

Systematic Review of International Student Mobility in Higher Education

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Abstract

The objective of this study is to conduct a comprehensive review of the educational sciences and social sciences literature about international student mobility that was published in the Web of Science database between 1997 and 2023. In the research, 550 publications that had been scanned by the WOS database were examined concerning their yearly publication counts, citation counts, publishing journals, cited authors, publishing and cited nations, fields of application, keywords employed, and article themes. Every article was analyzed using the Vosviewer software. It was found that 530 articles were published in the English language in terms of language of publication. The most cited articles dealt with equal chances and Erasmus student mobility. Higher education, educational mobility, and international students are the most frequently used terms in the publications, whereas distinction is the least frequently used keyword. The majority of articles on the topic are published in the Journal of Higher Education. The field of educational research published the majority of the articles. The evaluation of international student mobility in the fields of sociology, psychology, and educational administration has been rather restricted. The concept of international student mobility encompasses not only educational mobility but also movements related to social justice, inequality reduction, risk group management, and educational prestige.

Keywords: Systematic review, globalization, higher education, international student mobility, internationalization

Introduction

Higher education institutions are trying to become recognized by educating international students to adapt to rapid change and improve the quality of teaching (Önder & Balci, 2010). In wealthy nations, more and more higher education programs are opening up to student mobility. In other words,

higher education is constantly gaining an international dimension. The number of students going to different countries for undergraduate and postgraduate studies has also been steadily increasing (Aydın, 2010). International student mobility contributes significantly to the scientific research capacity of higher education institutions and increases their international competitiveness. International education is not limited to economic returns. The presence of international students and teaching staff in a university directly affects the form and quality of education. It also allows for the development of intercultural dialogue (Özgür, 2012). Developed nations that are short on skilled labor have resorted to measures that allow foreign employees to move around more easily to obtain a competitive edge in global markets. These practices include the re-establishment of course curricula for foreign students in higher education institutions, the issuance of internationally recognized documents, and the more effective use of new information and technology resources (Çelik, 2013). The leading position of developed countries in science and technology depends to a large extent on the talented scientists who come from different countries and continue to work (NAFSA, 2022; Özoğlu et al., 2012).

Theoretical Framework

International student mobility, which has increased significantly, especially since 2000, is becoming increasingly important in the world of higher education. International students offer significant opportunities in terms of both economic and human capital. For this reason, countries with advanced higher education systems compete fiercely to take advantage of these opportunities. There are many reasons behind this competition. In countries like the United States, Australia, the United Kingdom, and Canada, which have the highest number of international students, the economic contribution of these students is clear. In Canada, the total domestic expenditure of international students can even outstrip the revenues generated by the country's most important export sectors (Özgür, 2012). Due to globalization and internationalization in higher education, there is a continuous increase in student mobility around the world.



Reference: OECD, 2022

Figure 1. Number of International Student Mobility

According to OECD statistics presented in Figure 1, the number of international students has significantly increased over the years. According to UNESCO Statistics Institute data, the country with the highest international student mobility in the world is the United States of America with 27.8% (OECD, 2022). According to the same data, after the US, the UK ranked first with 16.3%, Australia with 9.7% and France with 8.5%. Generally, the countries preferred by international students are developed countries. Students especially prefer English-speaking countries. According to a report published by the Institute of International Education (IIE), 50% of the world's international students are located in English-speaking countries such as the US, UK, Australia, Canada and New Zealand (IIE,2018). As a result of the political, economic, and cultural changes in the world, international students who want to receive qualified education have started to search for alternative countries. This search process has been effective in increasing the number of international students in alternative countries such as China, Thailand, Malaysia, and Singapore (Bhandari & Blumenthal, 2011). Due to the rising number of international students worldwide, countries are developing various marketing strategies to establish themselves in the international student market. In the report published by the education organization Observatory, countries receiving international students are classified as follows (The Observatory,2023):

Table 1. International student countries category

Big Players	United States, United Kingdom, and Australia
Middle Powers	Germany and France
Developing Places	Japan, Canada, and New Zealand
Emerging Competitors	Malaysia, Singapore, and China

The economic, cultural, and qualified human resource contributions provided by internationalization in higher education have led many countries to develop international student policies. The foreign labor force working in the United States makes up 10% of the population. This working foreign population represents 25% of the United States' science and engineering workforce. Moreover, 50% of this foreign labor force holds a PhD degree (OECD,2023). International students increasingly contribute to the economy, culture, and human resources in different countries. Accordingly, countries invest in promotion to attract international students to their countries (Turkey Ministry of Development, 2020).

