

Trend Research on Education Tourism from 2020 – 2022: A Bibliometric Study

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Abstract

Research in tourism education is essential for various reasons, including deepening our understanding of the industry, identifying emerging trends and challenges, developing effective educational programs, and fostering innovation and competitiveness. This article explores the significance of tourism education through a bibliometric analysis of leading authors, institutions, and countries. The study focuses on productivity, citation patterns, and research trends in tourism education over three years (2020-2022). Using a sample of 908 Scopus documents, the study employs quantitative data analysis techniques and identifies patterns using Bibliometric R and Elsevier's SciVal fingerprint tool. The results indicate that China is the most active country in tourism education research, with two universities in Portugal standing out as the top publishing institutions. Additionally, the analysis highlights the areas of ecotourism and higher education as the most closely related topics to tourism education during the period analyzed. In three years (2020-2022), it is clear that tourism education in higher education is a topic of discussion every year.

Keywords: *Bibliometric, Education Tourism, Scival, Ecotourism.*

INTRODUCTION

Tourism education is a crucial aspect of the hospitality industry, one of the world's largest and fastest-growing industries [1]. It studies the various aspects of tourism and travel, including destination management, tourism marketing, event management, and hospitality. In recent years, the industry has seen tremendous growth, and this trend is expected to continue, creating numerous job opportunities and careers in the field. Tourism education is offered as a major or specialization within hospitality management programs in higher education [2]. The study of tourism education is essential for several reasons. First, it provides students with a comprehensive understanding of the tourism industry, which is necessary to succeed in the field. This includes knowledge of the history of tourism, tourism policies and regulations, tourism marketing, and the different types of tourism activities and destinations [3].

In addition, tourism education programs often include hands-on training, which is essential for students wishing to work in the industry. This training may include hands-on experience in event planning, destination management, and hospitality operations. Such hands-on training allows students to develop the necessary skills and knowledge for a booming tourism industry career [4], [5]. Another benefit of studying tourism education is creating a global perspective. Tourism is a worldwide industry, and tourism education programs often include courses that examine various cultural, economic, and political aspects of tourism in different regions of the world [6], [7]. This enables students to understand the diversity of the tourism industry and prepares them to work in an increasingly globalized environment [8].

In addition to these benefits, tourism education programs often include courses that examine tourism's economic and environmental impacts. This is important as tourism can have both positive and negative impacts on travel destinations, and it is vital for those working in the industry to understand and mitigate these impacts [9]. This includes understanding the impact of tourism on local communities, heritage sites, and the environment and the importance of sustainable tourism practices. Tourism education is an essential field of study for those interested in a career in the hospitality industry [10]. It provides students with a comprehensive understanding of the tourism industry, hands-on training, a global perspective, and an understanding of

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tourism's economic and environmental impacts [11]. In higher education, a Tourism Education major is an excellent way to prepare for a successful and fulfilling career in this dynamic and growing industry [12].

Research in tourism education is essential for various reasons, including deepening our understanding of the industry, identifying emerging trends and challenges, developing effective educational programs, and fostering innovation and competitiveness [13]. As the tourism industry continues to grow and evolve, we must invest in research and education to ensure its long-term sustainability and success. The study helps deepen our understanding of the tourism industry and its various components, such as the history and development of tourism, the factors influencing tourist behavior, and the impact of tourism on destinations and local communities [8]. This knowledge is essential for developing effective policies and practices supporting sustainable tourism, which is becoming increasingly important today [14].

There are new opportunities and challenges related to using digital tools in the tourism industry, such as the use of social media and mobile applications. Research in this area can help understand how these developments affect the industry and how they can be leveraged to improve the tourism experience for tourists [6]. It can aid in the development of effective educational programs. By understanding the needs and trends in the industry, educators can design programs that equip students with the knowledge and skills they need to succeed in the field. This may include courses focused on tourism management, marketing, and sustainable tourism practices [15].

Research in tourism education can also contribute to developing new and innovative solutions to challenges faced by the industry. For example, research can help create new approaches to destination management and marketing and new technologies to enhance the tourism experience. This can help drive innovation and competitiveness in the industry, which is vital to its continued growth and success. In tourism education, bibliometric analysis can identify the most influential authors, institutions, and journals in the field and the most studied topics and research methods. Bibliometric analysis is a valuable tool for researchers in the field of tourism education.

This research aims to conduct a literature review on educational tourism studies using bibliometric methods in three years (2020-2022). This analysis can identify gaps in the literature, assess the impact and impact of research, and identify trends and changes in the field over time. By using bibliometric analysis, researchers can ensure that their work is based on the latest research and aligned with the priorities and needs of the field.

