

# Moral Education (2010-2019): A Bibliometric Study (Part 2)

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**Abstract** This research seeks to map several significant aspects in moral education bibliography. The mapping of moral education research that covers the country of contributors, collaborating authors, terms used in article titles and abstracts is needed to direct future research. The aim of this article is at classifying and analyzing moral education studies published in reputable international journals during 2010-2019 through a bibliometric study. This study uses the systematic and structured mind mapping method. There are four stages of the study: (1) searching for articles using the Publish or Perish application from the Scopus database, (2) filtering out articles to be included in bibliometric analysis, (3) checking and completing article metadata, and (4) conducting bibliometric analysis using the VOSviewer application. The results of the analysis were: (1) the countries of authors who publish moral education articles. Many countries have contributed in journal publications and the largest contributor is the United States. Analysis results showed that author collaboration did not occur often in moral education articles. (3) The most widely used terms in moral education article titles. The most used term is 'moral education'. (4) The most widely used abstract terms in moral education articles. The most used term in moral education articles is 'moral education'. This study concluded that the research on modal education has been spread in many countries, although the collaboration between institutions or the state is still lacking. Collaboration becomes an opportunity.

**Keywords** Moral Education, Bibliometric Analysis, Bibliographic Review, Ethics and Moral, Publish or Perish, VOSviewer, Publication Trends, Bibliographic Mapping

## 1. Introduction

In the first part of the paper, entitled Moral Education (2010-2019): A Bibliometric Study (Part 1), the authors have analyzed a moral education bibliography from aspects of publication trends, the numbers of contributed citations, journals and publishers, and the most used author keywords. In this paper, we complete the study of moral education from bibliometric analysis to provide a more comprehensive analysis and information with a focus on four other aspects, including the most contributive analysis based on the countries, author collaboration, the most used terms in the title, and the most used terms in abstracts. Therefore, this research is expected to provide broader information to emerge new possibilities in filling the gaps in the area of moral education research.

Based on the literature review, in the 1930s, the moral development of children had been researched as a means of moral education and character education in particular [1, 2]. However, there are several studies, which revealed that most of these traditional efforts did not have a significant effect on attitudes and behaviors on the effects of widely recognized best teaching practices that emphasize classroom community, intellectual autonomy of students, and high-level academic teaching [3-5]. The research on moral and social development has supported that, in addition to obtaining social standards or noble habits, moral education should consider the construction of moral and social judgments of students [6-10]. This indicates that moral concern for justice and human welfare has been formed from an early age to focus on moral education [11-16]. Other studies also show that moral development does not lead to the endpoint, e.g. nonmoral considerations are overwhelmed by moral principles [17-19]. Therefore, moral education varied approaches to prepare students in dealing with moral complexity by considering personal behavior and efforts to create a fair and compassionate community [20-22].

Based on the latest research on moral education, Dube and Cias [23] examined the resistance of the religious curriculum in Zimbabwe. They identified the challenges to the new religious curriculum and the role of the international practice of teaching religion in the curriculum in overcoming the contested terrain and improving the policy of inter-religious relations. The results revealed that the religious teaching and learning cannot be handed over to the state; instead, there must be an effort to create a policy of interreligious relations in the context of respecting differences. Religious people need to reconfigure religions in order to face the reality of community's lives.

The study was conducted by Mefodeva et al. [24] on the synthesis of spiritual and moral education through leisure activity. The results revealed that leisure activity is considered to be beneficial in forming life skills, such as fulfilling individual needs in intellectual, cultural and moral development, forming citizenships for children to improve the ability to work and survive in modern civilization, providing learning for children through the experience of generations to make them good citizens, providing equilibrium between spirituality and morality, and preserving and improving the moral, cultural, and scientific values in the community.

The research conducted by Umami, Gani and Waskito [25] proposed character and moral education for gifted young scientists in Indonesia. The results revealed that schools need to be developed as a good learning environment for shaping honest, creative, and friendly attitudes of students with national pride and dignity. In addition, this research concluded that moral education forms a holistic personality, which is indicated by the high moral standards, such as speaking, taking action, behaving, thinking, feeling, and working, with output that is in line with the religious values, norms, and morals.

