




# European Journal of Educational Research


Volume 11, Issue 1, 557 - 571.

ISSN: 2165-8714

<http://www.eu-jer.com/>

## A Decade of Value Education Model: A Bibliometric Study of Scopus Database in 2011-2020

**Udin Supriadi**   
Universitas Pendidikan  
Indonesia, INDONESIA

**Tedi Supriyadi**   
Universitas Pendidikan  
Indonesia, INDONESIA

**Aam Abdussalam**   
Universitas Pendidikan  
Indonesia, INDONESIA

**Aam Ali Rahman**   
Universitas Pendidikan  
Indonesia, INDONESIA

*Received: September 23, 2021 • Revised: November 17, 2021 • Accepted: December 19, 2021*

**Abstract:** This bibliometric study aims to map the value education model research to provide direction for future research, especially in education and teaching. It is essential because value is the core of education. After all, in addition to opening the window of knowledge, education also has a role in transferring values for internalizing them in the education model. Therefore, conducting studies related to the concept and model of value education is essential for an educator. The focus of this study is to examine the bibliography related to the value education model based on the Scopus database in the period 2011-2020. This research took four stages; first: using Publish or Perish application to search articles from Scopus database. Second, performing filter by setting bibliographic criteria to be analyzed. Third, checking and completing articles' metadata through the EndNote reference manager application. Fourth, perform bibliometric analysis through the VOSviewer application. Through these four stages, seven analyses were explored; the trend of publications related to the value education model, analysis of the keywords used, collaboration of authors, citation patterns, institutions, and countries that were contributors to the study of the value education model, and abstract analysis. The results of this exploration conclude that there is a tendency for academics to pay less attention to the value education model when viewed from the number of publications related to the topic. The contribution of this research can be expected to provide direction for other researchers in conducting research and development related to educational models.

**Keywords:** *Bibliometric, educational model, value education, VOSviewer.*

**To cite this article:** Supriadi, U., Supriyadi, T., Abdussalam, A., & Rahman, A. A. (2022). A decade of value education model: A bibliometric study of Scopus database in 2011-2020. *European Journal of Educational Research*, 11(1), 557-571. <https://doi.org/10.12973/eu-jer.11.1.557>

### Introduction

The astonishing changes in the 21st century, with various technological advances, impact human life changes, including the education system (Zaqiah & Rusdiana, 2014). One indication the education system is marked by a paradigm shift in the educational process that places more emphasis on head-start (IQ intelligence) rather than heart-start (emotional intelligence) (Megawangi, 2004, 2009). The head-start paradigm tends to emphasize that students "have to master all given knowledge". Cases such as antisocial, personality disorder, learning disability were born from a head-start education paradigm (Megawangi, 2009, p. 37). In other words, the head-start paradigm can trigger the growth of value problems in students, and one of the efforts that need to be made to solve these problems is to strengthen value education which tends to be marginalized in today's educational practice. Efforts to strengthen value education indicate the importance of a model in implementing value education (Harahap & Isya, 2020).

At the conceptual level, value education is a concept that includes the whole concept of moral education, citizenship education, character education, or ethical education (see: Johansson et al., 2016; Lovat et al., 2010; Taylor, 2006; Thornberg, 2016). Value education is important to be explored in educational practice because values are the core of education, both in theory and practical activities (Halstead & Taylor, 1995), because education is not only a transfer of knowledge but also a transfer of values (Supriyadi, Julia et al., 2020). Even Philips Combs' expression, as Harahap and Isya (2020) quoted, "value education or not all," which actually emphasizes the importance of value education. It implies that there is no need for education if there is no value education in it. Therefore, although education tends to lean toward computerized material, which is considered effective (Rahman & Angraeni, 2020; Rahman et al., 2020), value education's needs are inevitable.

---

**\* Corresponding author:**

Udin Supriadi, Universitas Pendidikan Indonesia, Bandung-Indonesia. ✉ [udinsupriadi@upi.edu](mailto:udinsupriadi@upi.edu)



The marginalization of value education in the learning process cannot be separated from the role of educator professionalism in developing values-based learning and his commitment to achieving educational goals for the whole human beings who have not only intellectually but also emotionally and spiritually intelligent (Sauri, 2010, 2018; Sumantri & Sauri, 2006). In other words, educators are required to seek various studies in order to increase literacy skills, which are expected to be applied in researching, proposing, or discussing professional teacher learning models (Avalos, 2011; Castle, 2006; Girvan et al., 2016; Nisbet & Shucksmith, 2017). It also indicates that there is a need for discussion on teacher change as a form of learning in developing and applying teaching theory and practice (Clarke & Hollingsworth, 2002; Penlington, 2008). It indicates the significance to develop learning models based on value education through research activities.

As a first step to carry out research activities, a researcher must know the development of research related to the value education model. One of the efforts to find out the development of these researches can be done through bibliometric studies. Bibliometric studies seek to obtain information related to the development of research results in certain fields by utilizing information from published bibliographies, including title, author, affiliation, keywords, abstract, number of citations, etc. (Julia, Supriatna, Isrokatun, Aisyah, Nuryani & Odebode, 2020). Through this bibliometric study information related to research developments can be obtained, stimulating other researchers in planning further research (Julia, Dolifah, et al., 2020; Julia, Supriatna, Isrokatun, Aisyah, Nuryani, and Odebode, 2020). Julia, Supriatna, Isrokatun, Aisyah, Hakim, and Odebode, (2020) and Muhtar et al. (2021) described that the results of bibliometric studies provide information regarding the direction of research for other researchers.

Thus, this research is driven to conduct a bibliometric study related to the value education model in Scopus indexed journals. This research's contribution in an academic manner is to provide input for academics and practitioners regarding the publication trend of the value education model and practically provide direction for researchers in carrying out research related to the development of a value education model. This bibliometric study is focused on examining the literature regarding the model of value education in the last decade (2011-2020). Therefore, this study seeks to explore the following:

- Q1: What is the publication trend regarding the value education model in 2011-2020?
- Q2: What keywords are often used in value education model research in 2011-2020?
- Q3: What is the author's collaboration pattern in the value education model research in 2011-2020?
- Q4: What are the citation patterns in the value education model research in 2011-2020?
- Q5: What is the institutional collaboration pattern related to value education model research in 2011-2020?
- Q6: What terms are often used in abstracts in value education model research in 2011-2020?
- Q7: Which countries contributed the most to Value Education research in 2011-2020?

### **Literature Review**

At the conceptual level, bibliometrics is a method that uses mathematics and statistics on books and other communication media (Tupan et al., 2018). Several terms appear about mathematical models or metrics in the literature with different concentrations. The terms are bibliometrics, scientometrics and informetrics (Hood & Wilson, 2001). The three terms are used as a methodology with the same concept, but the three descriptions have differences. Bibliometrics is a study using literature as research subjects (Tupan et al., 2018) or analysis carried out systematically on scientific journals and other publications both in printed and non-printed versions (Harande, 2001). Scientometrics is a quantitative method in the published literature to visualize or map scientific disciplines (Hook & Porter, 2021).

