



Systematic Review of International Student Mobility in Higher Education

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Abstract

In this study, it is aimed to examine systematically the articles published in the Web Of Science database between 1997-2023 in the field of educational sciences and social sciences related to student mobility. Articles on international student mobility increased significantly after Covid-19. Articles on equal opportunities and Erasmus student mobility received the most citations. The most used keywords in the articles are higher education, education mobility and international students, while the least used keyword is distinction. Journal of Higher Education was the journal that publishes the most articles on the subject. Most articles were published in the field of educational research. International student mobility has been evaluated to a limited extent in terms of sociology, psychology and educational administration. In the published articles, the issue was generally evaluated within the framework of quality in education. The number of articles published on equality of opportunity in education was quite low.

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

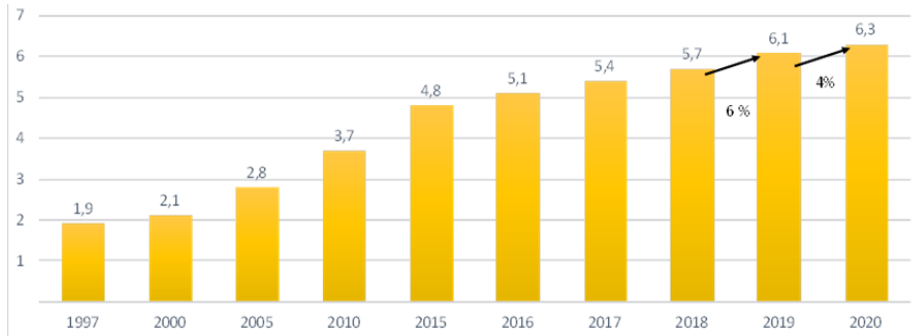
Introduction

Higher education institutions are trying to become recognized by educating international students in order to adapt to rapid change and improve the quality of teaching (Önder & Balcı, 2010). Demand for higher education from less developed countries to developed countries is increasing rapidly. For this reason, higher education systems in developed countries are

becoming increasingly open 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 (Özer, 2012). Developed countries in need of qualified manpower have turned to practices that facilitate the mobility of foreign qualified manpower in order to gain an advantage in international competition. 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 more and more important in the world higher education field, both in terms of quality and social, cultural, economic and policy aspects. 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 such as the United States, Australia, the United Kingdom and Canada, which have the largest number of international students, the contribution of international students to their economies is clearly visible. In Canada, the total domestic expenditure of international students can even outstrip the revenues generated by the country's most important export sectors (Özer, 2012). Due to globalization and internationalization processes in higher education, there is a continuous increase in student mobility around the world.



Reference: OECD,2022

Figure 1. Number of International Student Mobility

As can be seen in Figure 1 according to OECD (2022) statistics, the number of international students has increased significantly over the years, from around 2 million in 1997 to 6.3 million in 2020. 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 9.7% and France 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). As a result of the increasing number of international students in the world, these countries are trying to find a place for themselves in the international student market by developing different advertising strategies. 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 (Turkish Ministry of Development, 2020).

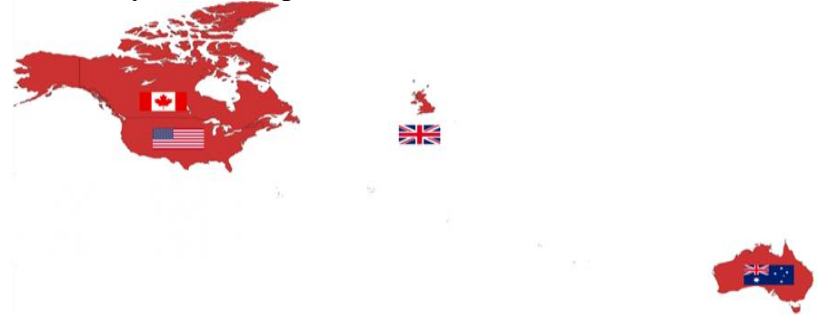


Figure 2. Countries generating the most revenue from international students

According to the UNESCO (2023) report, USA, UK, Canada and Australia are the countries that generate the most income from international students (Fig. 2). 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, factors that make them prefer a particular country or higher education institution are 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.