Zulkifli and Hashim [26] researched the effect of Philosophy for Children (P4C) on students' critical thinking. The research employed a quasi-experimental research design involving 27 students in the experimental group and 34 students in the control group. Based on the statistical t-test on critical thinking, the experimental group obtained a higher mean in the post-test compared to the control group. This indicated that P4C were able to improve their critical thinking. The P4C practice facilitates students to think or reflect on the consequences of their actions or presumption in their discussion. Simultaneously, the teachers are able to show career development by providing new strategies with new energy and enthusiasm in the classroom.

Regardless of the abundant literature, there has not been any comprehensive bibliometric study on moral education in the last decade especially in Scopus-indexed journals. So far,

existing literature seems to ignore bibliometric maps and the clusters to view various aspects of moral education. No bibliometric study on moral education could show the changes in the characteristics of publications. Therefore, a novel bibliometric analysis is needed. The purpose of this study was to find out the general quantity of scientific publications on moral education, and to conduct a bibliometric analysis describing, for example, the characteristics of the most used term in the titles and abstracts.

This kind of investigation is considered essential, because bibliography has gained higher significance in the field of research [27-31]. Furthermore, this study is more reliable by the analysis of productivity (quantity of publication) and visibility (article citation frequency) [32-36]. The bibliometric indicators enable the analysis of the scientific production and their implication qualitatively and quantitatively [37-39]. These indicators can describe the development of research and then validate the decision-making on scientific policies [40-42].

Bibliometrics is a quantitative technique to identify the authorship pattern and the citations in an area in a certain time period. Therefore, it gives an overview into the area's dynamics [43-45]. The significance of bibliographic study review has also been reported [46-48]. From such article reviews, information can be obtained by analyzing most-cited articles and the number of times they have been cited in a field of research [49]. The research community, publishers, and policy makers are increasingly aware that the processes of evaluation are necessary, especially the bibliometric indicators derived from publications by the authors and journal editorial [50-53].

As the basic analysis of publications gaining more importance, this research's purpose is to conduct a bibliometric analysis in the moral education field, and to describe the topographies in general. This analysis of moral education articles was motivated by the fact that these articles are considered as the most popular publications providing current propensity, development, and information in the academic field. A mapping was conducted to bring forth important bibliometric facts in moral education articles to answer the following questions:

Q1: Which countries contribute the most to the publication of moral education research in 2010-2019?

Q2: What is the pattern of author collaboration in moral education research in 2010-2019?

Q3: What are the most used title terms in moral education research in 2010-2019?

Q4: What are the most used abstract terms in moral education research in 2010-2019?

Figure 1. Bibliographic Search in PoP Application

## 2. Research Methods

### 2.1. Examination Procedure

In this study, Publish or Perish (PoP) software was used to search for the bibliographic database. The database source used for the search in PoP was Scopus. Scopus was chosen, because it is a major database providing peer-reviewed publications [54]. Compared to other databases, Scopus has a larger assortment of materials [49, 55], and it has approximately 70% larger compared to WoS [49, 56]. The bibliography searches were limited to the following aspects: (1) the type of bibliography was only journals; (2) the title and author keywords were two words namely "moral education"; and (3) the year is limited to 2010-2019 (last 10 years). Since searching on the Scopus database via PoP was limited to a maximum of 200 articles in one search, the search was carried out twice, namely in 2010-2014 and in 2015-2019. The bibliographic searches were conducted in January 2020. Figure 1 presents the process of searching bibliographies in the PoP application.

The bibliography search results were saved in the EndNote X9 application and saved into a CSV file to be opened in the Excel or Numbers application. The saved files were then checked and the metadata was completed.

