



EDUCATIONAL QUALITY MANAGEMENT IN LATIN AMERICA

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Abstract

A bibliometric analysis was carried out on the production and publication of research papers related to the study of the management variable in the quality of education in Latin America. The purpose of the analysis proposed in this document is to know the main characteristics of the volume of publications registered in Scopus database during the period 2016-2021 in Latin American countries, achieving the identification of 1183 publications in total. The information provided by said platform was organized by means of tables and figures categorizing the information by year of publication, Country of Origin, Area of Knowledge and Type of Publication. Once these characteristics were described, a qualitative analysis was used to refer to the position of different authors on the proposed topic. Among the main findings of this research, it is found that Brazil, with 589 publications, is the Latin American country with the highest production. The area of knowledge that made the greatest contribution to the construction of bibliographic material referring to the study of management in the quality of education was Medicine with 538 published documents, and the type of publication that was most used during the period mentioned above was the journal article, representing 71% of the total scientific production.

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1. Introduction

Quality in education is defined by different factors such as having adequate infrastructure and tools in the classroom that generate an optimal environment for the development of academic activities, having trained teachers with both specific knowledge and pedagogical skills to ensure that all students receive and assimilate the same information depending on their particular needs, and providing students with techniques, strategies and skills that allow them to be an active part of the construction of their knowledge. Certainly, there is a relationship between educational quality and the management of the institutions, since depending on the strategies and decisions taken by the educational institutions will depend on the methodologies implemented in the classroom, which are an important factor for the perception of a good educational quality. Educational management is a fairly broad concept that is not limited only to the administrative decisions of educational institutions, but also encompasses the educational culture and planning factors on which the relevance, effectiveness, equity and efficiency of education depend, as the essential pillars of a comprehensive education (Schmelkes, 2000; Gamboa, 2019).

Quality management in education should be focused on implementing innovations, evaluating human talent AND redesigning educational methodologies that allow students to develop theoretical knowledge, social awareness and critical thinking that allow the student to develop a position on problems that develop in their social context depending on the knowledge obtained in the classroom. Quality education must recognize the particular needs of each student taking into account the different ways of learning and implementing techniques that allow all students to assimilate the information and knowledge imparted from their uniqueness giving the possibility to all students to obtain the same educational level. Educational quality determines the development of society, since the better the educational level of the vast majority of people, the greater the number of suitable and competent professionals for what the market demands, being now important to develop both theoretical knowledge and cross-cutting skills and technological competencies.

Therefore, it is important to know in terms of bibliographic resources, the current state of research related to Management in the quality of education in Latin America, so a bibliometric analysis of the scientific production registered in Scopus database during the period 2016-2021 is proposed to answer the question How has been the production and publication of research papers related to the study of the variable Management in the quality of education in Latin America during the period 2016-2021?

2. General Objective

To analyze from a bibliometric and bibliographic perspective, the production of high impact research papers on the variable Management in the quality of education in Latin American organizations during the period 2016-2021.

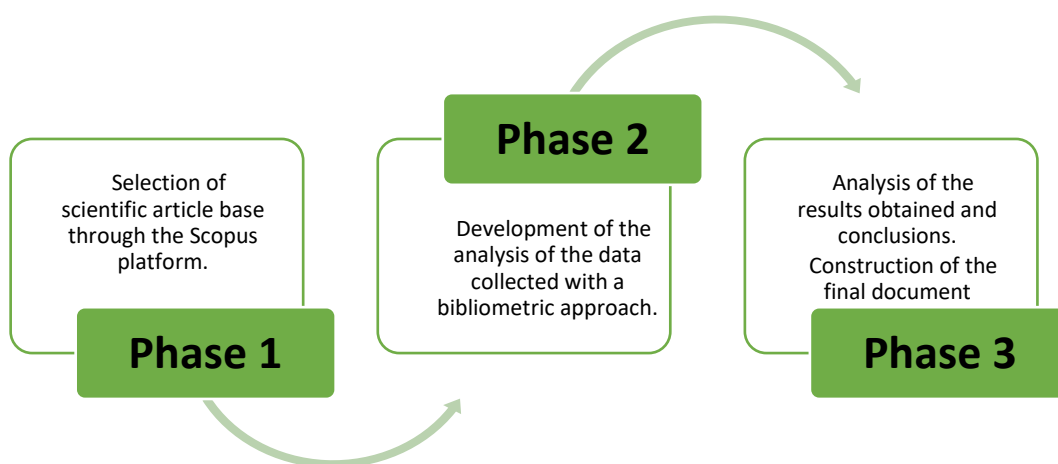
Methodology

Quantitative analysis of the information provided by Scopus is performed under a bibliometric approach on the scientific production related to Management in the quality of education. Also, from a qualitative perspective, examples of some research papers published in the area of study mentioned above are analyzed from a bibliographic approach to describe the position of different authors on the proposed topic.