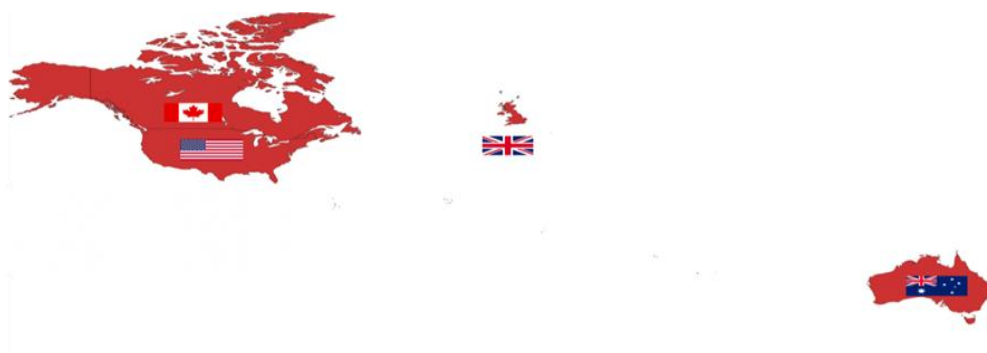


Figure 2. Countries generating the most revenue from international students

According to the UNESCO (2023) report, the USA, UK, Canada, and Australia are the countries that generate the most income from international students. Various socio-cultural and economic factors influence foreign students' choice of destination country. While the factors that determine the country where international students will study are called push factors, another factor that makes them prefer a particular country or higher education institution is called pull factors. Push factors include inadequate higher education opportunities in the student's home country, the student's desire to develop culturally and intellectually, and the desire to be employed. Attractive factors include the quality of education in the destination country, the international recognition of the higher education institution, the availability of a credit recognition system, the language of instruction, the cost of living in the country, the ease of the visa process, scholarship opportunities and employment opportunities after graduation. With the process of globalization and increasing competition in education, countries are paying more attention to developing policies on attractive factors to attract foreign students (Souto-Otero, 2013). According to Findlay and King, in push-pull theory, pull factors such as the prestige of certain countries and universities, scholarship opportunities, education, and the opportunity to work in the labor market after graduation are usually more dominant. However, student mobility can be better explained through four different conceptual frameworks: skilled migration, globalization, youth culture, and social class. International students are associated with high-skilled migration.

Globalization and high-skilled migration are highly influential in the internationalization of higher education. Globalization in higher education is directly related to the production and dissemination of knowledge around the world. Globalization in higher education increases the importance of mutual agreements in education and innovation in communication technologies. Internationalization includes specific values that have gained importance as a result of globalization. The internationalization of higher education is related to learning centers abroad, accreditation of higher education curricula,

international cooperation in scientific research, and cross-border mobility of institutions, staff, and students (Tezsürücü & Bursalıoğlu). However, when the concepts of globalization and internationalization are compared, the content of international student mobility changes. At the level of globalization, international student mobility is about student mobility abroad, while at the level of internationalization, it is about the deployment and employment of human capital across national borders. In this case, foreign students and skilled migrants are recognized as components of the internationalization of higher education in host countries (Beine et al., 2014).

Problem Status

It was seen that the following keywords were mostly included in the publications on international student mobility in the searches made on databases: “Higher education, educational mobility, international students, mobility, China, students support, Europe, space, transnationalism, migration, Erasmus, distinction, regional hubs, home”. When evaluated within the framework of these keywords, it is seen that the subject is generally examined in a limited way. If a systematic analysis of studies on international student mobility is made, the process of internationalization in higher education can be evaluated more easily. A systematic analysis of existing studies on international student mobility can clearly show to what extent the issue is considered in the context of internationalization and to what extent in the context of globalization. In this context, answers to the following sub-problems were sought in the systematic analysis of the articles:

- What is the appearance of articles in terms of year of publication and language of publication?
- What is the appearance of articles in terms of the number of citations?
- What is the appearance of articles in terms of keywords used?
- What is the appearance of articles according to the country, university, and journals in which they were published?
- What is the network view in terms of authors, articles, and number of citations to journals?
- What is the appearance of the articles in terms of fields of science and topics?

