Bibliographic and content analysis of articles on education from Vietnam indexed in Scopus from 2009 to 2018

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Abstract
Purpose: This study aimed to analyze the bibliographic characteristics and content of articles on education published in Scopus-indexed journals by authors with Vietnamese affiliations from 2009 to 2018.

Methods: Scopus was searched on July 6, 2019 using the search option “affiliation country,” with “Vietnam OR Viet Nam” as the country name, and “subject area” as “social sciences AND education.”

Results: A total of 193 articles were identified. They were classified by publication year, co-authors’ country, affiliation, subarea, journal, and author. Content analysis of these articles demonstrated that the number of publications on education from Vietnam in Scopus increased rapidly during the last 10 years. The top five countries of co-authors were Australia, the USA, New Zealand, the UK, and the Netherlands. The main research subfields were English-language teaching, pedagogy, and educational management.

Conclusion: Although Vietnamese education researchers collaborated with colleagues in developed countries to publish papers, there was still a lack of articles discussing global trends in education, such as cross-border education, equity in education, and international assessment programs.

Keywords
Bibliography; Publications; Scopus; Education; Vietnam

Introduction
During the last 10 years, there has been a significant increase in the number of scientific articles from Vietnam published in reputed journals indexed in international literature databases, such as Web of Science and Scopus. Data from Scimago showed that over the course of the last
decade, the number of publications from Vietnam in all subject areas increased five-fold, from 1,764 papers in 2009 to 8,837 papers in 2018, which led Vietnam to increase its ranking in publications of all subject areas from the 65th position worldwide to the 50th position worldwide. However, the ranking of documents in the social sciences in general has increased less steeply—from the 65th position in 2009 to the 62nd position in 2018—and this trend also holds true for education [1]. It is often claimed in Vietnam that publishing papers on education in international journals is much more difficult than it is to publish articles in other areas such as mathematics, engineering, and business.

The aim of this study was to analyze the bibliographic characteristics and content of articles on education from Vietnam indexed in Scopus from 2009 to 2018. In this paper, we first calculated the number of articles on education published yearly for the last 10 years. We then determined which other countries the co-authors of Vietnamese researchers had affiliations in. We also investigated which higher education institutions and research institutes located in Vietnam had the most articles published. Furthermore, the Scopus-indexed journals that published papers on education authored by Vietnamese researchers were identified. Finally, we highlighted keywords frequently used in the articles and investigated how many articles were published in various subfields of education. In the Discussion, we comment on trends in international publications in education from Vietnam and propose research gaps to be addressed in future studies.

Methods

In this study, we followed the research methods successfully employed by several researchers who performed bibliometric/bibliographic and content analyses of articles in international databases. For example, in 2017, Jeong and Huh [2] published a paper presenting a bibliometric and content analysis of medical articles in the PubMed database published by North Korean authors from 1997 to July 2017. In 2018, they then analyzed the bibliometric characteristics of publications from North Korea indexed in the Web of Science Core Collection from 1978 to 2018 [3]. Most recently, Kim and Chung [4] presented the current status of physics research in North Korea through a bibliographic and content analysis of the physics papers from North Korea indexed in Scopus from 2005 to 2018. We believed that a similar research approach would be useful in this study.

We searched the Scopus database on July 6, 2019. We used the search option “affiliation country” with “Vietnam OR Viet Nam” as the country name. For the search option of “subject area,” we used “social sciences,” and “education” was used to “search within results.” The results were limited by year to the period from 2009 to 2018, and the document type was limited to articles. We found 193 articles, among which 190 were in English, two were in Spanish and one was in French. We then conducted a detailed analysis of the bibliographic data, including publication year, affiliations, authors, co-authors from foreign countries, journals and keywords. Next, we downloaded the full text of all 193 articles to examine the content of each paper to understand which subfield of education it belonged to and how it contributed to the literature.

Results

Based on a bibliographic and content analysis of the 193 articles, we classified them by publication year, co-authors’ foreign country, institution, journal, keyword, and subfield.