The search is performed through the tool provided by Scopus and the parameters referenced in Table 1 are established.

3.1 Methodological design

Figure 1. Methodological design.



Source: Own elaboration (2022)

The present research work was developed through the completion of the three phases listed in Figure 1, which are explained below.

3.1.1 Phase 1: Database Selection

The first phase consists of the selection of articles or research papers that will be part of the analysis that will help to solve the research question and fulfill the objective. The search filters for the selection of the material to be analyzed are the following.

- ✓ Research works (articles, conference papers, books, book chapters, among others) whose variable of study is Educational Management, Quality in Education.
- ✓ Research papers published within the period 2016-2021.
- ✓ Research papers published in Latin American countries.

The application of Phase 1 resulted in a total of 1183 documents that will be classified for further analysis as indicated in Phase 2.

3.1.2 Phase 2: Bibliometric analysis

Once the 1183 articles resulting from the application of Phase 1 were identified, they were classified using the *Analyze Search Results* tool offered by Scopus as part of its mechanisms for analyzing information. This classification consists of analyzing the information from different study groups, for example, authors, country of origin of the publication, year of publication and area of knowledge to which the research work belongs.

Once the information is organized by means of graphs and/or tables, the study proceeded to its analysis from the bibliometric approach, which would also allow to analyze through examples, citing some articles, the position of the authors regarding quality management in the educational sector.

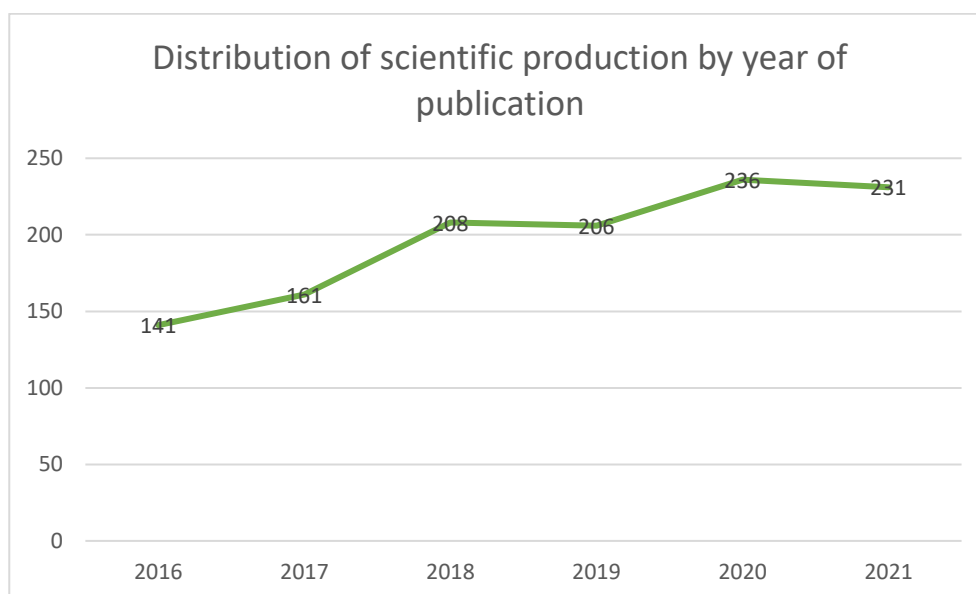
3.1.3 Phase 3: Conclusions and construction of the final document

After classifying the information as indicated in Phase 2, the study proceeded to the analysis of the results from a bibliographic approach for the construction of the conclusions through the discussion of results, ending this research with the writing of the final document.

4. Results

4.1 Co-occurrence of words

Figure 1 shows the co-occurrence of keywords within the publications identified in the Scopus database.

