pursue quality and conform to the principles of TQM, feedback is a key component of the success of a program to develop human qualitative characteristics (Dahlgaard et al., 1995; Zavlanos, 2003).

The search, the evaluation and the implementation of the creative ideas of the members of the educational unit, through the formation of teams and the function of forum for THE improvement of the performance of the educational unit, 34,6% and 64%, respectively, do not exist in the school units, according to the sample. The findings of Anastasiadou and Zirinoglou (2015), Ngware et al. (2006), Roussi (2007), Stravakou (2002), coincide with the findings of the present as regards the absence of working groups to improve the quality of the educational organization.

The sample confirmed the absence of a rating system for all members of the educational community (newly appointed, educational staff, prospective teachers). Similar surveys that investigated the human potential and the institution of assessment in Greek education showed similar findings to this research. Joint ascertainment the surveys of Anastasiou (2011), Ziaka (2006), Pamouktsoglou (2000), P. I. (2008),

238

Roussi (2007) and Charakopoulos (1998), is the absence of an evaluation system in the Greek educational system.

It has been found that 40.7% of the sample is not satisfied with the training policy pursued. According to (Calvo-Mora et al., 2006; Ngware et al., 2006; Roussi, 2007; PI, 2008, Koltsakis, 2008; Ejionueme & Oyoyo, 2015) similar conclusions were reached regarding lack of training policy and pointed to its necessity.

Encouraging and supporting human resources to participate in activities aiming at improvement are absent by 30.4% of human resource management according to the sample. In relation of Koltsakis (2008), Pedagogical Institute (P.I., 008), Christopoulos (2007), the limited implementation of educational programs and innovations in the Greek school is associated with inadequate teacher training coupled with a lack of interest, the difficulty of cooperation among school teachers of the same unit and the extra time which is needed to prepare and implement them.

The Constitution guarantees equal opportunities in employment conditions according to the sample. Moreover, as stated in the Anastasiou survey (2011), the equal representation of the sexes on all levels of the educational community is disproportionate to the requirements of the Constitution, the era we are in and the demands of society.

Also, the Anastasiou and Siassiakos (2014) research has produced similar results as for the importance of equal opportunities in the work place. In particular, according to the survey, women in Greece are more numerous in schools and education in general, but at the same time they appear to have the lowest representation in higher positions at each level of education.

In existing human resources policies, and whether they actively support the strategic planning of the training unit, the sample stated in a significant percentage (32.3%) that strategic planning and education policy should be determined by the Ministry of Education while simultaneously stating the insufficiency of staff so as to implement the program (36.4%). According to Andreou and Papakonstantinou (1994), the organization and functioning of the education system is not only traditional but also institutional bureaucratic and centralized. Nevertheless, there is a tendency for decentralization and delegation of authority at a regional and school level. However, school units remain at the base of the organizational system's pyramid, with School headmasters in roles which implements standardized procedures (Koutouzis, 1999; Mavrogiorgos, 1999).

In terms of the seeking of opportunities and the aim of taking action so as to enable individuals to learn to function better as members of the educational unit through participation in cultural and social activities and through the co-ordination of the various specializations in the educational process, it was found that this is the case at a low level (36.9% and 45.3%, respectively) in the current situation. The Stravakou research (2002), has reached similar results, stressing that participation in events is necessary as they contribute to the formation of a spirit of teamwork, friendship, solidarity and socialibity on the part of all participants and not only of students. At the same time, the participation of teachers in action research,

according to Avgitidou (2005), develops the team spirit, the exchange of ideas and the insurance of emotional and practical support.

The majority of the sample (59.3%) in terms of disseminating information and transferring good practice through various techniques, recognizes that this quality trait needs to be developed to a large extent in the future. Quality schools foster open communication, ideas are expressed, and knowledge is transported from top to bottom, reversely and horizontally, and the opportunities for diffusion of best practice are ensured. Quality communication means improving the quality of the organization's function, a good working environment, the sharing of information, the strengthening of trust, active participation, effective administration, co-operation and organization (Zavlanos, 2003; Passiardis, 2004).