METHODS

This research paper analyzes the structure and content of the literature on educational tourism using bibliometric analysis methods [16]. It allows the evaluation of specific academic and academic journals, and the study identifies the top contributors regarding authors, organizations/universities, and countries [17]. This method also summarizes the contributions of a research topic [18]. It conducts a literature review, analyzes clusters of critical themes/issues in a field, and suggests possible future research [19]. We access bibliographic records from the Scopus database of peer-reviewed literature in various areas.

The literature for this research was gathered from the Scopus collection of abstracts and citations (<https://www.scopus.com>). The title, abstract, and keywords were created after a series of examinations with education tourism research. The search expression in Scopus was created using the query string TITLE-ABS-KEY(Tourism Education) AND PUBYEAR > 2019 AND PUBYEAR < 2023 AND (LIMIT-TO (EXACTKEYWORD, Tourism) OR LIMIT-TO (EXACTKEYWORD, Education) OR LIMIT-TO (EXACTKEYWORD, Tourism Development) OR LIMIT-TO (EXACTKEYWORD, Higher Education))). 2020-2022 was chosen to limit this research to the requested keywords. The search yielded 908 documents from various sources, providing a global overview of tourism education research. Table 1 summarizes the quantitative data based on the analysis of the Bibliometrix R-package [20].

TABLE 1. Summary of Bibliographic Statistics of Education Tourism

Description	Results
Timespan	2020-2022
Sources (Journals, Books, etc)	421
Documents	908
Article	620
Book Chapter	18
Conference Paper	217
Editorial	6
Letter	5
Note	3
Retracted	1
Review	38
Annual Growth Rate %	-7.01%
Average citations per doc	7.362
Authors	2833
Single-authored docs	156
Co-Authors per Doc	3.39

A total of 908 different documents were then included in the bibliometric study. First, the most active countries, institutions, and authors from this period were examined. The second step was to look at the journal distribution and the most cited article. The third step was to look at the most prolific authors and sources. Finally, the Elsevier Fingerprint Engine (Scival) was used to examine keyphrases and find research trends in two years [21].

RESULTS AND DISCUSSION

Document Analysis

By looking at different types of literature, it is possible to figure out the most basic ways to share research results in education tourism. According to the classification of the kinds of literature, out of the 908 pieces of primary literature, 620 journal articles make up 68.3% of the total. Next are conference papers, which have 217 articles and constitute 23.9% of the whole. The type and proportion of complete documents are shown in Figure 1. It is worth noting that the share of social science research in tourism education is 23% higher than in other areas. Environmental Sciences (16.9%), Business, Management, and Accounting (11.7%), Earth and Planetary Sciences (8.8%), and Medicine (5.8%) follow in the top five.

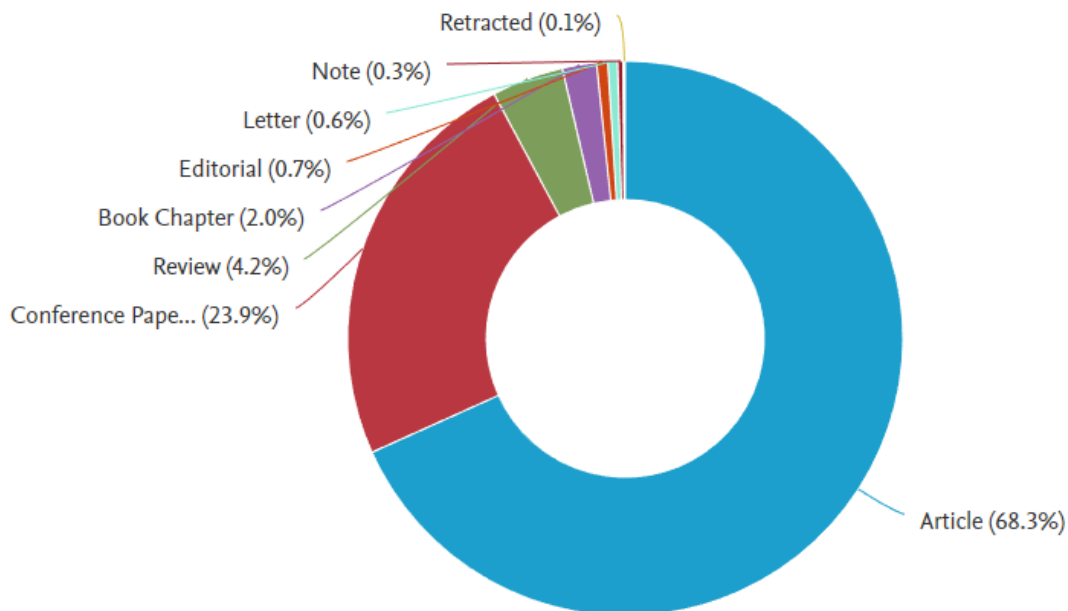


FIGURE 1. Proportion Documents Type of Education Tourism from 2020 – 2022

Most Active Countries, Institutions, and Authors

Understanding the number of articles published in different countries helps to quickly identify countries that have made significant contributions to educational tourism as shown in Figure 3. These papers come from a total of 97 countries. China has been the most prolific country with 157 publications in this research topic. It is followed by Spain (71), Indonesia (62), United States (62), and Portugal (57) in the top five most productive countries.