Figure 2. Distribution of scientific production by year of publication.

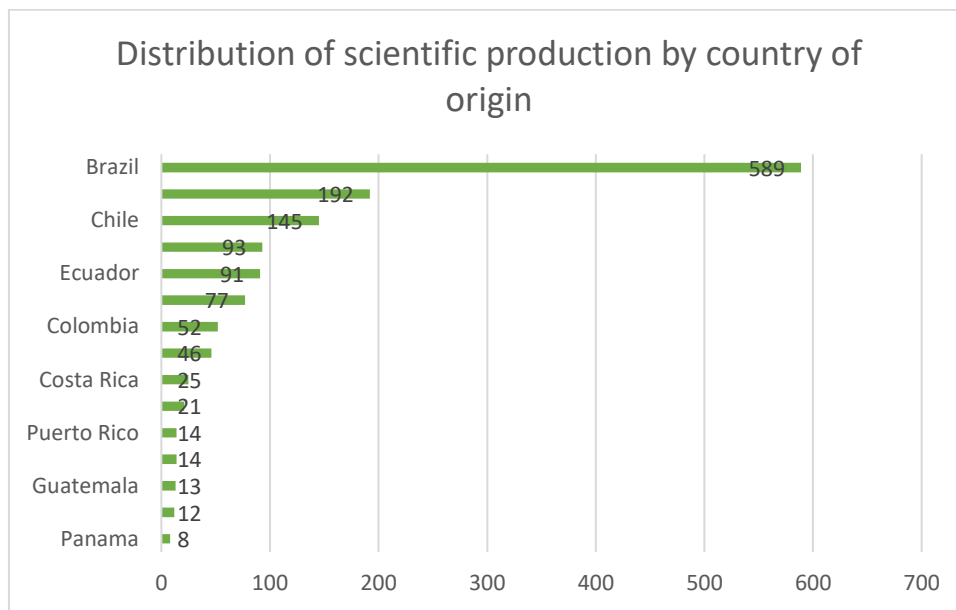
Source: Own elaboration (2022); based on data provided by Scopus.

2020 is the year with the highest number of documents registered in Scopus with a total of 236 documents within which is “*An accreditation model that ensures the improvement of the quality of a study program. Experience at the university level*” (Collado & Garaycochea, 2020). This document, through a comparative analysis identifies 3 differences of educational accreditation models between Peru and accreditation processes of more mature countries in this subject. A difference was found in the evaluation of research, which is an essential Pillar in higher education; management systems, which determine the Educational Quality and the training of external evaluators, this being peers of the training programs. This research is done to determine the impact of the quality of higher education on the development of countries depending on the decision making of educational institutions.

In second place is 2021, which presents 231 documents related to the variables under study, within these publications is “*Governance and quality in higher education: A bibliometric description*” (Pedraja-Rejas et al., 2021). This article aims to identify trends in scientific production regarding management and quality in higher education, so a bibliometric analysis was conducted in web of Science between 2010 and 2020, where 3 main themes were identified which are, reforms to higher education, perceptions of quality in education of the actors involved and student participation. Therefore, it is concluded that educational quality is the result of the leadership of the directors, the active participation of students and the training of teachers. Therefore, the increase of publications in relation to quality in the framework of higher education is highlighted.