In-school training as an information dissemination technique is recognized by respondents as 57% as a desirable qualitative characteristic the existence of which they seek. This desire also appears in similar surveys (Roussi, 2007; I, 2008), as its implementation is a prerequisite for the improving of the quality and the effectiveness of education. The research by Clement and Vanderberghe (2000) concluded that the implementation of in-school training equates to the professional development of teachers. At the same time, it develops the collaborative process with educators, who interact with each other and with the educational community (Clement & Vanderberghe, 2000).

Reward, recognition and care procedures of the training unit members, elements, that are included in incentives should be developed according to the sample. Recognition, reward, and support, as are embodied in the philosophy of the TQM, are practices that activate the human potential for performance and make it feel devoted and committed to the goals of the organization (Logothetis, 1993).

The search for constant feedback from the members of the training unit in specific ways (goal setting, questionnaires and interviews) is suggested by the majority of the sample as a desirable methodology that would contribute in the future to the development of quality characteristics of human resources. One, also a significant percentage of the respondents (39.7%) said, that goals need to be set so as to be fulfilled and thus provide by feedback to the process. On the contrary, the use of questionnaires and interviews ranges at lower rates of desire (36% and 29.4% respectively), mainly because as processes they have not been adequately understood and accepted by the human resources of education as to how they could to act as a means of feedback.

The search, evaluation and implementation of the creative ideas of the members of the training unit through the creation of working groups and the operation of forums are qualitative characteristics which about half of the respondents (43.5%) said they wanted to be their developed. This finding is in line with data from other relevant surveys (Stravakou, 2002; Ngware et al., 2006; Roussi, 2007; Anastasiadou & Zirinoglou, 2015), which examined the qualitative characteristics of human resources. At the same time, the desire of the sample for the creation of forums is explained by the fact that they give teachers the ability to work together from a distance for a long duration of time in order to promote improvement changes.

Moreover, teachers' involvement in networks is an important learning method with opportunities for the exchange of views on the development and promotion of new practices. In this way the teacher can become more effective and become a quality person within the educational unit (Chatzipanagiotou, 2012).

The implementation of an effective assessment system is presented by the sample as a necessity for all levels of the educational process. The positive attitude of the teachers questioned towards the evaluation of the educational work and the teachers coincides with the corresponding findings of Anastasiou (2011), Ziaka (2006), Pamouktsoglou (2000), Roussi (2007) and Charakopoulos (1998). Also, the training and development of the members of the training unit are quality characteristics that should be developed according to about half of the respondents (44%). The desire of the teachers of this research for professional development and training are findings that are consistent with the findings of relevant research (Calvo-Mora et al., 2006; Ngware et al., 2006; Roussi, 2007; Koltsakis, 2008; Ejionueme & Oyoyo, 2015), proving that training and professional development is a necessity and prerequisite for the improving of the quality and the effectiveness of education (Doukas et al., 2007).

Encouraging and supporting human resources to participate in activities (educational programs, innovative actions) with the aim of improvement are quality characteristics that the sample places very high (43.5% and 45.3%) as for their adoption from the educational units. Similar results came from the research by Ngware et al. (2006), with human resources seeking greater encouragement as it promotes the advancement and development of a quality culture.

Also, strategic planning and educational policy should be determined by the Ministry of Education, according to respondents' answers. Finally, the search for opportunities and actions aimed at the better functioning of the members of the training unit, according to 40.7% of the sample needs to be developed in the future. Leadership that embraces the principles of the TQM needs to provide executives with a host of opportunities, motivating their participation, supporting their innovative and creative action, aiming at the continuous improvement of processes and services given (Kriemadis & Thomopoulou, 2012).

6. Conclusions and Proposals

The present research reveals important findings on both existing and desirable quality features in human resource development, which are presented below.

Regarding the first research question on the existing quality characteristics in the development of human resources the teachers who participate in the research note the lack of training actions and at the same time recognize their non-participation in self-training programs. Additionally, there is a lack of encouragement and support for participation in educational programs. At the same time, there is no moral and economic reward, while simultaneously there is little support for initiatives at an administration level. Furthermore, teams are not created to undertake a project and highlight quality results and there is no functioning of a data base (forum), as they have not expressed their interest in the educational unit.