The internationalization of higher education is related to learning centers abroad, accreditation of higher education curricula, international cooperation in scientific research, cross-border mobility of institutions, staff and students. 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 is seen that the articles on international student mobility in the literature are mainly within the framework of globalization. A bibliometric analysis of existing studies on international student mobility will clearly show to what extent the issue is considered in the context of internationalization and to what extent in the context of globalization. By mapping all components of student mobility, changes in the internationalization process in higher education can be more easily monitored. In this context, answers to the following sub-problems were sought in the bibliometric analysis of the articles:

- *What is the appearance of articles in terms of year of publication and language of publication?*
- *How do the articles appearance in terms of the number of citations?*
- *How do the articles appearance in terms of keywords used?*
- *How do the articles appear 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

The aim of this study is 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 (Yılmaz, 2017 ; Struck et al.,2021). The research data and population consisted of 550 articles downloaded from the WOS database. In the study, the articles 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 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). Vosviewer program was used for the analysis of the documents. The biblioshiny application integrated with Map was used to visualize the data. While searching the WOS database, the words "*International Student Mobility*" were used as 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, field of science and subject of the articles are shown in tables and figures.

Table 2. Data related to the articles analyzed

| | |
|-----------------------|------|
| Article | 550 |
| Total citations | 7419 |
| Author | 96 |
| Publishing university | 66 |
| Broadcasting country | 30 |
| Keywords | 184 |
| References | 2347 |

Reference:<https://a8f59890210bb2a36cc265c34c80a801c14e01d5.vetisonline.com/wos/woscc/summary/29bd1411-1c93-446e-bf4d-de89212aba7b-b1bc960b/relevance/1>

In the study, 550 articles were analyzed and the number of authors, publishing universities and countries, Keywords and total number of references are shown in table 2.

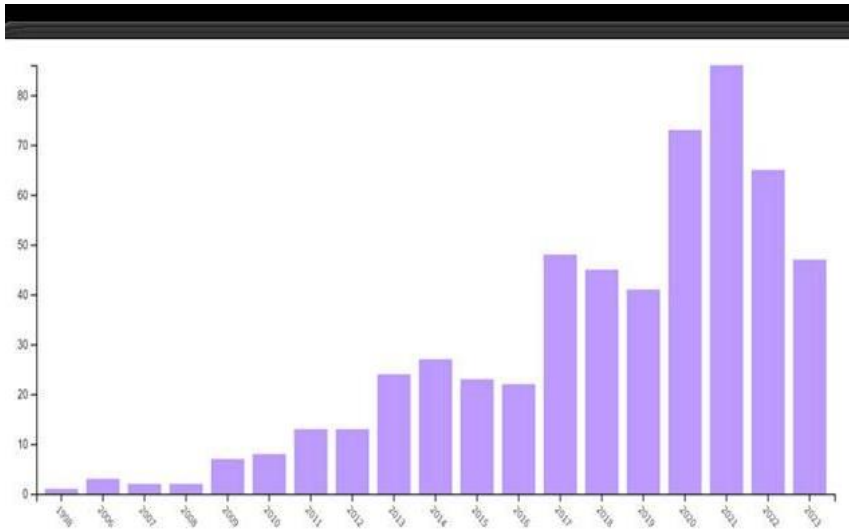


Figure 3. Number of articles on international student mobility by year

Publications on international student mobility started to increase after 1998, but increased significantly after the Covid-19 pandemic (after 2020). As international student mobility has become an important competitive tool among countries, academic publications on the subject have also increased.

