

The Research Focus and Trend Analysis of foreign faculties Based on Knowledge Map

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Abstract. This paper retrieves several English literature of foreign faculties from the Web of Science, and uses CiteSpace software to analyze the key documents, core authors and popular topics in this research field. We find that the research field of foreign faculties has made great progress in recent years. Research focus in this research field include motivation of foreign faculties to work abroad, foreign faculties' job performance, job satisfaction, identity and cross-cultural adaptation, etc. The research trend is to analyse the recruitment and management policies of foreign faculties, the relationship between foreign faculties and students, and the influence of different cultural, institutional and organizational context on foreign faculties.

1. Introduction

Educational globalization forces countries to focus on the improving their education competency at an international level. The Bologna process in Europe and the nationalization strategy of higher education in Russia all aim to strengthen the international education by integrating and introducing foreign high-quality education resources, including recruiting high-quality foreign faculties. Foreign faculties refer to persons with foreign nationality who are engaged in educational work in China. In recent years, China has also been committed to improving the higher education at an international level. In the "13th five-year plan for the development of national education" issued by the State Council in 2017, it is also explicitly proposed to support universities to introduce high-level experts and high-quality curriculum resources from abroad. How to attract and retain foreign faculties working in China has become an issue of great concern to the government and universities.

At the same time, some individual teachers in colleges and universities desire to pursue better career by actively taking part in international academic activities. Not only foreign faculties themselves are very concerned about the career development abroad, but also researchers are gradually paying attention to this group of people. In recent years, foreign scholars have made researches on whether foreign faculties can adapt to the academic environment abroad, how their career development differs from that of their native counterparts, and how to manage foreign faculties. Understanding the current situation and hot spots of foreign research and grasping the trend of foreign research will be helpful to enrich the research on foreign faculties in China. Rational use of researches by foreign scholars is also conducive to the implementation of China's overseas intelligence program, promoting the internationalization of China's higher education.

2. Data Sources and Analytical Methods

In this study, the core database of Web of Science was used as the sources of literature retrieval, and there was no time limit for the sources. A total of 245 pieces of literature data from foreign faculties' English research were found, in which 184 pieces of data (including lists of cited literature) were imported into CiteSpace software for analysis.

This study uses knowledge mapping as a method of documentation and analysis. Compared with the traditional method of content analysis, the advantage of knowledge mapping analysis method lies in that it can reflect the research hotspots and trends of a certain discipline or an academic field more objectively and vividly, and present a full picture of influential representative literature with high

citation rate. From the perspective of comprehensive and systematic literature, knowledge mapping has its unique advantages. But it also has obvious shortcomings -- it does not go far enough to reflect the paper in depth. In order to overcome this defect, the representative papers obtained by knowledge mapping analysis were carefully read and the main points of view were sorted out and summarized. Knowledge mapping analysis is only responsible for information collection in this study. The research conclusion is not limited to the charts automatically generated by knowledge mapping.

3. Academic Hotspots and Development Trends

Cite Space software is used to analyze the keywords and citation of literature in the field, which can help us understand the research hotspots and development trends in this field. Table 1 below shows the keywords with high occurrence frequency and centrality in the research of foreign faculties. Centrality is an indicator to measure the importance of nodes. Keywords or quotations with high centrality play a key role in the field. Table 2 lists 6 literature with the highest citation frequency in the research of foreign faculties. Generally speaking, the more references are cited, the higher the quality of the literature, the more widely recognized the research methods, conclusions and viewpoints are by researchers.

- (1) What are the motivations for foreign faculties to work abroad?
- (2) How is the performance of foreign faculties?
- (3) How is their job satisfaction?
- (4) Can foreign faculties adapt to and identify themselves in the local culture?