In three years (2020-2022), China will be very active in publishing tourism education research. There are 157 documents on Scopus, of which 81 are journal articles, 68 are conference papers, and the rest are review documents, book chapters, and letters. China is very active in educational tourism, as it focuses on attracting international students and is committed to providing quality education to international students. China has poured a lot of money into its education system, making it one of the most advanced in the world and offering many opportunities for international students. Due to its growing economy and middle class, China is increasingly interested in educational tourism. Educational tourism gives Chinese students a chance to get a good education and learn about other cultures. It also helps the Chinese economy. Educational tourism also helps promote cultural exchanges and understanding between China and other countries. Educational tourism also gives Chinese students a chance to learn important language and art skills that can help them in their future careers.

Liu et al. (2022) was the study with the most contributions in these three years, with 71 citations on Scopus [22]. This study examined how carbon emissions respond to changes in tourism development. Using spatial econometric methods, panel data from 2000 to 2017 for 70 countries were looked at to see how the growth of tourism affects pollution in other places. Researchers have found that tourism has both a positive direct and a negative indirect effect on pollution and that both are important. The adverse indirect effects of tourism are more significant than the positive direct effects, which means that tourism has many harmful overall effects. It has been found that financial development, carbon emissions, population density, trade openness, economic growth, and spending on education and infrastructure can cause pollution. The results showed that when a country's tourism industry grows, emissions go up initially but then down after a certain point. The study was published in the Journal of Environmental Management, Volume 3031, February 2022.

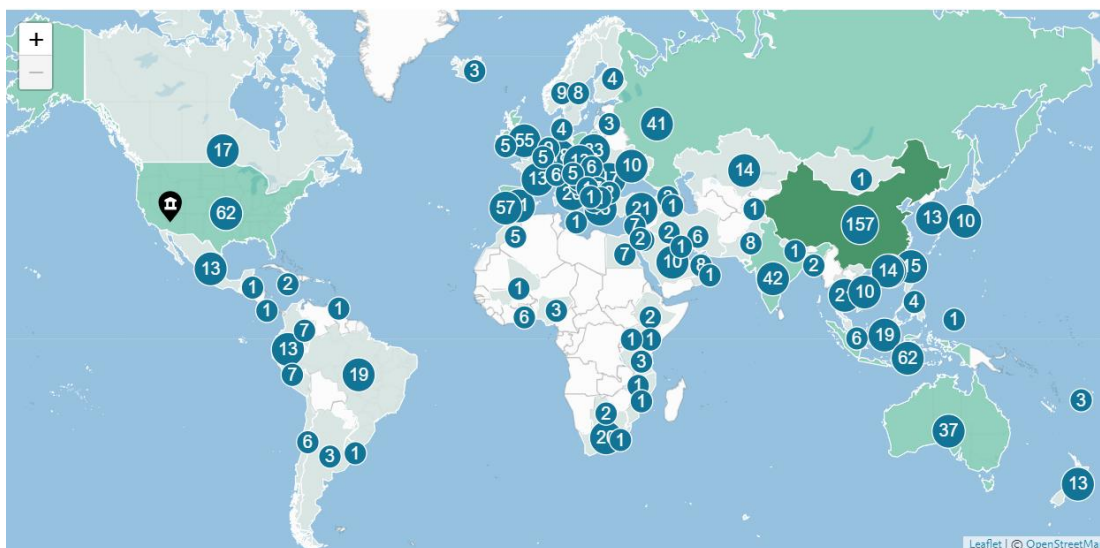


FIGURE 2. Top Country Based on Scholarly Output of Education Tourism from 2020 – 2022

The visualized atlas as seen in Figure 2 can not only identify the number of published documents of country, but also help researchers to find important research institutions and potential collaborators, or send personnel

from their schools to corresponding high-end institutions or well-known scholars for exchange and study. A total of 101 institutions have participated in the research on education tourism in 2022-2022.

The Polytechnic Institute of Porto (IPP) is the most productive institution in 2020–2022 research related to educational tourism, producing 21 related publications. IPP is a public university in Porto, Portugal. Founded in 1985, it is one of the largest universities in the country. The IPP offers various undergraduate and postgraduate engineering, science, technology, and management programs. The University of Aveiro follows in second place with 16 publications. The University of Aveiro is a public university in Aveiro, Portugal. It was founded in 1973 and is one of the youngest universities in the country. The university is divided into five faculties and offers a variety of courses in areas such as engineering, the natural sciences, the humanities, and the social sciences.

