

## THE BIBLIOMETRIC ANALYSIS OF THE RESEARCH ON THE TRAINING OF EDUCATIONAL MANAGERS

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### **Abstract**

*This research aims to reveal trends in the research on the training of educational managers published in the most prominent journals of educational management discipline. A total of 219 articles that were indexed by the Scopus database after the year 1965 were included in the bibliometric analysis. The quantitative properties of these articles draw a big picture that shows the most important authors, journals, topics, and countries in leadership research. This review concluded that interest in the training of educational managers has been constantly growing, but research on the training of educational managers is not prevalent worldwide.*

**Keywords:** *the training of educational managers, bibliometrics, scopus, educational management*

### **LITERATURE REVIEW**

The manager, who oversees a unit or service in any institution or organization and can make routine decisions regarding his duties, takes decisions by going beyond certain processes, and puts the decisions into practice; It is the name given to the person who supervises and examines (Bozkurt and Ergun, 1998). The person who tries to reach the goals of the institution through the employees at all levels in the institution is called the manager (Appleby, 1991).

The manager organizes all the work and practices of an organization. The manager motivates them by increasing the success of the personnel in the institution where he works. The main purpose of a manager is to ensure corporate success by making employees believe in the goals. The knowledge, skills, adaptability, etc. that a manager should have are the qualifications that express the meaning of the concept of manager. Management is the name of a manager's job within this framework. A manager is a person who manages, directs, and organizes (Tortop, 1985). The education received by the manager and the innate qualifications will be the main criteria in determining the understanding of management.

What is essential in good management is not that the manager does all the work in the institution, does all the audits himself, prepares all plans and programs, or implements all the legislation alone. A good manager can delegate authority to his team in the processes of fulfilling all duties and responsibilities to be carried out within the organization, performing audits, preparing plans and programs, and implementing legislation. The manager, who tries to do all the duties and responsibilities in the institution alone, wears himself out and reduces his productivity. In this case, if the administrator is not present in the institution, the institution may be stalled. A good manager establishes a fair and equal management system in accordance with the legislation in the institution. Distributes tasks among other managers. A good manager can make himself/herself unnecessary by placing a corporate culture that will be accepted/satisfied by all personnel. A good manager is a manager who will not cause problems in the functioning of the institution when he is dismissed from the institution for various reasons.

The behavior underlying the effectiveness of managers is that managers are open to change and development. The main function of managers is not to mislead employees. Managers who

reassure, not deceive, do not hesitate to have strong, knowledgeable, and effective subordinates and co-workers by their side. Deceptive leaders are afraid of having influential subordinates (Drucker, 1996).

The term manager is often used synonymously with the concept of leader. Especially classical thinkers used the concepts of manager and leader with similar meanings. They accepted that every leader is a manager. There are similarities as well as differences between the concepts of manager and leader.

### **Training of Education Managers**

In the National Manager Training Program implemented in Europe, training is given at the university for managers who have completed two years on the job. In the program, which consists of 30 days of education, it is aimed to improve the school's understanding of society. The program focuses on the school-society relationship. The program is funded by the National Education Agency. The training program, which consists of university courses, is attended after consulting the school's board of directors. The vision of the program is to raise democratic, learning, and communicative school leaders. These three concepts are defined as follows (Johansson, 2001):

**Democratic Leader.** According to the Swedish curriculum prepared in 1994, democracy forms the basis of the national education system. According to the School Law, all activities in the school should be compatible with basic democratic values, and each individual working at the school should respect the values of other individuals and encourage being sensitive to the environment that everyone shares (Lpo94, 2001).

According to this understanding, the educational administrator should manage the school by democratic principles and understanding. What is expected from the school administrator is not only to convey the basic democratic values through education but also to create democratic working conditions. It is the preparation of students for life in a way that will enable them to actively participate in life as citizens.

**Learning Leader.** Another leadership feature expected from educational administrators is that the leader develops himself by constantly learning. The teachers who are under the responsibility of the leader are individuals with a high level of education. School administrators who manage employees should also be leaders who constantly learn and improve themselves.

In this period, which is described as the age of information and technology, leaders need to be up-to-date and renew themselves with new information by the requirements of the age and the institution.

**Communicative Leader.** The education administrator should set the agenda for the establishment of professional dialogue in educational practices and within the school and should provide an environment for professional relations based on mutual interaction. A significant part of the problems that arise in institutions arises from the lack of communication of leaders with the governed. Within the scope of in-service training, it is of particular importance to provide training managers with communicative leadership behavior.

The starting point of the program is the schools where the education administrators participating in the program work, the experiences they have gained, and the applications of these experiences in their schools. The program aims to combine theory and practice. It provides information, concepts, behaviors, and models related to educational administration to administrators. It helps the administrators to deepen their understanding of education in connection with their own experience and the practices in the schools where they work. Establishing an educational environment based on solidarity throughout the duration of the program; openness, power of expression, and learning are given importance (Huber, 2002).

### **Qualities of a Good Manager**

The qualifications that a manager should have must be different from those of other employees. The decisions and practices taken by the manager in the institution should not be practices that will provide individual benefit, and the decisions taken should be of the type that will benefit the organization in general. As responsibility increases, managerial qualifications must also be of the type to be able to bear this responsibility. A manager should not have negative qualities such as taking sides, personal benefit, unionism, lack of understanding, indecision, fear, lack of communication, being under the influence, going out of the legislation, narrow-mindedness, and compatriotism. On the contrary, it is possible to list some of the qualities that a manager should have as follows (Tortop, 1985; Drucker, 1996):

- The manager must be collaborative, organized, planned, and motivating; should act by the rules of control and be directive. The manager should know the management elements and apply the management elements well.
- The manager should attract the attention of his staff with his practices. To be successful, the manager should give importance to the opinions of his staff and listen to them.
- To realize the vision of the institution, the manager should put forward new ideas for the future of the institution, share these ideas with the employees and get their approval of the employees. The manager will gain the trust of the employees with such applications.
- The manager should instill the spirit of entrepreneurship in his personnel and should not be stingy in delegating authority to the lower level. Delegation of authority should not be to evade responsibility.
- The manager should employ the employees in jobs suitable for their abilities and should know how to make the most of the talents of the employees.
- The manager should not be selfish; should transfer his knowledge and experience to the manager candidates. The manager should ensure that the manager candidate personnel are trained.
- The manager should not think of management as a rank and privilege, should see management as a responsibility, and should know that the general responsibility of the institution is his/her own.
- The manager should not hesitate to have strong colleagues and subordinates with him.

### **Competencies and Skills of Education Managers**

In the study of the Office of Personnel Management in the United States, 6 competencies are required for managers. These competencies are as follows (Ergim, 1988):

- Integration of external and internal organizational problems; It is the manager's handling of organizational problems, revealing the interrelationships of the problems and going for a solution.
- Representation and coordination; The manager's ability to represent the institution is aimed at ensuring cooperation within the institution by fulfilling the representative role of the institution.
- Planning and directing; It is aimed to provide the activity of the manager to direct the management of the institution among the employees by planning to achieve the predetermined goals.
- Orientation of money and material resources; The manager should achieve this goal with the least cost while leading the institution to its goals. The main purpose of educational institutions is to train people. While trying to achieve this aim, the principle of the economy should not be ignored.
- Utilizing human resources; The most beneficial resource for the manager to reach the goals of the institution is the human being. Plans should be made considering the people, that is, the personnel.
- Review of implementation and results; The manager must take action to achieve the predetermined vision of the institution and put the plans into practice. The conclusions reached

as a result of the application should be reviewed, the missing aspects should be completed, and the practices should be continued.

