

# Systematic Literature Review in the Field of Education Quality Management

Gabriela-Livia Curpănaru

<sup>1</sup> PhD student at the "Gheorghe Asachi" Technical University in Iasi, Faculty of Industrial Design and Business Management, Doctoral School: Engineering and Management

## -----ABSTRACT-----

*The objective of this study is to systematically review the literature in the field of quality management in education. By systematically analysing the specialized literature, the studies from the period between 2013-2021, based on the investigation of the characteristic aspects of the education quality management, have been identified. The results of this systematic analysis have led to the highlighting of two conclusions. The studies are based on the total quality management model. Depending on the research method used, it has been found that the predominant studies are quantitative, questionnaire-based. All the research results presented lead to conclusions in favour of a quality-focused organizational culture.*

**KEYWORDS:** Literature Review, Education, Quality Management, Total Quality Management, Model

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## I. INTRODUCTION

### 1.1. Studies in the field of education quality management

Some studies were conducted nationwide (Iancu, 2013; Ivana, 2015; Popovici, 2019; Poruțiu, 2015), but most of them were carried out internationally (Asif, Awan, Khan, Ahmad, 2013; Avila, 2018; Crissien-Borrero, Velásquez-Rodríguez, Neira-Rodado, Turizo-Martínez, 2019; Díez, Iraurgi, Villa, 2018; Díez, Villa, López, Iraurgi, 2020; Ejjonueme & Oyoyo, 2015; Elahi & Ilyas, 2019; Hasan, Islam, Shams, Gupta, 2018; Karageorgos, Patsiaouras, Kokaridas, Kriemadis, Travlos, 2017; Karahan & Mete, 2014; Kigozi, 2019; Kistiani & Permana, 2020; Martin & Parikh, 2017; Mashagba, 2014; Menezes, Martins, Oliveira, 2018; Nasim, Sikander, Tian, 2019; Olmos-Gómez, Luque Suárez, Ferrara, Olmedo-Moreno, 2020; Seyfried & Pohlenz, 2018; Shahmohammadi, 2018; Sohel-Uz-Zaman & Anjalin, 2016; Taahyadin & Daud, 2018; Tight, 2020; Vykydal, Folta, Nenadál, 2020).

The study proposed by Asif, Awan, Khan, Ahmad (2013) helped identifying the success factors of total quality management in Pakistani universities. The researchers developed a questionnaire, which was applied to higher education teaching staff. The research data helped determining the success factors of total quality management in academia: leadership, vision, measurement and analysis, process control and evaluation, programme design, as well as resource allocation and the interested parties' concentration.

Iancu (2013) conducted a research focused on Romanian primary and secondary education. The research aimed at understanding, examining, explaining and optimizing the phenomenon in school management as well as improving intervention techniques, increasing quality and performance in the management process. The research methodology was mixed, by combining qualitative exploratory methods and quantitative methods. A questionnaire was applied to teachers and school managers in selected schools in the eight development regions of Romania. The research results highlighted some suggestions for improving quality in school management, with an emphasis on discovering ways to achieve quality in education and performance in management.

The general objective of the study proposed by Karahan and Mete (2014) aimed at determining and evaluating quality management of higher education institutions based on student feedback. The authors developed a questionnaire based on the specialized literature review. The questionnaire was applied to 243 students from a university in Turkey. The research results indicated that some aspects related to quality management were positively assessed by students (content of education and training, quality of technological resources), while other aspects were negatively assessed (canteen services, cultural and social activities).

Many studies are focused on investigating the effectiveness of the total quality management model. Mashagba (2014) aimed to identify the impact of total quality management on academic performance in universities. The level of performance was measured by the level of knowledge about the application of the total quality management principles in the University of Jordan. A questionnaire was applied to 120 members of the

university. The research results showed that the decisions taken by the board of directors had an effect on the academic performance at the University of Jordan.

Ejionueme and Oyoyo (2015) conducted a study to investigate how the total quality management was applied by the schoolboard of the Umuahia middle/lower secondary school. 358 respondents took part in the study: 53 principals, 53 deputy principals and 252 teachers. The research method used to investigate the application of total quality management in the administration of the middle school was the questionnaire. The research results showed that the middle school management applied the principles of total quality management related to total commitment and teamwork.