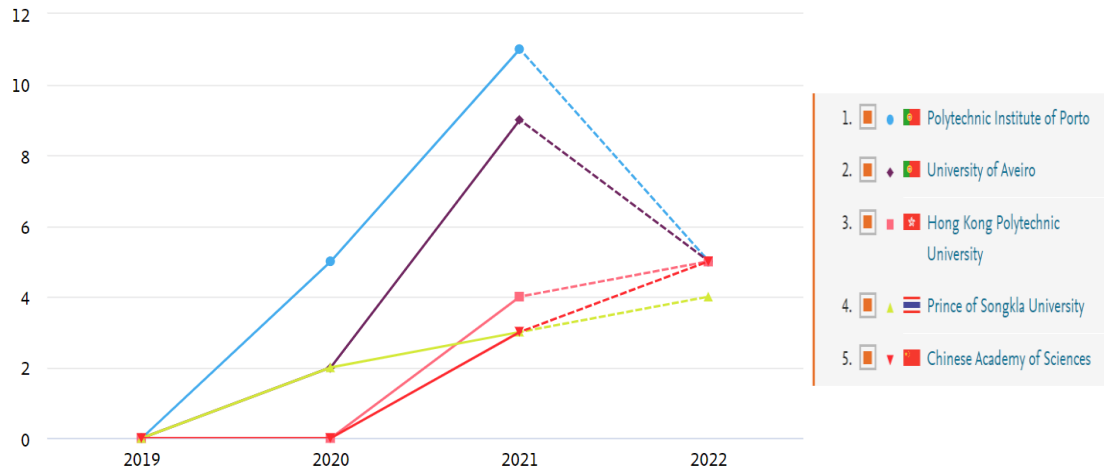


FIGURE 3. Top Five Institution Based on Scholarly Output of Education Tourism from 2020 – 2022

What is interesting about these top five affiliations is that there are two Portuguese universities in first and second place (Figure 3). This is because tourism education in Portugal is available at different levels of the education system. Universities, polytechnics, and vocational schools all offer undergraduate and graduate programs in tourism. Most of the time, these programs focus on different areas of tourism, like tourism management, hospitality, travel and tourism services, and event planning. In these areas, students learn both theory and how to put it into practice. They also have the chance to get hands-on experience through internships and other forms of experiential learning. In addition to formal education, Portugal has some programs for professional development and certification that can help people in the tourism industry move up in their careers.

TABLE 1. Top Ten Most Prolific Authors of Education Tourism from 2020 – 2022

No.	Name	NP	TC	Affiliation
1	Yonghui Cao	6	1	Guangzhou College of Technology and Business, Guangzhou, China
2	He Jiang	6	1	Guangzhou College of Technology and Business, Guangzhou, China
3	Kevin Fuchs	4	10	Prince of Songkla University, Hatyai, Thailand
4	Kashif Hussain	4	4	Taylor's University Malaysia, Subang Jaya, Malaysia
5	José Manuel Sánchez-Martín	4	2	Universidad de Extremadura, Badajoz, Spain
6	Hugues Séraphin	4	9	University of Winchester, Winchester, United Kingdom
7	Sandra Vasconcelos	4	1	Instituto Politécnico do Porto, Porto, Portugal
8	Galina Berjozkina	3	6	City Unity College Nicosia, Nicosia, Cyprus
9	Ana Pinto Borges	3	11	ISAG – European Business School and Research Center in Business Sciences and Tourism (CICET-FCVC), Porto, Portugal
10	Chungshing Chan	3	11	Chinese University of Hong Kong, Hong Kong

Table 1 shows that Yonghui Cao and He Jiang from the Guangzhou College of Technology and Business, Guangzhou, China, are the most prolific authors in research on educational tourism for 2020–2022. But the fact that their study was only cited once shows that it didn't significantly impact educational tourism research.

Meanwhile, Ana Pinto Borges from ISAG – European Business School and Research Center in Business Sciences and Tourism (CICET-FCVC), Porto, Portugal and Chungshing Chan from Chinese University of Hong Kong, Hong Kong only wrote three articles but received 11 total citations in Scopus.

Journal Distribution and Most Cited Article

From 2020 to 2022, 720 articles on educational tourism research were published in 367 different places. Sustainability Switzerland had the most, with 86, followed by the E3S Web of Conferences with 36 articles, and the IOP Conference Series: Earth and Environmental Sciences with 32 articles. The article with the highest ranking by the number of citations is the International Journal of Surgery, with 2,317 citations. The field-weighted citation effect (FWCI) is 105.06, meaning that the most attention has been paid to this author's work by researchers in the field and is highly regarded in educational tourism.

