A bibliometric analysis of the articles about values education

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Abstract

This study aims to conduct a bibliometric analysis of the articles about values education in the Web of Science database. To this end, analyzes were provided of 254 articles deemed suitable for the analysis from the articles collected from the database. Bibliometric analysis was performed for the most used keywords, the most used words in the abstract, the most cited authors, the most cited countries, the most cited journals about values education via the VOSviewer program. Furthermore, the articles' publication years and languages were identified. Values education, values, education, moral education are the most used keywords. Data, level, and program are the most commonly used words in the abstract. The most cited writers (co-citation) in values education are Lovat, Thornberg and Kohlberg. According to both co-citation and citation analysis of the most cited journal, it is the Journal of Moral Education. The countries that are most cited are the United States, Australia, and England. Even though the first study in this field was conducted in 1970, the majority of researches were performed in 2019. The publication language of the articles has been discovered to be predominantly English. It is assumed that the findings obtained would provide the researchers with a general framework in this field. Suggestions for further studies are brought in as a result of the study.

Keywords: Values education, bibliometric analyses, social studies

1. Introduction

Values include a characteristic that drives and forms the actions of individuals. For this feature, values provided a framework for different researches, which were defined in various ways. The explanation for the various definitions is that the values are linked to the area of research in several different branches of science.

Values may be described as a human decision or measure (Kan, 2010). Value is an abstract concept formed by the interaction of an individual's life with the culture of the

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society and the framework of the social setting in which s/he resides, and its priority can differ from person to person and can only be attributed as seen by behavior while reflecting their beliefs and principles of life (Yıldırım, 2019). Value is a group of beliefs that include the features that make people human and include the essential characteristics that differentiate humans from other beings and guide people's behaviors (Ulusoy & Dilmaç, 2012).

In nature, in living things and other beings, there is no concept of value, they are deprived of the world of values. In this respect, the human being who discovers and reveals the values, by adopting and repeating him, can keep them alive and even renew them (Hökelekli, 2013, 194). Values have several purposes, such as affecting human behavior, arranging social relations, and maintaining the development of society (Akbaş 2009, 404). Value is a standard of behavior that can distinguish between modes of behavior and actions (Sağlam, 2017). Ensuring the individual's happiness and the quality of social life reasonably is closely linked to the degree of presence of the values (Ekşi & Katılmış, 2016, 12).

Considering that human beings are social beings, the foundation for living together in peace will be understood to be based on fostering humans whı inherit moral and strong character (Engin, 2019, 314). Values play an essential place in the lives of humans (Dökmen, 2000). "Value" and "measuring values" have long been the topics of researches in several areas of the social sciences (Asan, et al., 2008). Regardless of the source or place of origin and how, value has always been essential to mankind and has been implemented in several disciplines from philosophy, sociology, psychology to religious sciences, economics to history (Elkatmış, 2009). The concept of value refers to a broad area of research in this regard, which has been the topic of practically all branches of science (Genç, 2016, 160).

It is worthy of noting that the value studies are quite prominent. However, no literature studies analyzing values education in terms of bibliometric indicators are available. That being said, when certain characteristics of documents or publications which are analyzed in bibliometric research and various findings can be obtained pertaining to scientific communication (Al, 2008, 18). It is necessary to look through a bibliometric analysis of the values examined by very different disciplines in the literature. Because the bibliometric analysis findings will give an overview of the literature. Furthermore, an analysis of the values education in terms of bibliometric metrics should build an understanding of the general state of the studies and will have a leading effect in the studies to be carried out. The analysis questions which are to be addressed in the study also are described below. In the studies concerning values education, answers for the following questions have been sought;

1-What is the distribution of publication languages?

2-What is the distribution of publication years?

3-What is the distribution of the most used keywords?

4- What is the distribution of the countries with the most citations?

5- What is the distribution of the most cited journals?

6- What is the distribution of the most cited authors?

7- What is the distribution of the most used words in the abstract?

2. Method

This research utilizes the Web of Science (WOS) database to test the studies performed regarding values education by bibliometric analyses. The Web of Science core collection contains more than 21,000 magazines in different fields, over 76 million records, more than 111,000 books, over 8 million conference papers (Clarivate Analytics, 2020).

Bibliometric methods are used for numerous purposes and scientific applications in different fields (Mongeon & Paul-Hus, 2016). The Web of Science literature-based bibliometric analysis is becoming an increasingly popular way of visualizing the framework of science fields (Zhang et al., 2016). Recent years have seen increasing use of bibliometric indicators (Confraria & Godinho, 2015). A strong predictor of an area or discipline's development patterns is the trends in publications and citations (Hernandez-Torrano & Ibrayeva, 2020).

Keywords "values education" or "value teaching" were entered into the Web of Science database within the scope of the study to facilitate bibliometric analysis of studies relevant to values education. The indexes below are then marked in the database: Science Citation Index Expanded (SCI-EXPANDED), Social Sciences Citation Index (SSCI), Arts & Humanities Citation Index (A&HCI), Conference Proceedings Citation Index- Science (CPCI-S), Conference Proceedings Citation Index- Social Science & Humanities (CPCI-SSH), Emerging Sources Citation Index (ESCI). In this way, the database reached 570 studies (May 23, 2020). Education options were later marked as category and article options as a type of document. In this sense, 254 papers have been provided for bibliometric analysis which is suitable for study purposes.

2.1.Analysis of Data

For the 254 articles accessed, bibliometric maps of the most cited words, the most cited authors, the most cited countries, and the most used words in the abstract section were created via the VOSviewer program.

3. Findings

3.1. Publication Language

It was seen that 254 articles included in the study were published in English (f = 219), Spanish (f = 28), Turkish (f = 4), Portuguese (f = 2), German (f = 1).