### 2.2. Bibliography Filter

The bibliographies to be included in bibliometric analysis were selected. The selection criteria include: (1) having the correct context of moral education; (2) using English; and (3) published by established and reputable bibliographic database publishers or providers. Every bibliography that would be included or excluded from the bibliometric analysis was examined by tracing it into its primary sources. The bibliographies chosen were only journals. Some of the bibliographies that appear in the search process in the PoP application were not selected because they were conference articles, erratum, notes, editorials, review articles, or articles that did not have abstracts.

The initial search results using PoP were 252 bibliographies. After the selection, there were 207 bibliographies. 45 bibliographies were not selected because they did not meet the criteria. Table 1 shows the number of bibliographies from each year based on the searches using the PoP application.

Table 1. Bibliography Selection Results

Publication Year	Included	Excluded	Total
2019	29	9	38
2018	29	1	30
2017	24	5	29
2016	13	2	15
2015	19	4	23
2014	23	4	27
2013	23	8	31
2012	15	3	18
2011	18	3	21
2010	14	6	20
Total	207	45	252

### 2.3. Bibliography Attributes

In analyzing the selected bibliography, the metadata were completed. The checks include author names, article titles, author keywords, abstracts, years, volumes, issue numbers, pages, affiliations, countries, number of citations, article links, and publishers. After the metadata were complete, the bibliometric analysis began.

### 2.4. Bibliometric Analysis

The bibliometric analysis was conducted on four aspects: (1) the country of the authors who published moral education articles, (2) the author collaboration in moral education articles, (3) the most widely used title terms in moral education articles, and (4) the most widely used abstract terms in moral education articles. To help conducting bibliometric analysis and visualize the results of the analysis, the VOSviewer application was used [57-59]. VOSviewer was utilized since it is efficient to use with huge sets of data and gives various interesting visuals, analysis, and investigations [60-62]. Additionally, VOSviewer can generate maps of publication, authors, or journals derived from networks of co-citation. It can also build maps of keywords from networks [58].

### 3. Results

#### 3.1. Theme 1: Analysis Based on Country

Table 2 shows 10 countries that published the most articles on moral education indexed by Scopus. The United States was in first position, followed by the United Kingdom, and the Russian Federation. Figure 2 shows the distribution of countries of authors who published moral education articles in journals indexed by Scopus. The author's location was obtained from their addresses written in the article. The addresses were converted into coordinates using GPS Visualizer ([gpsvisualizer.com](http://gpsvisualizer.com)) and the coordinates were extracted using Map Maker ([maps.co](http://maps.co)). Figure 3 shows the number of author distributions based on regional clustering which was also extracted from Map Maker.

**Table 2.** Top Ten Countries that Have Published the Most Articles on Moral Education

Country	Number of Authors
United States	77
United Kingdom	40
Russian Federation	22
Iran	19
Taiwan	18
Malaysia	13
Netherlands	13
South Africa	13
Indonesia	12
China	11



Figure 2. Author Distribution by City/Country Coordinate



Figure 3. Author Distribution by Regional Clusters

### 3.2. Theme 2: Analysis Based on Author Collaboration

Of the 412 authors, nine authors had strong associations. As shown in Figure 4 and Table 3, the author's collaboration is divided into two clusters, namely the green and red clusters. Cluster one consists of five authors and cluster two consists of four authors. Each author in cluster one has five links, while the authors in cluster two has one, two, three, and seven links. The author who has the most links is Han, H.