The research conducted by Ivana (2015) is based on the model of the European Foundation for Quality Management (EFQM), focusing on "customer results". By means of the RADAR logic, the research identified and analysed the positive and quality improvement aspects within the study programme under analysis. The research data illustrated differences between the perception of the graduated study programme quality and the specific and transversal skills development. The graduates' perception of the education quality is conditioned by how the higher education institution meets their expectations regarding its ability to provide educational and social services. The quality management model developed could help universities to establish a customer-oriented strategy, which is necessary given the existing competition among universities, the academic service internationalization and the increasing customer requirements.

The study proposed by Poruțiu (2015) aimed to identify the main characteristic aspects of higher education quality by highlighting specific performance indicators. Questionnaires were given to candidates enrolled at the faculties of the University of Agricultural Sciences and Veterinary Medicine in Cluj-Napoca. The research results indicated areas where the quality management needed improvements.

An example of a study based on the use of the qualitative methodology is the one initiated by Sohel-Uz-Zaman and Ankalin (2016). The main objective of the research consisted in assessing the compatibility between the total quality management and education. Another objective addressed the identification of the benefits brought by adopting this model in education, as well as the difficulties which may impeach its implementation. Interviews with education experts were carried out. The results determined the emphasis put on the benefits of adopting the total quality management: the uninterrupted improvement of the management system, the integration of people, functions and resources, the systematic and structured approach, the quality assessment of every organization in every step of its implementation, the development of individual and organizational capacity, the efficient use of resources, the customer's satisfaction, the creation of a quality culture.

The research carried out by Karageorgos, Patsiaouras, Kokaridas, Kriemadis, Travlos (2017) had the purpose of elaborating and validating a questionnaire which analysed the total quality management applied in the Greek primary education. One hundred twelve primary school teachers participated in the study, out of which 55 were male and 57 female. The factor analysis determined the grouping of the 43 items according to five domains: teacher satisfaction, school management and functioning, motivation, effectiveness of public-school management and financial management. The results of the research highlighted the fact that the primary school teachers' satisfaction in relation with their work environment depends directly on the motivation offered by the school management to develop their abilities, as well as on their perception on the effectiveness of the management and functioning on every level. The questionnaire can be used in future studies, on larger samples, so as to explore the application of total quality management in educational milieus. Moreover, this instrument can be useful in identifying the factors which determine the quality of education.

The UNESCO International Institute for Educational Planning (Martin and Parikh, 2017) launched an international comparative research project in 2014, dealing with the internal quality assurance in higher education. The research objectives aimed at identifying the determinant factors and obstacles interfering with the implementation of quality management, as well as illustrating the innovative practices and principles, with the purpose of highlighting the internal and external factors which condition the efficient functioning of the quality management in the academic environment. Case studies were carried out in eight universities with the purpose of providing information, by the decision makers and quality managers, related to the ways of improving the development and implementation of quality management in higher education institutions.

In the study initiated by Avila (2018), the evaluation approached the total quality management practices of the school administrators related to the curriculum and teaching, human resources, physical facilities, budget management and research. Another objective of the study consisted in determining the relation between the evaluation of the total quality management practices of the school administrators and the school performance. The study was implemented in certain education institutions from the province of Quezon, in relation with the first semester school performance. One hundred thirty-two teachers and 37 school administrators from both private and public colleges participated in the study. The evaluation criteria addressed school results, rates of enrollment, rates of school drop-out, of stagnation and of graduation, as well as the prizes won. The study was based on Deming's theory on total quality management, as a consequence of certain

customer-based job-oriented quality methodologies. The author started from the idea that the research oriented towards the investigation of total quality management practices can bring improvements in the quality of education of the participating schools. Furthermore, such studies give information about the way the quality management could be carried out by the school administrators. With the help of their abilities, the students can be guided efficiently, a fact which facilitates the academic performance of the school institutions. The study applied descriptive research in order to describe the practices used in total quality management by the school administrators in relation with the students' academic performance. Based on the investigation of the relation between the evaluation of quality management practices and school success, an action plan can be developed so as to improve the school quality system and performance.