3.2. Publication Year

The distribution of the articles based on years for research in the Web of Science is shown in Figure 1. Accordingly, while the first of the articles reached in the study was published in 1970, the majority of the articles were published in 2019 (f = 31).
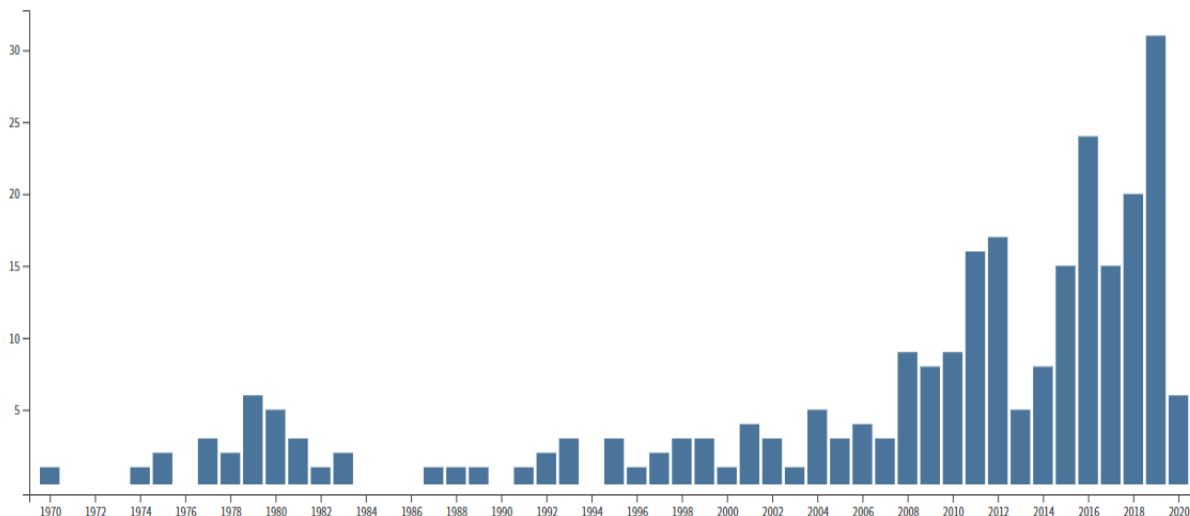

Figure 1. Distribution of numbers of the article based on years

3.3. The most cited keywords

In the articles reviewed within the framework of the study, the most used keywords were identified. The minimum number of occurrences of a keyword option is set to 2 and 73 keywords are selected in the VOSviewer software tool. The map which was produced is shown in Figure 2. Accordingly, the most frequently used words are values education (f=85), values (f=42), education (f=13), moral education (f=13), ethics (f=12). The most used 14 keywords used in the articles are presented in Table 1.
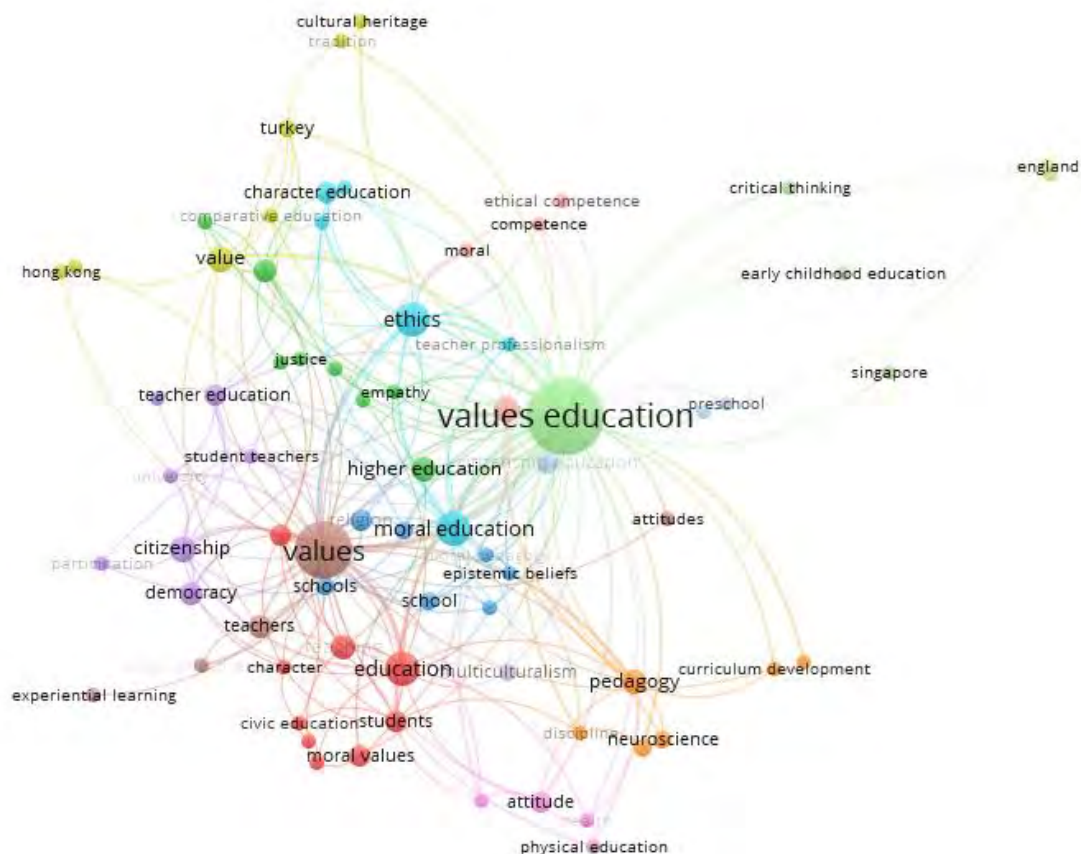
Figure 2. The most used keywords in articles related to values education