In the National Education Development Project, the competencies of the school administrator were gathered into four main groups. These are competence in educational skills, competence in educational administration, professional competence, and competencies in personal qualities (National Educational Development Project, 1996). The school administrator should have personal qualities that can gain new knowledge, self-management, and control stress. The school administrator should have different and colorful interests and competencies such as educational goals (National Educational Development Project, 1996).

Technology is growing rapidly in the field of education as it is in every field. The school administrator should know the use of educational technologies that are renewed and updated every day. The manager must be of administrative/supervisory integrity. As a practitioner, the manager must have a vision and can understand the outside world.

The school administrator should be able to think creatively and plan/evaluate, should manage the financial resources efficiently, and ensure the harmony of education stakeholders such as teachers, students, parents, and school unions.

A three-dimensional Director's Competence Model was developed. The dimensions of the model consist of competence areas, competence subjects, and competence levels (Başaran, 1992):

- Competency areas: It consists of management concepts and theories, management technology, and the human factor in management. Competencies in these three areas form the main lines of management.
- Competency issues: It is aimed at revealing the cornerstones of the institution according to the manager's orientation steps and ensuring renewal. The manager should be able to reveal the management process and aim to perform the functions of the management.
- Competence levels are related to the capacity of the manager. The knowledge level of the manager shows the level of attitude he has toward problems. The level of competence of the manager consists of the stages of recognition, commemoration, comprehension, judgment, interpretation, and application. The manager's careful and sequential implementation of these stages maximizes the manager's level of competence.

Kalz et al. divided the competencies that managers should have into three technical, humane (social), and decision-making competencies (Başar, 1993).

- Technical Competencies: It is the manager's technical knowledge and skills related to his/her job. The manager should know how to use different techniques and methods while fulfilling the technical competencies of the task. The manager should be able to remove the criticisms made against him, and he should know effective and efficient communication ways with the employees. The manager should be practical when dealing with problems and should know how to solve the problems in a short time by preventing them from growing. The manager should understand the complaints about the institution and should be able to evaluate the existing situation in a multi-faceted manner.
- Humanistic Competencies: It is a competency-based on understanding and motivating individuals and groups. In humanistic competencies, it is important to make sense of beliefs, attitudes, and assumptions toward other people. It is a human relations competency of being able to move people toward a common goal and recognize useful methods and boundaries.
- Decision Competencies: It is the manager's awareness of the existence of the problems that will arise within the institution. The manager should gather information about the problem and offer solutions. The manager should be able to evaluate the options most efficiently and choose the most appropriate option among the options. The manager should monitor and correct the shortcomings during the implementation phase. This process is also the ability to approach and

solve the problem. Decision competencies are also called managerial or organizational competencies.

## PURPOSE

The study aims to identify scientific sources, authors, countries, and universities that prevail in research on the training of educational managers by scanning the literature. In this direction, the sub-objectives are:

- To reveal the historical process of the studies on the training of education administrators, to determine the number of resources, the number of published articles, the growth of resources, and the production rate of the best writers over time,
- To determine the number of citations, the number of keywords used by the authors, and the word growth used in the research according to the number of sources of the studies on the training of education administrators,
- To determine the universities where the authors working on the training of educational administrators work, the countries where the authors reside, the scientific production of the countries, and the most cited countries.

## METHOD

The bibliometrix package developed for the R statistics program was used. This package analyzed the output files obtained from the Scopus database. To find publications related to research on the training of education administrators in the database, a list of academic journals that frequently publish in the field of education management was made (Table 1). Then, the publications with the phrases "leader", "manager", "administ", "principal", "prep", and "train" in the titles of the relevant journals were listed in the database. The output file of this list was imported into the bibliometrix package.

**Table 1.** Academic journals that have publications within the scope of the research

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NASSP Bulletin
Educational Leadership
Economics of Education Review
Education & Urban Society
Journal of Educational Administration
International Journal of Educational Management
Educational Administration Quarterly
Urban Education
Educational Management Administration & Leadership
School Leadership & Management
Management in Education
School Effectiveness and School Improvement
Journal of Educational Administration and History
Improving Schools
International Journal of Leadership in Education
Journal of Personnel Evaluation in Education
Journal of Educational Change
Advances in Educational Administration
International Journal of Management in Education
Education as Change
Leadership and Policy in Schools

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## Data analysis

Bibliometric analysis is based on analyses with various statistical and mathematical methods using data obtained from various databases. Bibliometrics is the statistical analysis of books, articles, and other publications.

Bradford's Law is an arrangement of articles in scientific sources in descending order of efficiency. It is the gathering of articles in a core group of only relevant sources. This core group can be divided into many groups or regions that include the same number of scientific studies (Hertz, 1987).

Lotka's Law tries to determine what the contributions of the authors writing in a particular field are to the literature and how the articles written by these authors are numerically distributed in the literature of that field.

The H index was put forward by a physicist scientist. It is a criterion used to evaluate scientists, which is used to indicate how many of a person's publications are cited above a certain value (Hirsch, 2005).

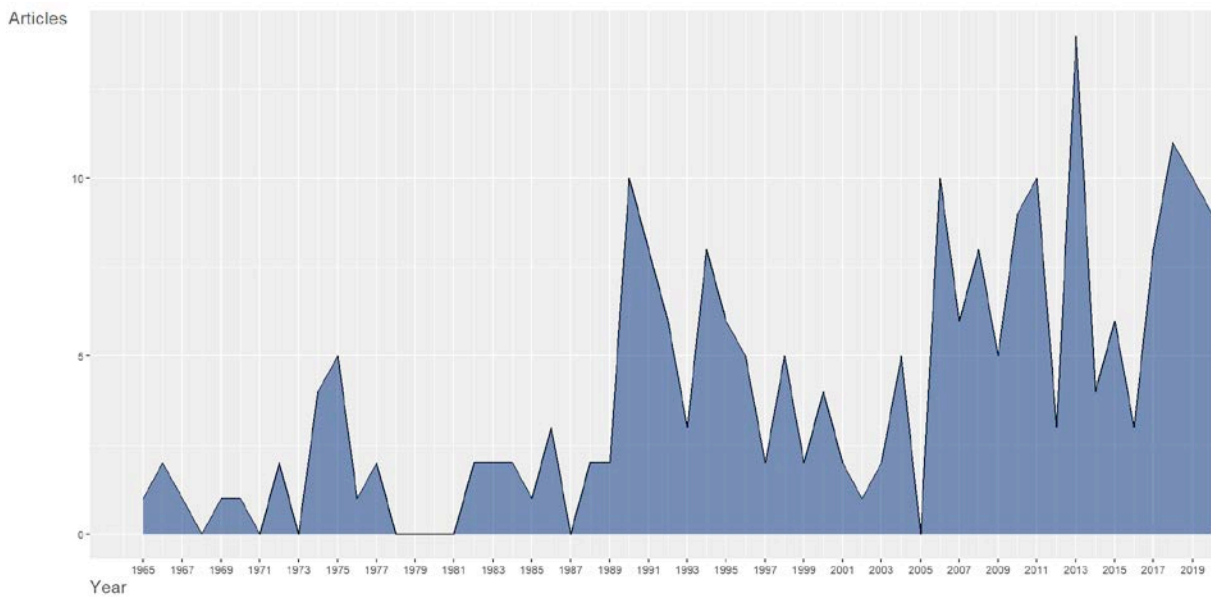
## FINDINGS

**Table 2.** Main Information About Data

Description	Results
Timespan	1965:2020
Sources (Journals, Books, etc)	14
Documents	219
Average years from publication	19
Average citations per documents	11,2
Average citations per year per doc	0,98
References	8182
Keywords	308
Authors	356
Author Appearances	399
Authors of single-authored documents	93
Authors of multi-authored documents	263
Single-authored documents	102
Documents per Author	0,61
Authors per Document	1,63
Co-Authors per Documents	1,82
Collaboration Index	2,25