Field-weighted citation impact shows how the number of citations from an entity's publications compares to the average number of citations from all other similar publications in the data universe. An FWCI of 1.00 indicates the entity's publications were cited exactly as expected, based on the global average for similar publications; the FWCI of the world, or the entire Scopus database, is 1.00. An FWCI greater than 1.00 indicates it is above the global average for similar publications; for example, 2.11 means it is 111% higher than the world average. An FWCI of less than 1.00 indicates it is below the global standard for similar publications; For example, 0.87 means 13% less than the world average.

Second is Sustainability Switzerland, with a citation count of 624 and an FWCI of 1.12. Third is the Journal of Sustainable Tourism, with a citation count of 193 and an FWCI of 2.68. Fourth is Tourism Geographies, with a citation count of 93 and an FWCI of 93. Fifth is Tourism Management, with a citation count of 92 and an FWCI of 6.49. Figure 4 below shows the top five sources, consisting of two journals (Sustainability Switzerland and Geojournal of Tourism and Geosites) and sources from conference proceedings (E3s Web of Conferences, IOP Conference Series Earth and Environmental Science, and Journal of Physics Conference Series).

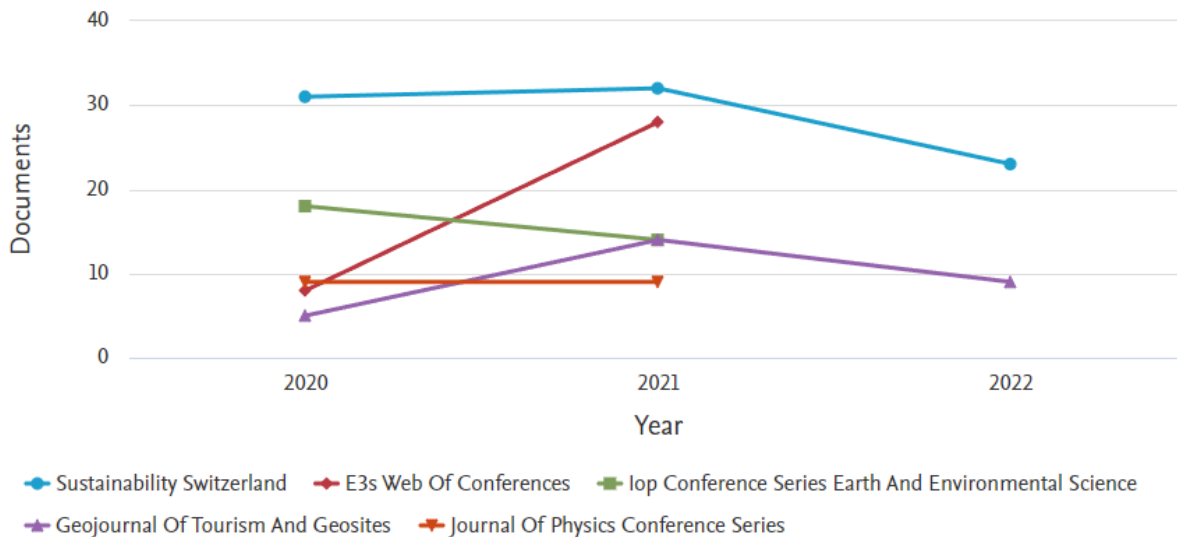


FIGURE 4. Top Five Sources Based on Scholarly Output of Education Tourism from 2020 – 2022

Sustainability Switzerland became the most productive journal in educational tourism research during this time. In 2020-2022, the number of Scopus publications was 86 articles with 624 citations. Sustainability Switzerland is an academic journal or publication about research, policy, and practice in Switzerland related to sustainability. This journal's content and main focus may change, but it is most likely devoted to researching and promoting sustainable development and protecting the environment in Switzerland and worldwide. Sabrina Tomasi, Gigliola Paviotti, and Alessio Cavicchi from the Department of Education, Cultural Heritage, and Tourism at the University of Macerata in Macerata, Italy, conducted one such study on educational tourism.

The research addressed how universities can use educational tourism to support local development. Research shows that international students can benefit both themselves and tourist destinations. Universities can help create links between tourists and local communities to keep learning and boost the local economy. This paper is about international students and educational tourism. It suggests that more research is needed. This research was published in Volume 12, Issue 17, September 2020, and it has been cited 15 times on Scopus [23].

Another related research was done by Acevedo-Duque et al. (2020), also published in Volume 12, September 2020 [24]. This article examines the scholarly production of hospitality, leisure, and tourism studies in Chile using a scientometrics approach. The article reviews the contributions of Chilean authors and the relationship between research, education, and the continued development of the LDS industry. Findings indicate an increase in scholarly output over the past decade, an improvement in the quality of publications, involvement in relevant co-authorship networks around the world, a development of general questions into questions of the discipline itself, a focus on ecotourism education, and a disconnect between sectoral centers of knowledge generation and training. This article has been cited 12 times on Scopus.