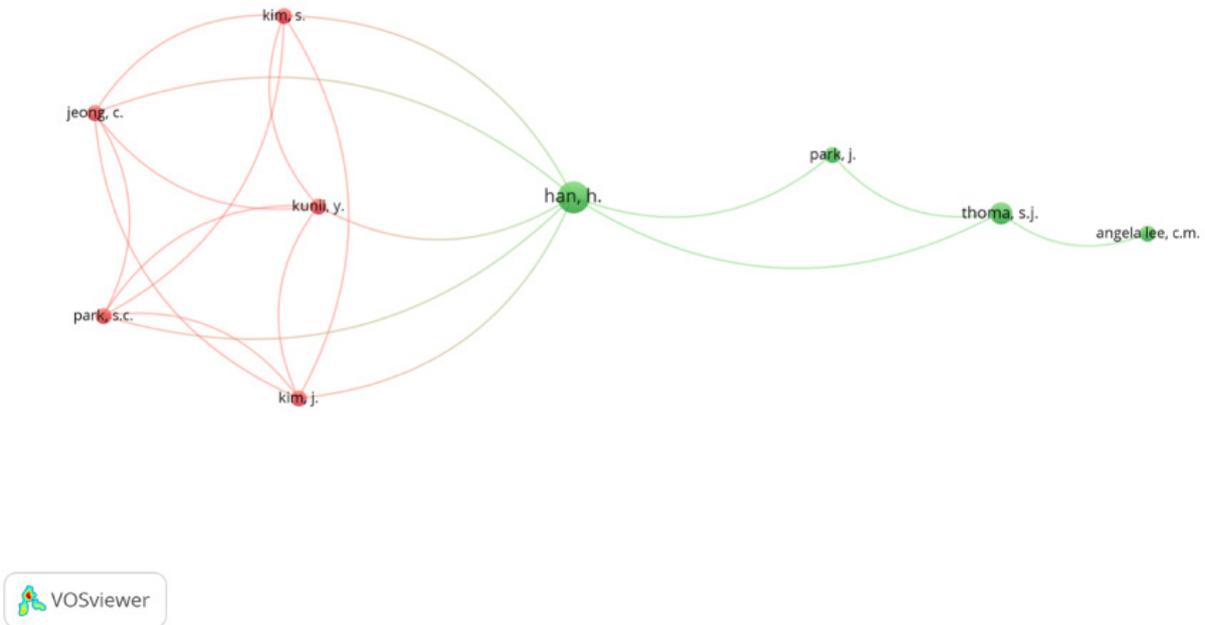


Figure 4. Network Visualization of Author Collaboration

Table 3. Author Clusterization

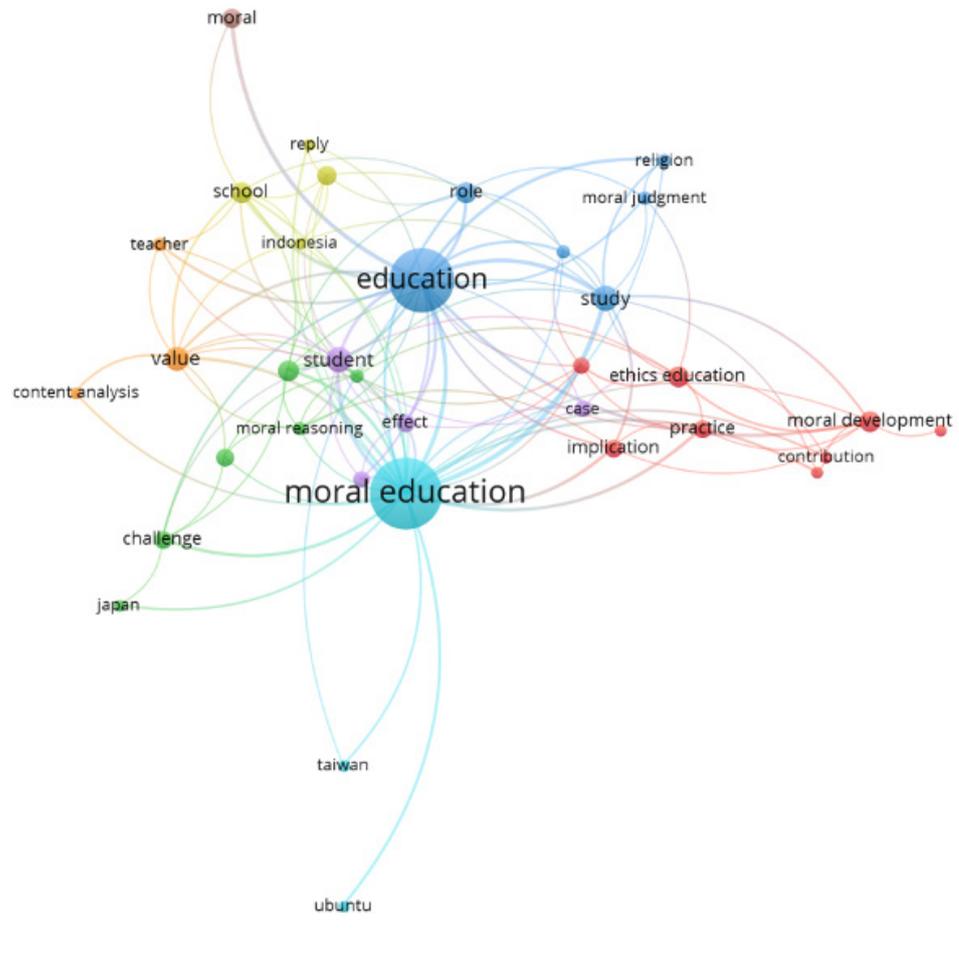
Cluster	Color	Author	Number of Documents	Number of Links
1	Red	jeong, c	1	5
		kim, j	1	5
		kim, s	1	5
		kunii, y	1	5
		park, s.c	1	5
2	Green	angela lee, c.m	1	1
		han, h	4	7
		park, j	1	2
		thoma, s.j	2	3