Díez, Iraurgi, Villa (2018) proposed an innovative study to contribute to the amelioration of the quality management systems. In this purpose, two quality models were analysed, namely the EFQM excellence model and the model of the integrated quality project. The research was carried out in 14 schools, which were analysed through a sample of 315 subjects (42 managers and 273 teachers). The schools implemented one of the two quality models. The results show that the existence of a quality model in their school determines the teachers and the managers to be more aware of the existence and importance of quality management systems and models. The awareness of the existence of quality models at the level of the school organization makes them seek a superior quality of education. The results provided by this study illustrate the fact that the perception of quality education systems is associated with the effective implementation of quality management models. The research data indicate that both the EFQM excellence model and the model of the integrated quality project have recorded high scores concerning the perception of quality among school teachers and managers. Quality is always a process of continuous improvement and, thus, of implementing models meant to assure certification for a certain time interval, and therefore requires adjustment once the period specified by the system expires. This research leads to the conclusion that the most important aspect in a quality system is that of improving school performance rather than gaining social recognition.

The study carried out by Hasan, Islam, Shams, Gupta (2018) started from the acknowledgment of the school drop-out among the primary school children in Bangladesh. The main objective of the research sought the improvement of the school environment quality so as to motivate the children to go to school and, thus, to reduce the drop-out. A quality research methodology based on focus-group and interview was designed. The participants in the study were parents, teachers, students and administrators from 12 schools from the district of Khulna. The results of the research emphasized the appropriate solutions to eliminate the obstacles interfering in the implementation of the total quality management. The following directions for solution analysis were proposed: the amelioration of teaching quality through the application of total quality management, the reduction of school drop-out in primary education, the improvement of the classroom quality management.

Menezes, Martins, Oliveira (2018) analysed the dimensions of the education management efficacy in Brazilian higher education institutions. Both university teachers and managers, as well as administrative staff participated in the study. The questionnaire was chosen as a research method. The results were obtained through modeling the structural equation in relation with the Baldrige excellence criteria. The data indicated that strategic planning and operational enterprise directly influence the efficiency of management.

The purpose of the study conducted by Seyfried and Pohlenz (2018) consisted in investigating the determinant factors of efficacy for quality assurance in higher education institutions. There was a mixed research methodology, as a consequence of combining qualitative and quantitative data. A questionnaire was offered to the managers from several German universities. The questionnaire items made reference to the following subjects: the general features of the quality management department, the purpose and tasks involved in quality management, their efficacy, the procedures and activities, the resistance against quality management, the capacities and professionalism, the quality of teaching and study programmes, biographical data and institutional background. The results demonstrated that the support from the superior management of the higher education institutions, as well as the cooperation with other organizations, represent preliminary conditions for determining the efficacy of quality assurance.

Shahmohammadi (2018) initiated a specific study with the purpose of exploring the role of total quality management at the level of educational programmes for the First Grade. Three hundred twenty-four primary school teachers participated in the research. The author produced and validated a questionnaire for the investigation of the teachers' perception. The questionnaire items targeted aspects characteristic of the total quality management dimensions, as follows: support and leadership, strategic planning, student-centered learning, identification of teacher training needs, teamwork, quality measurement, quality assurance, results of quality management improvement enterprise. The research data showed that the dimensions of the total quality management influence the efficacy of the First Grade educational programmes in the city of Karaj.

Another study, conducted by Taahyadin and Daud (2018), had the objectives of identifying the quality level from the School of Kedah and determining the relation between the quality management indicators (i.e., values and duties, system, team, resources, student and staff needs). Three hundred seventy-five teachers from

the Kedah Secondary School participated in the research. The instrument consisted in a questionnaire targeting the investigation of aspects related to the total quality management. The results indicated that there is a correlation between all of the quality indicators at the level of the school organization. Together with the results, a series of pertinent solutions was obtained, aiming at improving the quality management system in secondary schools. The authors mentioned that improvements are necessary in order to create a positive school culture environment and to generate excellence. A very important role in fulfilling quality standards is played not only by the school manager, but also by the teachers. The school manager will proactively participate in every school activity. Moreover, in order to have a quality school, it is important for the teachers to understand all of the resources available in school and successfully fulfil the mission established by the school management, despite the fact that those resources are limited.