Table 1. The most used 14 keywords in the articles

Keywords	f	Keywords	f
Values education	85	Value	7
Values	42	Higher education	6
Education	13	Pedagogy	6
Moral education	13	Teaching	6
Ethics	12	Democracy	5
Citizenship	7	Social studies	5
Curriculum	7	Teachers	5

While the first of the articles on the subject collected in the Web of Science database was in 1970, it is noted that the majority of the articles (f = 31) were published in 2019. The map which was created by years for the most used keywords is shown in Figure 3. It has been shown that the most used keywords regarding the values education are learning, civic education, participation, justice, school effectiveness, pre-service teachers, fundamental British values.
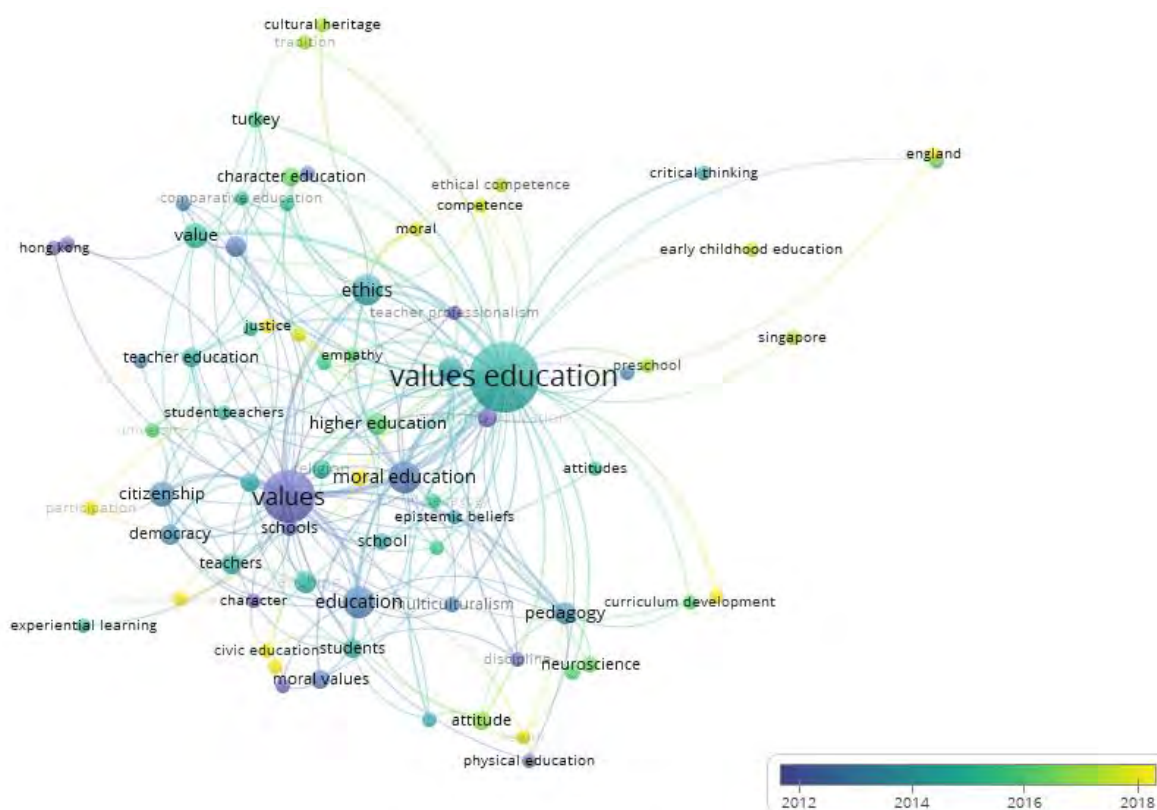
Figure 3. The distribution of most used keywords based on years

3.4. The most-cited countries

A map was generated to illustrate the bibliometric networks of the publications included in the study to identify the countries with the most citations. For this, the minimum number of source documents was adjusted as 1 and a country's minimum number of citations was stated as 5 in the software tool of VOSviewer. The map created is demonstrated in Figure 4. Accordingly, Table 2 indicates the countries with the most citations in the study.

Table 2. Top Countries ranked by document and citation of publications.

| Country	Documents	Citations	Country	Documents	Citations
United States	21	500	South Africa	8	25
Australia	32	285	Singapore	6	25
England	28	233	Iceland	4	24
Sweden	11	159	New Zealand	3	17
Spain	29	112	Malaysia	1	14
Turkey	39	91	Denmark	1	12
Israel	7	75	Indonesia	5	10
China	6	51	Brazil	4	7
Canada	8	44	Scotland	3	7
Norway	5	29	Netherlands	2	6
Finland	3	29	Thailand	1	6
Ireland	3	28			
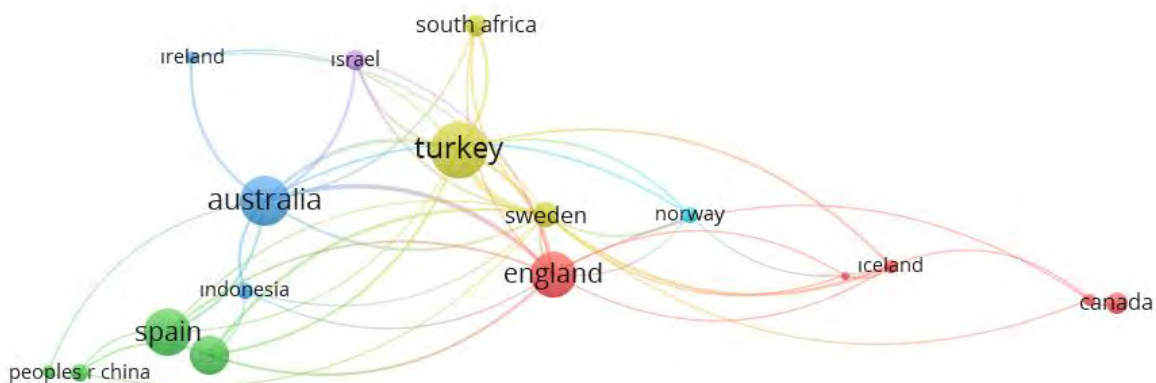
Figure 4. The most-cited countries