Meanwhile, informetrics is a quantitative-based study of information related to production, storage, retrieval, dissemination, and utilization. Informetrics is carried out to explore the amount of data in the literature collection to conduct a review (Siluo & Qingli, 2017). Those methodologies tend a scientific discipline, bibliometrics in the field of library science, scientometrics in the field of science, and informetrics in the field of information science (Siluo & Qingli, 2017) however, the three methods have the same concept in the methods applied, indicators, and objectives (Fang et al., 2017).

Based on the basic concepts mentioned above, bibliometric studies become a reference in the context of this research because bibliometrics is a methodology that plays a role in evaluating research on various works of literature that have been produced (Ellegaard & Wallin, 2015) or also known as a literature review method that summarizes and evaluates a collection of writings on a particular topic (Knopf, 2006) which in this study is related to the value education model. The benefits of bibliometric studies include being able to produce a mapping of fields of science; track or trace the development of new knowledge in a particular field, and is an indicator of the future in providing a more competitive advantage as well as in making strategic plans (Tupan et al., 2018). As for the indicators of the bibliometric study, according to Devos (2011), calculated using a certain period, for example, 3-5 years using two approaches, namely the

number of publications as a parameter of research products related to a particular topic and citations as a parameter of the impact of an article produced.

Various studies in education have succeeded in empowering the bibliometric method (e.g., Hallinger & Wang, 2020; Hashim et al., 2018; Hernández-Torrano & Ibrayeva, 2020). However, bibliometric studies with the topic of value education models are something new. The topics relevant to the concept of value education, such as moral education, have been carried out by Julia, Supriatna, Isrokatun, Aisyah, Nuryani, and Odebode (2020). He analysed moral education studies published in reputable international journals during 2010-2019 through bibliometric studies. His research concludes that research on moral education has spread in many countries, and the country that contributes the most to this study is America, although cooperation between institutions or countries is still lacking. Redondo et al. (2017) conducted bibliometric studies on journalism ethics education, and deontology Spanish indexed scientific journals. The study identified little interest from Spanish researchers and universities in this topic. The research gaps detected around the new ethical dilemmas highlight the need to intensify the academic debate about the subject's importance in the curriculum and the adaptation of the subject to the digital environment. Poje and Zaman Groff (2021) studied the topic of ethics education in accounting. Through a bibliometric study that analyzed 134 articles from 1991-2020, the research provides a comprehensive overview of ethics education in accounting and contributes to future research related to the topic, especially in implementing ethics education in accounting more effectively and efficiently. It also highlights that the trend of publications on the topic of ethics education in accounting has increased after the corporate scandals at the turn of the century.

The issues raised by the three researchers above highlight two things: moral education and ethical education. They are part of value education, while two other concepts, character education and citizenship, have not been studied. The research also did not focus on the educational models of the two issues raised by both moral education and ethical education. Thus, the presentation of a bibliometric study of the value education model will provide a more comprehensive meaning related to moral, ethical, character, and citizenship education issues. Therefore, it is different from previous studies. This bibliometric study focuses on analysing the value education model published in indexed Scopus journals. By analysing bibliometric studies on the value education model, information is produced regarding the trend of publication of the value education model and in what field of education this value education model has been developed or has not been developed.

### Methodology

Four stages were taken to achieve the research objectives in conducting a bibliometric study related to the value education model. The four stages refer to the bibliometric study conducted by Julia, Supriatna, Isrokatun, Aisyah, Nuryani, and Odebode (2020) in a moral education study. The stages can be described as in Figure 1:

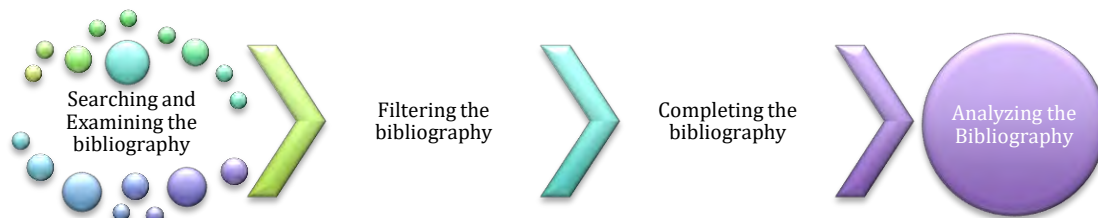


Figure 1. Bibliometric Research Design

#### Searching and Examining the Bibliography

The Scopus database was used in tracing articles related to the value education model in this study. Scopus is the largest database that provides various citations or peer reviews from many disciplines and various forms of writing, both academic and non-academic (Salisbury, 2009; Shareefa & Moosa, 2020). Scopus has the advantage of loading sources 70% greater than WoS (López-Illescas et al., 2008). Besides, Indonesia's trend tends that researchers who have publications in Scopus-indexed journals are categorized to have good competence in conducting research. (Santosa & Agung, 2017).

In searching for literature sources on the Scopus database, four criteria were set. First, the bibliography taken for analysis is only in the form of a journal. Second, the keywords and titles used in searching for these journals are limited to 3 words: Model, Values, and Education. Last, bibliographical searches are limited to the last ten years in the 2011-2020 timeframe conducted in mid-Jun 2021.

To assist the process of conducting bibliographic searches in the Scopus database, the Publish or Perish (PoP) program was employed. The process of searching in the PoP application is presented in Figure 2.

The screenshot shows the Scopus search interface. At the top, it says 'Scopus search' and 'How to search with Scopus'. Below this, there are several input fields and buttons. The 'Authors' field is empty. The 'Years' field is set to '2011 - 2020'. The 'Affiliations' field is empty. The 'Publication name' field is empty, and the 'ISSN' field is also empty. The 'Title words' field contains 'values education model'. The 'Keywords' field also contains 'values education model'. On the right side, there are buttons for 'Search', 'Search Direct', 'Clear All', 'Revert', and 'New' (with a dropdown arrow).

Figure 2. Three Keywords Searching Process

Regarding the limit of PoP (displaying only 200 bibliographies for each search) to ensure that the search for a journal in the 2011-2020 period is fully covered, the search process was carried out every year first. Then, bi-annually and repeated. As for searching by entering three words Values Education Model in the title and keywords in the PoP application can be done with one search. A total of 54 Bibliographies are generated—the search results from the PoP is shown in Figure 3.

Results	Help
Publication years:	2011-2020
Citation years:	10 (2011-2021)
Papers:	54
Citations:	430
Cites/year:	43.00
Cites/paper:	7.96
Authors/paper:	1.00
h-index:	8
g-index:	19
hI,norm:	8
hI,annual:	0.80
hA-index:	3
Papers with ACC >= 1,2,5,10,20:	22,8,3,2,1

Figure 3. Bibliography Searching Result

The bibliographic search results are then stored in the reference manager application. The reference manager software is used to store bibliography search results from PoP using EndNote X9. The bibliography stored in the EndNote X9 application then checks and completes the metadata.

#### Filtering the Bibliography

After the storage and inspection processes were carried out, the EndNote X9 application's bibliographies were selected and sorted first. Several criteria are determined in the bibliographic selection and sorting: 1) Having a value education model context 2). Using the English language. 3). Only articles published in Scopus-indexed journals with complete metadata such as Author, Author Affiliation, Abstract, and Keywords.