241

In addition, it appears that moral rewards are low, while financial rewards are completely absent from school units. At the same time, it is revealed that there is a low level of development of good communication, a lack of competition on a personal level, a lack of cooperation, and a lack of exchange of views and honesty, while most respondents stated that the above mentioned are quality features that they wish to exist in school their units. The implementation of an effective assessment system is stated by most of the sample as imperative for all levels of the educational process.

Also, the search for tactical feedback from the members of the training unit, in specific ways (goal setting, questionnaires and interviews), is a methodology and a quality trait which exits at a low level, while the majority stated it was a methodology that would greatly contribute to the development of human resources quality in the future.

In addition, specific quality features such as the seeking of evaluation and implementation of the creative ideas of the members of the training unit, through the formation of teams and the functioning of the forum to improve the performance of the educational unit, do not exist in the school units of the respondents, while on the contrary about half of respondents said they are qualitative features that they want to see developed.

In addition, about half of the respondents said they are dissatisfied with the training policy which is pursued, while there is no encouragement and support for human resources to engage in improvement activities, while they are quality features that a large a percentage of respondents said they should be developed in the future.

At the same time, it is noted that quality features related to the pursuit of opportunities and the undertaking of actions, aimed at educating teachers to function better as members of the educational unit through participation in cultural and social activities and through the co-ordination of the various specialties in the educational process, are only at a low level in research schools, which participated in the research, while a very significant percentage of those surveyed said that they would desire these quality characteristics would like to be developed in the future.

Finally, the majority of respondents said that the dissemination of information and the transfer of good practice methods through various techniques, which encourage and support human resources to participate in activities (educational programs, innovative actions), which are aimed at improvement are quality features, which the sample prioritizes as very important for their adoption by the educational units.

The findings of this research can be generalized to the entire human resource of this particular prefecture due to the size of the sample and its representativeness. However, the fact that the sample comes from a single county does not allow generalizing findings for the overall population of secondary school teachers. Therefore, the geographical limitation of research is clear, so it is necessary to confirm its findings with other surveys, by sampling a larger sample of schools from urban, semi-urban and rural areas, in more prefectures or throughout Greece, in order to detect any differences in the findings and to be able to generalize its results. Another constraint that arises is whether the sample responding

242

negatively presents a "bad" image for itself. In self-reporting questionnaires, irrespective of anonymity and confidentiality, individuals usually exaggerate their opinions about their abilities, whether deliberately or not (Lepidas, 2012).

Therefore, in a future survey, it is necessary to use a mixed quantitative methodology, closed questionnaire a and qualitative one, individual or group interviews, which will allow a better understanding of the factors, which are being examined that contribute to the upgrading of the qualitative characteristics of the human resource.

In spite of the above limitations, the conclusions reached by the survey raise new issues that could be the subject of further research. Indicatively,

Professional development of educators and quality educational work.

Investigating the relationship between the forms of educational leadership and the qualitative characteristics of the human resource of education.

Incorporating qualitative characteristics of human resources into the Greek educational system.

References

Aggarwal, P. (2016). Total quality management and teacher education. *International Journal of Applied Research*, *2*(1), 600-601.

Altinzis, P., & Mouratidou, N. (2011). *The Application of Total Quality Management in Greek School Reality*.

Altunay, E. (2016). The Effect of Training with TQM on the Perceptions of Teachers about the Quality of Schools. *Universal Journal of Educational Research*, *4*(9), 2126-2133. https://doi.org/10.13189/ujer.2016.040925

Alzhrani, K., Alotibie, B., & Abdulaziz, A. (2016). *Total Quality Management in Saudi Higher Education*. https://doi.org/10.5120/ijca2016908245c

Anastasiadou, S., & Zirinoglou, P. (2015). EFQM dimensions in Greek Primary Education System. *Procedia Economics and Finance*, *33*, 411-431. https://doi.org/10.5120/ijca2016908245

Anastasiou, S. (2011). *Managing Human Resources for Education: Case Study in Secondary Education in Epirus* (Doctoral Thesis). Ioannina: University of Ioannina.

Anastasiou, S., & Siassiakos, K. (2014). The Importance of Equal Opportunities at Work: Why should we care about it? *Advances in Management & Applied Economics*, *4*(6), 51-64.