Furthermore, in Figure 5 the distribution of the most cited countries based on years is provided. Accordingly, it is acknowledged that the countries of Indonesia, Ireland, and New Zealand are the most cited.
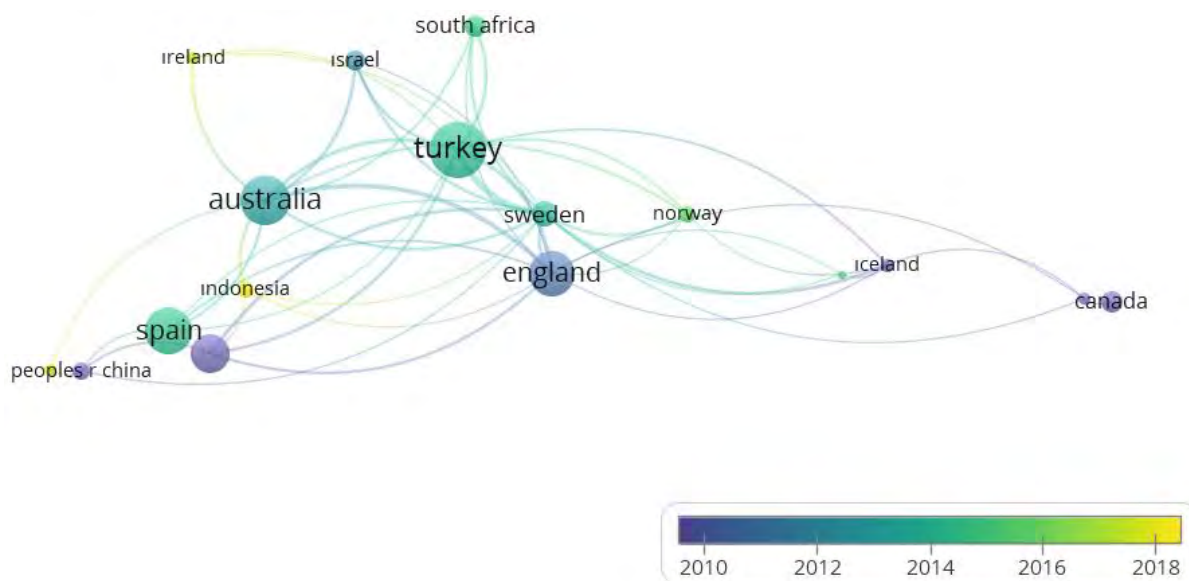

Figure 5. The distribution of the most-cited countries based on years

3.5. The most-cited organizations

The minimum number of documents of an organization was adjusted as 2 and the minimum number of citations of an organization was stated as 2. The most-cited organizations are University of Newcastle (Citations = 182, Documents = 13), Linköping

University (Citations = 138, Documents = 5), Bar-Ilan University (Citations = 75, Documents = 5). The map created is provided in Figure 6.

Figure 6. The most-cited organizations

3.6. The most-cited journals

The VOSviewer's co-citation minimum number of citations of source options is listed as 20 for the most cited journals, and as a result, bibliometric mapping has been generated for 21 journals. The map which was generated is shown in Figure 7. Accordingly, the most cited journals are Journal of Moral Education (Citations = 155), Teaching and Teacher Education (Citations = 95), Değerler Eğitimi Dergisi (Citations = 46), Phi Delta Kappan (Citations = 41), Child Development (Citations = 39), Review of Educational Research (Citations = 34), British Journal of Educational Studies (Citations = 31), Oxford Review of Education (Citations = 31), and Journal of Philosophy of Education (Citations = 27).