Each bibliography included or excluded from the bibliometric analysis procedure was rechecked during the filtering phase by tracing it into the Scopus database, taken from the PoP application. The selected bibliography is only in the form of a journal article. In the PoP application, if some of the bibliography found are proceedings, corrigendum, notes, editorials, reviews, book sections, or articles without abstracts, keywords, and affiliations, they are not included as data in the analysis.

Of the 54 bibliographies produced in the first stage, 42 were selected according to predetermined criteria after filtering. It means twelve bibliographies do not match the criteria. Its bibliographical discrepancy is because eight articles are not journals, and four articles do not include keywords. The results of the filtering are shown in Table 1 below:

*Table 1. Bibliography Selection Result*

<b>Year</b>	<b>Include</b>	<b>Exclude</b>	<b>Total</b>
2011	1	1	2
2012	1	0	1
2013	6	1	7
2014	3	2	5
2015	5	2	7
2016	5	2	7
2017	4	1	5
2018	6	1	7
2019	4	0	4
2020	7	2	9
<b>Total</b>	<b>42</b>	<b>12</b>	<b>54</b>

The excluded bibliographies were then deleted from the data stored in the EndNote X9 application. It can be seen from Table 1; 12 bibliographies were deleted in the EndNote X9 application because they did not match the criteria.

#### *Completing Bibliography Data*

A total of 42 Bibliographies were examined to ensure the completeness of the metadata. It includes the author's name, article title, author keywords, abstract, year, volume, issue number, page, affiliation, country, and publisher checking process through Scopus data sources. It was done because the extraction results from the PoP application sometimes do not provide complete metadata information. After the data was completed, the bibliometric analysis was performed.

#### *Analyzing the Bibliography*

The bibliographic analysis was focused on six aspects as research questions in the introduction: 1. Analyzing publication trends related to the value education model 2. Analyzing the keywords used by the author as it is considered necessary in the topic being studied as well as being used as a search guide by information seekers that complete and related information can be found at designated sources (Lestari, 2012). 3. Analyzing collaboration patterns among authors 4. Analyzing the most cited articles, 5. Analyzing institutional collaboration patterns, and 6. Analyzing the ranking of the top 10 countries that have contributed to the value education model research. VOSviewer software was used to analyze keywords, abstracts, authors, and their affiliates. VOSviewer software can help researchers carry out bibliometric analysis and visualize the bibliometric analysis results (Akbari et al., 2020; Ezugwu et al., 2021; Hudha et al., 2020; Martínez-López et al., 2020; Shukla et al., 2020). It works comprehensively with an extensive index of information and can provide various exciting visuals, checks, and investigations (Van Eck & Waltman, 2013, 2014). That is why the VOSviewer is the right choice in carrying out the analysis process in this study.

## **Results**

#### *The Analysis of Value Education Publication Trend 2011-2020*

Figure 4 shows that the published articles on values education from 2011-2020 totaled 42 articles. Publication trends show a steady up and down pattern. The rising pattern occurred in 2012-2013, 2014-2015, 2017-2018, 2019-2020. The downward pattern occurred in 2013-2014, 2016-2017, 2018-2019. Meanwhile, there is a permanent or horizontal pattern in 2011-2012, 2015-2016. When viewed from the 2011-2020 period, the least number of publications that study the values education model occurred in 2011 and 2012, while most publications occurred in 2020. Thus, the trend of publications related to the values education model tends to increase in 2011-2020, although the increase is not yet significant.



Figure 4. Publication Trend

*The Analysis of Title and Abstract in Value Education Model 2011-2020*

A total of 1381 terms, with a minimum number of occurrences of 13 terms, found thirteen strongly related results. Figure 5 and Table 2 show the abstract terms in the Values Education Model article widely used by the authors. In the version of network visualization, it can be inferred that the most widely used terms include: Approach, Educational Value, Model, Physical Education, Student, College Student, Development, Education, Research, Higher Education, Relationship, Study, and Value.

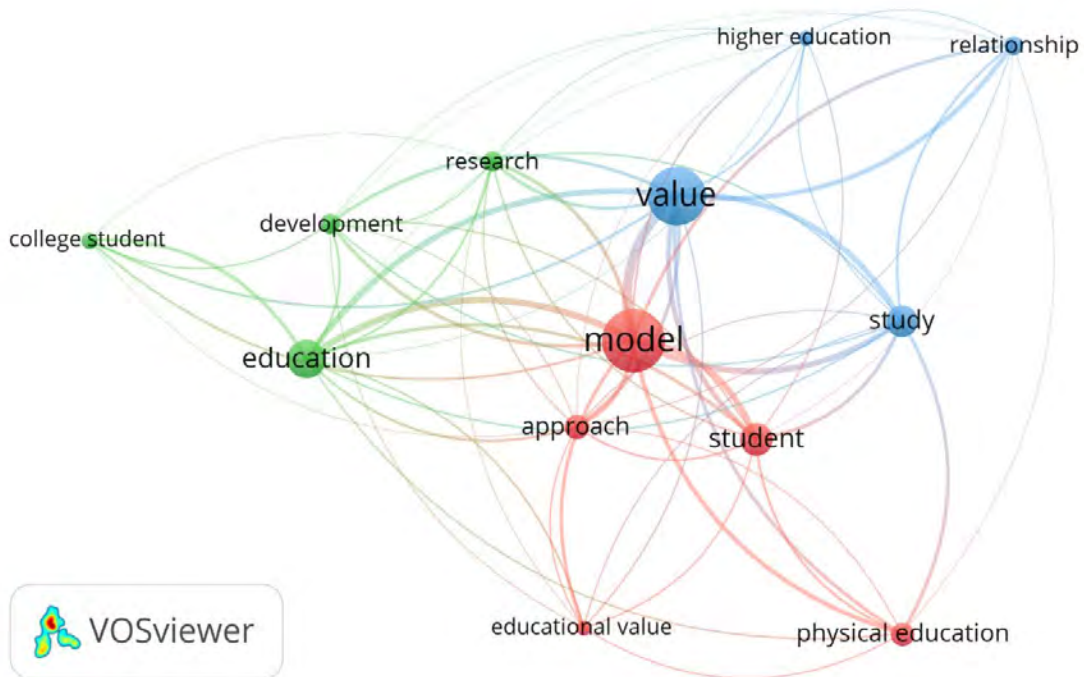


Figure 5. The Network of the Most Used Terms Values Education Model Articles

Table 2. The Most Used Abstract Terms in Values Education Model Articles

Cluster	Items	Occurrences	Link	Total Link Strength
Red	Approach	24	12	250
	Educational Value	10	9	148
	Model	150	12	1422
	Physical Education	22	8	264
	Student	44	11	514
Green	College Student	11	6	143
	Development	14	11	216
	Education	57	12	633
	Research	17	11	216
Blue	Higher Education	10	9	86
	Relationship	14	10	218
	Study	41	11	539
	Value	133	12	1253

The Analysis of Keyword in Value Education Model 2011-2020

The author's 187 keywords were analysed using a single minimum incidence rate, and thirty keywords with strong linkages were developed as a result of this analysis. Table 3 summarizes the clustering of author keywords by clusters and item count. The author keywords are depicted in Figure 6 in the network visualization version. This result is accomplished by estimating the keyword pairs' co-occurrences (Hudha et al., 2020; Li et al., 2017; Van Eck & Waltman, 2013, 2017). A keyword analysis is essential because keywords represent the article's content and have a significant role in the information retrieval process (Grant, 2010).