Table 1 Key Words Centrality and Frequency Statistics in the Research of foreign faculties

Number	Key word	Centrality	Frequency	Frequency Sorting	Number	Key word	Centrality	Frequency	Frequency Sorting
1	higher education	0.82	38	1	8	self-initiated expatriate	0.08	5	10
2	performance	0.6	11	3	9	teaching	0.08	2	53
3	model	0.35	11	4	10	policy	0.08	2	57
4	identity	0.21	6	8	11	international assignment	0.07	4	19
5	career	0.17	7	6	12	perspective	0.05	6	9
6	Internationalization	0.15	27	2	13	adjustment	0.04	7	7
7	gender	0.14	4	20	14	experience	0.04	9	5

Table 2 Highly Co-citation literature Analyzed by Cite Space

Number	Co-citation Frequency	Total Cited	First Author	Year	Title
1	6	128	Peltokorpi, V.	2009	Organizational Expatriates and Self-Initiated Expatriates: Who Adjusts Better to Work and Life In Japan?
2	6	96	Selmer, J.	2010	Self-Initiated Academic Expatriates: Inherent Demographics and Reasons to Expatriate
3	6	85	Corley, E.	2007	Foreign-Born Academic Scientists and Engineers: Producing More and Getting Less Than Their U.S.-Born Peers?
4	6	62	Mamiseishvili, K.	2010	International and Citizen Faculty in the United States: An Examination of Their Productivity at Research Universities
5	5	64	Selmer, J.	2009	Cultural Similarity and Adjustment of Expatriate Academics
6	5	49	Selmer, J.	2012	Reasons to Expatriate and Work Outcomes of Self-Initiated Expatriates

Table 3 Highly Centralized literature Analyzed by Cite Space

Number	Centrality	First Author	Year	Title
1	0.29	Selmer, J.	2009	Cultural Similarity and Adjustment of Expatriate Academics
2	0.21	Peltokorpi, V.	2009	Organizational Expatriates and Self-Initiated Expatriates: Who Adjusts Better to Work and Life In Japan?
3	0.21	Austin, A.	2014	Expatriate Academic Staff in the United Arab Emirates: the Nature of Their Work Experiences in Higher Education Institutions
4	0.16	Thorn, K.	2009	The relative importance of motives for international self - initiated mobility
5	0.1	Lauring, J.	2010	The supportive expatriate spouse: An ethnographic study of spouse involvement in expatriate careers

3.1 The source channels and motivation of foreign faculties

The foreign faculties can be divided into Organizational Expatriates (OEs, who are sent abroad by the government) and Self-Initiated Expatriates (SIEs, who go abroad on their own). The two concepts come from the study of foreign employees in the field of management. In the early days, due to the high proportion of foreign employees sent abroad by the government, scholars did not distinguish between the two groups. However, as the process of internationalization continues to accelerate, the number of employees who take the initiative to seek job opportunities abroad continues to increase, and scholars who study human resources and management of foreign employees begin to pay attention to the similarities and differences between the two groups. Researchers have found that the SIEs group and OEs group are different in the following areas: Internal occupational motivation [1], motivation to work abroad [2], cross-cultural adaptability [3] and career positioning [4]. The SIEs and OEs also have similarities. Researchers have found that there is no statistical difference as to the overall changing volume in their career capital after working abroad (including professional knowledge and skills needed for the work, as well as goal and motivation from the professional sense) [5], which means both OEs and SIEs improve their working skills after working abroad. Inspired by these studies, the research of foreign faculties started to focus on the SIEs, including their motivation to take the initiative to work abroad, their adaptability to the host country's culture, their work performance and other issues.

In particular, many scholars discussed the motivation of SIEs group to work abroad. The motivations of SIEs to work abroad, in particular, have been discussed. The study found that various motivations, such as adventure and travel, career development, payment, better quality of life and families [6, 7], encourage teachers to go overseas. And these motivations are affected by demographic characteristics, such as gender and age [8]. Faculty's motivations for going abroad have an impact on the SIEs in terms of working performance, efficiency and job satisfaction in the host country, in which the motivation for career development leads to greater work performance and efficiency [9]. Motivation also has an impact on the cross-cultural adaptability of the SIEs [10]. Therefore, when recruiting foreign faculties, colleges and universities should take their motivation of working abroad into consideration, and attract foreign faculties who have a genuine interest in developing academic career to work in schools by offering them decent research facilities and promising career development.