Additionally, citation analysis and source options are marked in the VOSviewer program. Figure 8 shows the map which was created for the most cited journals. According to this, the most-cited journals are the Journal of Moral Education (Documents=23, Citations = 223) and Teaching and Teacher Education (Documents=6, Citations = 177).
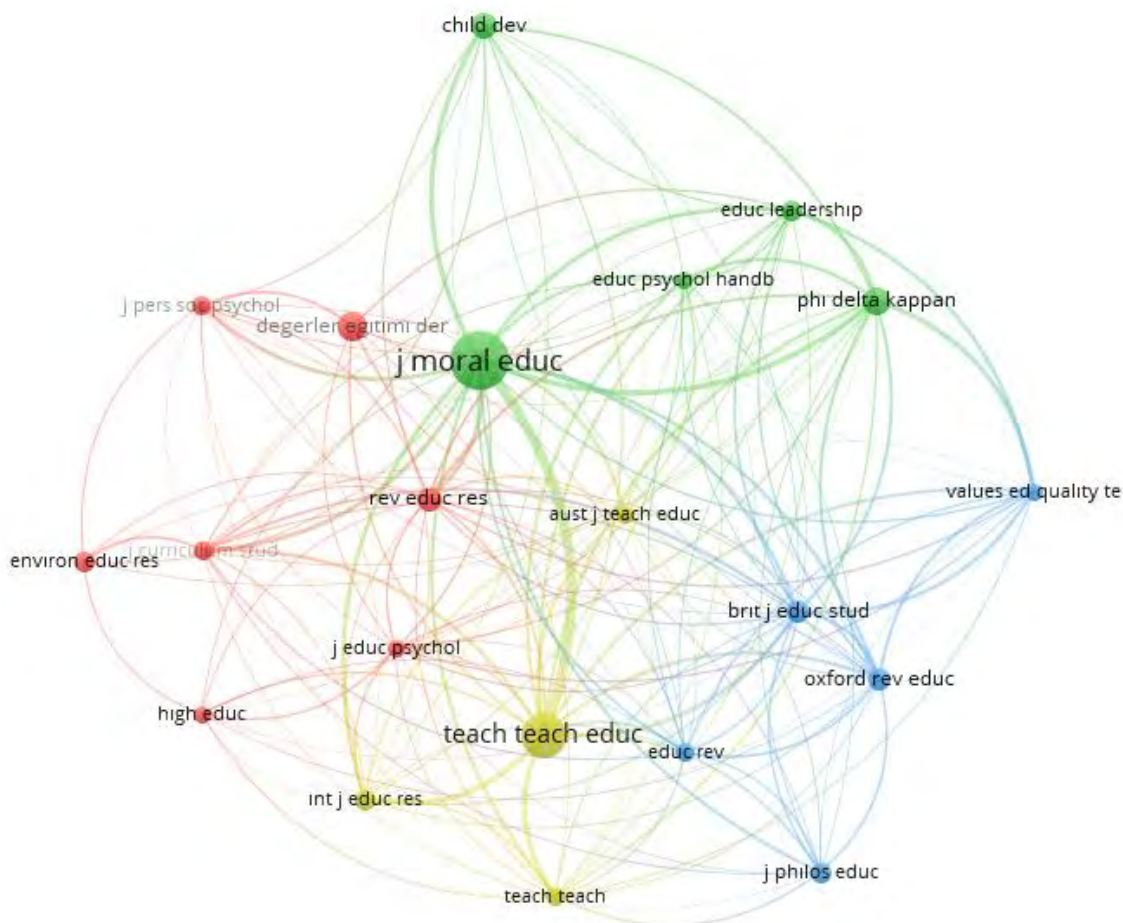
Figure 7. The most-cited journals(co-citation analysis)

The scope and purpose of the top 3 most-cited journals (co-citation analysis) in the articles about values education are as follows:

Journal of Moral Education: The journal utilizes various analytical methods between humanities and sciences and discusses questions of moral reasoning, moral feelings, motivation, and moral action in different contexts (e.g., cultural, gender, family, schooling, community, leisure, work).

Teaching and Teacher Education: It is an international journal that focuses on teachers, school teaching, and/or teacher education in a global viewpoint and context. The journal focuses on higher education via high school (secondary education) relevant to early childhood, teacher training, and teacher professional development and/or teacher education.

Değerler Eğitimi Dergisi (Values Education Journal): The Values Education Journal publishes original researches conducted about religion, moral values, values, and

character education, as well as other related social science fields, and other experimental and descriptive researches. The journal seeks to be an academic venue for studies on topics covering the education of religion and values with scientific qualifications at the national and international levels.
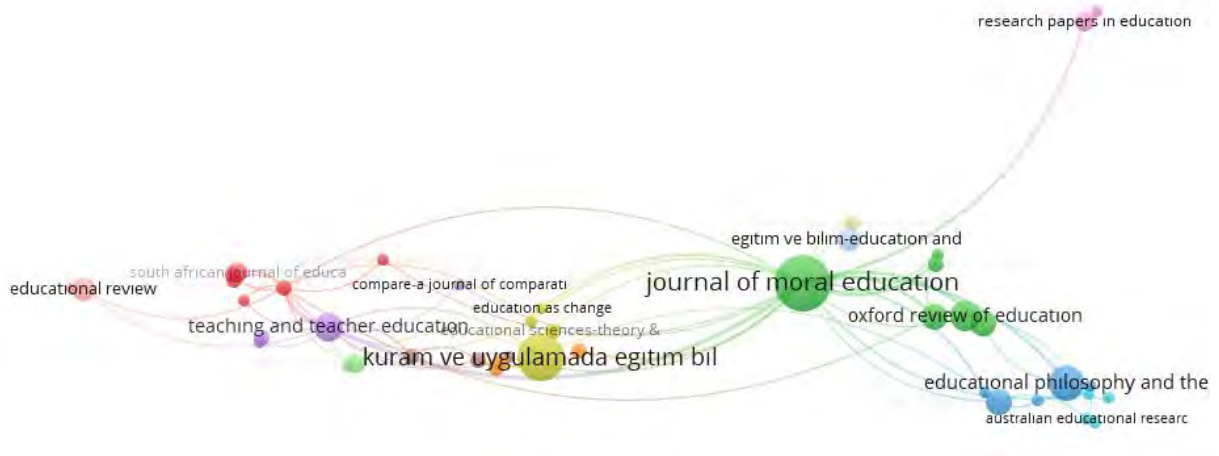

Figure 8. The most-cited journals (citation analysis)