Table 3. Clustering Keywords.

Cluster	Color	Number of Items	Keywords
1	Red	6	Athletic (1); Competence (1); Enthusiasm (1); Literacy (1); Sport Education (2); Student-Centered Teaching (1)
2	Green	6	Cardiovascular Fitness (1); Elementary School (1); Engagement (1); Middle School (1); Motivation (2); Physical Activity (2)
3	Dark Blue	5	Character Values (1); Cooperation (1); Discipline (1); Hard Work (1); Learning Models (1)
4	Yellow	4	Digital Age (1); Identity (1); Values Compass (1); Values Fluency Education (1).
5	Purple	3	Educational Value (1); Model-Based Practice (1); Physical Literacy (1)
6	Light Blue	3	Health Culture (1); Health Values and Motivation (1); Physical Education (5)
7	Orange	3	The Achievement Goal Theory (1); The Expectancy-Value Theory (1); The Hierarchical Model of Motivation (1)

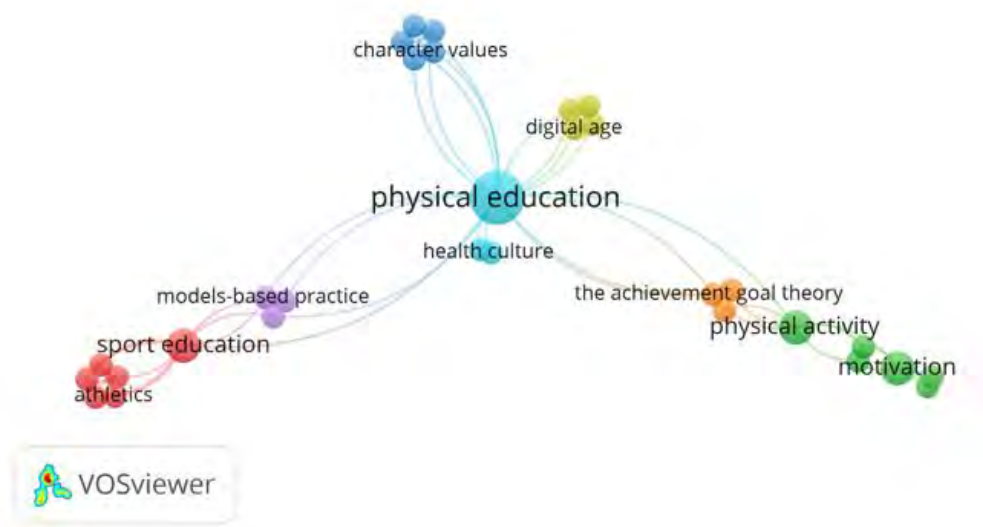


Figure 6. Network Visualization of Keywords

*The Analysis of Citation Trend on Value Education Model 2011-2020*

Figure 7 shows 347 citations for articles related to the Values Education Model from 2011-2020. The quote pattern shows six times falling pattern and three times rising pattern. The downward pattern occurred in 2011-2012, 2013-2014, 2014-2015, 2016-2017, 2018-2019, and 2019-2020. Meanwhile, the increasing pattern occurred in 2012-2013, 2015-2016, and 2017-2018. Based on the range of years that occurred, the highest citations were in 2013, and the least citations were in 2020.

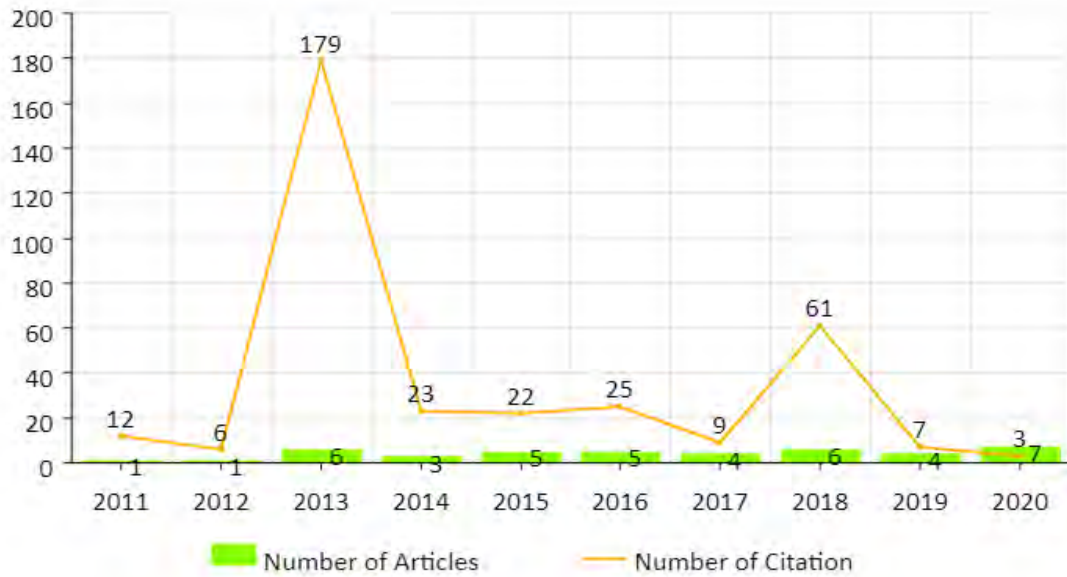


Figure 7. Number of Citations per Year

*The Analysis of Authors' Collaboration in Value Education Model 2011-2020*

Of the 103 writers, eight authors have strong collaboration. As shown in Figure 8 and Table 4, the VOSviewer analysis results found only one cluster where between authors had 28 links.

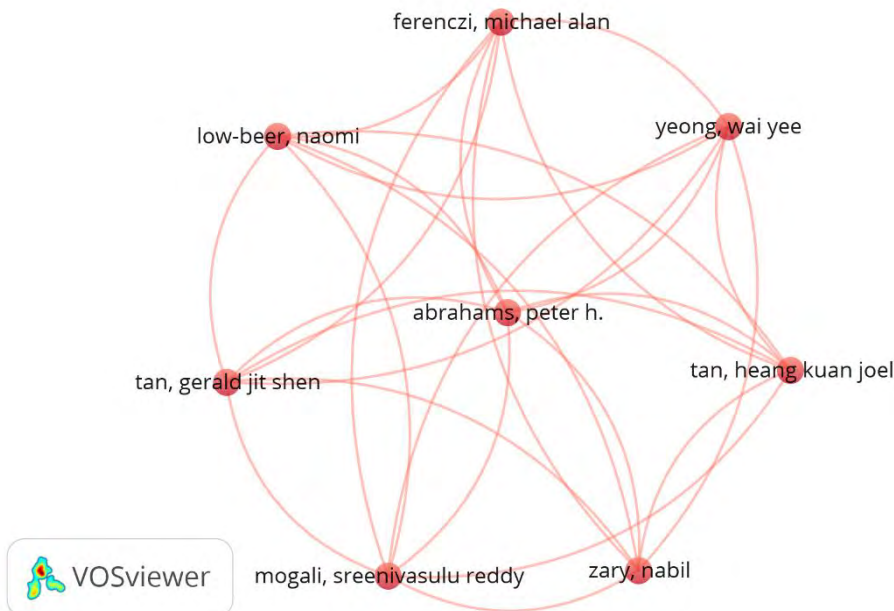


Figure 8. Network Visualization of Author Collaboration

Figure 8 above shows a cluster with eight authors who have a strong link in collaboration between authors on a document related to the value education model. The network of the eight authors in one document can be seen in a matrix in table 4 below:



Table 4. Number of the Link of Author Collaboration

Authors	Number of Document	Number of Links
Abrahams, Peter h.	1	7
Ferenczi, Michael Alan	1	7
Low-beer, Naomi	1	7
Mogali, Sreenivasulu Reddy	1	7
Tan, Gerald jit Shen	1	7
Tan, Heang Kuan Joel	1	7
Yeong, Wai Yee	1	7

#### The Analysis of Institution Collaboration in Value Education Model 2011-2020

Of the 58 institutions that studied the values education model, only three institutions showed a strong association, as shown in Figure 9. The three institutions are Canterbury Christ Church University, Nottingham Trent University, University of London.

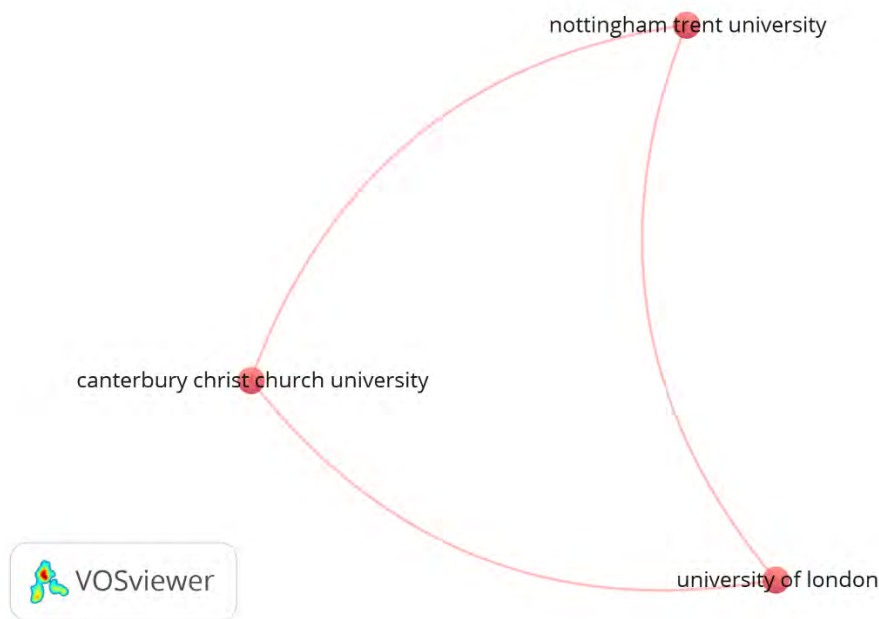


Figure 9. Collaboration of Institution

#### The Analysis of Country Statistics in Value Education Model 2011-2020

Table 5 shows a list of countries with the most published articles on the Values Education Model indexed by Scopus. Indonesia is in the first place, followed by the United States and the Russian Federation. Figure 10 shows the authors' countries distribution who published Values Education Model articles in Scopus. The author's location is determined using information from the author's affiliation. GPS Visualizer (gpsvisualizer.com) was used to convert the addresses to coordinates, and then the coordinates were extracted using Map Maker (maps.co). The distribution of authors in Figure 10 is based on geographic categories generated from Map Maker.

Table 5. Top Ten Countries that Have Published the Most Articles on Values Education Model

Country	Number of Authors
Indonesia	23
The United States	10
Russian Federation	8
Singapore	8
Portugal	7
United Kingdom	6
China	5
Malaysia	5
Japan	3
Netherlands	3

Based on table 5 above, there are ten countries and the number of authors involved in publishing articles on value education models. The ten countries are included in the top 10, with 78 authors from 25 countries with 103 authors. The distribution of all authors related to the topic of value education models from various cities in various countries can be visualized as shown in Figure 10 below:



Figure 10. Authors Distribution by City/Country Coordinate

## Discussion

The above findings explain that the trend of publications related to the value education model from 2011-2020 tends to increase. However, the rise on that period did not show a continual improvement. There is an up and down pattern over several years as shown in figure 4, and 2020 was the year that published the highest number of articles, up to 7 articles. Moreover, Publication trends also indicate developments in authors' direction and interests in the areas they are engaged in (Drysdale et al., 2013; Halverson et al., 2012; McDonough et al., 2017). Based on these findings, although the trend of publications shows an increase in the articles number produced each year, it indicates that research productivity and interest of researchers in various countries regarding the value education model is still very limited. It is based on the average number of articles published in Scopus indexed journals, only four articles per year. This fact further strengthens the assumption that educational practices focus on strengthening the cognitive and psychomotor domains rather than effectively. This is in line with the view of Megawangi (2009) more focused on head-start than heart-start. Substantially education is an effort to build a complete human being, both for intelligence and skill and has positive attitudes and behaviour towards oneself and others. The parameter of the educational process is the presence of essential values in the educational process. These essential values, according to Phenix (1964) includes six essential values: symbolics, empiricals, esthetics, synnoetics, ethics and synoptics, (knowledge, feelings, art, social ethics, economics, technical and spiritual) and the transformation process of these values requires a model (Lickona, 2009), value education model (Harahap & Isya, 2020). It is a good reason why value education is the spirit of education itself (Fakhrudin, 2014).

Furthermore, the title and abstract search results found 13 terms often used by authors: approach, educational value, model, physical education, student, college student, development, education, research, higher education, relationship, study, and value. It indicates that the value education model in the 2011-2020 publication shows a strong tendency to be integrated into physical education in universities. It also means that the value education model has attracted much interest from researchers with physical education backgrounds. However, researchers with the same scientific background have not jumped to primary and secondary education. As for topics other than physical education indicate a tendency not yet firmly integrated with value education published in the Scopus database. There are several possibilities for developing the study of value education models in physical education apart from a large number of publication media within the scope of physical education. Another possibility is the many character issues that occur in physical education identified with sport match competitions (Maksum, 2017). The spotlight on these character problems is often the motivation of researchers in carrying out their research. In addition, the motivation of the researchers to develop a value education model is based on efforts to scientifically prove a jargon of sports-build-character that has been deeply rooted as an educational ideology in the community (Muhtar et al., 2020, 2021). However, suppose these reasons are the main factors in developing a value education model in physical education. In that case, ideally, this value education model is also developed by researchers in other fields of education such as religious education, civic education, professional ethics education and other subjects focusing on character building. Because substantially, the value problem is more related to methodological problems than content problems (Hakam, 2000, 2020).