The first finding is the trend in the number of papers published annually from 2009 to 2018. As shown in Fig. 1, there was a steady increase in the number of papers during this period. There were nearly four times as many papers published in 2018 as in 2009. The number of papers has been increasing

![Fig. 1. Changes over time in the number of published papers on education by years (2009–2018).](https://www.escienceediting.org)
especially dramatically in recent years.

Almost 100 research institutions from Vietnam were found for the authors of the 193 identified papers. The institution with the largest number of papers accounted for 10.9% of the papers. Table 1 presents the top 12 institutions with the most publications in education. In addition to those on this list, 10 institutions had three publications each, and seven institutions had two publications each.

The majority of the 193 papers were written in collaboration with authors from other countries. Fig. 2 presents the top 11 countries in which the co-authors of the most education articles from Vietnam had affiliations. The main partner countries of Vietnam were Australia and the USA, which accounted for 23.8% and 16.7% of the total articles, respectively. Additionally, there were six countries with three publications each (Bangladesh, Hong Kong, Italy, India, Japan, and Taiwan), two countries with two publications each (Cambodia and South Africa), and 15 countries with one publication each, such as Germany, Singapore and South Korea. We also found that several authors used both a foreign affiliation and a Vietnamese affiliation. Such cases were counted as a co-author’s affiliation with an institution in a foreign country.

### Table 1. Top 12 institutions with which the authors of the most papers on education were affiliated

| Institution                                           | No. of papers | Percentage of the total |
|-------------------------------------------------------|---------------|-------------------------|
| Vietnam National University Hanoi                     | 21            | 10.9                    |
| National Economics University Hanoi                    | 12            | 6.2                     |
| Vietnam National University Ho Chi Minh City           | 11            | 5.7                     |
| Hue University                                         | 11            | 5.7                     |
| University of Danang                                   | 8             | 4.1                     |
| Ton Duc Thang University                               | 8             | 4.1                     |
| Can Tho University                                     | 7             | 3.6                     |
| Hanoi University of Education                          | 7             | 3.6                     |
| RMIT University Vietnam                                | 5             | 2.6                     |
| International University, Vietnam National University Ho Chi Minh City | 4 | 2.1 |
| Mekong Development Research Institute                  | 4             | 2.1                     |
| Tra Vinh University                                    | 4             | 2.1                     |

### Table 2. Top 10 foreign universities with which the co-authors of the most papers on education with Vietnamese authors were affiliated

| Institution                                         | No. of papers | Percentage of the total |
|-----------------------------------------------------|---------------|-------------------------|
| Monash University (Australia)                        | 6             | 3.1                     |
| University of Waikato (New Zealand)                  | 5             | 2.6                     |
| University of Queensland (Australia)                 | 4             | 2.1                     |
| RMIT University (Australia)                          | 3             | 1.6                     |
| Victoria University of Wellington (New Zealand)      | 3             | 1.6                     |
| La Trobe University (Australia)                      | 3             | 1.6                     |
| Queensland University of Technology (Australia)      | 3             | 1.6                     |
| The Education University of Hong Kong (Hong Kong)    | 3             | 1.6                     |
| Deakin University (Australia)                        | 3             | 1.6                     |
| Chulalongkorn University (Thailand)                  | 3             | 1.6                     |
We also identified the foreign universities with which researchers from Vietnam collaborated to publish papers on education. As shown in Table 2, Australia had the largest number of the top 10 universities (with six institutions), while two of the institutions were in New Zealand and one institution each was in Hong Kong and Thailand.

We also found that no author from Vietnam had more than four education papers. Two authors had four papers each, and four authors had three papers each (Table 3).