Methods

This study aims to determine the bibliometric characteristics of the articles on "International student mobility" in the journals scanned in the field of educational sciences and social sciences using the Web Of Science database. Bibliometrics is a field of study based on counting and is the study

of published books, journals, and articles by mathematical and statistical techniques. The analysis of certain characteristics of publications such as journal, subject, number of authors, and publication information is described as bibliometric analysis (Struck et al., 2021).

Research Data

The research data and population consisted of 550 publications downloaded from the WOS database. In the study, the articles (530) scanned in the WOS database were analyzed in terms of annual publication numbers, citation numbers, publishing journals, cited authors, publishing and cited countries, keywords used, fields, and topics of the articles. At the same time, social network analysis was used to conduct a co-citation analysis of authors and journals, network analysis of keywords together, and analysis of country collaborations. Social network analysis is a method used to obtain quantitative results of relationships between people, objects, or organizations (Al et al., 2010). The Vosviewer program was used for the analysis of the documents. The bibliophily application integrated with Map was used to visualize the data. While searching the WOS database, the words "*International Student Mobility*" were used as the title and key.

Results

In this part of the study, data on the year of publication, language, number of citations, keywords, country, cross-country citation, country of publication, journals, cross-journal citation network, authors, the field of science, and the subject of the articles are shown in tables and figures.

Table 2. Data related to the articles analyzed

Article	530
Total citations	7419
Author	96
Publishing university	66
Broadcasting country	30
Keywords	184
References	2347

Reference: (WOS, 2023)

In the study, 530 articles were analyzed and the number of authors, publishing universities and countries, Keywords, and total number of references are shown in Table 2.

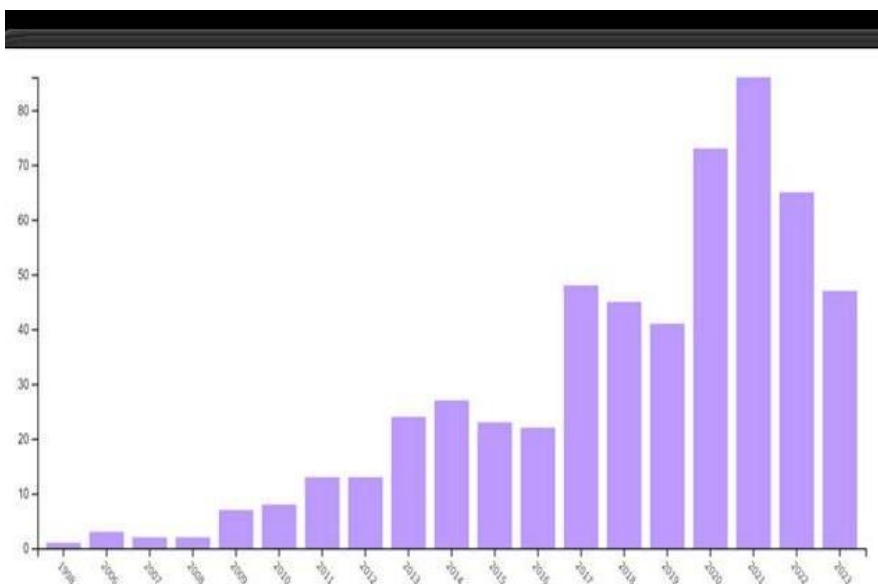


Figure 3. Number of articles on international student mobility by year

Publications on international student mobility started to increase after 1998 but increased significantly after the Covid-19 pandemic. As international student mobility has become an important competitive tool among countries, academic publications on the subject have also increased.