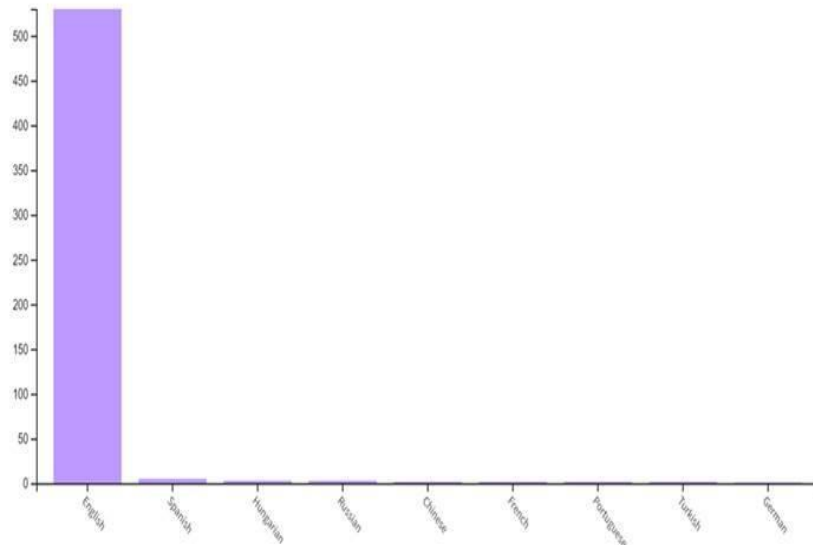


Figure 4. Publication language of articles

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 globalisation, difference and international student mobility | 339 |
| The determinants of international student mobility flows: an empirical study on the Erasmus programme | 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: <https://a8f59890210bb2a36cc265c34c80a801c14e01d5.vetisonline.com/wos/woscc/summary/9b491c4c-cbcf-496e-ad82-3ffbd2176444-b351f4c9/relevance/1>

The most cited articles are on student mobility and its consequences. For example; in 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).

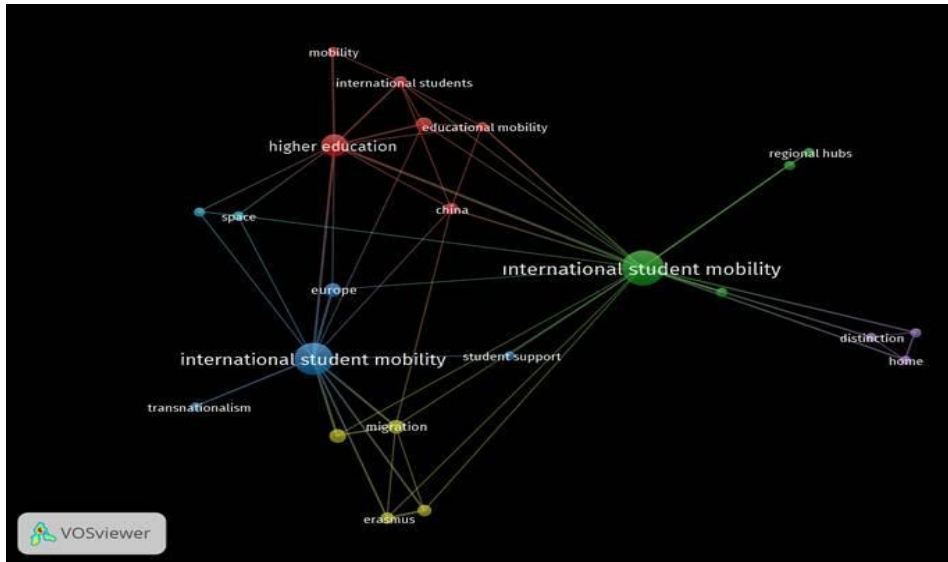


Figure 5. Keywords

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.