### 3.3. Theme 3: Analysis Based on Title Term

Of the 673 terms, using a minimum number of occurrences of three terms, 35 results were found to be relevant. Table 4 and Figure 5 show that the terms widely used in moral education articles are divided into eight clusters. Cluster one consists of eight items, cluster two and three consist of six items, cluster four and five consist of four items, cluster six and seven consist of three items, and cluster eight consists of one item. The most widely used title term in moral education articles is “Moral Education” with a total of 97 in the three term occurrences.

**Table 4.** The Most Used Title Term in Moral Education Articles

No	Cluster	Number of Item	Terms
1	One (red)	8	Business education (3); contribution (3); ethics education (9); implication (6); moral development (8); moral distress (5); practice (6); relevance (3)
2	Two (green)	6	Challenge (6); change (4); development (8); higher education (6); japan (3) moral reasoning (4)
3	Three (blue)	6	Education (77); moral disengagement (4); moral judgment (4); religion (4); role (8); study (13)
4	Four (yellow)	4	Character education (7); Indonesia (3); reply (3); school (9)
5	Five (purple)	4	Case (5); effect (6); research (5); student (13)
6	Six (aqua)	3	Moral education (97); Taiwan (3); Ubuntu (3)
7	Seven (orange)	3	Content analysis (3); teacher (4); value (11)
8	Eight (brown)	1	Moral (7)



**Figure 5.** Network Visualization of Title Terms of Moral Education Articles

**3.4. Theme 4: Analysis Based on Abstract Terms**

From 4,272 terms, with a minimum occurrence number of five terms, a total of 287 results have strong links. Figure 6-8 show the abstract terms in moral education articles that are widely used by writers. In the network visualization, overlay visualization, and density visualization versions, it can be seen that the terms most widely used include: moral education, education, student, school, paper, and practice.







## 4. Discussion and Conclusions

The bibliometric analysis results of the four aspects country, author, title term, and abstract term in Scopus indexed moral education articles in 2010-2019 are as follows. When the addresses of the authors listed in moral education articles were extracted in the form of coordinates via the GPS generator, it can be identified that the authors of moral education articles were spread in various countries and continents. The country that published the most articles on moral education was the United States with 77 authors, the United Kingdom with 40 authors, and the Russian Federation with 22 authors, and followed by other countries with less than 22 such as Iran, Taiwan, and others. Based on its regional clusters as shown in Figure 3, the largest cluster was in the United Kingdom and surrounding areas which showed authors in up to 71 cities/countries, such as Adams, Monahan and Wills [10], Arthur and Carr [63], Chester et al. [64], and others. The second largest cluster was in the United States that showed authors in up to 68 cities/countries, such as Felder et al. [65], Grant [66], Hayden [67], and others. Meanwhile, the next group of authors was shown around Indonesia with 34 cities/countries, around Korea with 33 cities/countries, and around Turkey with 31 cities/countries.