TABLE 3. Top Ten Highest Cited Documents Related to Education Tourism from 2020 – 2022

Rank	Title	Authors	TC	Findings
1	“The socio-economic implications of the coronavirus pandemic (COVID-19): A review”	Nicola et al. (2020)	3,005	The paper highlights the importance of strong leadership during economic uncertainty, particularly in sectors like healthcare, business, government, tourism, education, and society. It suggests the need for immediate aid measures and a medium to long-term plan to stimulate the economy, which encourages entrepreneurship and supports sustainable business models. The role of governments and financial institutions in constantly assessing the situation and taking action to help is also emphasized [25].
2	“Hospitality and tourism industry amid COVID-19 pandemic: Perspectives on challenges and learnings from India”	Kaushalet al. (2021)	233	The study of the impact of COVID-19 on the tourism and hospitality industry found four main themes: human resource management, health and hygiene, continuity, and concerns. The study concludes with recommendations for decision-makers and highlights the need for future research [26].
3	“The “war over tourism”: challenges to sustainable tourism in the tourism academy after COVID-19”	Freya Higgins-Desbiolles (2020)	152	The article argues for the need for reform in the tourism industry to ensure greater sustainability and fairness. It argues that the COVID-19 crisis presents an opportunity for change and that there is a debate between those who want to return to business as usual and those who envision a more sustainable future. The author believes that it is the responsibility of members of the tourism academy to act as scholars in this debate, not combatants [14].
4	“COVID-19 pandemic: A review of the global lockdown and its far-reaching effects”	Onyeaka et al. (2021)	96	The study examines the impact of COVID-19 lockdown on various aspects of life including food security, economy, education, tourism, gender relations, domestic violence, mental health, and environment. The goal is to understand the consequences of lockdown and guide future decisions in case of future pandemic outbreaks [27].
5	“Crisis management research (1985–2020) in the hospitality and tourism industry: A review and research agenda”	Wut et al. (2021)	81	The study is a systematic review of crisis management in hospitality and tourism industries from 1985-2020. It highlights emerging issues like health crises, social media crises, political unrest, and terrorism. It proposes a framework for future research and offers ten directions for the research agenda, such as crisis prevention and risk communication. It summarizes essential work and provides 100 research questions for future study [28].
6	“Saudi Arabia's drastic measures to curb the COVID-19 outbreak: Temporary suspension of the Umrah pilgrimage”	Ebrahim et al. (2020)	77	The article discusses the impact of Saudi Arabia's decision to halt the Umrah pilgrimage due to COVID-19. It examines its effects on the economy, jobs, pilgrims' finances, tourism, and mental health, as well as the diplomatic challenges for Saudi Arabia. The article also mentions that the decision could help stop the spread of COVID-19 in the GCC region [29].
7	“Role of tourism development in environmental degradation: A step towards emission reduction”	Liu et al. (2022)	72	The article studies the relationship between tourism and climate change in terms of carbon emissions. The study uses data from 70 countries and finds a negative overall impact of tourism on pollution through positive and negative indirect effects. The relationship between economic growth, carbon emissions, and pollution is found to be shaped like an upside-down U and a U [30].
8	“6g enabled smart infrastructure for sustainable society: Opportunities, challenges, and research roadmap”	Imoize et al. (2021)	58	The article reviews 6G wireless network, highlighting its changes from previous standards, disruptive technologies for high-quality physical experience, and challenges/issues in implementation. It discusses potential solutions, new use cases in industries such as agriculture, education, tourism, and transportation, and its impact on sustainability and business. The authors also mention current research trends and open questions in 6G [31].

9	“International tourism, social distribution, and environmental Kuznets curve: evidence from a panel of G-7 countries”	Anser et al. (2020)	51	The study looked at the relationship between international tourism receipts, social distribution, foreign direct investment, and CO2 emissions in G-7 countries from 1995-2015. Results show that CO2 emissions increase with ITR and FDI but decrease with government spending on education. To improve environmental sustainability, there must be efficient resource use, sustainable tourism, and fair income distribution [32].
10	“A bibliometric analysis of sports tourism and sustainability (2002-2019)”	Jiménez-García et al. (2020)	50	The study uses bibliometric techniques to analyze the trend in research on sports tourism and sustainability, showing increased interest in the field, particularly in the last 4 years, tied to significant sports events and UN Sustainable Development Goals. The analysis identifies key areas for future research in sports tourism and sustainability, such as education and planning for destinations [33].

The number of citations a scientific paper gets is an important metric because it shows how important the paper is to the scientific community and the world. A high number of citations suggests that the article has been widely read and has significantly contributed to the existing body of knowledge in the field. Citations help prove the credibility and authority of the authors and their work. They also help spread new ideas and give new perspectives. They allow researchers to build on the work of others and further advance the field. They also provide an idea of how important an article is in its area, which can affect the authors' chances of getting funding and a job.