In addition, the journals in which articles on education written by Vietnamese researchers were published were tabulated. Table 4 shows a list of 11 journals where three or more education papers by Vietnamese authors were published. The majority of these journals were considered high-quality journals in the subject area of education, with five Q1 journals and four Q4 journals. In addition to the journals on this list, there were 25 other journals in which two papers in education

| Keyword                     | Number  |
|-----------------------------|---------|
| Higher education            | 16      |
| Human/humans                | 9/8     |
| Learning                    | 8       |
| Female                      | 7       |
| Asia                        | 6       |
| Education                   | 6       |
| Academic performance        | 5       |
| Blended learning            | 5       |
| Curriculum                  | 5       |
| Male                        | 5       |
| Medical school              | 5       |
| Curriculum development      | 4       |
| Professional development    | 4       |
| Questionnaire               | 4       |
| Vocational development      | 4       |
| Child development           | 3       |
| Continuing education        | 3       |
| Education policy            | 3       |

Table 5. Classification of keywords in Vietnamese education papers

| Subfield                        | Number |
|---------------------------------|--------|
| English language teaching       | 29     |
| Pedagogy                        | 19     |
| Educational management          | 18     |
| Gender and women’s studies      | 16     |
| General education               | 13     |
| Cross culture studies           | 13     |
| Educational psychology          | 10     |
| Professional development        | 9      |
| Vocational education            | 9      |
| Using technology in education   | 7      |
| Online and blended learning     | 7      |
| Lifelong learning               | 6      |
| Assessment and evaluation       | 5      |
| Student learning outcomes       | 5      |
| Research methods in education   | 4      |
| Quality assurance and accreditation | 4 |
| Curriculum development          | 4      |
| Cross-border education          | 3      |
| Miscellaneous                   | 8      |
| Total                           | 193    |

Table 6. Classification of the number of papers by various subfields of education

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| Journals                                    | No. of papers | Scopus quartile |
|---------------------------------------------|---------------|-----------------|
| Journal of Asia TEL                         | 10            | Q2              |
| International Journal of Instruction       | 5             | Q3              |
| Australian Journal of Teacher Education    | 4             | Q2              |
| BMC Medical Education                       | 3             | Q1              |
| Cogent Education                            | 3             | Q3              |
| Cultural Studies of Science Education      | 3             | Q1              |
| Higher Education                            | 3             | Q1              |
| Higher Education Research and Development   | 3             | Q1              |
| Journal of Development Studies              | 3             | Q1              |
| Quality Assurance in Education              | 3             | Q2              |
| Social Work Education                       | 3             | Q2              |
were published by authors working at research institutions located in Vietnam.

Next, we identified frequent keywords that were used in the 193 articles. Unsurprisingly, the words “Vietnam” and “Viet Nam” were used the most (64 times and 31 times, respectively). Other frequent keywords are presented in Table 5.

These frequent keywords shed light on trends in research and publications in the field of education by Vietnamese authors. Additionally, however, we attempted to classify these 193 papers according to the relevant subfield of education, as shown in Table 6. The top subfield in which the largest number of articles were published was English-language teaching. Other areas of research where many articles were published included pedagogy, educational management, and gender and women’s studies.

The fact that English-language teaching accounted for the largest number of papers allows us to infer that considerable attention is paid in the Vietnamese educational system to teaching and learning English. Moreover, those who are teachers of English have an advantage in terms of their linguistic capacity to write scientific papers in English.

Discussion

The number of papers in the field of education written by authors with affiliations located in Vietnam has increased rapidly in the past 10 years. Many of these papers were published by researchers at higher education institutions that have suitable policies to promote scientific research and international publication. For example, Vietnam National University Hanoi and Ton Duc Thang University have established many research groups and allocated funding for these groups [5]. Furthermore, Australia, the USA, New Zealand, and the UK were found to be the countries with the largest number of co-authors of education papers with Vietnamese researchers. An explanation for this trend is that the above countries are those that have attracted the largest number of Vietnamese students for overseas studies [6].

In addition, through a content analysis of 193 education papers, we found that there were several papers discussing global trends in education, such as blended learning, using technology in education, and lifelong learning. However, there were not many papers focusing on other major international trends, including quality assurance, cross-border education, equity in education, and international assessment programs. Moreover, there seems to be a lack of papers investigating challenges and solutions in the current Vietnamese educational system, such as university autonomy, higher education governance, academic research competence, and education for ethnic minorities.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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