3.2 Performance of foreign faculties

The performance of foreign faculties is reflected in teaching, scientific researches and services. With the increasing number of foreign faculties, the differences between foreign faculties and local teachers are gradually emerging, which is an area being studied by scholars. At the beginning, scholars only focused on the excellent performance of foreign faculties in academic fields, and some scholars analyzed the difference in academic productivity between foreign faculties and local teachers, believing that the opportunity cost theory could be used to explain it. When foreign faculties choose

to work abroad, they give up their existing and potential interests in their own country, and thus have to make up for the lost opportunities and costs through extra efforts. [11]

However, follow-up studies have shown that foreign faculties perform less well in teaching and service compared with local teachers. In the literature with high co-citation frequency, Corley and Mamiseishvili both compared foreign and local scholars working in the United States with their native counterparts, and found differences in terms of their career development, productivity, job satisfaction and other aspects. Corley found that foreign scholars tend to focus on research rather than teaching, so they are more academically productive than local ones. However, the average salary and job satisfaction of foreign scholars are lower than that of local scholars, and their career development is different, too. Young foreign scholars, in particular, take on temporary positions in low-ranking universities, with a not optimistic career development. [12] On the basis of Corley's study, Mamiseishvili conducted a deeper exploration on foreign faculty in American research universities. He enriched the structure of teacher productivity and proposed that although the research productivity of foreign faculties is higher than that of local teachers, their teaching and service productivity is lower. Some literature also analyzed the proportion of foreign faculties and native teachers who have obtained tenure, concluding that some foreign faculties lost the cultural resources to obtain tenure due to their failure to integrate into academic circles. [13]

In addition, many literature compare and analyze the proportion of native American and foreign faculties with tenure positions, revealing the fact that the ratio of native American teachers getting tenure is far higher than that of foreign faculties. Some foreign faculties focus too much on career development and neglect other elements needed to integrate into American academic circles. Native American teachers have a better understanding of the academic and social environment in the United States and have more cultural resources to achieve professional and social integration [13]. Zeng pointed out that about 50.3% of US native teachers have tenure, compared with 43.6% of foreign faculties. [15]

3.3 Job Satisfaction of foreign faculties

Although the research productivity of foreign faculties is higher than that of American teachers, the research points out that the job satisfaction of foreign faculties is lower than that of local teachers, which is reflected in work autonomy [16], decision-making [17], salary and welfare [18], workload [19] and so on. More importantly, foreign faculties may be discriminated by colleagues and managers at work. Ishmael pointed out that foreign faculties are eager to understand and integrate into the American academic community, and feel isolated in their interactions with colleagues in occasions when their speeches in college meetings are not taken seriously [20].

In the highly-cited literature, Austin took foreign faculties working in the UAE as research objects, and investigated the impact of their job expectations, acquired rights, academic freedom and academic autonomy, participation in school management, and career development on their job satisfaction and organizational commitment. The results show that although the UAE attracts a lot of foreign faculties with high salaries, it fails to provide them with professional development and academic freedom, which affect their job satisfaction and organizational commitment. In addition, as foreign faculties often take short-term part-time jobs in UAE countries, they lack job security and participation in school affairs, and their career development, satisfaction and loyalty to the organization are also compromised [21]. Obviously foreign faculties also need respect and self-realization in addition to meet their physiological needs. foreign faculties generally hope to participate in various affairs of the school, and also hope to have certain academic freedom in the formulation of teaching and research tasks. Therefore, schools in the host country should give foreign faculties some academic freedom and provide them with career development prospects, thus enabling foreign faculties to give a full play.