4.3 Distribution of scientific production by country of origin.

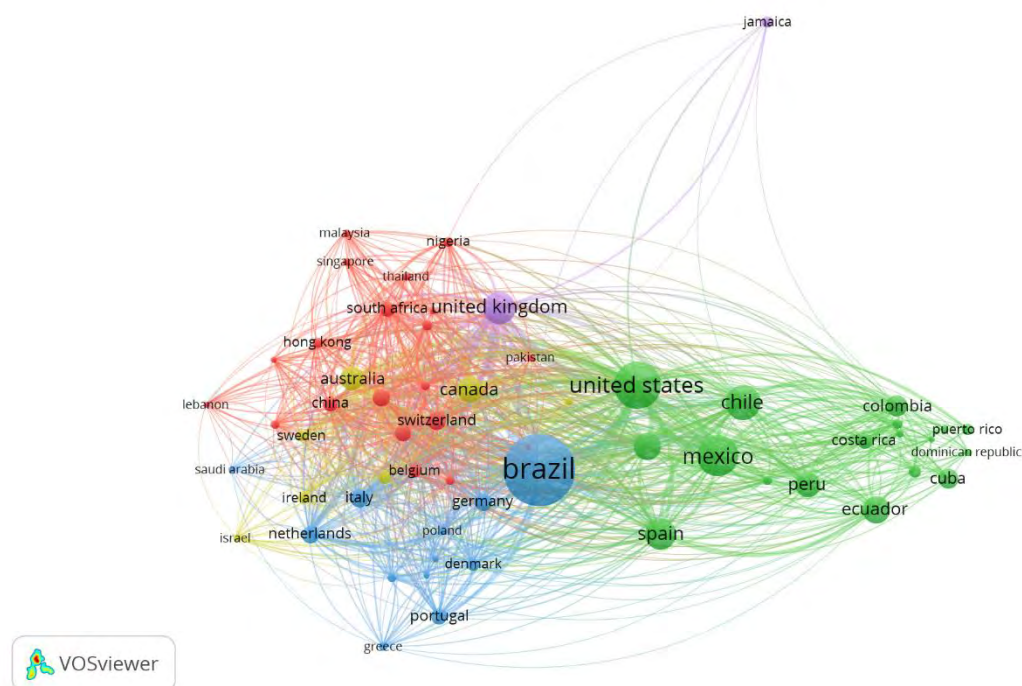
Figure 3 shows the distribution of scientific production according to the nationality of the authors.

Figure 3. Distribution of scientific production by country of origin.

Source: Own elaboration (2022); based on data provided by Scopus.

Brazil is the Latin American country with the largest contribution to research related to the variables under study with 589 publications registered in Scopus. Among these publications is “*Education, research and training in smart grids at the Federal University of Brazil*”. This document has as main objective to present the educational practices in the teaching of intelligent networks taking into account that the management of educational planning are essential to the teaching-learning process involving the aspects of teaching and research for the development of educational activity. The importance of intelligent networks in the development of our society is raised, so that implementing them in education would be providing students with the necessary skills for their future, thus increasing the quality of the education provided. It concludes with the analysis of the decisions taken by the educational situations in order to improve the curriculum in electrical engineering offering cutting-edge knowledge that allow the university to be accredited as a high-quality institution.

At this point, it should be noted that the production of scientific publications, when classified by country of origin, presents a special characteristic and that is the collaboration between authors with different affiliations to both public and private institutions, and these institutions can be from the same country or of different nationalities, so that the production of an article co-authored by different authors from different countries of origin allows each of the countries to add up as a unit in the overall publications. This is best explained in Figure 4, which shows the flow of collaborative work from different countries.

Figure 4. Co-citations between countries.

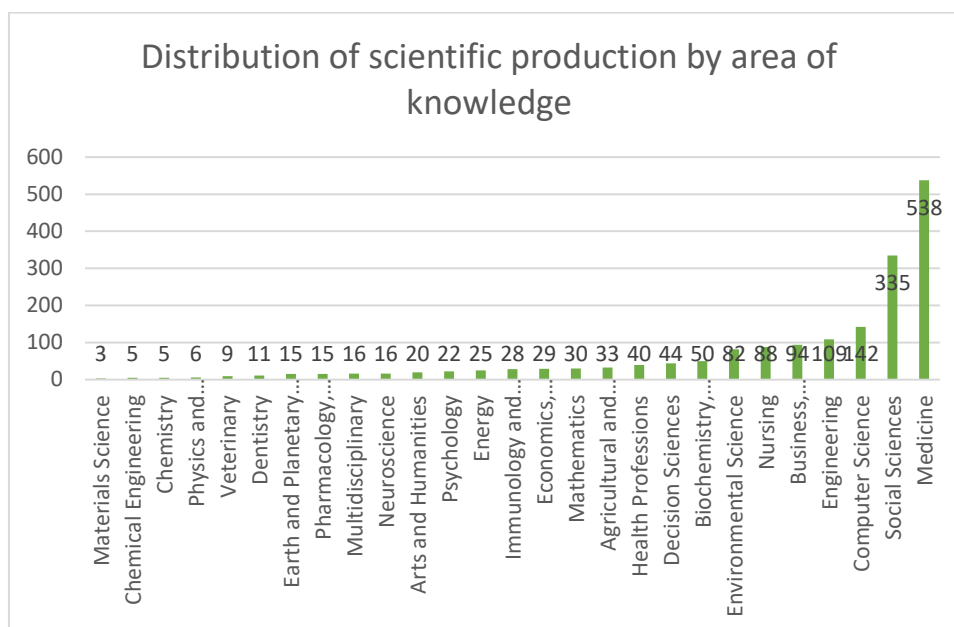
Source: Own elaboration (2022); based on data provided by Scopus.