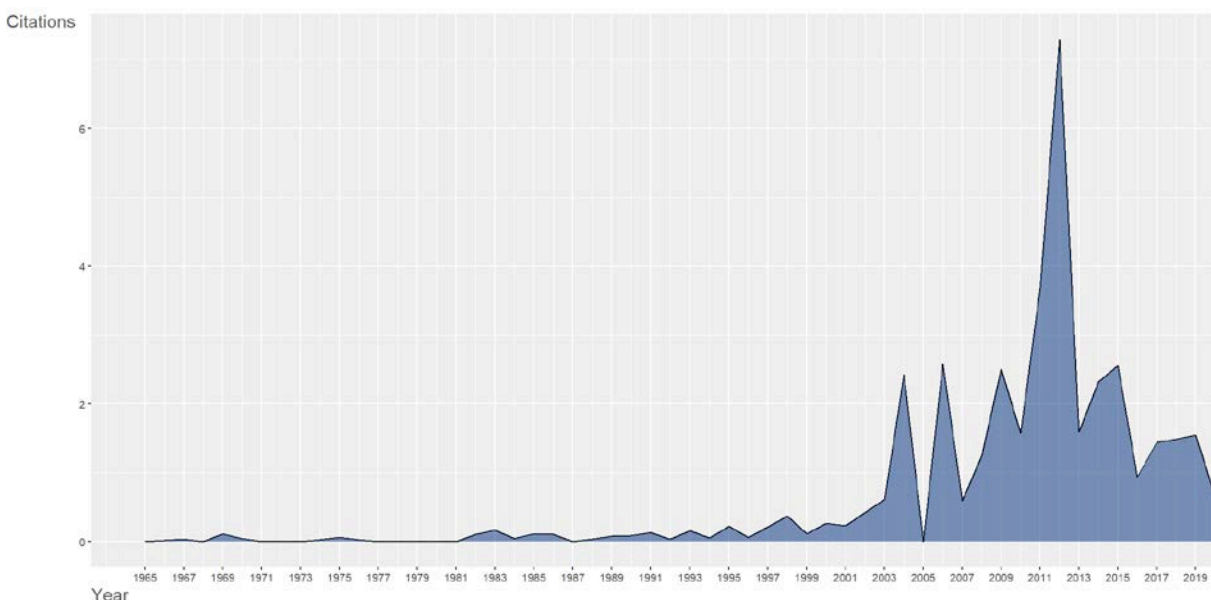
When the table prepared for the training of education administrators is examined in outline, the points that draw attention are; the subject covers the 56-year scientific research process between 1965 and 2020, data were obtained from 14 sources among 21 selected sources, 8182 citations were received, the number of authors of multi-authored publications is 263, and the number of authors of single-authored publications is 93, the authors used 308 keywords in scientific research, it has been determined that 219 publications have been made on the subject.

**Chart 1. Annual Scientific Production**



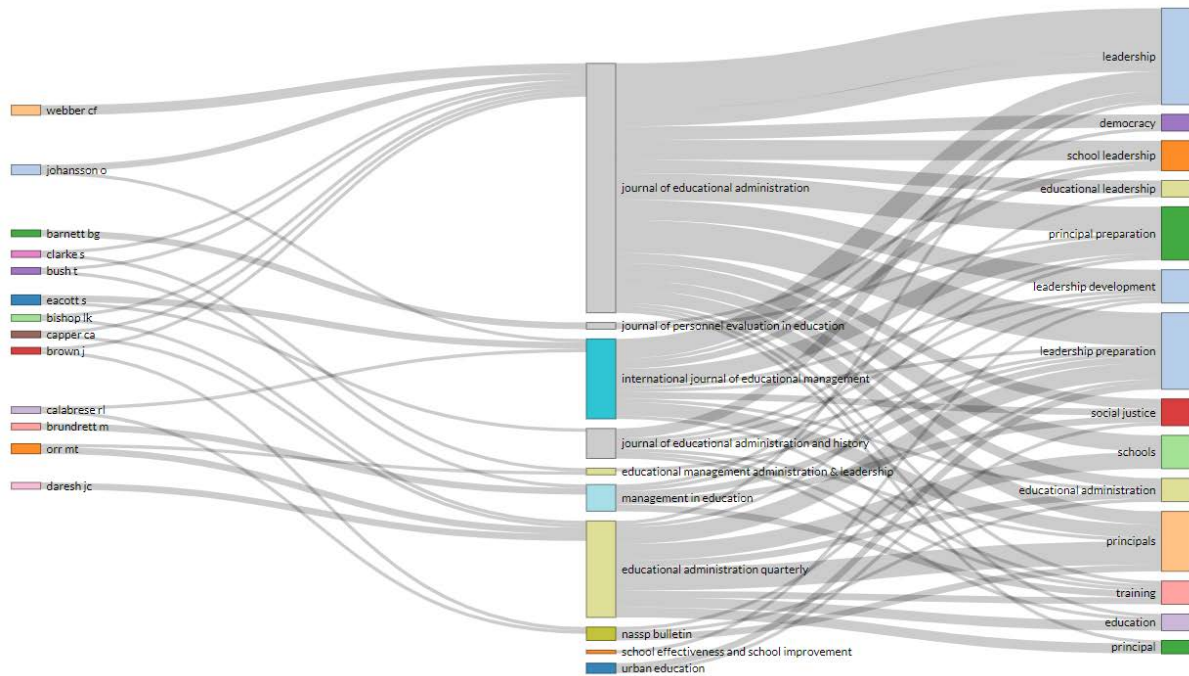
In the chart, the studies carried out from 1965 to 2020 regarding the training of education administrators are considered. During the 56 years covered by the research, 219 articles were published. Articles are published almost every year. In the 56 years considered in the research, no articles were published for 9 years. It was determined that at least 1 article was published in the remaining 47 years. The average number of articles published in the 46 years corresponds to 4.6 articles. 78 articles have been published in the last 10 years. It is seen that at least 3 articles are published every year and the average article publication rate over the last 10 years is 7.8 articles. The increase in the number of articles in recent years reveals that scientists show more interest in the training of educational administrators and spend more time on the subject. 14 articles were published in 2013, among the years in which the articles were published. The fact that 2013 was the brightest year with the number of 14 articles on the training of education administrators comes to the fore.