3.7. The most-cited authors

A citation analysis was performed for the most-cited authors. Accordingly, most-cited authors are as follows: Thornberg (Documents=4, Citations=122), Lovat (Documents=10, Citations=113), Clement (Documents=4, Citations=64), O'flaherty (Documents=3, Citations=28), Fleming (Documents=3, Citations=14). The map created provided in Figure 9.
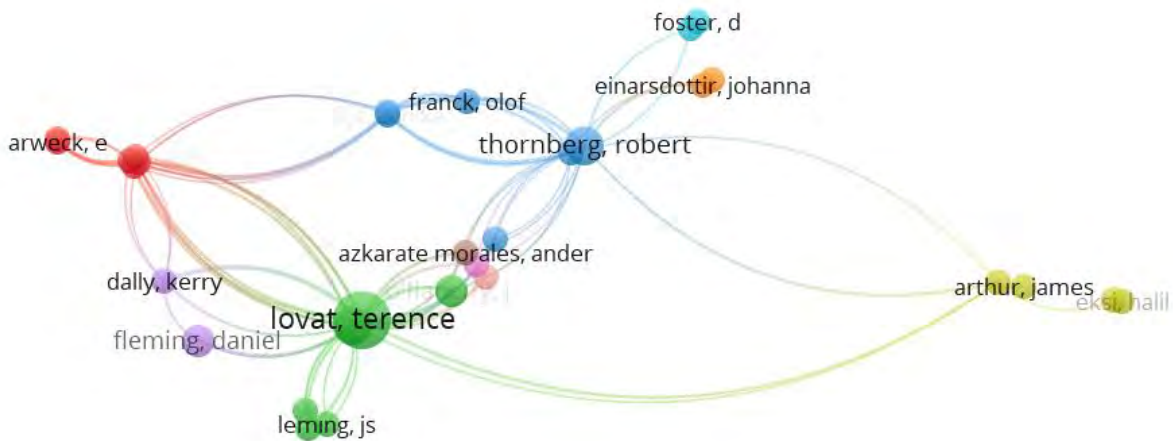

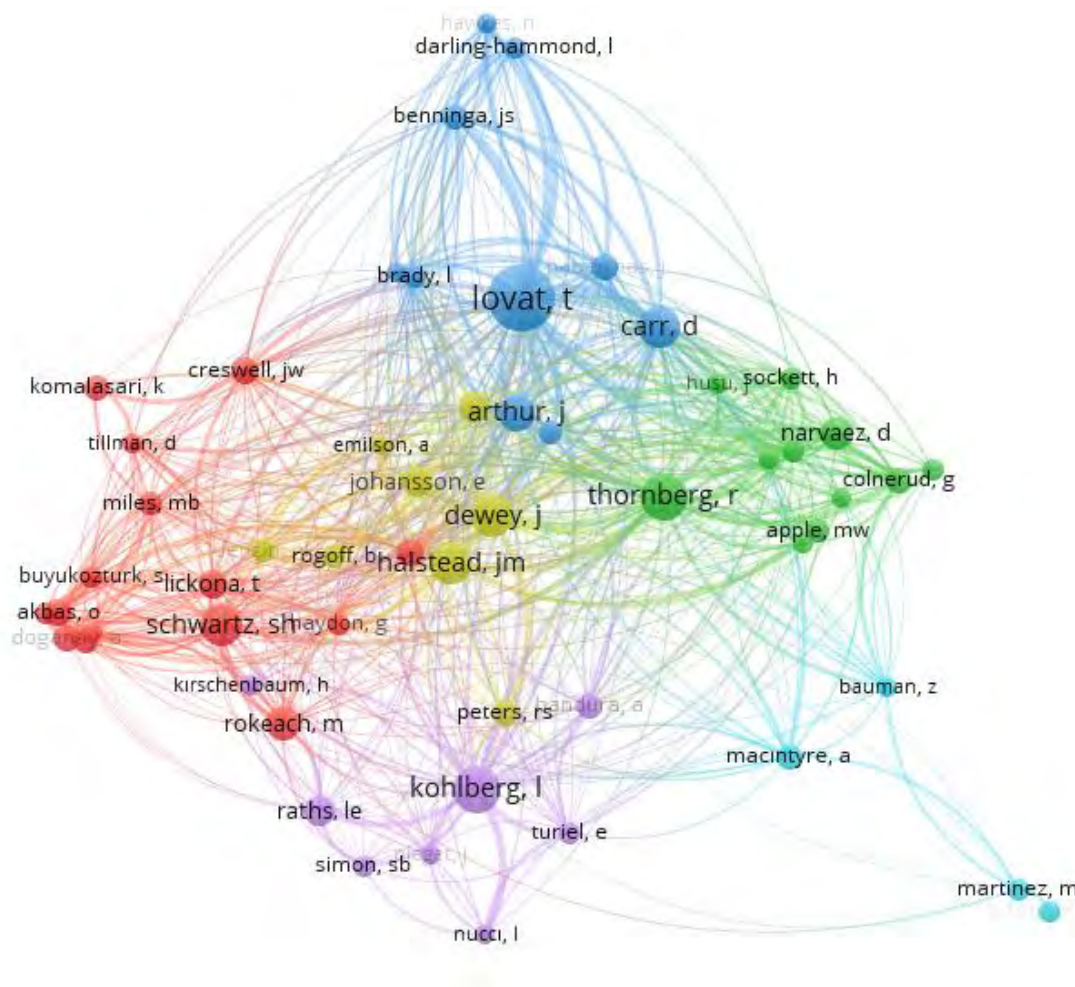Figure 9. The most-cited authors (citation analysis)

Figure 10. The most-cited authors (co-citation analysis)

A co-citation analysis performed for the most-cited authors. Based on the results of the analysis, the most-cited authors are Lovat (Citations=113), Thornberg (Citations=54), Kohlberg (Citations=51). Figure 10 shows a map of the most cited authors. Moreover, Table3 demonstrates the 11 most-cited authors in the study's scope.

Table 3. Top Authors ranked by number of citations.