Recent studies aim at systematic analyses on research carried out in the last twenty years. Crissien-Borrero, Velásquez-Rodríguez, Neira-Rodado, Turizo-Martínez (2019) attempted to analyse education quality models from a managerial perspective. The articles were analysed according to the education level at which the methods had been implemented, and in relation with the quality factors included in each model of measurement. Following the analysis of 20 studies in the field, it was shown that 3 studies implemented forms of measurement in preschools, 2 in secondary schools, 2 in technical schools, 11 in vocational schools and 2 in other educational contexts. These data show that the investigation of the education quality measurement models is predominant in vocational education. Therefore, the studies on quality management are still in incipient phases in the case of the other types of schools.

Elahi and Ilyas (2019) explored the relation between the process approach, the customer-oriented approach and the school quality, with the purpose of improving the way of certifying the school principal's professional competence so as to develop the quality management practices in private school institutions. A questionnaire-based quantitative research was, thus, designed. The questionnaire targeted a sample of 401 private school principals. The results showed the fact that the process approach impacts significantly on the functional quality and the academic quality of the school institutions. The customer-oriented approach assures the relation between the process approach and the functional quality. Together with these results, it was found that there is a moderated relation between the level of the principal's professional certification and the process approach, functional quality and academic quality.

Kigozi (2019) investigated the challenges of successfully implementing the total quality management in the public and private primary schools from Uganda. The author carried out semi-structured interviews with 100 tutors recruited from public and private schools. The challenges identified on the basis of the analysis of the research data were the following: the lack of engagement in the management activity, the low level of management, the lack of resources, the lack of an integrated model of total quality management, the lack of cooperation between teachers, the resistance to change manifested by the teachers, the lack of an appropriate teacher training in relation with the total quality management, the ambiguity of the implementation of the model, the misconception regarding the model implementation. Another result of the research showed that there are no significant statistical differences between the private and public schools regarding the challenges that influence the implementation of the total quality management.

Nasim, Sikander, Tian (2019) used the systematic review of the education quality management literature in order to explore the achievements and limits of research concerning the implementation of total quality management in higher education and to offer future research paths. The results of the systematic review led to the authoring of several conclusions. In the first place, the studies are focused on aspects regarding teaching and learning, neglecting, however, the influence of external factors. In the next place, it was found that most of the research tackles quality management aspects which are specific to developed countries. Consequently, these aspects are insufficiently approached in the case of the higher education level in developing countries. The authors believe that it is important for future research to also tackle these limits. Moreover, it is important to adopt a more holistic approach to quality management in higher education.

The study carried out by Popovici (Pintilie) Laura-Mirela (2019) had the objective of producing a strategy model or a combination of managerial strategies through which to assure the competitive advantage and gaining of organizational performance in Romanian schools. The survey method was used to carry out this study, on the basis of a structured questionnaire. The instrument targeted 2697 teachers from 44 secondary and vocational schools from the county of Suceava. The SERVQUAL method was used to accomplish the data processing with the purpose of analysing the service quality. The research results showed that the quality levels of the SERVQUAL dimensions marked only negative scores. These data point out that, in the secondary and vocational schools from the county of Suceava, there is a low quality of the services done by the school managers, in comparison with the level of quality expected by the teachers.

Other studies (Díez, Villa, López, Iraurgi, 2020) had the objective of assessing the impact of quality management systems on the performance of education centres. An analysis was undertaken so as to evaluate 14 schools in which one of the two different quality systems had been implemented: EFQM (European Foundation

Quality Management) and the integrated quality project. Seven main factors were analysed: institutional approach, organizational structures, relationships and living together, counselling and guidance, curriculum, family and community, and the management and service component. A quantitative methodology set the foundation of the study. The results showed that two factors targeting the education policy dimensions are better assessed, namely education planning and communication. As a consequence, school managers and managing teams can focus on planning and communicating with the teaching staff, the students and their families, in order to facilitate the best possible understanding of the strategies and objectives.