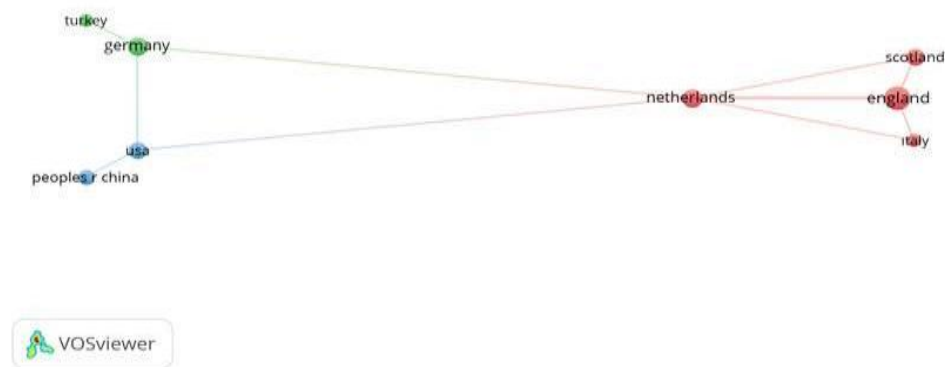


Figure 6. View of articles by country

The distribution of articles on international student mobility by country is listed below: 74 articles were published in England, 73 in the USA, 69 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

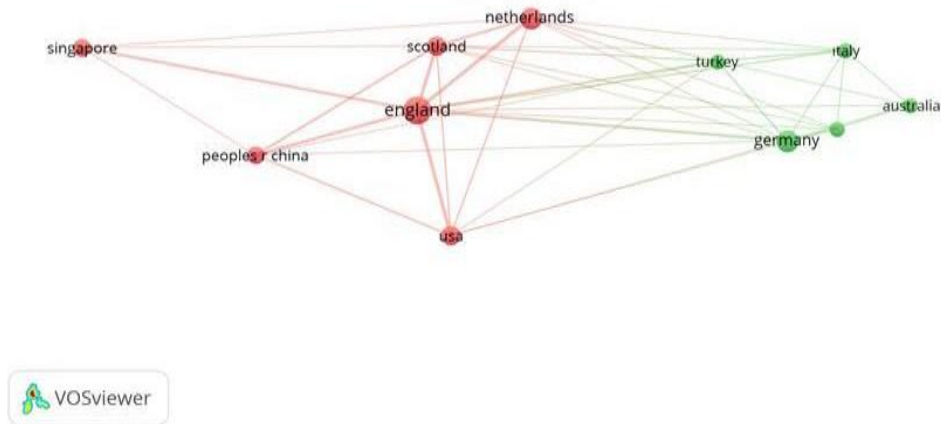


Figure 7. Citation network for articles

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.

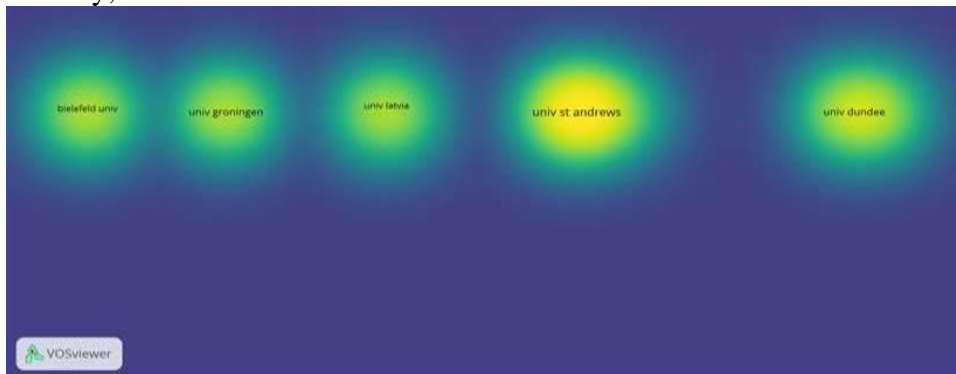


Figure 8. Citation network for inter-university articles

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), Latvia University (Latvia). Articles published in universities originating in England and Scotland are more frequently cited.