**Chart 2. Annual Average Number of Citations**



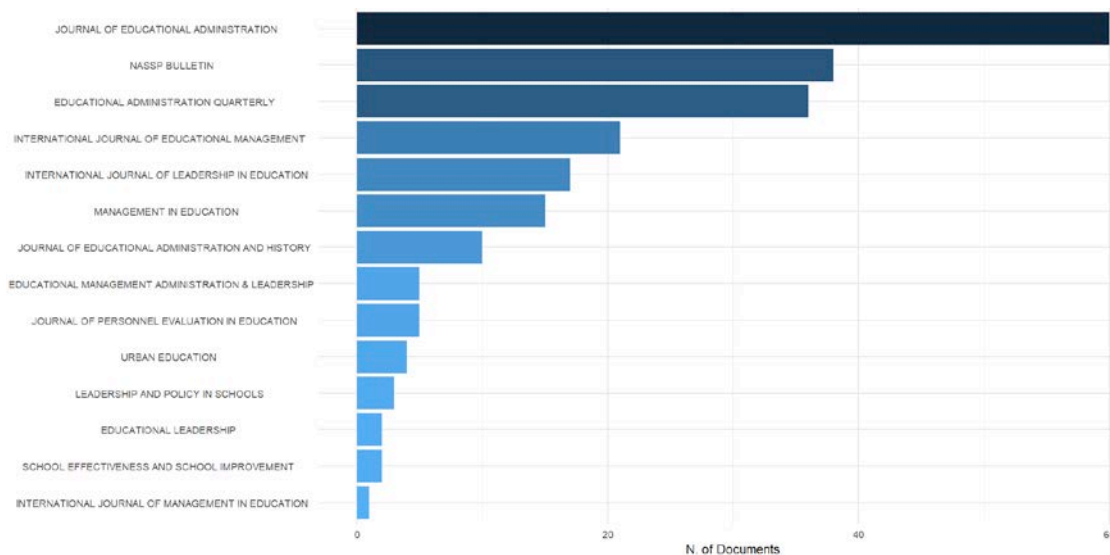
When the chart is examined, it is seen that it remained stable from 1965 to 1995 in terms of the annual average number of citations. It is seen that the number of citations made a remarkable increase from 1995 to 2003 and the number of citations increased strongly from 2005 to 2020. In terms of the number of citations, it is seen that 2011 was the most cited year. Although it seems that the number of citations increased between 1965 and 2004 and the number of citations peaked between 2006 and 2020, it is noteworthy that there was no scientific study to be cited in 2005.

**Chart 3. Author – Source – Keyword Matching**



When the chart is examined, most research has been done by the Journal of Educational Administration. This source has been scientifically contributed by Webber, Johansson, Clarke, Bush, Bishop, Capper, and Brown. Scientific studies have been carried out with these sources and authors with the keywords of leadership, democracy, school leadership, educational leadership, principal preparation, leadership development, school, educational administration, training, education, and principal.

**Chart 4. Top Publishing Sources**

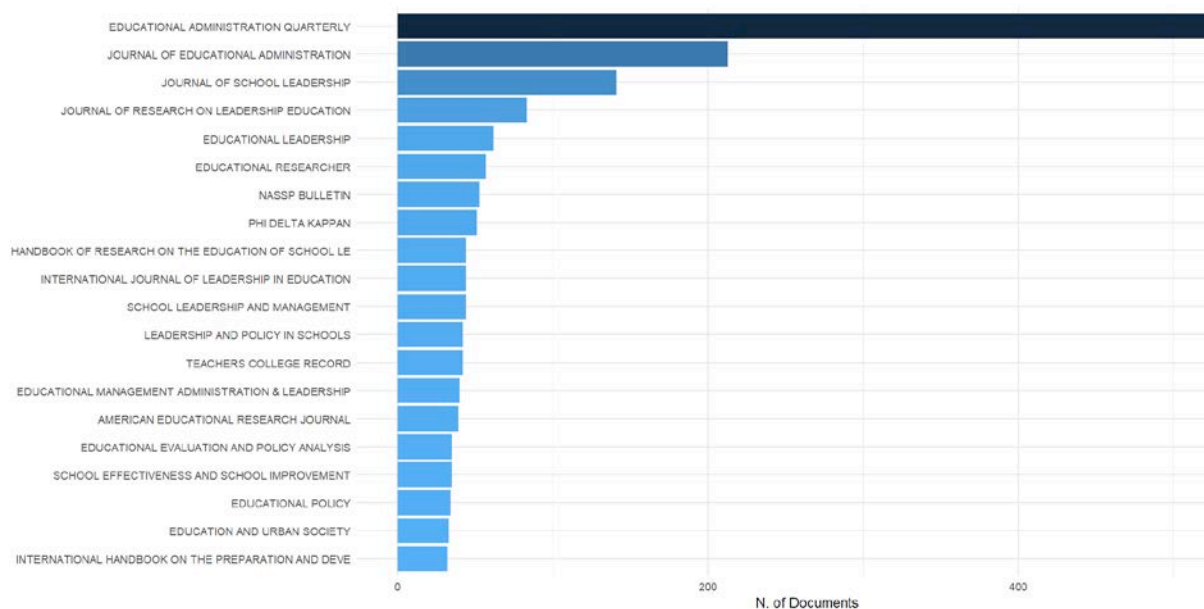




In the chart, the Journal of Educational Administration is the most widely published scientific source with 60 publications. This source is followed by the Nassp Bulletin and the Educational Administration Quarterly.

### Chart 5. Most Locally Cited Sources

In the chart, the Educational Administration Quarterly has 528 local citations. International Handbook on the Preparation... was found to be the least locally cited source.



**Table 3. Source Clustering with Bradford's Law**

Source	Rank	Freq	cumFreq	Zone
Journal Of Educational Administration	1	60	60	Zone 1
NASSP Bulletin	2	38	98	Zone 1
Educational Administration Quarterly	3	36	134	Zone 2
International Journal of Educational Management	4	21	155	Zone 2
International Journal of Leadership In Education	5	17	172	Zone 3
Management In Education	6	15	187	Zone 3
Journal Of Educational Administration and History	7	10	197	Zone 3
Educational Management Administration & Leadership	8	5	202	Zone 3
Journal Of Personnel Evaluation in Education	9	5	207	Zone 3
Urban Education	10	4	211	Zone 3
Leadership And Policy in Schools	11	3	214	Zone 3
Educational Leadership	12	2	216	Zone 3
School Effectiveness and School Improvement	13	2	218	Zone 3
International Journal of Management In Education	14	1	219	Zone 3

The distribution of scientific studies on a particular subject is defined as Bradford's Law (Garfield, 1980). Bradford's Law, which is used to determine which scientific sources on a subject are core sources, is used in many areas from citation evaluations to collection management in libraries.