Andreou, A., & Papakonstantinou, G. (1994). *Power and organization-administration of the education system*. Athens: Nea sunora - AA Livani.

Avgitidou, S. (2005). Action research as a method of educating teachers in research: An example. *Paidagogikí Epitheórisi*, *39*, 39-56.

Calvo-Mora, A., Leal, A., & Roldán, J. L. (2006). Using enablers of the EFQM model to manage institutions of higher education. *Quality Assurance in Education*, *14*, 99-122. https://doi.org/10.1108/09684880610662006

243

Charakopoulos, K. (1998). *Investigation of perceptions and attitudes of Greek secondary school teachers regarding their assessment and evaluation of educational work at the level of the school unit* (Doctoral Thesis). Athens: University of Athens.

Chatzipanagiotou, P. (2008). *The role of culture in the efficiency of the school organization*. In G. Papanam (Ed.), *Training Guide: Intercultural Education and Education* (pp. 213-230). Thessaloniki: Aristotle University of Thessaloniki.

Chatzipanagiotou, P. (2012). Creating and Maintaining a Positive School Climate through the Professional Development of Teachers: The Role of School Leadership. In D. Karakatsani, & G. Papadiamantaki (Eds.), *Contemporary Issues of Educational Policy, Seeking the New School* (pp. 201-210). Athens: Epikentro.

Chauhan, A., & Sharma, P. (2015). Teacher Education and Total Quality Management (TQM). *The International Journal of Indian Psychology*, *2*(2), 80-85.

Cheng, Y. C., & Walker, A. (1997). Multi-functions of school-based teacher education. *International Journal of Educational Management*, *11*(2), 80-88. https://doi.org/10.1108/09513549710163970

Christopoulos, N. (2007). *Opinions and perceptions of Secondary School Teachers for the selection and implementation of Environmental Education programs* (Doctoral Thesis). Patras: University of Patras.

Clement, M., & Vandenberghe, R. (2000). Teachers' professional development: A solitary or collegial (ad) venture? *Teaching and teacher education*, *16*(1), 81-101. https://doi.org/10.1016/S0742-051X(99)00051-7

Creemers, B. P. M. (2002). From School Effectiveness and School Improvement to Effective School Improvement: Background, Theoretical Analysis, and Outline of the Empirical Study. *Educational Research and Evaluation*, *8*(4), 343- 362. https://doi.org/10.1076/edre.8.4.343.8814

Crosby, P. B. (1984). *Quality without Tears*. New York: McGraw-Hill.

Dahil, L., & Karabulut, A. (2013). Effects of total quality management on teachers and students. *Procedia-Social and Behavioral Sciences*, *106*, 1021-1030. https://doi.org/10.1016/j.sbspro.2013.12.116

Dahlgaard, J. J., Kristensen, K., & Kanji, G. K. (1995). Total quality management and education. *Total Quality Management*, *6*(5), 445-456. https://doi.org/10.1016/j.sbspro.2013.12.116

Darling-Hammond, L. (2000). Teacher Quality and Student Achievement: A Review of State Policy Evidence. *Education Policy Analysis Archives*, *8*(1), 1-44. https://doi.org/10.14507/epaa.v8n1.2000

Detert, J. R., & Jenni, R. (2000). An instrument for measuring quality practice in education. *Quality Management Journal*, *3*(7), 20-37. https://doi.org/10.1080/10686967.2000.11918904

Doúkas, C. H., Vavouráki, A., Thomopoúlou, M., Kalantzis, M., Koútra, C. H., & Smyrniotopoúlou, A. (2007). *Teacher training. Epitheórisi Ekpaideftikón Themáton*, *13*, 113-123. Athens: Paidagogikó Institoúto.

Ejionueme, L. K., & Oyoyo, A. O. (2015). Application of Total Quality Management (TQM) in Secondary School Administration in Umuahia Education Zone. *Journal of Education and Practice*, *6*(27), 102-112.