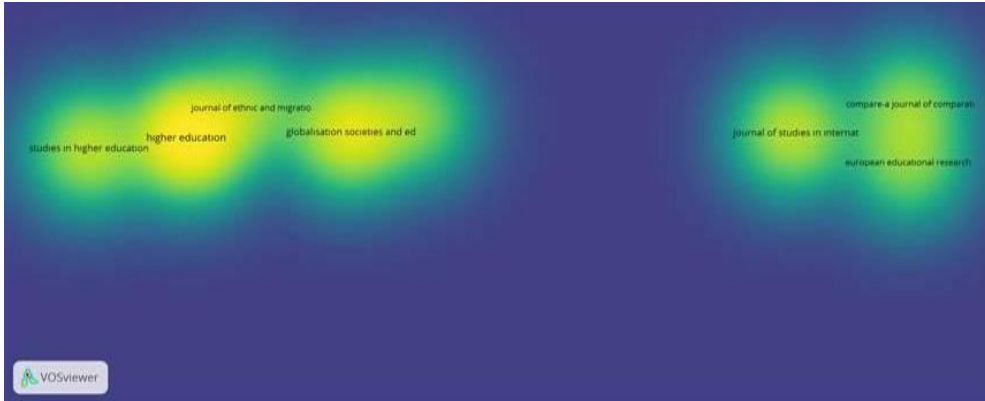


Figure 9. Journals with the most articles on the subject

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

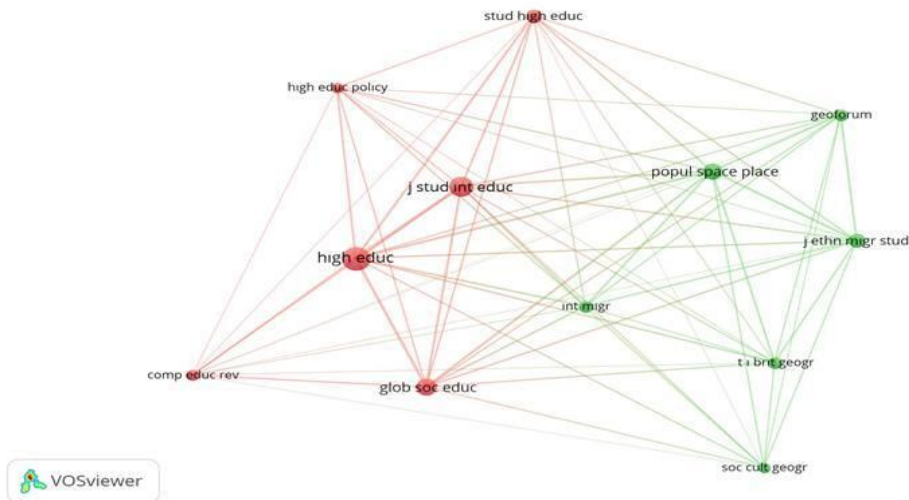


Figure 10. Inter-journal citation network

According to the inter-journal citation network, Higher Education and Population Space Place are the most cited journals. Higher Education journal has been cited mostly by other education journals (Journal Study International Education, Comparative Educaiton Review, Globalisaiton

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).