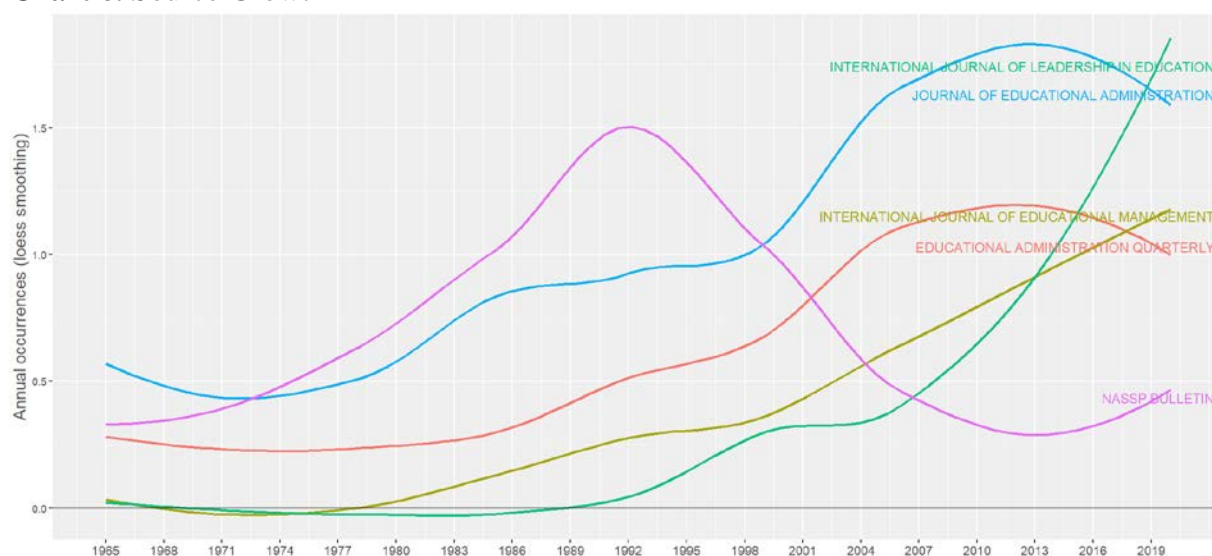
According to Bradford's Law, the Journal of Educational Administration was found to be the most core source with the 1st rank. It has been determined that the Nassp Bulletin is in the 2nd place and the Educational Administration Quarterly is in the 3rd place.

**Table 4.** Source Effect Sizes

Source	H index	Citations
Journal Of Educational Administration	14	679
NASSP Bulletin	5	84
Educational Administration Quarterly	18	1126
International Journal of Educational Management	8	145
International Journal of Leadership in Education	6	160
Management In Education	4	62
Journal Of Educational Administration and History	4	87
Educational Management Administration & Leadership	2	48
Journal Of Personnel Evaluation in Education	2	22
Urban Education	3	19
Leadership And Policy in Schools	2	8
Educational Leadership	1	5
School Effectiveness and School Improvement	1	7
International Journal of Management in Education	1	1

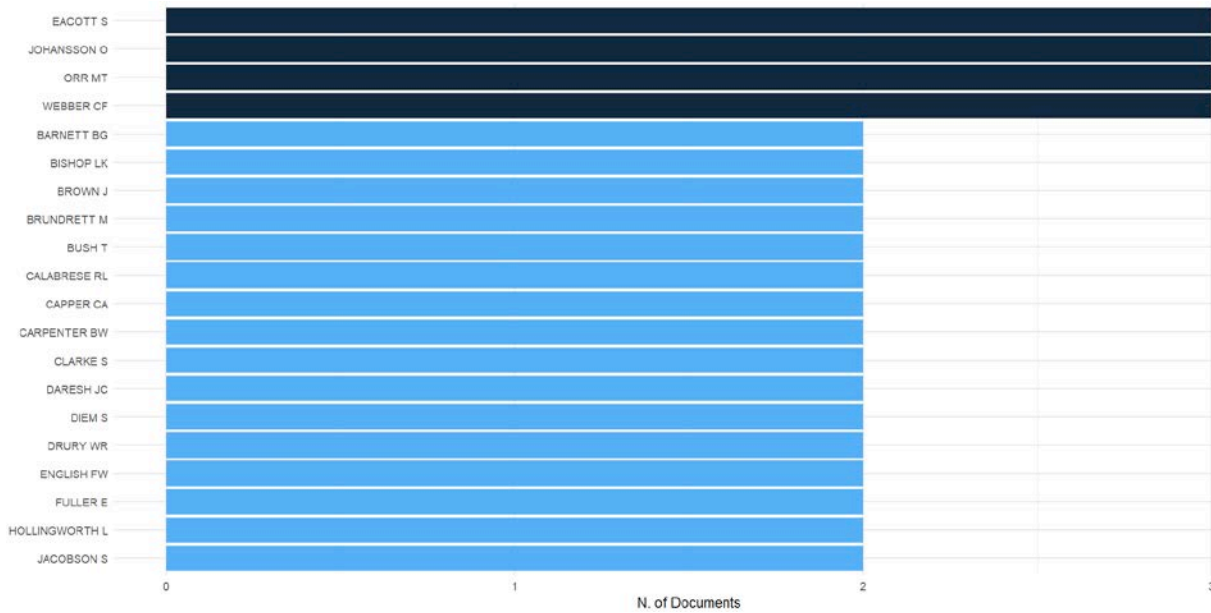
The H index is obtained by the intersection of the studies of scientists, the number of publications, and the number of citations. When a scientist with an H index of 10 is mentioned, this scientist's 10 most cited publications are cited at least 10 times or more. The H index determines the quality measure and productivity of the work done by scientists. As a result of the research carried out by the researchers with the H index, it is accepted as an internationally valid metric used in the employment, appointment, and rewarding of the researcher.

In the table, it has been determined that the Educational Administration Quarterly is the best quality and most efficient publication with an 18 H index. Journal of Educational Administration was the second most productive source with a 14 H index. It is seen that the International Journal of Educational Management is the 3rd highest quality publication with an 8 H index.

**Chart 6.** Source Growth

In the chart, it was determined that while there were a limited number of publications in 1965, the number of publications increased significantly in 1992, and peak source growth was observed in 2013.

**Chart 7. Authors with Most Publications**



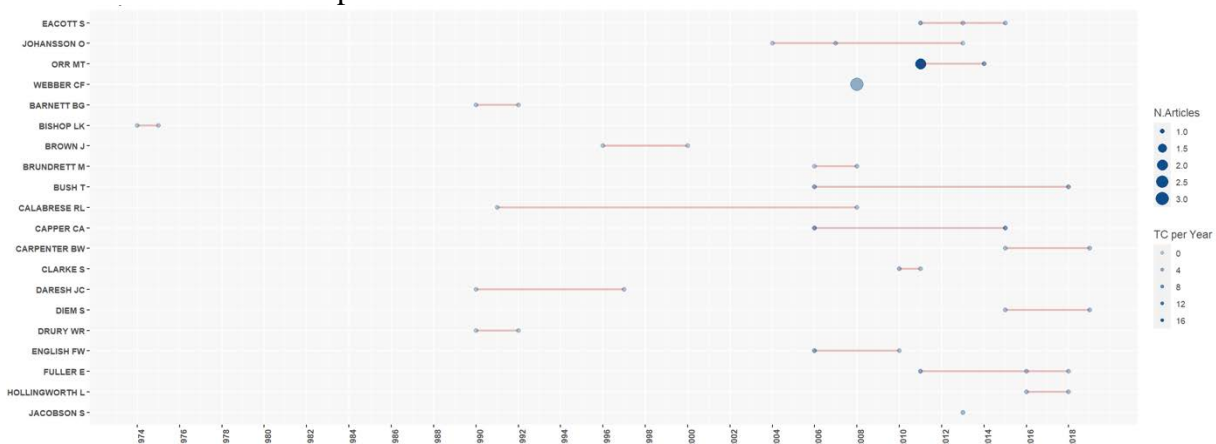
In the chart, the authors named Eacott, Johansson, and Orr were the authors who published the most articles with 3 articles each. It was determined that the remaining authors had 2 publications each.