The objectives of the study carried out by Kistianani and Permana (2020) consisted in identifying the means of total quality management implementation in higher education, as well as the benefits and obstacles that could interfere. The data collection techniques used in this study were observation, interview and documentation. The results indicated the existence of significant differences between groups. For instance, the students' parents and teachers were more satisfied with the aspects related to handling the higher education quality and teaching resources, as well as with the aspects referring to teaching management.

Tight (2020) concluded a systematic analysis on the research in the field of quality assurance and quality management in higher education. In the first part of the study, the evolution and significance of the terms designating quality assurance and quality management are described. The results highlight the problems that could interfere with the process of assuring and managing quality.

A complex study was done by Vykydal, Folta, Nenadál (2020) with the purpose of assessing quality in higher education in the context of sustainable development. Three special conferences were organized with representatives of over 40 higher education institutions, both public and private, from the Czech Republic. A number of 240 representatives of the higher education institutions management, such as rectors, vice-rectors, chancellors and members of the superior management participated. Semi-structured interviews with the representatives of these institutions were done, so as to investigate the opinions on the necessity of quality management implementation or related to the proposals concerning the way in which such a management system should be implemented. After this step, a field research was initiated, based on making observations in the Czech universities so as to discover the status quo of quality assurance and evaluation. The results show that there is a tight link between quality and sustainability. If the higher education institution struggles to be sustainable, it will have to remain open to all of the impulses and tendencies from the field of advanced quality management.

The objective of this research consisted in analysing the studies carried out in the field of education quality management in the last 10 years. Two research hypotheses set the fundamentals of the research.

*General hypothesis 1*

The total quality management model is frequently analysed in education studies.

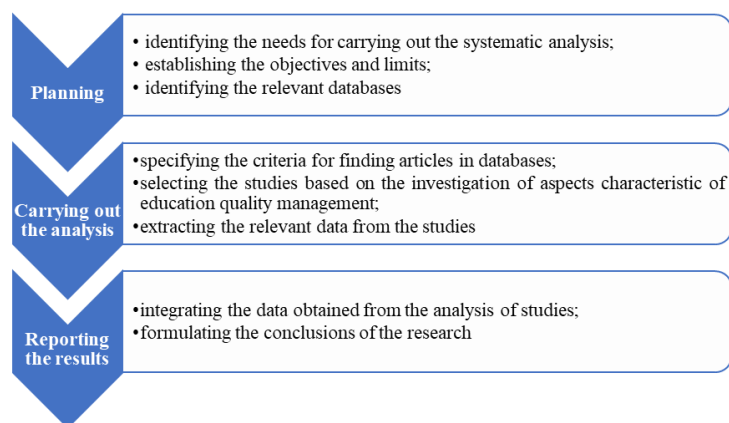
*General hypothesis 2*

In accordance with the research methodology, quantitative studies prevail in the field of education quality management.

## II. Research methodology

### 2.1. Research methods

The systematic review of the specialized literature was used. The systematic review of literature in the field of education quality management was based on three advised steps (Tranfield, Denyer, Smart, 2003): planning the analysis, carrying it out, reporting and disseminating the results. Each step required making certain specific operations (Figure 1).



**Figure 1.** The steps of carrying out the systematic review of literature in the field of education quality management

## 2.2 Research procedure

With the aid of the systematic specialized literature review, the studies based on the investigation of characteristic aspects of education quality management, from the period between 2013 and 2021, have been identified. The analysis included articles published in English and Romanian, so as to obtain relevant, up-to-date information. In order to select the best articles in the field, the following databases were reviewed: Scopus, ScienceDirect, ProQuest and Web of Science. The key words used for searching varied: “quality in education”, “education quality management”, “measuring quality in education”, “quality indicators in education”. These terms have been selected because they refer to all of the topics related to education quality management.