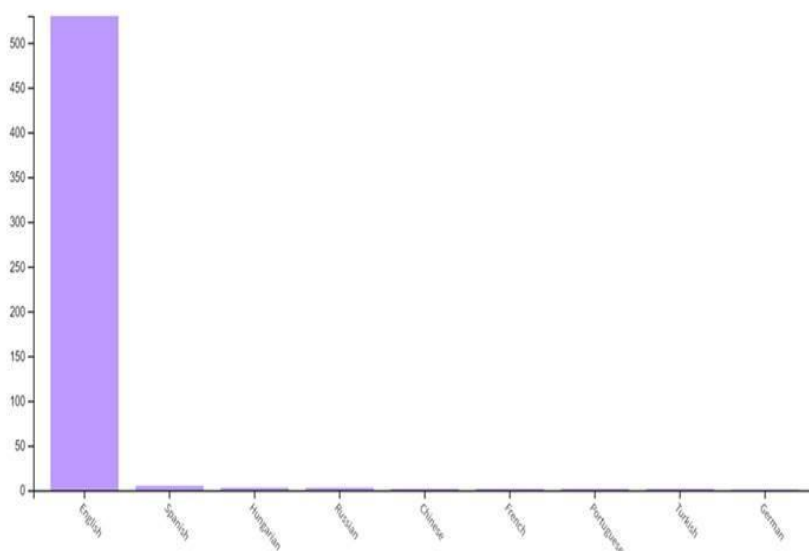


Figure 4. Publication language of articles

530 of the articles on international student mobility were published in English, 5 in Spanish, 3 in Hungarian, 3 in Russian, 2 in Chinese, 2 in French, 2 in Portuguese, 2 in Turkish, and 1 in German. It was determined that the

articles were generally published in English.

Table 3. Most cited articles

Article	Attribution
World class? An investigation of globalization, difference, and international student mobility	339
The determinants of international student mobility flow: an empirical study on the Erasmus program	173
An Assessment of Supply and Demand-side Theorizations of International Student Mobility	167
Mobility as "becoming": a Bourdieuan analysis of the factors shaping international student mobility	119
Barriers to International Student Mobility: Evidence From the Erasmus Program	111
Three waves of international student mobility (1999-2020)	106
International student mobility: the role of social networks	94
Student Mobility and Internationalization: trends and tribulations	90
Policy options for managing international student migration: the sending country's perspective	84
The emergence of a regional hub: comparing international student choices and experiences in South Korea	84

Reference: (WOS, 2023)

The most cited articles are on student mobility and its consequences. For example; the 339 cited article "World class? A study on globalization, diversity, and international student mobility" only discusses the concept of "world class" (Findlay et al., 2012). In this article, it is emphasized that new opportunities in education have emerged with student mobility, but inequality persists. 173 quotes from the article "Determinants of international student mobility flows: An empirical study on the Erasmus program" discusses the causes and consequences of the Erasmus program. In the less-cited articles, the contributions of student mobility for countries were evaluated. 84 cited article titled "Policy options for managing international student migration: the sending country's perspective" states that countries such as Canada and Australia, which receive student migration, benefit while countries that send students are negatively affected in terms of human resources. 84 cited article titled "The Emergence of a Regional Education Hub: Rationales of International Students' Choice of China as the Study Destination " emphasizes that South Korea is a regional hub for international student mobility and is attractive due to its English language education (Wen and Hu, 2018).

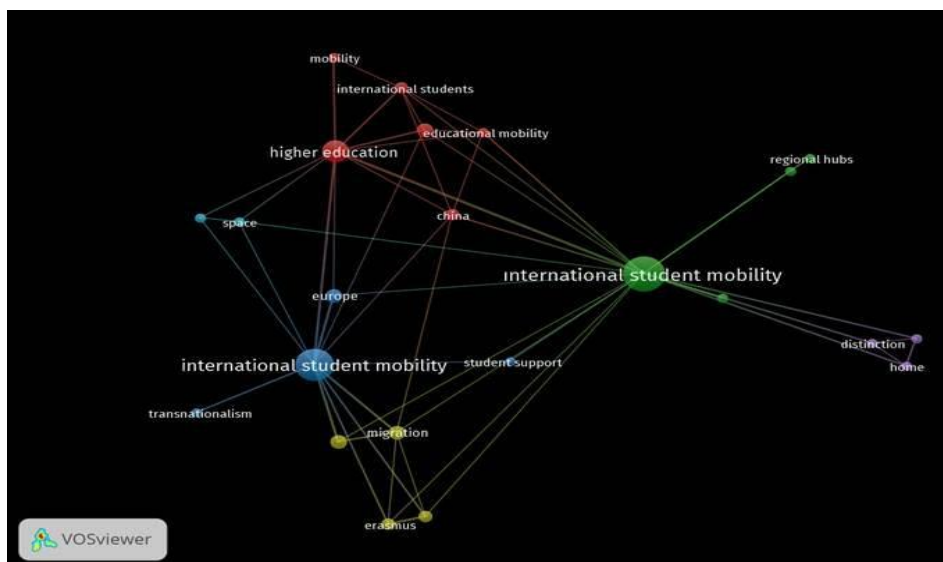


Figure 5. Keywords

The following keywords were used in the articles published on "International Student Mobility": Higher education, educational mobility, international students, mobility, China, students support, Europe, space, transnationalism, migration, Erasmus, distinction, regional hubs, home. Higher education is the most frequently used keyword, while distinction and regional hubs are among the less frequently used keywords.