Table 3 shows the ten articles with the highest citations in educational tourism-related research from 2020 to 2022. The Nicola et al. (2020) study has the most citations, with 3,005 total citations, showing how popular this article is. In this article, it is said that the COVID-19 pandemic has affected education from preschool to tertiary, with nearly 900 million students being affected by the widespread closing of schools [25]. The changes have made it harder for low-income families and parents of young children to get ahead financially. They have also made it harder for people to climb the social ladder. We don't know what the long-term effects of the shutdown will be on the economy, but early estimates say that GDP could drop by 1%. The pandemic has also significantly impacted postgraduate research, with many non-COVID-19-related research projects being put on hold. Concerns have been raised about how the cancellation of scientific conferences will affect the spread of research, the formation of new partnerships, and job opportunities.

Regarding tourism, it mentions that the World Travel and Tourism Council has warned of 50 million jobs at risk worldwide and highlights measures called for by the European Tourism Manifesto alliance, including state aid, short and medium-term loans, and Tax relief. The essay also talks about how the virus will affect specific countries, like Vietnam, the Philippines, the United States, and the United Kingdom, where the tourism industry is expected to lose money and where travel restrictions and tourist park closures are in place to stop the virus from spreading. This article talks about how COVID-19 has affected the tourism industry, which is thought to be one of the hardest hit. The article talks more about education and tourism in general and doesn't directly mention tourism education. This article was published in the International Journal of Surgery Open Access, Volume 78, June 2020 [25].

Key Phrases and Research Trends

Table 3 shows a strong link between educational tourism and the COVID-19 pandemic. The COVID-19 pandemic is having a significant impact on educational tourism. Due to the virus's spread and the resulting travel restrictions and lockdowns, schools, universities, and other educational institutions have had to close for a while. This has caused students and professionals to change their school and travel plans. The COVID-19 pandemic has affected educational tourism, which has led to a change in educational programs and a drop in international travel. The pandemic has given the industry new problems to solve and pushed people to think outside the box. Many institutions are now adapting to online learning and virtual programs.

We found trends in educational tourism research in Scopus during this time using keywords based on Elsevier's fingerprint in SciVal, known as key phrases. Text mining by Elsevier's fingerprinting engine finds a document's author, title, abstract, and keywords. A list of common keywords is created by comparing keywords against a single thesaurus covering all fields. The process was greatly facilitated by SciVal's search capabilities, which helped provide a complete picture of the scientists' achievements and the institutions' activities. The easy-to-

Regarding higher education, educational tourism, and higher education are closely related as higher education institutions are often the main drivers of educational tourism. Colleges offer a variety of academic programs and courses that attract students, professionals, and travelers from all over the world. The relationship between educational tourism and higher education is growing due to the increasing globalization of higher education, the focus on lifelong learning and professional development, and the growing accessibility of educational tourism. Higher education plays a vital role in the growth of educational tourism, and these two forms of travel are closely linked as individuals seek opportunities to learn and advance through academic programs and courses [36].

The relationship between tourism education and sustainable tourism development is close and interdependent. Tourism education plays a crucial role in promoting and achieving sustainable tourism development by equipping future tourism professionals with the knowledge, skills, and values needed to make informed decisions that contribute to sustainable outcomes. Tourism education can help students comprehensively understand sustainable tourism practices, including balancing economic, social, and environmental considerations. This includes learning about the impact of tourism on local communities and the environment and how to manage those impacts responsibly and sustainably [37].

Additionally, tourism education can help students develop a deep appreciation for cultural heritage and biodiversity and an understanding of the importance of preserving these resources for future generations. By providing students with the knowledge and skills to design, plan and implement sustainable tourism initiatives, they can become active agents of change and help create a more sustainable tourism industry. In turn, the growth of a sustainable tourism industry can create new job opportunities and support economic development in destinations, making it an essential aspect of local and global economic growth [38].