## III. RESULT

In Table 1., there is an analysis of the studies carried out between 2013 and 2021 in the field of quality management. The analysis criteria were: objectives, research methods, participants and results.

**Table 1.** Studies carried out in the field of education quality management in the period between 2013 and 2021

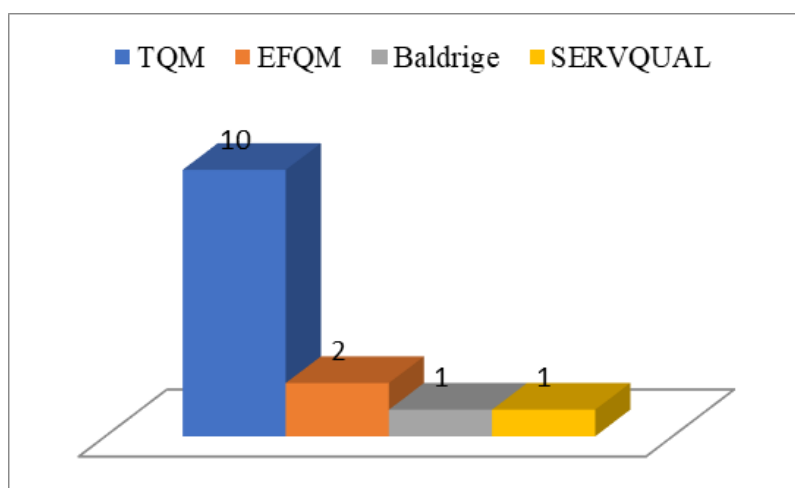
No.	Author(s)	Objectives	Research methods	Participants	Results
1.	Asif, Awan, Khan, Ahmad (2013)	To identify the success factors of the total quality management in Pakistani universities	questionnaire	Teaching staff	The success factors of total quality management are: leadership, vision, measurement and analysis, process control and evaluation, programme design, resource granting
2.	Iancu (2013)	To understand, analyse, explain and optimize the phenomenon in school management	Mixed	School teachers, school managers	Means through which quality in education and performance in management can be reached were proposed.
3.	Karahan and Mete (2014)	To determine and evaluate the quality management in a higher education institution according to the students' feedback	Questionnaire	243 students	The aspects related to the content of education and training and the quality of technological resources were positively assessed by the students
4.	Mashagba (2014)	To identify the impact of total quality management on the academic performance of universities	Questionnaire	120 members	The decisions of the board of administration impact on the academic performance in the University of Jordan
5.	Ejionueme and Oyoyo (2015)	To identify the way of implementing total quality management in the head staff of the Umuahia region middle / lower secondary schools	questionnaire	358 respondents, (53 principals, 53 vice-principals, 252 teachers)	There is a significant difference between the average evaluations of the principals, vice-principals and teachers in accordance with the degree of total quality management implementation in the head staff of the Umuahia region lower secondary school.
6.	Ivana (2015)	To analyse the positive aspects and quality improvement in the university study programmes	Questionnaire	Graduates	There are differences of perception between the quality of the graduated study programme and the development of specific and transversal competences
7.	Poruțiu (2015)	To identify the performance indicators specific to quality in higher education	Questionnaire	Candidates	The zones in which quality management improvement is necessary were identified
8.	Sohel-Uz-Zaman and Anjalin (2016)	To evaluate the compatibility between total quality management and education	interview	Experts in education	Both the benefits of adopting total quality management and the potential difficulties were identified
9.	Karageorgos, Patsiaouras, Kokaridas, Kriemadis, Travlos (2017)	To build up and validate a questionnaire seeking to analyse the total quality management in Greek primary education	questionnaire	112 primary school teachers (55 male, 57 female)	The result of the research consisted in the drawing up of a valid questionnaire seeking to analyse the aspects characteristic to total quality management
10.	Martin and Parikh (2017)	To comparatively analyse the internal quality assurance in international higher education	Case study	Decision makes and managers in the field of quality	Information concerning means of improving the development and implementation of quality management in universities was given