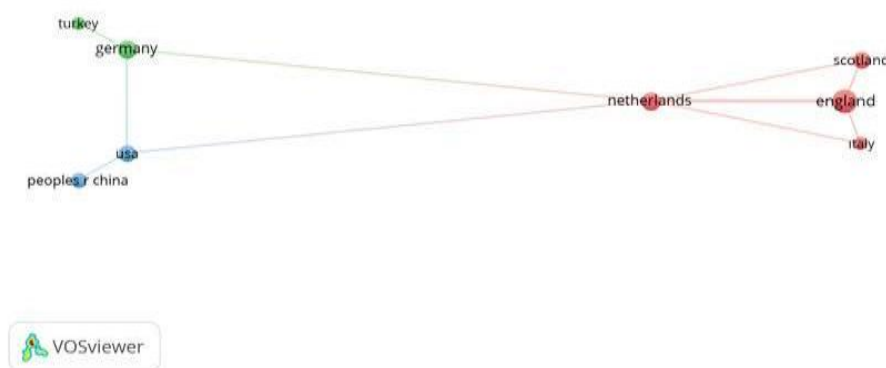


Figure 6. View of articles by country

The distribution of articles on international student mobility by country is listed below: 70 articles were published in England, 69 in the USA, 68 in China, 57 in Germany, 19 in the Netherlands, 18 in Scotland, 17 in Italy, and 12 in Turkey. Most of the articles on the subject have been published in countries such as the UK, the USA, the Netherlands, and Germany, where international students primarily prefer to study.

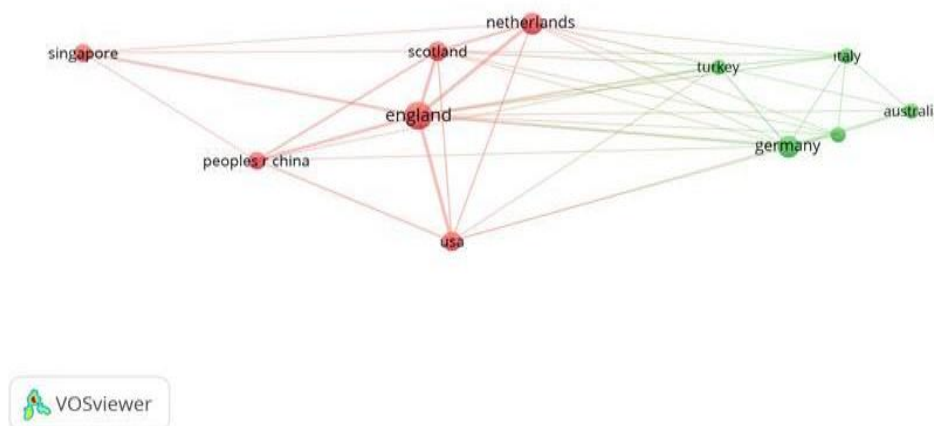


Figure 7. Citation network for articles

According to the citation network of published articles on the subject; Articles published in the UK were cited more than articles published in the USA, the Netherlands, Scotland, Singapore, and China. On the other hand, articles published in Turkey, Italy, and Australia often cited articles published in Germany. It is seen that there are two separate centers, England and Germany, in inter-article citations.