**Table 5. Top Local Cited Authors (First 10)**

Author	Citations
Bjork LG	14
Ginsberg R	14
Hewitson MT	10
Giles C	9
English FW	6
Van Meter EJ	6
Perrone F	5
Tucker PD	4
Beaty DM	3
Books S	3

In the table, authors Bjork and Ginsberg received 14 local citations, Hewitson received 10 local citations, and Giles received 9 local citations. English and Van Meter were the authors with the most local citations, with 6 local citations each.

**Chart 8. Production of top authors over time**



In the chart Calabrese, Bush, Johansson, and Capper were found to be the authors who produced the most over time. Clarke and Brundrett have been identified as the authors with the least production over time.

**Table 6.** Author Efficiency with Lotka's Law

Documents written	N. of Authors	Proportion of Authors
1	317	0,89
2	35	0,098
3	4	0,011

Lotka's Law aimed to predict the scientific productivity process. This data provides practically the possibility of estimating in numerical terms how many articles can be written by the authors in that literature. Lotka tried to apply his law to the humanities literature and stated that it could be applied to this field (Schorr 1975). He also applied the law to map librarianship, forensic history literature, and library science literature. It has been concluded that Lotka's law can be applied to map librarianship literature, but not to forensic history literature and library science literature (Schorr, 1975).

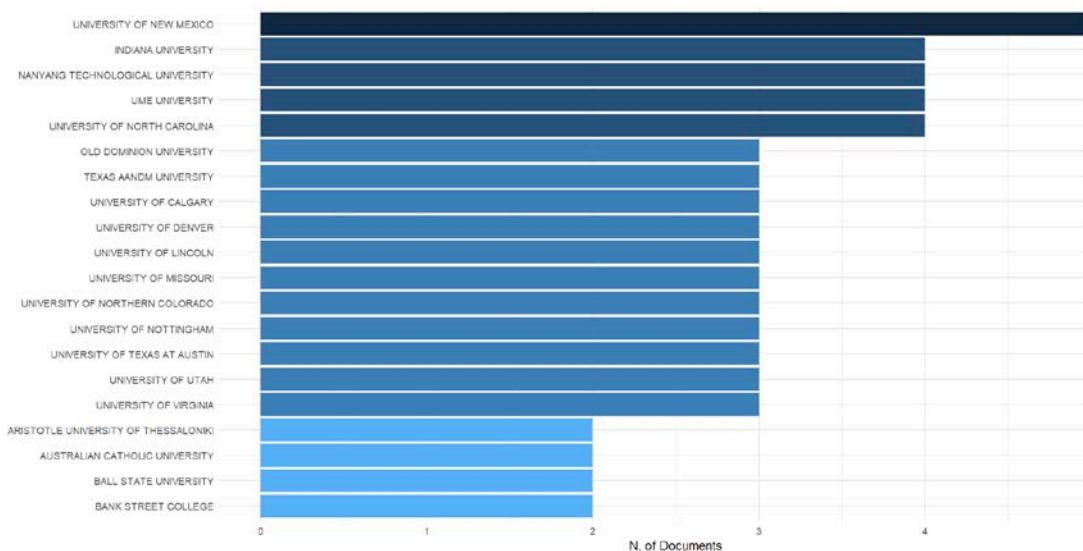
In the table, 317 authors made the highest contribution to the literature with 1 article. It was determined that 35 authors contributed with 2 articles and 4 authors contributed the least with 3 articles.

**Table 7.** Author Local Effect Sizes (First 10)

Author	H index	Citations
Eacott S	3	53
Orr MT	3	231
Webber CF	3	51
Johansson O	2	21
Barnett BG	2	7
Bush T	2	98
Capper CA	2	156
Carpenter BW	2	9
Clarke S	2	35
Daresh JC	2	13

In the table, according to the H Index, 3 authors named Eacott, Orr, and Webber have been found to have the highest H Index with the number 3. According to the number of citations, Orr was found to be the most cited author with 231 citations, and Capper with 156 citations.

**Chart 9.** Universities where the authors work



The University of New Mexico has 5 authors, Indiana University, Nanyang Technological University, and the University of North Carolina have 4 authors each being the university with the most authors.

**Table 8.** Countries of the Authors (First 10)

Country	Articles
USA	82
Australia	13
United Kingdom	11
Canada	6
Israel	5
Cyprus	4
Sweden	4
Hong Kong	2
Netherlands	2
Singapore	2

In the table, it was determined that the countries with the highest number of articles are the USA with 82 articles, Australia with 13 articles, and the United Kingdom with 11 articles.

**Chart 10.** Country Scientific Production



When the chart is examined, the importance given by the USA to the training of education administrators emerges. It has been determined that the authors of the countries named Australia, United Kingdom, Canada, and Israel, respectively, attach importance to the subject.

**Table 9.** Most Cited Countries (First 10)

Country	Citations	Average Article Citations
USA	1122	13,7
Cyprus	213	53,2
United Kingdom	205	18,6
Australia	165	12,7
Canada	75	12,5
Hong Kong	29	14,5
Netherlands	25	12,5
China	22	22
Israel	15	3
Thailand	15	15

When the table is examined, it has been determined that the USA has 1122 citations, Cyprus has 213 citations, and the United Kingdom has 205 citations. In the ranking of the countries cited, the USA has clear superiority. It is seen that the scientific research conducted in the USA here constitutes a significant source for the research conducted in other countries.

**Table 10.** Most Globally Cited Publications (First 10)

Paper	DOI	Citations
Furman G, 2012, Educ Adm Q	10.1177/0013161X11427394	177
Capper CA, 2006, J Educ Adm	10.1108/09578230610664814	111
Orr MT, 2011, Educ Adm Q	10.1177/0011000010378610	108
Mckenzie KB, 2004, Educ Adm Q	10.1177/0013161X04268839	95
Rusch EA, 2004, Educ Adm Q	10.1177/0013161x03259110	83
Bush T, 2006, J Educ Adm	10.1108/09578230610676587	81
English FW, 2006, Educ Adm Q	10.1177/0013161X06289675	80
ORR MT, 2011, EDUC ADM Q-A	10.1177/0011000010378612	79
Lumby J, 2009, Int J Leadersh Educ	10.1080/13603120802449678	53
Young MD, 2008, Educ Adm Q	10.1177/0013161X08315270	50

When the table is examined, it is seen that Furman's publication is the most cited publication with 177 citations.