As shown in Figure 4, Brazil is the country with the highest number of publications in collaboration with other countries, some of which do not belong to Latin America, such as the United States, Spain and Germany. In second place is Mexico with 192 publications in which it collaborates with authors mainly from Chile, Peru and the United States. Among these documents is “*Mechanism of articulation of universities with the State-regulator, markets and civil society to ensure the quality of higher education*” (Soto-Montoya, 2021). This document proposes a new mechanism for the articulation of universities with the state-regulator, markets and society to increase the level of quality of universities. It was determined that in a country where few public universities have accreditation, the regulatory state calls into question its conviction. Therefore, the model proposes to understand the management of universities and what factors contribute to the construction of institutional reputation, taking into account that this is influenced by the communication to society of the quality offered. Educational management plays an important role in the implementation of these models, since it determines the decisions that are made both internally and externally in higher education institutions, allowing these organizations to choose educational plans that go towards improving the methodologies implemented in the pedagogical processes.

4.4 Distribution of scientific production by area of knowledge

Figure 5 shows how the production of scientific publications is distributed according to the area of knowledge through which the different research methodologies are executed.

Figure 5. Distribution of scientific production by area of knowledge.



Source: Own elaboration (2022); based on data provided by Scopus.

Medicine is the area of knowledge with the highest number of publications, with 538 documents. In second place is the social sciences, which presents 98 documents related to the search or knowledge on the quality of education and the inference of its management. Among its publications is “*Adoption of organizational big data analysis in higher education mediated by knowledge management*” (Sekly & De la vega, 2021) (Medina Romero et al, 2021). This research is done in the framework of COVID 19, which was the situation that forced society to change most of its interactions, one of them education. So, in this study Big Data is presented as an opportunity to innovate by obtaining valuable knowledge, investigating the factors that influence its implementation and its relationship with performance and knowledge management taking into account that it is not a widely used strategy. This study was conducted through surveys to 265 members of universities where it was found that an adequate organizational data environment and external support are necessary to simply implement Big Data in higher education situations, so the study provides a guide for those involved in decision making to define strategies to implement Big Data.

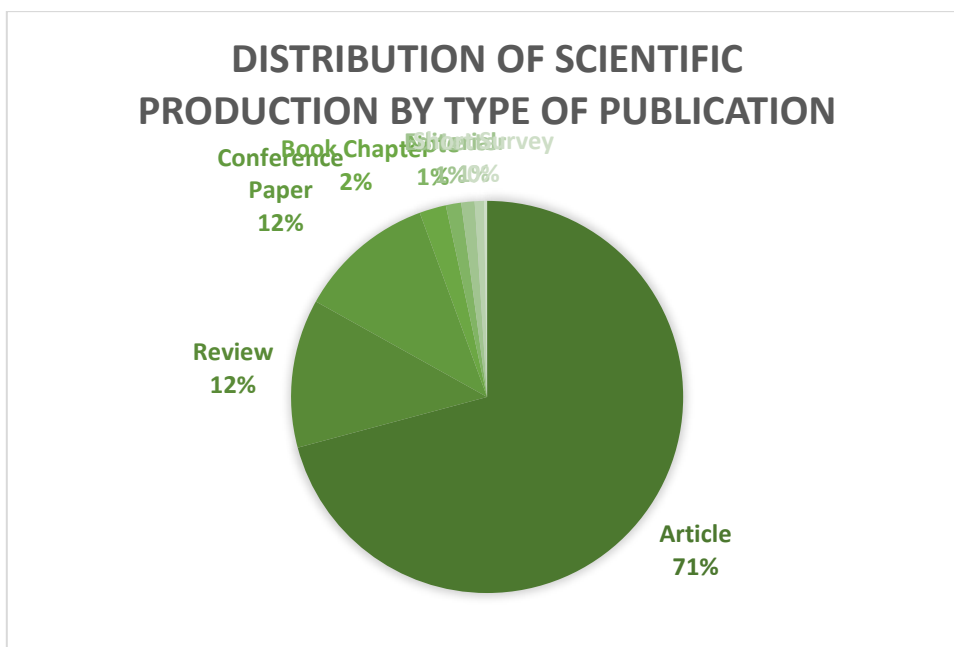
In third place is computer science, with 142 documents written following the guidelines of the topics related to this area. Within these documents is the title “*theoretical approach for the praxis of advanced management of the university system*” (Marcial, 2021). This research is developed in order to analyze the practice of advanced management. The Paper analyzes theoretical elements such as advanced educational management through Habermas' theories of communicative action and