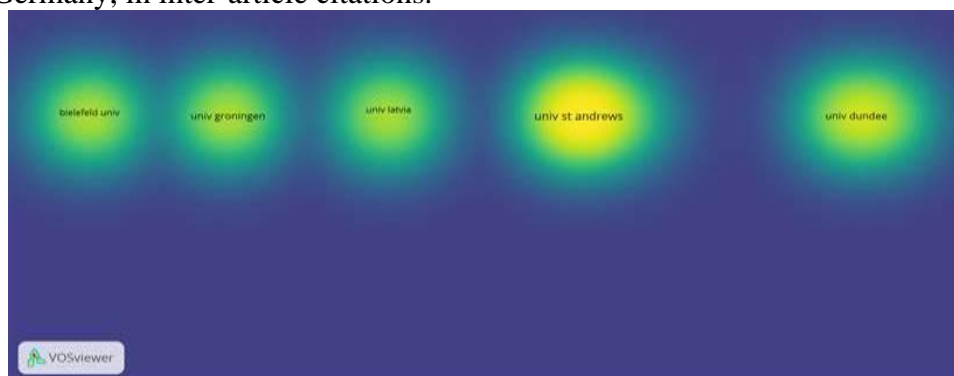


Figure 8. Citation network for inter-university articles

Dark yellow-green colors indicate intensity. The universities with the most cited publications on International Student Mobility are as follows: University of St Andrews (UK), Dundee University (Scotland), Groningen University (Netherlands), Bielefeld University (Germany), and Latvia University (Latvia). Articles published in universities originating in England and Scotland are more frequently cited.

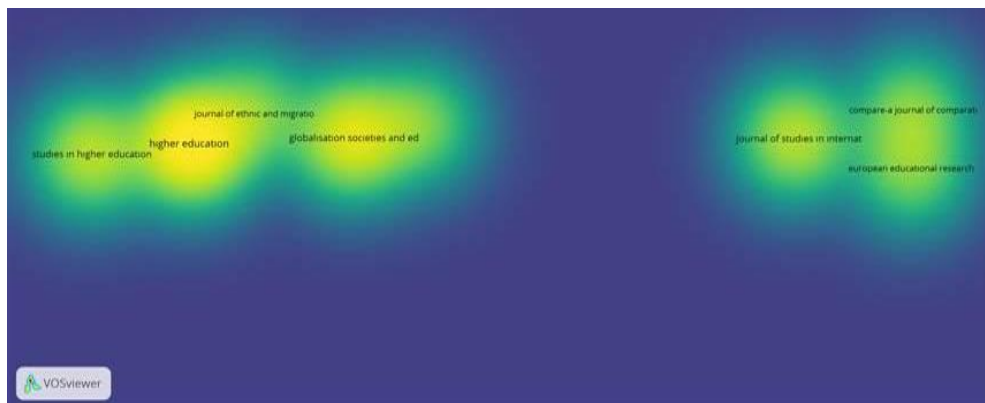


Figure 9. Journals with the most articles on the subject

The journals in which the most articles on international student mobility were published are as follows: Higher Education (42 articles), Journal of International Students (28 articles), Globalisation Societies and Education (25 articles), Journal of Students in International Education (14 articles), Students in Higher Education (13 articles), Journal of Ethnic and Migration Studies (9 articles), European Educational Research (9 articles), Compare a Journal of Comparative and International Education (9 articles). It is seen that the journals that publish the most on the subject are educational journals.

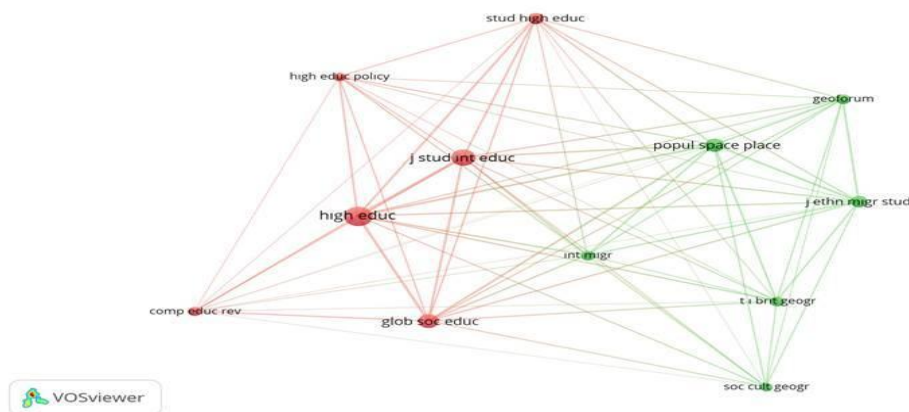


Figure 10. Inter-journal citation network

According to the inter-journal citation network, Higher Education and Population Space Place are the most cited journals. Higher Education journals have been cited mostly by other education journals (Journal Study International Education, Comparative Education Review, Globalisation Societies and Education). Population Space and Place was mostly cited by

journals on migration and demography (International Migration, Social and Cultural Geography, Journal of Ethnic and Migration Studies)