Author	Country/Territory	Citations
Lovat	Australia	113
Thornberg	Sweden	54
Kohlberg	United States	51

Lickona	United States	45
Carr	Scotland	41
Dewey	United States	41
Halstead	United States	40
Schwartz	United States	40
Noddings	United States	34
Arthur	England	31
Rokeach	United States	28

3.8. The most used words in the abstract section

The analysis was carried out for the most used words. Accordingly, Figure 11 demonstrates the map produced for the most frequently used words in the abstract sections. Furthermore, Table 4 indicates the 11 most used words in the abstract. Additionally, the distribution of the most used words in the abstract section by years is seen in Figure 12.
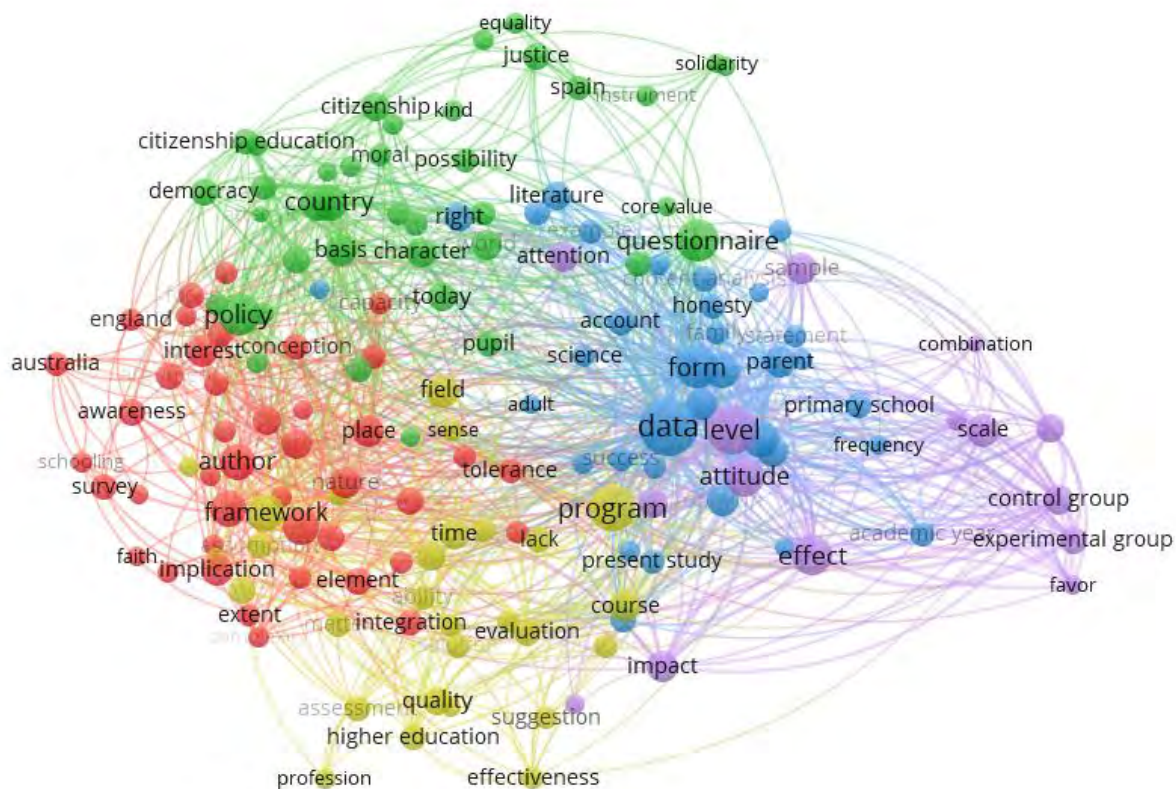
Figure 11. The most used words in the abstract section

Table 4. The most used words in the abstract

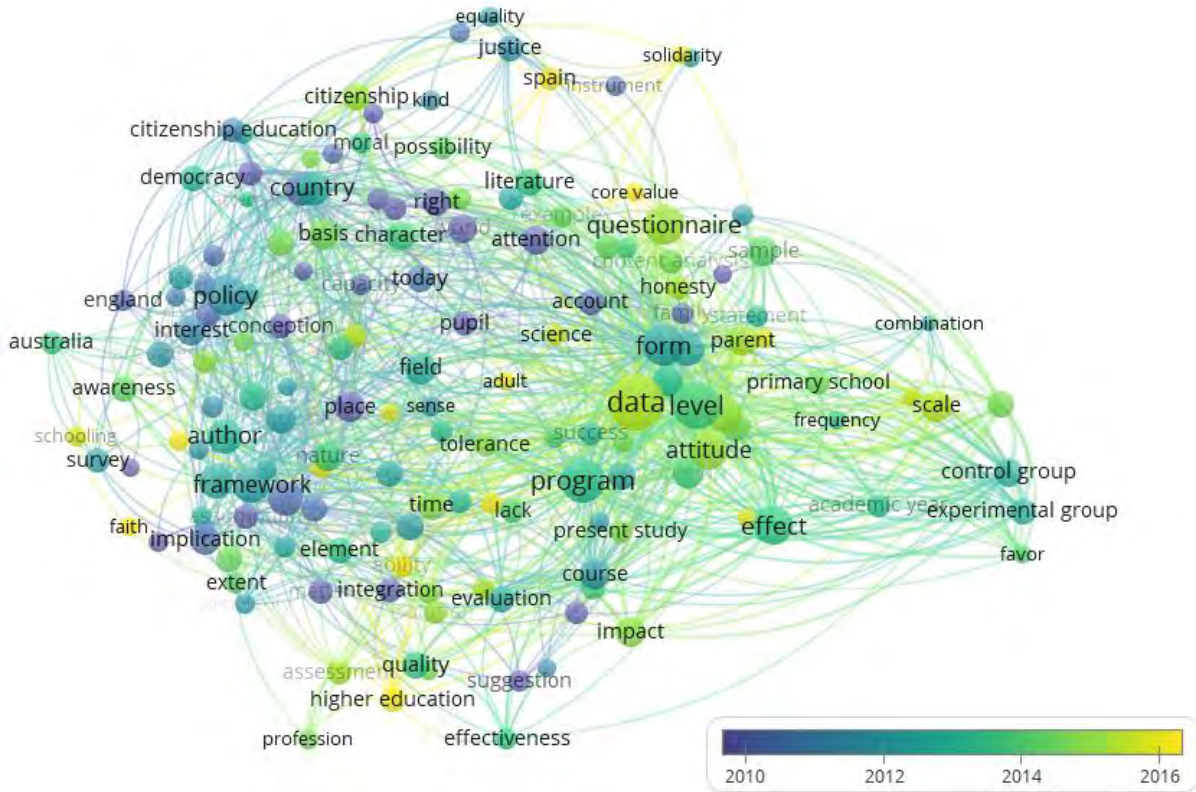| Keywords	f	Keywords	f
Data	48	Effect	22
Level	32	Country	20
Program	29	Attitude	20
Policy	26	Framework	19
Form	25	Participant	19
Questionnaire	24		