European Commission/EACEA/Eurydice. (2015). *The Teaching Profession in Europe: Practices, Perceptions, and Policies. Eurydice Report. Luxembourg: Publications Office of the European Union*. Retrieved from http://eacea.ec.europa.eu/education/eurydice/documents/thematicreports/184EN.pdf

Haque, A., Sarwar, A., & Yasmin, F. (2013). Teachers' Perception towards Total Quality Management Practices in Malaysian Higher Learning Institutions. *Creative Education*, *4*(9), 35-40. https://doi.org/10.1080/10686967.2000.11918904

Herdeiro, R., & Silva, A. M. C. (2013). The quality of teaching and professional development of teachers: a Portuguese study. *Teacher Development: An international journal of teachers' professional development*, *17*(2), 176-194. https://doi.org/10.1080/10686967.2000.11918904

Irgis, A. (2008). *Total Quality and Quality of Education in Greek Public Schools*. At the 10th Pancyprian Conference of the Pedagogical Society of Cyprus: Quality in Education: Research and Teaching, 6-7 June 2008. Nicosia. University of Cyprus.

Jancikova, A., & Brychta, K. (2009). TQM and Organizational Culture as Significant Factors in Ensuring Competitive Advantage: A Theoretical Perspective. *Economics & Sociology*, *2*(1), 80-95. https://doi.org/10.14254/2071-789X.2009/2-1/8

Karaliolou, P. (2011). *School self-evaluation within the ILO: The Strategy and Policies criterion in the EFQM model* (Master's Degree). Patras: Hellenic Open University.

Kefis, B. (2005). *Total quality Management. Theory and Standards*. Athens: Critique Publications.

Koltsakis, E. (2008). Quality attributes in the "Procedures" of School Units in Greece. In *An Empirical Research in Secondary Education* (Unpublished Postgraduate Work). Patras: Hellenic Open University.

Koutouzis, M. (1999). The educational unit as an organization. In A. Athanasoula-Reppa, M., Koutouzis, G., Mavroyogoros, V., Nitsopoulos, & D. Halkiotis (Eds.), *Educational Management: Educational Management and Policy* (Vol. A, No. 49). Patras: Hellenic Open University.

Kreemadis, T. h., & Thomopoulou, I. (2012). *Administration of School Units with emphasis on quality*. Athens: Economic Library.

Lepidas, A. (2012). *Conflicts in school. The role of teachers and leadership* (Unpublished Postgraduate Work). Volos: University of Thessaly.

Logothetis, N. (1993). *Total Quality Management*. Athens: Interbooks.

Logothetis, N. (1995). Towards a quality management of education. *Total Quality Management*, *6*(5), 479-486. https://doi.org/10.1080/09544129550035143

Madsen, O. N., & Carlsson, R. (1995). "Total quality in education": A case study. *Total Quality Management*, *6*(5), 613-619. https://doi.org/10.1080/09544129550035260

Mantarakis, N., Papadopoulos, I., & Tsigros, D. (2008). *Evaluation as a tool for organizing and democratic administration or the bridge of Arta.* Proceedings of an International Conference on New Educational Material of the Ministry of Education-Evaluation and Management of Secondary Education. Arta.

Mavrogiorgos, G. (1999). The educational unit as a body for the formation and exercise of educational policy. In A. Athanasoula-Reppa, M., Koutouzis, G., Mavroyogoros, V., Nitsopoulos, & D. Chalkiotis (Eds.), *Educational Management: Educational Management and Policy* (Volume A, No 163). Patras: Hellenic Open University.

McCarley, T., Peters, M., & Decman, J. (2014). Transformational Leadership related to school climate a multilevel analysis. *Educational Management Administration & Leadership*, 1-21. Retrieved from https://www.researchgate.net/profile/Michelle_Peters4/publication/279925108_Transformational_l eadership_related_to_school_climate_A_multilevel_analysis/links/559e6e5b08ae99dba598ce9d.p df

Ngware, M. W., Wamukuru, D. K., & Odebero, S. O. (2006). Total quality management in secondary schools in Kenya: Extent of practice. *Quality Assurance in Education*, *14*(4), 339-362. https://doi.org/10.1108/09684880610703947

Nye, B., Konstantopoulos, S., & Hedges, L. V. (2004). How Large are Teacher Effects? *Educational Evaluation and Policy Analysis*, *26*, 237-257. https://doi.org/10.3102/01623737026003237

Osseo-Asare Jr, A. E., & Longbottom, D. (2002). The need for education and training in the use of the EFQM model for quality management in UK higher education institutes. *Quality Assurance in Education*, *10*(1), 26-33. https://doi.org/10.1108/09684880210416085

Pamouktsoglou, A. (2000). *School Advisor: Failing Institution or "Weak" School Advisor*. Proceedings of the 2nd Panhellenic Conference. Greek Pedagogical and Educational Research. Athens: Atrapos.