Weber's bureaucratic theory, resulting in a theoretical approach to the praxis of advanced management in education. Through its theoretical approach, its impact on the quality levels of education both at school and university level is determined, since these processes take into account a large number of factors that make the decision-making process easier by getting clear all the implications in the learning processes.

4.5 Type of publication

Figure 6 shows how the bibliographic production is distributed according to the type of publication chosen by the authors.

Figure 6. Type of publication.



Source: Own elaboration (2022); based on data provided by Scopus.

As shown in Figure 6, within the different types of publications, 71% of the total number of documents identified through Phase 1 of the Methodological Design, correspond to Journal Articles, among which is the one entitled “*quality and global university rankings: a view from Latin America*” (Ortiz, Rivero, Bajo, & e, 2021). The centrality of knowledge for nations that are more developed has left great changes in education which has generated doubts about its quality. Therefore, the objective of this article is to analyze the different visions of quality that are held in universities as part of the global ranking as AR WU, T H EIO S in addition to analyzing the perceptions that have been had throughout history of what is quality of education and its management analyzing both origin, methodologies, indicators and weightings. It concludes with the need to design a ranking of Latin American universities that takes into account the factors of the countries of that region.

In second place, there are the reviews which represent 12% of the total of the documents identified in this study, within these publications is “*e-learning training at work operations and reviews in an instructional project*” (Kasier, silva, de pavia, & Servini, 2020). The main objective of this paper is the bibliometric and descriptive review of the scientific literature dealing with the instructions and training plans offered in virtual learning in work corporations to identify the methodologies used in these institutions. So, the documents registered in the database as Zotero between 2000 and 2010 are analyzed with a total of 260 publications identified. It was found that skills of this knowledge were necessary for the quality of education, such as virtual reality artificial intelligence and also use of management tools in order to obtain feedback. This review concludes with the need for more papers that aim to analyze the existing literature on this topic.

5. Conclusions

Thanks to the bibliometric analysis proposed in this research, it can be determined that Brazil is the Latin American country with the largest number of bibliographic records in Scopus database during the period between 2016 and 2021 with a total of 589 documents. The scientific production related to the study of Management in the quality of education has presented an important growth during the above mentioned period, going from 141 publications in 2016 to 231 units in 2021, that is, it was possible to double the creation of bibliographic records in a period of 5 years, which indicates the importance that quality management represents for the improvements in the educational system allowing students to obtain a greater amount of knowledge.

The quality of education is the capacity of educational situations to provide a complete learning to students, this quality is determined by the usefulness, efficiency and effectiveness of the information provided. Quality is related to factors such as infrastructure, teachers, and the provision of tools to students to ensure the use of this knowledge. Educational management is an important pillar in educational quality, since it is integrated by administrative processes such as decision making and educational culture, which defines the strategies, methodologies and the teaching staff that work in an institution, and therefore has a great influence on the level of education it provides. Quality management should be focused on implementing and reforming methodologies that allow students to assimilate knowledge depending on their particular needs, based on the premise that each student learns in a different way and it is the obligation of the institution to provide them with the corresponding tools to develop the necessary skills. All of the above allows to conclude highlighting the importance of knowing the theory or bibliographic resources that seek to awaken the interest of educational institutions to strengthen their management in order to ensure access to quality education to students implemented innovation that allow them to assimilate more knowledge. That is why it is necessary to highlight the need for studies such as the one presented in this document, which make

a tour of those texts that address the aforementioned topic, in order to give the reader a broad view of the current situation of the literature on management in the quality of education.

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