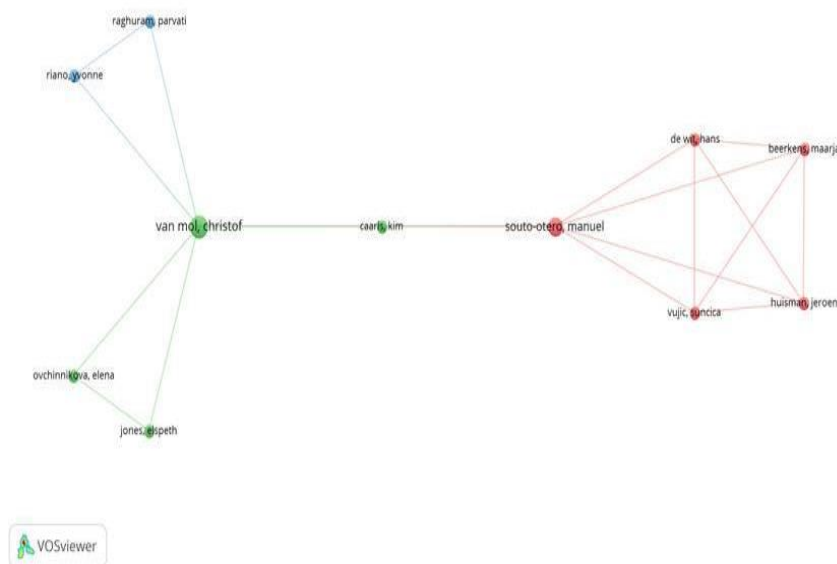


Figure 11. Most cited authors

The most cited authors are shown in Figure 11. Van Mol Christof's "Should I Stay or Should I Go? An Analysis of the Determinants of Intra-European Student Mobility" is the most cited article. In this article, students on mobility to Europe are evaluated in terms of social and personal characteristics (Van Mol & Timmerman, 2014).

Soutu-Otero (2008) "The Socio-Economic Background of Erasmus Students: A Trend Towards Wider Inclusion?", the topic of his article is to determine the reasons for participating in the Erasmus program and the economic level of the students participating in this program (Soutu-Otero, 2008).

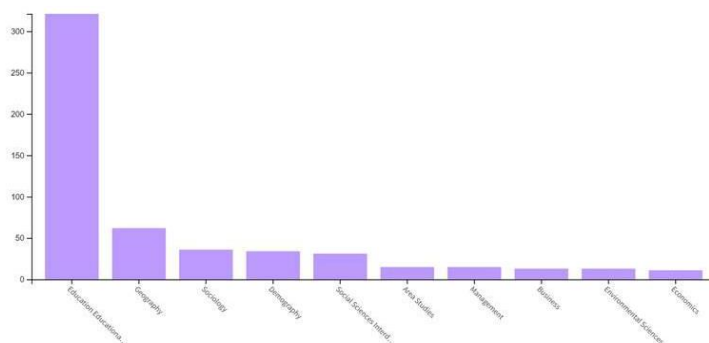


Figure 12. Distribution of articles according to scientific fields

Articles published on international student mobility are categorized in 9 different scientific fields. 300 of the published articles belong to the field of educational research. 62 articles belong to geography, 36 to sociology, 34 to demography, 31 to social sciences, 15 to management, 13 to environmental sciences, 15 to field research, 13 to business, and 11 to economics. It is seen that the articles were mostly published in the field of educational sciences.

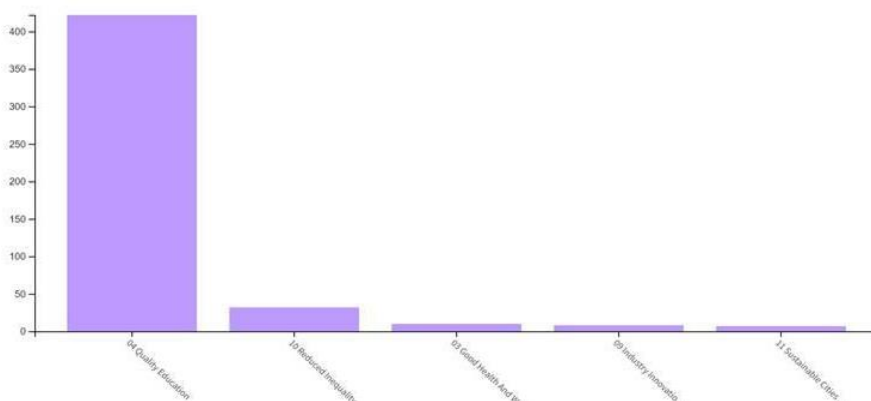


Figure 13. Distribution of articles according to topics

The articles published on international student mobility are listed as follows in order by subject: 452 articles are related to "Quality Education", 40 to "Reduced Inequality", 15 to "Good Health and well-being", 15 to "Industrial Innovation", 8 to "Sustainable Cities and Communication". The topic of the articles is usually limited to quality in higher education.