**Table 11.** The Most Frequently Used Keywords (First 10)

Words	Occurrences
leadership	24
leadership preparation	18
principals	17
principal preparation	14
schools	13
social justice	11
leadership development	9
educational administration	8
school leadership	8
training	8

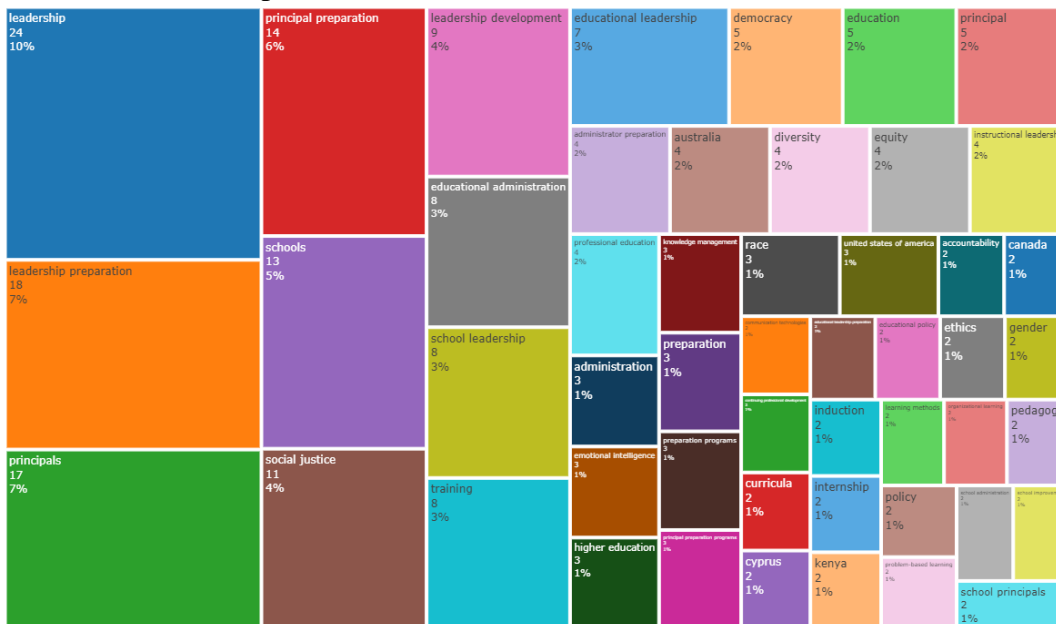
It was determined that leadership was used as a keyword 24 times, leadership preparation 18 times, principals 17, principal preparation 14 times, and schools for 13 times.

**Chart 11.** Word Cloud



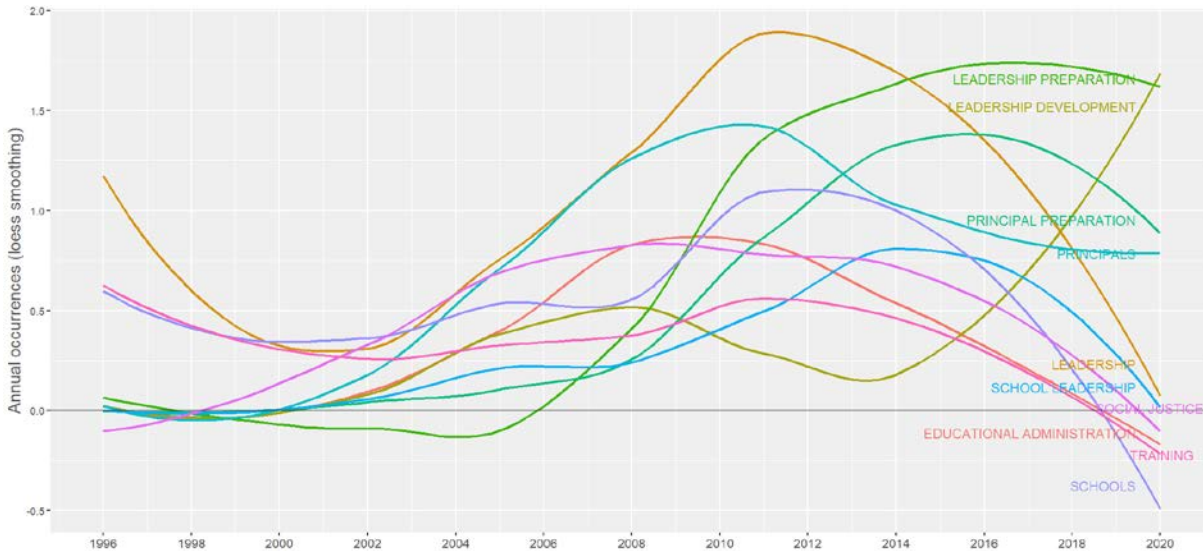
The top 5 most used keywords are leadership, leadership preparation, principals, principal preparation, and schools are capitalized.

**Chart 12. Word Map**



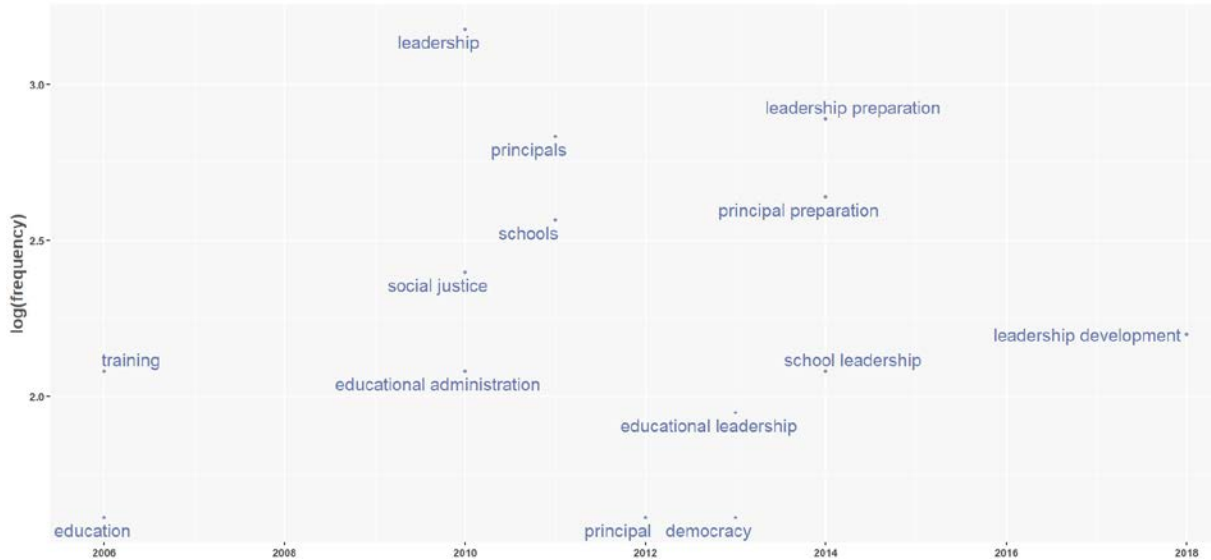
The 5 most used keywords in scientific research correspond to 35% of the total used keywords.