The results of the keyword analysis also strengthen the assumptions. The discovery of 187 keywords analyzed through the VOSviewer with a minimum of 1 occurrence resulted in 30 keywords that had a strong relationship in the context of the value education model. In the visualization, in Figure 6, the context of the value education model in the Scopus database is more related to physical education, sports education, and sports activities. It indicates that research on educational topics other than physical education has not focused and leads to value education or character education. Whereas values, as previously stated, occupy an important position in the context of education. While the core of education is behavior change, this further strengthens that value education is synonymous with character education (Johansson et al., 2016; Lovat et al., 2010; Taylor, 2006; Thornberg, 2016)

Further, citations are essential in publication because they are seen as the markers of their impact (Arbaugh & Hwang, 2015; Cortés-Sánchez, 2020; Walter & Ribièrè, 2013). The pattern of citation associated with the value education model shows an up and down pattern: starting with six citations in 2011 and ending with three citations in 2020. The highest number of citations occurred in 2013, with 179 citations. The most quoted article in 2013 was David Kirk's article entitled "Educational Value and Models-Based Practice in Physical Education." This article reviewed a model-based technique to address the extreme constraints of the conventional physical education method advocated. One of the problems with this technique is that it has been tried by physical educators to achieve differently and often fight for educational advantages. These broad-based goals are rarely if ever, accomplished. It shows that articles related to the value education models in physical education significantly impact other studies in the Scopus database.

Based on the analysis related to the authors who contributed to the publication of the value education model, 103 authors produced 42 articles over the last decade; however, the one with the most collaboration between authors was only one cluster consisting of 7 authors. As for the author's institution, 58 institutions contributed, but only three institutions with strong collaborations were found: Canterbury Christ Church University, Nottingham Trent University, and London. It indicates the lack of collaboration in the context of the value education model. At the same time, the collaboration between writers improves the ability, productivity of publications, and the quality of research produced (Beaver, 2001).

As for the country, 25 countries have contributed to the publication of the value education model. Of the 25 countries, there are only five countries included in the top 5 rankings with the greatest number of authors contributing to the publication of value education models: Indonesia with 23 authors, the United States with ten authors, Russia with eight authors, Singapore with eight authors and Portugal with seven authors. It indicates that the educational context in these countries has developed a value education model so that for the development of a value education model, writers among these countries need to collaborate and contribute to publications at the international level because it plays a role in enhancing the self-esteem of a country in the diplomacy form of the quality of education and science (Supriyadi, Saptani, et al., 2020)

### Conclusion

Based on the seven findings, the conclusions drawn from this study are: 1) The publication trend related to the value education model within ten years has moved towards an increase even though the increase is not quite significant. 2) The author's analysis of titles and abstracts indicates that the value education model has a strong tendency to be related to the context of physical education. 3) The analysis of the keywords used strengthens the previous statement where the dominant keywords are physical education, sports education, and physical activity. 4) points 2 and 3 have an impact on other studies in the Scopus database. It can be seen in the number of citations related to articles on physical education that received the highest citations in the 2011-2020 range 5) the author's collaboration in the value education model article does not show much collaboration. It shows only one group with eight authors, where each author was collaborating with seven other authors. 6) Fifty-eight institutions study the value education model's topic, and only three institutions show a strong association: Canterbury Christ Church University, Nottingham Trent University, University of London. 7) Countries that published the most articles on the value education model were Indonesia, followed by the United States and Russia. The seven findings mapped the direction of research related to values education models in other disciplines or subjects. It has become a new area of research and an opportunity to increase the number of publications related to the development of values education models.

### Recommendations

This study provides directions for other researchers to compile and develop scientific publications on values education models based on the conclusions. In addition, studies on this topic can still be developed to enrich bibliometric mapping related to values education models using more sources/databases, other bibliometric analysis software, and other writing types such as proceedings, review papers, and book chapters.

### Limitations

The following are the study's limitations: (1) The database is limited to Scopus articles published from 2011 and 2020, (2) VOSviewer is used to analyze bibliometrics, and (3) the bibliography is confined to the sorts of publications available in the Scopus database.

### Authorship Contribution Statement

Supriadi: Conceptualization, analysis, writing, funding. Supriyadi: Instrument research, data collection, critical revision of the manuscript. Abdussalam: Reviewing, supervision, final approval. Rahman: Translating, proofreading, critical revision of the manuscript.

### References

- Akbari, M., Khodayari, M., Danesh, M., Davari, A., & Padash, H. (2020). A bibliometric study of sustainable technology research. *Cogent Business & Management*, 7(1), 1751906. <https://doi.org/10.1080/23311975.2020.1751906>
- Arbaugh, J. B., & Hwang, A. (2015). What are the 100 most cited articles in business and management education research, and what do they tell us? *Organization Management Journal*, 12(3), 154–175. <https://doi.org/10.1080/15416518.2015.1073135>
- Avalos, B. (2011). Teacher professional development in teaching and teacher education over ten years. *Teaching and Teacher Education*, 27(1), 10–20. <https://doi.org/10.1016/j.tate.2010.08.007>
- Beaver, D. (2001). Reflections on scientific collaboration (and its study): Past, present, and future. *Scientometrics*, 52(3), 365–377. <https://doi.org/10.1023/a:1014254214337>
- Castle, K. (2006). Autonomy through pedagogical research. *Teaching and Teacher Education*, 22(8), 1094–1103. <https://doi.org/10.1016/j.tate.2006.07.001>
- Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, 18(8), 947–967. [https://doi.org/10.1016/S0742-051X\(02\)00053-7](https://doi.org/10.1016/S0742-051X(02)00053-7)
- Cortés-Sánchez, J. D. (2020). A bibliometric outlook of the most cited documents in business, management and accounting in Ibero-America. *European Research on Management and Business Economics*, 26(1), 1–8. <https://doi.org/10.1016/j.edeen.2019.12.003>
- Devos, P. (2011). Research and bibliometrics: A long history... *Clinics and Research in Hepatology and Gastroenterology*, 35(5), 336–337. <https://doi.org/10.1016/j.clinre.2011.04.008>
- Drysdale, J. S., Graham, C. R., Spring, K. J., & Halverson, L. R. (2013). An analysis of research trends in dissertations and theses studying blended learning. *The Internet and Higher Education*, 17, 90–100. <https://doi.org/10.1016/j.iheduc.2012.11.003>
- Ellegaard, O., & Wallin, J. A. (2015). The bibliometric analysis of scholarly production: How great is the impact? *Scientometrics*, 105(3), 1809–1831. <https://doi.org/10.1007/s11192-015-1645-z>
- Ezugwu, A. E., Shukla, A. K., Agbaje, M. B., Oyelade, O. N., Jose-Garcia, A., & Agushaka, J. O. (2021). Automatic clustering algorithms: a systematic review and bibliometric analysis of relevant literature. *Neural Computing and Applications*, 33(11), 6247–6306. <https://doi.org/10.1007/s00521-020-05395-4>
- Fakhrudin, A. (2014). Urgensi pendidikan nilai untuk memecahkan problematika nilai dalam konteks pendidikan persekolahan [The urgency of value education to solve the problem of values in the context of school education]. *Jurnal Pendidikan Agama Islam-Ta'lim*, 12(1), 79–96. <https://bit.ly/3e8Fb10>
- Fang, C., Zhang, J., & Qiu, W. (2017). Online classified advertising: A review and bibliometric analysis. *Scientometrics*, 113(3), 1481–1511. <https://doi.org/10.1007/s11192-017-2524-6>
- Girvan, C., Conneely, C., & Tangney, B. (2016). Extending experiential learning in teacher professional development. *Teaching and Teacher Education*, 58, 129–139. <https://doi.org/10.1016/j.tate.2016.04.009>
- Grant, M. J. (2010). Key words and their role in information retrieval. *Health Information & Libraries Journal*, 27(3), 173–175. <https://doi.org/10.1111/j.1471-1842.2010.00904.x>
- Hakam, K. A. (2000). *Pendidikan nilai* [Value education]. MKDU Press.
- Hakam, K. A. (2020). *Dinamika pewarisan dan pengembangan nilai dalam sistem persekolahan Indonesia (Pidato Pengukuhan Guru Besar Universitas Pendidikan Indonesia)* [The dynamics of inheritance and value development in the Indonesian school system (Speech on the Professor's Inauguration at Universitas Pendidikan Indonesia)]. UPI Press.
- Hallinger, P., & Wang, R. (2020). Analyzing the intellectual structure of research on simulation-based learning in management education, 1960–2019: A bibliometric review. *The International Journal of Management Education*, 18(3), 100418. <https://doi.org/10.1016/j.ijme.2020.100418>
- Halstead, J. M., & Taylor, M. J. (1995). *Values and values education in schools* (1st ed.). Falmer Press, Taylor & Francis. <https://doi.org/10.4324/9780203973554>