Conclusion

In this study, a total of 530 articles scanned in the Web Of Science database were examined and the results of the bibliometric analysis of the articles were evaluated in terms of the following criteria:

When the distribution of articles on international student mobility by years was analyzed, it was found that although international student mobility accelerated after 1980 (UNESCO, 2023), publications on the subject started to increase after 2000. This can be attributed to the fact that internationalization in higher education covers a longer period than global interaction. In terms of language of publication, it was determined that 530 articles were published in English. The reason why publications are usually in English is that there is more international student mobility to English-speaking or English-medium countries. The most cited articles focused on the reasons for international student mobility. In the less cited articles, the countries sending and receiving students abroad were compared. When analyzed in terms of Keywords, within 530 articles, the most used keywords are the

following: Higher education, educational mobility, international students, mobility, China, students support, Europe, space, transnationalism, migration, Erasmus, distinction, regional hubs, home. International student mobility is evaluated within the framework of student and educational mobility, most preferred countries, and the impact of globalization on higher education. Social inequality, social injustice, and access to education were evaluated to a more limited extent in the articles. When articles are analyzed by country, Most articles were published in the UK, USA, China, Germany, Germany, the Netherlands, Scotland, Italy and Turkey. It has been observed that there are also more publications on the subject in countries receiving international students. In the countries that send the most students, the number of publications on the subject is limited.

The universities with the highest number of citations for International Student Mobility, respectively, are as follows: University of St Andrews (UK), Dundee University (Scotland), Groningen University (Netherland), Bielefield University (Germany), Latvia University (Latvia). All of these universities are located in the Eurozone, the region most preferred by students. Although the USA, Canada, and Australia are among the countries preferred by foreign students, publications on the subject in universities in these countries have lagged behind the Eurozone. The journals that publish the most on the subject are as follows: Higher Education, Journal of International Students, Globalisation Societies and Education, Journal of Students in International Education, Students in Higher Education, Journal of Ethnic and Migration Studies, European Educational Research, Compare a Journal of Comparative and International Education. It was observed that publications on the subject were generally published in education journals, but more limitedly in journals on sociology, psychology, and migration. When analyzed according to citations to journals, Higher Education and Population Space Place are the most cited journals. The fact that the journal "Higher Education" received the highest number of citations shows that the issue is generally evaluated within the scope of higher education. The most cited authors on the subject were Van Mol Christof and Soutu-Otero. In their article, these authors examined the socio-economic level of foreign students, their characteristics, and their reasons for participating in mobility. The largest number of articles were published in the fields of educational research, geography, sociology, demography, social sciences, management, environmental sciences, field research, business and economics. Student mobility has been assessed mainly in the context of education and to a limited extent in sociology, economics, human geography, and other social sciences. According to the subject of the published articles, they are as follows: "Quality Education", "Reduced Inequality", "Good Health and Wellbeing", "Industry Innovation", and "Sustainable Cities and Communication". The highest number of articles were

published on the subject of "The Search for Quality in Education". A more limited number of articles have been published in terms of "Reduced Inequality".

As a result, it is seen in the literature that articles describing and explaining student mobility are generally published. Publications on the impact of international student mobility on the internationalization of higher education are quite limited. The articles did not cover accredited programs in higher education, accredited language courses, scholarship opportunities, and the functions of international offices. International student mobility is not limited to mobility in education but should be considered from different perspectives such as social inequality, social injustice, reducing inequality, and managing risk groups. It is not only about the prestige of the education systems of the receiving countries. It should also be considered as a critique of the education systems of countries that send students abroad. OECD's annual international education report should include data on internationalization in higher education in addition to student mobility. In addition to student mobility in research and graduate theses, internationalization activities in higher education should also be focused.

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Data Availability: All of the data are included in the content of the paper.

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