**Chart 13. Word Growth**



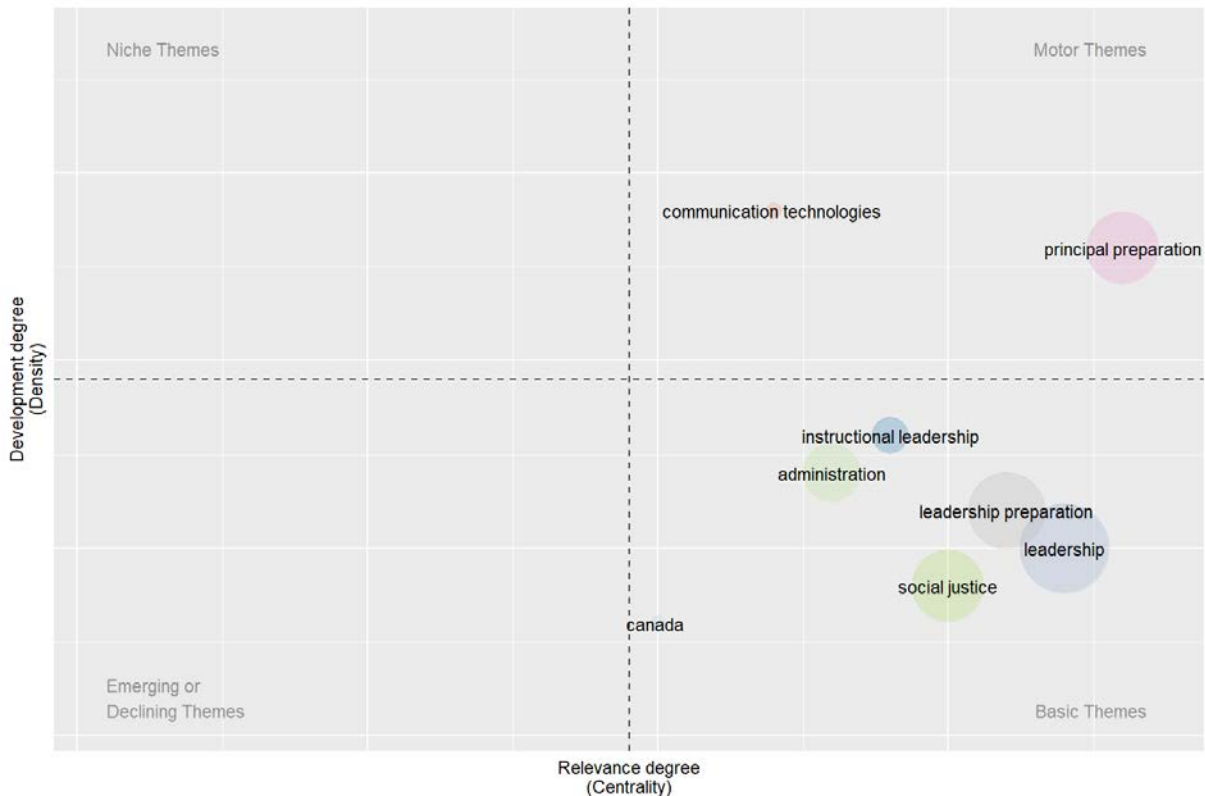
When the chart is examined, it has been determined that while the word leadership was the most used keyword by providing stable growth from 1996-2011, it was the keyword whose usage started to decrease in 2012.

**Chart 14. Trending Topics**



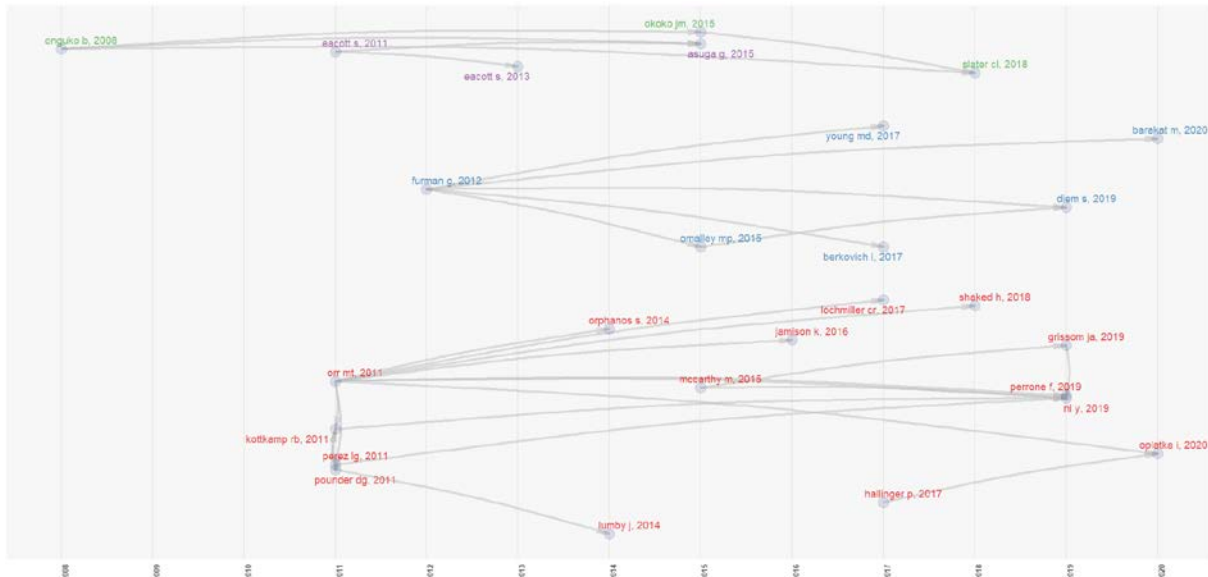
When the chart is examined, trend topics were keyword leadership in 2010, keyword leadership preparation in 2014, keyword principals in 2011, keyword principal preparation in 2014, keyword training in 2006, keyword school leadership in 2014, and keyword social justice in 2014. In 2010, the keyword of educational administration was found to be the trending keyword, the keyword of educational leadership in 2013, the keyword of schools in 2011, and the keyword of leadership development in 2018.

**Chart 15. Thematic Map**



When the chart was examined, it was determined that there was no data on the themes of Niche Themes and Emerging or Declining Themes. In Motor Themes, the keywords communication technologies and principal preparation came to the fore. It has been determined that the keywords leadership, leadership preparation, instructional leadership, administration, and social justice are used in Basic Themes.



**Chart 16.** Historical Direct Citation Network

When the chart is examined, it is seen that the first historical direct citation in scientific studies started with Onguko in 2008.

### Conclusion

This study aimed to reveal trends in the research of training of educational managers. The bibliometric analysis results identified the descriptive statistics of the articles, the most productive countries and authors, the most popular articles, journals, and keywords, annual scientific production, the growth of the top journals by year, and the pioneer and influencer researchers in the topic.

The number of articles published, the growth of resources, and the production of the best authors over time is increasing systematically as we approach the present day. This situation shows that the number of scientists interested in the subject is increasing and the importance of the training of educational administrators is increasing.

The country with the highest scientific production and most cited is the United States of America. The fact that the USA is the country that values the subject the most is at a level that does not require discussion. It was previously determined that more studies were conducted in the field of educational administration in western countries (Bozkuş, 2021; Gömeç & Bozkuş, 2021; Aksel & Bozkuş, 2022).

It is noteworthy that the most frequently used keywords are related to leadership. This situation shows that in the civilized world, the need for the manager of the institutions decreases, and the role of the leader and leadership is more popular.

This review makes an important contribution to the research on leadership by systematically analyzing many studies indexed in the Scopus database. This review concluded that interest in the training of educational managers has been constantly growing, but research on the training of educational managers is not prevalent worldwide. The study results draw a big picture based on numerical evidence on the development of the research topic. However, the study has some limitations. Although the authors spent a lot of time and effort in minimizing errors during the research process, considering the nature of bibliometrics and the high number of articles, there could still be minor errors. Also, articles published in some well-known educational journals that were not indexed in the Scopus database were excluded from the research. They were excluded because of the capabilities of the software used, and it is considered a common deficiency for bibliometric review studies. Future review studies may include journals excluded from this study.

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