Author collaboration analysis showed that Han, H. was the author with the most collaboration. Seven links were formed with Han, H. i.e. Park, J., Thoma, S.J., Kim, J., Park, S.C., Kunii, Y., Jeong, C., and Kim, S. The authors ranked second were Kim, J., Park, S.C., Kunii, Y., Jeong, C., and Kim, S. Then, the third with three links was Thoma, S.J. who had a link with Han, H., Park, J., and Angela Lee, C.M. When viewed from the number of articles, Han, H. was the author having the most collaborative articles with a total of four articles [68-71]. The second was occupied by Thoma, S.J. as the co-author with in a total of two articles [70, 72]. Meanwhile, the other authors only had one article with the position as a co-author, and one person was the main author namely Angela Lee, C.M. This indicated that the author collaboration in moral education articles was relatively small.

Based on the analysis of terms that are often used in the titles of moral education articles, 35 terms had strong links, with the minimum occurrence number of three terms. The five most dominant terms used in the titles were respectively occupied by 'moral education' (97 occurrences), 'education' (77 occurrences), 'student' (13 occurrences), 'study' (13 occurrences), and 'value' (11 occurrences). This implied that the authors had the tendency to use the words 'moral education' in the title, which is the main topic. Some examples are in the articles by Anam et al. [73], Yu [74], D'Olimpio [75]. Likewise, the term 'education' is the second most frequently used term by authors such as Olvitt [76], Walker and Florea [77], and so on. There were also a number of moral education articles that used the term 'student', as in Hsu and Pan [78], or the term 'study' as in Koh [79], or the term 'value' as in Teh and Zulafiat [80].

In the abstract, 287 terms were analyzed to have strong links, with the analysis using the minimum occurrence number of five terms. The analysis showed that the terms were divided into eight clusters as shown in the colors in Figure 6. Cluster one consists of 67 items, cluster two 52 items, cluster three 43 items, cluster four 36 items, cluster five 34 items, cluster six 21 items, cluster seven 19 items, and cluster eight 15 items. The most used term in the abstracts that has relevance between the abstracts was 'moral education' with 203 occurrences. The second was 'education' (196 occurrences), the third was 'student' (151 occurrences), the fourth was 'study' (151 occurrences), the fifth was 'article' (98 occurrences), the sixth was 'school' (97 occurrences), the seventh was 'value' (91 occurrences), the eighth was 'article' (82 occurrences), the ninth was 'teacher' (64 occurrences), and the tenth was 'development' (63 occurrences). Thus, the term most widely used in the abstract of moral education articles was 'moral education' as the term was also found in the article title.

In conclusion, the four questions asked at the beginning can be answered and concluded as follows. The countries that publish the most moral education articles were the United States, followed by the United Kingdom, and the Russian Federation. Author collaboration in moral education articles did not show much collaboration, only one author is involved with seven other co-authors, and one co-author is involved with two authors. The terms most widely used in moral education articles were 'moral education', 'education', 'student', 'study', and 'value'. The terms most widely used in abstract articles on moral education 'moral education', 'education', 'student', 'study', and 'article'.

## 5. Limitations and Suggestions

This research has limitations in several aspects, namely: (1) the database used for searching the articles was limited to Scopus only; (2) the software used to analyze bibliometrics was only VOSviewer; and (3) the bibliography included were only in the type of journal article based on the information displayed by Scopus. Therefore, to expand the study in this topic, future studies may be able to use several sources/databases, other bibliometric analysis software, and other categories of literature, for instance review papers and book chapters.

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