*Systematic Literature Review in the Field of Education Quality Management*

11.	Avila (2018)	To evaluate the total quality management practices of school administrators	Descriptive research	132 teachers, 37 school administrators	There is a correlation between the practices used in total quality management by school administrators and the students' academic performance
12.	Díez, Iraurgi, Villa (2018)	To analyse the EFQM excellence model and the integrated quality project in school organizations	Questionnaire	42 managers, 273 teachers	Both the EFQM excellence model and the integrated quality project model got high scores when it came to the teachers' and managers' perception about quality
13.	Hasan, Islam, Shams, Gupta (2018)	To improve the quality of the school environment so as to motivate primary school children to go to school	Focus group, interview	Parents, teachers, students and administrators from 12 schools from the Khulna district	The solutions found were divided into three categories: amelioration of teaching quality by applying total quality management, reduction of school drop-out, improvement of classroom quality management
14.	Menezes, Martins, Oliveira (2018)	To analyse the dimensions of the education management efficacy in higher education	Questionnaire	Teaching staff, managers, administrative staff	Strategic planning and operational enterprise directly influence the efficiency of quality management
15.	Seyfried and Pohlenz (2018)	To investigate the determining factors of efficacy to assure quality	Mixed	Higher education institution managers	The cooperation with other organizations is one of the conditions for the efficacy of quality assurance
16.	Shahmohammadi (2018)	To explore the role of total quality management in educational programmes for the First Grade	Questionnaire	324 teachers	The dimensions of total quality management influence the efficacy of the educational programmes for the First Grade
17.	Taahyadin and Daud (2018)	To determine the relation between the quality management indicators	Questionnaire	375 secondary school teachers	There is a high correlation between all of the quality indicators within the school
18.	Crissien-Borrero, Velásquez-Rodríguez, Neira-Rodado, Turizo-Martínez (2019)	To analyse the education quality models from a managerial perspective	Systematic review of specialized literature	Studies from the last 20 years	The investigation of the education quality measurement models prevails in vocational education
19.	Elahi and Ilyas (2019)	To explore the relation between the process approach, customer-oriented approach and school quality	Questionnaire	401 principals	The process approach has a significant impact on the functional quality and academic quality of the private school institutions
20.	Kigozi (2019)	To identify the challenges setting the grounds for the successful implementation of total quality management	Semi-structured interview	100 tutors	There are no significant differences between the private and public schools concerning the challenges that influence the implementation of total quality management
21.	Nasim, Sikander, Tian (2019)	To analyse the achievements and limits of research concerning the application of total quality management in higher education	Systematic review of specialized literature	Studies from the last 20 years	The studies focus on aspects targeting teaching and learning, while neglecting the influence of other external factors. Moreover, most of the research refers to quality management aspects from the advanced countries' higher education.
22.	Popovici (2019)	To draw up a managerial model in order to facilitate performance at the organizational level	Structured questionnaire	2697 teachers	The quality levels for the SERVQUAL dimensions recorded negative scores only.
23.	Díez, Villa, López, Iraurgi (2020)	To evaluate the impact of quality management systems on the performance of education institutions	Questionnaire	Principals of 15 schools	Education planning and communication were positively evaluated by the respondents
24.	Kistiani and Permana (2020)	To identify the way of implementing total quality management in higher education	Observation, interview, documentation	Experts in the field of education quality	The higher education institution can achieve the established perspective only by long-term planning and by developing and implementing annual quality plans

25.	Olmos-Gómez, Luque Suárez, Ferrara, Olmedo-Moreno (2020)	To measure the individual differences in the learners' satisfaction concerning the education quality with reference to sustainability	Questionnaire	1091 Italians (510 students, 121 teachers, 469 parents)	The students' parents and teachers were satisfied with the aspects regarding the quality management in higher education and didactic resources, as well as with the aspects referring to teaching management
26.	Tight (2020)	To explore research in quality management in higher education	Systematic review of specialized literature	Studies	The problems which can interfere with the process of quality assurance and management were identified
27.	Vykydal, Folta, Nenadál (2020)	To evaluate quality in higher education in the context of sustainable development	Semi-structured interview	240 representatives of higher education institution management	The results show that there is a tight link between quality and sustainable development