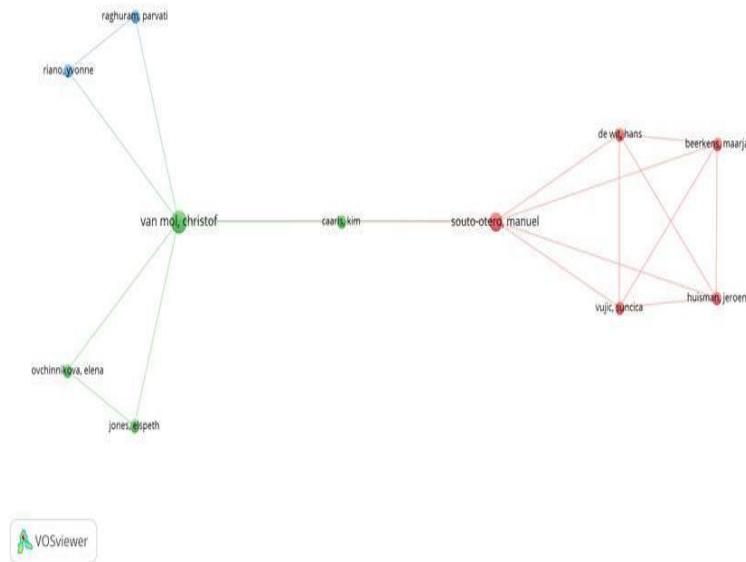


Figure 11. Most cited authors

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, 2013).

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).

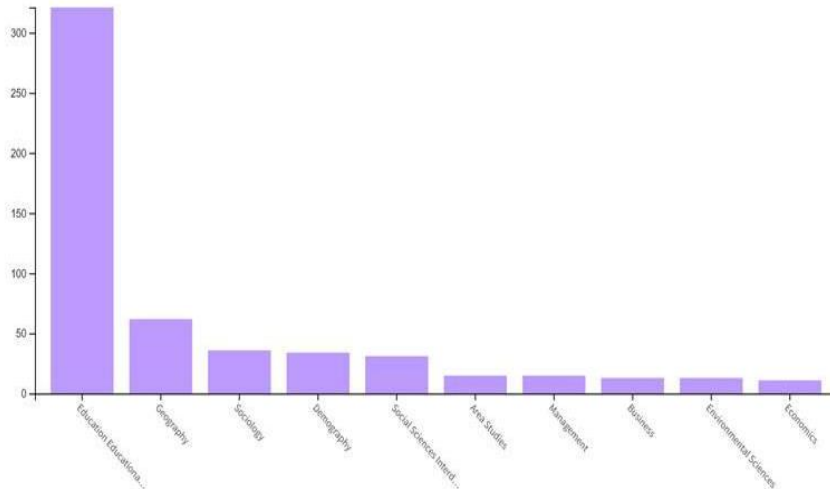


Figure 12. Distribution of articles according to scientific fields

Articles published on international student mobility are categorized in 9 different scientific fields. 320 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.

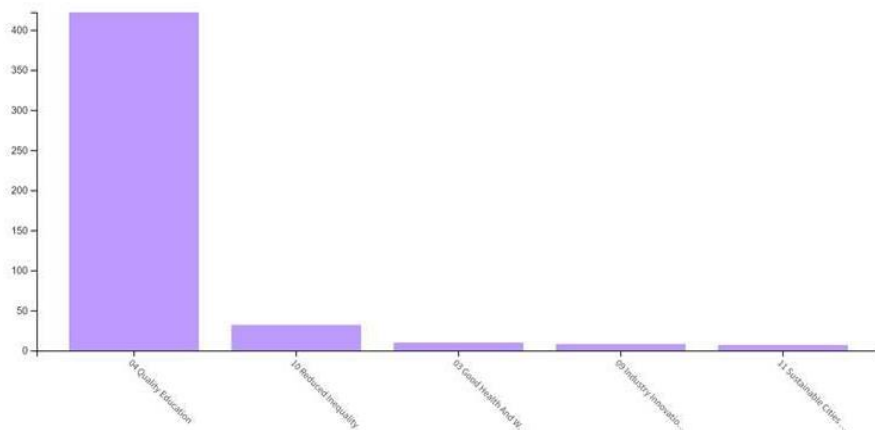


Figure 13. Distribution of articles according to topics

The articles published on international student mobility are listed as follows in order by subject: 472 articles are related to "Quality Education", 40 to "Reduced Inequality", 15 to "Good Health and Wellbeing", 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 550 articles scanned in the Web Of Science database were examined and the results of 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 of time 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 550 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), Bielefeld 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 personal 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", "Sustainable Cities and Communication". The highest number of articles were published on the subject of "The Search for Quality in Education". The 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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