Figure 12. The distribution of the most used words in the abstract section by years

4. Conclusion, Discussion, and Suggestions

Throughout this study, 254 values education-related articles were attained and analyzed by VOS viewer software via bibliometric analysis. Bibliometric analysis is utilized to investigate the coded bibliographic information in scientific databases, trends in publication and citing records, the contribution of authors, institutions and countries

to the growth of the literature, and the scientific collaborative networks among them, and the distribution of publications among journals (Andres, 2009). During this research, articles about values education were bibliometrically analyzed in terms of different variables.

In this sense, when examining the articles' publishing languages it is noted that the articles were mostly written in English (f = 219). Most of the languages in the article, 86 % are in English. The large majority of the articles can be assumed to be in English since English is recognized as an international language of research and academic publishing (Bocanegra-Valle, 2014). Taking into consideration the distribution of years of the articles covered by the study, it is found that they were published at most in 2019 (f = 31). While the first articles retrieved from the database were published in 1970, it can be seen that in recent years, the studies have increased. Studies on values education were found to be rising (Öztürk & Kafadar, 2019).

It seems that when we look at the most used keywords for values education, values education (f = 85), values (f = 42), education (f = 13), moral education (f = 13), ethics (f = 12), citizenship (f = 7) are used. Education to value is a term used to reflect moral education, civic education, and citizenship education (Thornberg, 2014). Throughout the field of value education, on the other hand, four main movements emerged: values realization, character education, citizenship education, moral education (Kirschenbaum, 1995). Furthermore, by different terms such as Moral Education, Character Education, and Ethics Education, Values Education is recognized globally (Lovat & Toomey, 2009). These explain to us the reason behind the most used keywords in values education articles. It is noteworthy that the keywords most used are linked to values education. When choosing keywords, they will be related to both the article's content and its field or sub-fields (Springer, 2020).

In the scope of the study, based on the results of citation analyses, the most cited authors are Thornberg (Documents=4, Citations=122), Lovat (Documents=10, Citations=113) and Clement (Documents=4, Citations=64). Based on the results of the co-citation of most-cited authors, they are Lovat (Citations=113), Thornberg (Citations=54), and Kohlberg (Citations=51). In other terms, it can be stated that Thornberg and Lovat are leading writers in values education according to the results of both citation and co-citation analysis. The Journal of Moral Education happens to be the leader according to both the citation analysis and the co-citation analysis for the most cited journals. It can be argued for this article that it has a significant academic position in terms of values education. The most cited organizations are University of Newcastle (Citations = 182, Documents = 13), Linköping University (Citations = 138, Documents = 5), and Bar-Ilan University (Citations = 75, Documents = 5). This is considered that the reason these organizations come to the fore in values education is because of the presence of faculty members working in this field.

It can be said that the bibliometric studies are crucial for the researchers conducting research in the related literature to acquire a basic framework for values education. Bibliometric analysis is an approach to investigate publication data in certain scientific categories or scientific communities belonging to a country or region (Ivanović & Ho,

2019). Considering the findings of the analysis, it is shown that around 29% of all articles in the database are in the United States, which is the most cited country. By comparison, Turkey accounts for about 17% in all publications. Within the framework of the study, the United States, Australia, England constitute around 59% of the countries listed. On the other hand, in terms of publications, Turkey, Australia, Spain, and England form 56% of the countries within the scope of the study. These countries may be seen to be pioneers in the matter of values education relevant to publication and citation. This could be attributed to many factors. Firstly, these countries have large publishing firms (e.g., UK-based Sage and Routledge) (Mongeon & Paul-Hus, 2016). Second, countries such as the United States and England have a long past in academic publishing and have sources of research than small or developing countries (Mongeon & Paul-Hus, 2016). In their study, Ivanović and Ho (2019) studied 2019's highly cited journal articles published in the Web of Science category of Education and Educational Research in the SSCI. They claimed that the USA, its institutions, and journals are supreme leaders in the category of Education and Educational Research according to the study findings. In this study, it can be said that similar results are obtained in the field of values education. Suggestions regarding the study findings are listed below:

- Thanks to the findings obtained in this study, while the related researchers obtain an overview of this field, this subject can be investigated in greater detail with the different databases and analyzes applicable to this field.
- In the results of the findings obtained from the bibliometric analysis of this study concerning the values education, it can be a guide for the related researchers for their studies in the future. For instance, they can get details about existing trends in the field by examining the distribution of the most used keywords by years, or they can plan their work accordingly.

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