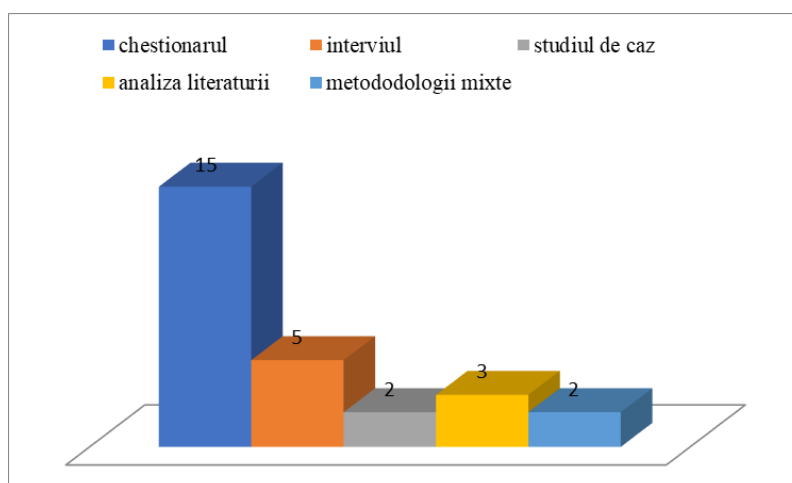
General hypothesis 1 is confirmed, as the total quality management model is frequently analysed in education studies. The results of the systematic review of the relevant studies have led to the finding that the model appears in 10 studies (Asif et al., 2013; Avila, 2018; Ejionueme and Oyoyo, 2015; Karageorgos et al., 2017; Kigozi, 2019; Kistiani & Permana, 2020; Mashagba, 2014; Nasim et al., 2019; Shahmohammadi, 2018; Sohel-Uz-Zaman & Anjalin, 2016). There are also studies in which other quality models are analysed: the EFQM excellence model (Ivana, 2015; Díez et al., 2018), the Baldrige excellence model (Menezes et al., 2018), the integrated quality project (Díez et al., 2018), the SERVQUAL model (Popovici, 2019). A graphic representation of the recurrence found for each model of education quality in shown in histogram 1.



**Histogram 1.** Graphic representation of the recurrence found concerning the education quality models

General hypothesis 2 is confirmed, because the quantitative studies in education quality management prevail in accordance with the applied research methodology. Most of the studies are based on questionnaires as a research method (Asif et al., 2013; Díez et al., 2018; Díez et al., 2020; Ejionueme and Oyoyo, 2015; Elahi & Ilyas, 2019; Ivana, 2015; Karageorgos et al., 2017; Karahan & Mete, 2014; Mashagba, 2014; Menezes et al., 2018; Olmos-Gómez et al., 2020; Shahmohammadi, 2018; Popovici, 2019; Poruțiu, 2015; Taahyadin & Daud, 2018). Qualitative research has also been carried out to a certain extent, based on the use of interviews (Hasan et al., 2018; Kigozi, 2019; Kistiani & Permana, 2020; Sohel-Uz-Zaman & Anjalin, 2016; Vykydal et al., 2020), case studies (Avila, 2018; Martin & Parikh, 2017). It can be observed that there are some studies focused on specialized literature review (Crissien-Borrero et al., 2019; Nasim et al., 2019; Tight, 2020). Very few studies are based on mixed research methodologies (Iancu, 2013; Seyfried & Pohlenz, 2018). Histogram 2 shows us the recurrence noticed in the research methods used in education quality management studies.





\* questionnaire; \* interview; \* case study; \* literature review; \* mixed methodologies  
**Histogram 2.** Graphic representation of the recurrence noticed in the research methods used in education quality management studies.

#### IV. CONCLUSION

The systematic review of specialized literature allows the identification of the representative topics of education quality management, of the models investigated in the last eight years, as well as the research methods used. Based on this analysis, the necessity of validating new education quality management models emerges in the case of primary and secondary education. All the results presented lead to conclusions in favour of a quality-focused organizational culture.

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