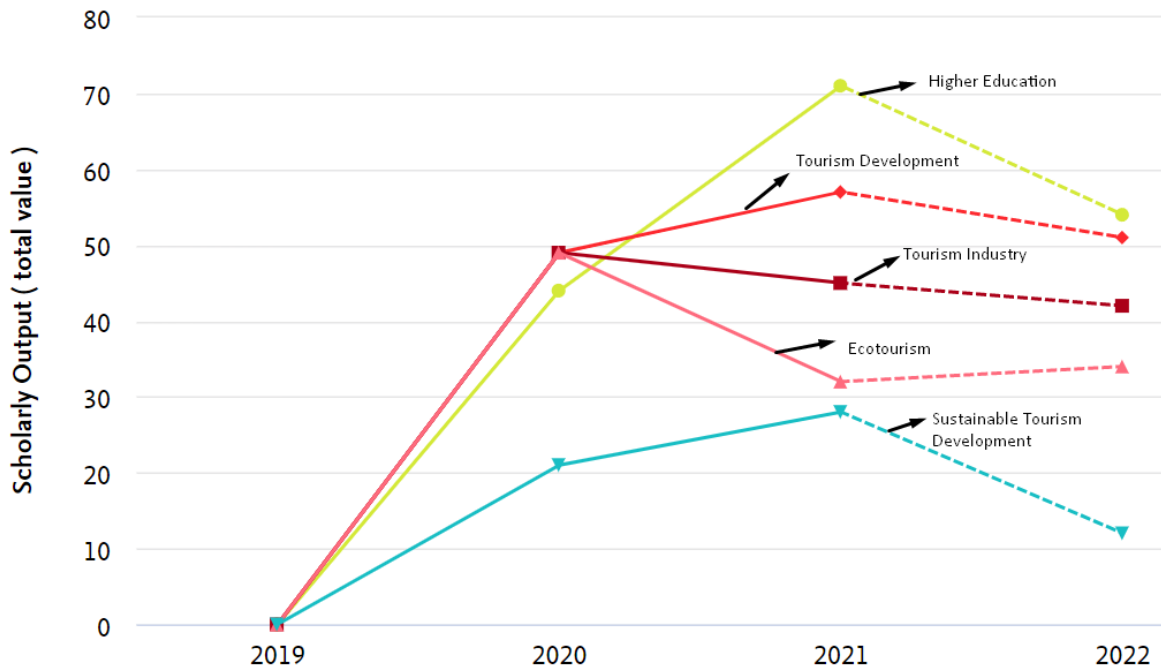


FIGURE 7. Keyphrases Trends Year by Year Based Scholarly Output Related to Related to Education Tourism from 2020 to 2022

Figure 7 above shows five keyphrases similar to the Elsevier Fingerprint Engine (Scival) keyphrases Tourism and Tourism Education. In two years (2020-2022), it is clear that tourism education in higher education is a topic of discussion every year. An interesting study was conducted by Johan Edelheim of International Media and Communication, Hokkaido Daigaku, Sapporo, Japan, published in *Tourism Geographies*, Volume 22, May 2020 [39]. The article highlights the importance of values and axiology in tourism education and research. The author argues that the COVID-19 pandemic is potentially transformative for higher tourism education. This

transformation requires a review of the values that guide education and research. The author believes that a greater awareness of values is needed to change how education in tourism is conducted, focusing on indicators of well-being rather than income and the number of tourist arrivals. The COVID-19 pandemic is seen as an opportunity to reassess these values and bring about positive changes in tourism education.

Another study by Kevin Fuchs of Prince of Songkla University, Thailand, examines distance learning in tourism education. This article discusses the growth of online education and its impact on higher education during the COVID-19 pandemic. The research highlights the differences between well-planned online learning experiences and online courses responding to crises or disasters. This study aimed to examine undergraduate students' perceptions (n=238) about their preferred way of learning during the pandemic. Findings revealed a significant aversion to emergency distance learning (ERT) among first-year students, with underlying reasons being a lack of social interaction, difficulties in learning from home, and technological limitations related to students' Internet connections in rural areas. The article concludes with recommendations for higher education institutions and educators to address these issues, particularly in tourism education. This article was published in *Journal of Environmental Management and Tourism*, Volume 12, 2021 and has been cited 10 times on Scopus [40].

CONCLUSIONS

This study analyzed the literature on tourism education using bibliometric analysis. Documents were extracted from a total of 908 Scopus database entries to provide a complete evaluation of the literature on the topic from 2020 to 2022. For bibliometric analysis and investigation of scientific landscapes/trends, the bibliometric package R and Scival were used. China contributed the most research to tourism education studies in this period, followed by Spain, Indonesia, the United States, and Portugal. As institutions, the Polytechnic Institute of Porto was joined by the University of Aveiro, both Portuguese universities. Our analysis also found that the top academic source was Sustainability Switzerland, followed by E3S Web of Conferences, IOP Conference Series: Earth and Environmental Sciences. Yonghui Cao from Guangzhou College of Technology and Business, Guangzhou, China was the most prolific researcher publishing 6 articles in the period 2020-2022. While the article entitled "The socio-economic implications of the coronavirus pandemic (COVID-19): A review" written by Nicola et al. (2020) was the most cited (3005 citations). Based on keyphrases from Scival (Elsevier) to find research trends in tourism education in three years, it was found that ecotourism and higher education have research themes closely related to educational tourism. In three years (2020-2022), it is clear that tourism education in higher education is a topic of discussion every year.

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