Papanaoum, Z. (2003). *The profession of teacher. Theoretical and empirical approach*. Athens: Typothito.

Pasiardis, P. (2004). *Educational Leadership: From the period of prosperous indifference to modern times*. Athens: Metaichmio.

Pedagogical Institute. (2008). *Quality in Education: Research on Qualitative Qualification of the Primary and Secondary Education System*. Athens: Pedagogical Institute.

Pour, H. M., & Yeshodhara, K. (2009). Total quality management in education perception of secondary school teachers. *E Journal of All India Association for Educational Research*, *21*(1), 51-59.

Pupius, M. (2005). *Excellence in Education-workshop notes* (Unpublished).

Riordan, C. M., Gatewood, R. D., & Bill, J. B. (1997). Corporate image: Employee reactions and implications for managing corporate social performance. *Journal of Business Ethics*, *16*(4), 401-412. https://doi.org/10.1023/A:1017989205184

Roussi, C. (2007). *Total Quality in Secondary Education Management* (Doctoral Thesis). Athens:

Panteion University.

Sachs, J. (1997). Reclaiming the agenda of teacher professionalism: An Australian experience. *Journal of Education of Teaching*, *23*(3), 263-275. https://doi.org/10.1080/02607479720006

Sandbrook, M. (2001). Using the EFQM Excellence Model as a framework for improvement and change. *Journal of Change Management*, *2*(1), 83-90. https://doi.org/10.1080/714042484

Stravakou, P. (2002). *The Headmaster of the Primary and Secondary School. Theoretical analysis and empirical investigation* (Doctoral Thesis). Alexandroupolis: Democriteio University of Thrace.

Taşar, H., & Çelik, M. (2011). Examination of Implementation Level of the Total Quality Management Principles by the Principals and Teachers Functioning at Elementary Schools: The Case of Adiyaman Province. *Asian Social Science*, *7*(9), 33-42. https://doi.org/10.5539/ass.v7n9p33

Toremen, K., Karakus, M., & Yasan, T. (2009). Total quality management practices in Turkish primary schools. *Quality Assurance in Education*, *17*(1), 30-44. https://doi.org/10.1108/09684880910929917

Wani, I. A. (2014). Perception of Secondary School Teachers Towards Total Quality Management In Education. *International Journal of Humanities and Social Science Invention*, *3*(6), 65-70.

Wenglinsky, H. (2000). *How teaching matters: Bringing the classroom back into discussions of teacher quality*. Beverly Hills: Milken Family Foundation. Retrieved from https://www.ets.org /Media/ Research/pdf/PICTEAMAT.pdf

Yau, H. K., & Cheng, A. (2013). Quality Management in Primary Schools. *International Education Research*, *1*(4), 16-31. https://doi.org/10.12735/ier.v1i4p16

Zavlanos, M. (2003). *Total quality in education*. Athens: Stamoulis.

Ziaka, B. (2006). *The Evaluation of the Educational Project and its Contribution to School Effectiveness* (Unpublished Postgraduate Diploma Thesis). Rhodes: University of the Aegean.

Zogopoulos, E. (2010). *Analysis of Factors and Criteria Implementation of a Total Quality Improvement Model in Secondary Education* (Doctoral Thesis). Athens: National Technical University of Athens.

Zogopoulos, E. (2012). *Exploring the application of the EFQM Business Excellence Model to School Self-Assessment.* At the 6th Panhellenic Conference of the Hellenic Institute of Applied Education and Education. Proceedings of Proposals (ELL.IEP.EK), 5-7 October 2012 (pp. 1-11). Athens.