- Halverson, L. R., Graham, C. R., Spring, K. J., & Drysdale, J. S. (2012). An analysis of high impact scholarship and publication trends in blended learning. *Distance Education*, 33(3), 381–413. <https://doi.org/10.1080/01587919.2012.723166>
- Harahap, S., & Isya, W. (2020). Model pendidikan nilai dan karakter di sekolah [Value and character education model in schools]. *PEDADIDAKTIKA: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 7(1), 21–33. <https://ejournal.upi.edu/index.php/pedadidaktika/article/view/26326>
- Harande, Y. I. (2001). Bibliometric analysis of economic geology literature from Africa 1993-1996. *Science & Technology Libraries*, 20(4), 45–54. [https://doi.org/10.1300/J122v20n04\\_06](https://doi.org/10.1300/J122v20n04_06)
- Hashim, K. F., Rashid, A., & Atalla, S. (2018). Social media for teaching and learning within higher education institution: A bibliometric analysis of the literature (2008-2018). *International Journal of Interactive Mobile Technologies*, 12(7). <https://doi.org/10.3991/ijim.v12i7.9634>
- Hernández-Torrano, D., & Ibrayeva, L. (2020). Creativity and education: A bibliometric mapping of the research literature (1975–2019). *Thinking Skills and Creativity*, 35, 100625. <https://doi.org/10.1016/j.tsc.2019.100625>
- Hood, W. W., & Wilson, C. S. (2001). The literature of bibliometrics, scientometrics, and informetrics. *Scientometrics*, 52(2), 291–314. <https://doi.org/10.1023/A:1017919924342>
- Hook, D. W., & Porter, S. J. (2021). Scaling scientometrics: Dimensions on google big query as an infrastructure for large-scale analysis. *Frontiers in Research Metrics and Analytics*, 6, 5. <https://doi.org/10.3389/frma.2021.656233>
- Hudha, M. N., Hamidah, I., Permanasari, A., Abdullah, A. G., Rachman, I., & Matsumoto, T. (2020). Low carbon education: A review and bibliometric analysis. *European Journal of Educational Research*, 9(1), 319–329. <https://doi.org/10.12973/eu-jer.9.1.319>
- Johansson, E., Emilson, A., Röthle, M., Puroila, A.-M., Broström, S., & Einarsdóttir, J. (2016). Individual and collective rights expressed in educator and child interactions in Nordic preschools. *International Journal of Early Childhood*, 48(2), 209–224. <https://doi.org/10.1007/s13158-016-0164-2>
- Julia, J., Dolifah, D., Afrianti, N., Isrokatun, I., Soomro, K. A., Erhamwilda, E., Supriyadi, T., & Ningrum, D. (2020). Flipped classroom educational model (2010-2019): A bibliometric study. *European Journal of Educational Research*, 9(4), 1377–1392. <https://doi.org/10.12973/eu-jer.9.4.1377>
- Julia, J., Supriatna, E., Isrokatun, I., Aisyah, I., Hakim, A., & Odebode, A. A. (2020). Moral education (2010-2019): A bibliometric study (Part 2). *Universal Journal of Educational Research*, 8(7), 2954–2968. <https://doi.org/10.13189/ujer.2020.080724>
- Julia, J., Supriatna, E., Isrokatun, I., Aisyah, I., Nuryani, R., & Odebode, A. A. (2020). Moral education (2010-2019): A bibliometric study (Part 1). *Universal Journal of Educational Research*, 8(6), 2554–2568. <https://doi.org/10.13189/ujer.2020.080639>
- Kirk, D. (2013). Educational value and models-based practice in physical education. *Educational Philosophy and Theory*, 45(9), 973–986. <https://doi.org/10.1080/00131857.2013.785352>
- Knopf, J. W. (2006). Doing a literature review. *PS: Political Science & Politics*, 39(1), 127–132. <https://doi.org/10.1017/S1049096506060264>
- Lestari, W. (2012). *Pembuatan indeks kata kunci artikel jurnal ilmiah di PDII-LIPI (Pusat Dokumentasi dan Informasi Ilmiah Lembaga Ilmu Pengetahuan Indonesia)* [Making a keyword index of scientific journal articles at PDII-LIPI (Center for Scientific Documentation and Information of the Indonesian Institute of Sciences)]. UNS (Sebelas Maret University).
- Li, X., Wu, P., Shen, G. Q., Wang, X., & Teng, Y. (2017). Mapping the knowledge domains of Building Information Modeling (BIM): A bibliometric approach. *Automation in Construction*, 84, 195–206. <https://doi.org/10.1016/j.autcon.2017.09.011>
- Lickona, T. (2009). *Educating for character: How our school can teach respect and responsibility*. Bantam Books.
- López-Illescas, C., de Moya-Anegón, F., & Moed, H. F. (2008). Coverage and citation impact of oncological journals in the Web of Science and Scopus. *Journal of Informetrics*, 2(4), 304–316. <https://doi.org/10.1016/j.joi.2008.08.001>
- Lovat, T., Toomey, R., & Clement, N. (2010). *International research handbook on values education and student wellbeing* (1st ed.). Springer. <https://doi.org/10.1007/978-90-481-8675-4>
- Maksum, A. (2017). Riset karakter dalam pendidikan jasmani [Character research in physical education] [Paper presentation]. *National Seminar on Implementation of the Noble Values of Sport in Character Building through Physical Education*, Universitas Singaperbangsa Karawang, Karawang, Indonesia. Research Gate. <https://www.researchgate.net/publication/321185180>
- Martínez-López, F. J., Merigó, J. M., Gázquez-Abad, J. C., & Ruiz-Real, J. L. (2020). Industrial marketing management:

- Bibliometric overview since its foundation. *Industrial Marketing Management*, 84, 19–38. <https://doi.org/10.1016/j.indmarman.2019.07.014>
- McDonough, K., Hutchinson, S., Moore, T., & Hutchinson, J. M. S. (2017). Analysis of publication trends in ecosystem services research. *Ecosystem Services*, 25, 82–88. <https://doi.org/10.1016/j.ecoser.2017.03.022>
- Megawangi, R. (2004). *Pendidikan karakter solusi yang tepat untuk membangun bangsa* [Character education is the right solution to build the nation]. Indonesia Heritage Foundation.
- Megawangi, R. (2009). *Pendidikan karakter* [Character education]. Indonesia Heritage Foundation.
- Muhtar, T., Supriyadi, T., Lengkana, A. S., & Cukarso, S. H. I. (2021). Character education in physical education learning model: A bibliometric study on 2011-2020 scopus database. *International Journal of Human Movement and Sports Sciences*, 9(6), 1189–1203. <https://doi.org/10.13189/saj.2021.090613>
- Muhtar, T., Supriyadi, T., Lengkana, A. S., & Hanifah, S. (2020). Religious characters-based physical education learning in elementary school. *International Journal of Learning, Teaching and Educational Research*, 18(12). <https://doi.org/10.26803/ijlter.18.12.13>
- Nisbet, J., & Shucksmith, J. (2017). *Learning strategies*. Routledge. <https://doi.org/10.4324/9781315188652>
- Penlington, C. (2008). Dialogue as a catalyst for teacher change: A conceptual analysis. *Teaching and Teacher Education*, 24(5), 1304–1316. <https://doi.org/10.1016/j.tate.2007.06.004>
- Phenix, P. H. (1964). *Realms of meaning a philosophy of the curriculum for general education*. McGraw-Hill Book Company. <https://doi.org/10.1177/002248716401500325>
- Poje, T., & Zaman Groff, M. (2021). Mapping ethics education in accounting research: A bibliometric analysis. *Journal of Business Ethics*, 0123456789. <https://doi.org/10.1007/s10551-021-04846-9>
- Rahman, A. A., & Angraeni, A. (2020). Empowering learners with role-playing game for vocabulary mastery. *International Journal of Learning, Teaching and Educational Research*, 19(1), 60–73. <https://doi.org/10.26803/ijlter.19.1.4>
- Rahman, A. A., Suherman, A., Susilawati, D., & Putra, G. P. (2020). RADEC (Reading, Answering, Demonstrating, Explaining, and Creating) in LMS to teach tennis without field practicing. *Universal Journal of Educational Research*, 8(11), 5433–5442. <https://doi.org/10.13189/ujer.2020.081146>
- Redondo, M., Sánchez-García, P., & Etura, D. (2017). Research on ethics education for journalists in Spain. Bibliometric analysis and applied educational terms (2005-2015). *Revista Latina de Comunicación Social*, 72, 235. <https://doi.org/10.4185/RLCS-2017-1163>
- Salisbury, L. (2009). Web of science and scopus: A comparative review of content and searching capabilities. *The Charleston Advisor*, 11(1), 5–18. <https://bit.ly/3q8C7Za>
- Santosa, A., & Agung, I. (2017). Dinamika LPTK menuju perguruan tinggi kelas dunia (World Class University/WCU) [LPTK dynamics towards world-class universities (World Class University/WCU)]. *Perspektif Ilmu Pendidikan*, 31(1), 43–54. <https://doi.org/10.21009/PIP.311.6>
- Sauri, S. (2010). *Meretas pendidikan nilai* [Dismantling value education]. Arfino Raya.
- Sauri, S. (2018). *Konsep pendidikan umum* [General education concept]. Rizqi Press.
- Shareefa, M., & Moosa, V. (2020). The most-cited educational research publications on differentiated instruction: A bibliometric analysis. *European Journal of Educational Research*, 9(1), 331–349. <https://doi.org/10.12973/eu-jer.9.1.331>
- Shukla, N., Merigó, J. M., Lammers, T., & Miranda, L. (2020). Half a century of computer methods and programs in biomedicine: A bibliometric analysis from 1970 to 2017. *Computer Methods and Programs in Biomedicine*, 183, 105075. <https://doi.org/10.1016/j.cmpb.2019.105075>
- Siluo, Y., & Qingli, Y. (2017). Are scientometrics, informetrics, and bibliometrics different. In *ISSI2017 Conference: The 16th International Conference on Scientometrics & Informetrics* (pp. 1507–1518). Wuhan University. China. [https://www.issi-society.org/proceedings/issi\\_2017](https://www.issi-society.org/proceedings/issi_2017)
- Sumantri, E., & Sauri, S. (2006). *Konsep dasar pendidikan nilai* [Basic concepts of values education]. PT Pribumi Mekar.
- Supriyadi, T., Julia, J., Aeni, A. N., & Sumarna, E. (2020). Action research in hadith literacy: A reflection of hadith learning in the digital age. *International Journal of Learning, Teaching and Educational Research*, 19(5), 99–124. <https://doi.org/10.26803/ijlter.19.5.6>
- Supriyadi, T., Saptani, E., Rukmana, A., Suherman, A., Alif, M. N., & Rahminawati, N. (2020). Students' technological literacy to improve academic writing and publication quality. *Universal Journal of Educational Research*, 8(11B), 6022–6035.

<https://doi.org/10.13189/ujer.2020.082238>

- Taylor, M. J. (2006). The development of values through the school curriculum. In *Values education for citizens in the new century*. The Chinese University Press.
- Thornberg, R. (2016). Values education in nordic preschools: A commentary. *International Journal of Early Childhood*, 48(2), 241–257. <https://doi.org/10.1007/s13158-016-0167-z>
- Tupan, T., Rahayu, R. N., Rachmawati, R., & Rahayu, E. S. R. (2018). Analisis bibliometrik perkembangan penelitian bidang ilmu instrumentasi [Bibliometric analysis of research developments in the field of instrumentation]. *BACA: Jurnal Dokumentasi Dan Informasi*, 39(2), 135–149. <https://doi.org/10.14203/j.baca.v39i2.413>
- Van Eck, N. J., & Waltman, L. (2013). *VOSviewer manual*. Univeristeit Leiden. <https://bit.ly/3FnFUIt>
- Van Eck, N. J., & Waltman, L. (2014). Visualizing bibliometric networks. In Y. Ding, R. Rousseau, & D. Wolfram (Eds.), *Measuring scholarly impact* (pp. 285–320). Springer. [https://doi.org/10.1007/978-3-319-10377-8\\_13](https://doi.org/10.1007/978-3-319-10377-8_13)
- Van Eck, N. J., & Waltman, L. (2017). Citation-based clustering of publications using CitNetExplorer and VOSviewer. *Scientometrics*, 111(2), 1053–1070. <https://doi.org/10.1007/s11192-017-2300-7>
- Walter, C., & Ribière, V. (2013). A citation and co-citation analysis of 10 years of KM theory and practices. *Knowledge Management Research & Practice*, 11(3), 221–229. <https://doi.org/10.1057/kmrp.2013.25>
- Zaqiah, Q. Y., & Rusdiana, A. (2014). *Pendidikan nilai: Kajian teori dan praktik di Sekolah* [Values education: Theory and practice in schools]. Pustaka Setia.