In addition, some teachers choose to teach abroad for their professional development. If these teachers with high self-actualization see no prospect in their work, they would probably leave the job, causing brain drain. Whether the needs of foreign faculties are satisfied also determines their job

satisfaction. Therefore, if universities want to give full a play to the role of foreign faculties, they must meet their high-level needs and improve their job satisfaction.

3.4 Identity and Cross-cultural Adaptation of foreign faculties

Many studies have pointed out that working and living in a foreign country is extremely stressful [22]. The problems that foreign faculties may face include the interruption of contact with their families, the interruption of teaching tasks, academic differences between foreign and their home countries [23], the lack of academic freedom and discourse power [24], which are not conducive to foreign faculties' establishment of identity and adaptation to other cultures. Although Peltokorpi found that the SIEs can adapt to other cultures better than the OEs [25], the SIEs still have problems in cultural adaptation. For example, Selmer proposed that teachers of both EU nationality and non-EU nationality working in Europe need to re-adapt to the local culture, and the cultural differences between their home country and the working country does not affect the level of efforts and time spent to adapt to the new culture. [26]

Meanwhile, the performance of foreign faculties in the new environment depends on their ability to adapt to the host country and its living style and working environment as well as their communication with people of the host country. Therefore, in order to make foreign faculties better adapt to the new culture, the government and universities should provide cross-cultural training for all foreign faculties. In addition, there are other factors that help them adapt to other cultures and establish their identities. For example, Luring studied the positive effects of spouses on foreign employees. He proposed that spouses can help foreign employees build social networks, bringing opportunities for promotion and returning to their home country. [27]

4. Conclusion and Discussion

4.1 Studies on the Future of foreign faculties

In researches of foreign faculties, scholars have long begun to discuss the internationalization of higher education and the work performance of foreign faculties, indicating that the increasing attention from the academic circle on foreign faculties originates from the accelerating internationalization of higher education. Take the United States and other developed countries as an example. Their high-quality education has attracted many foreign students, who tended to stay in these countries to work after graduation. For India, UAE and other less developed countries, their strategy is to attract teachers from developed countries with high salaries and other benefits to improve the quality of their higher education. It is because of the large number of foreign faculties and their unique performance that researchers gradually pay attention to this group.

The analysis of key words co-citation found that the co-citation of policy, students, context and other topics occurred relatively late, indicating that there have been studies on the foreign faculties in terms of n recruitment and management policy, the relationship between foreign faculties and students, the influence of different cultures, institutional and organizational environment. It has also been pointed out in the literature that the career development, job satisfaction and cross-cultural adaptation of foreign faculties still need to be discussed in depth, because they are affected by the type of universities and culture of the host country. It is expected that future scholars will conduct research on foreign faculties from different countries and different types of universities, and conduct in-depth analysis based on their environment. As the government and universities have been strengthening management of foreign faculties, studies on relevant policies are also emerging. Finally, issues like the relationship between foreign faculties and students, arrangement of the teaching plan, and how to give a full play to foreign faculties are still to be studied.

4.2 Enlightenment of Foreign Teacher Studies on China

The number of foreign faculties has become an indicator to measure the internationalization level of a university. By reviewing and analyzing literature, we can basically sort out important literature and research development in the field of foreign faculties, which serve as valuable references for future

studies in China. In addition to literature review, researches on foreign faculties in non-English speaking and developing countries (such as South Korea and China) deserves special attention. Foreign faculties working in such countries may have more in common than those in developed countries. Moreover, as mentioned above, the research related to foreign employees also has an enlightening effect on the relevant researches, which deserves our attention.

In addition, a summary of existing studies shows that foreign faculties generally have difficulties in cross-cultural adaptation, necessitating the need for colleges and universities to offer training and help them adapt to the local culture. Universities should also provide a decent academic environment and teams for foreign faculties, giving them more academic freedom and enabling them to realize their full potential. These studies are of enlightening significance to the management of foreign faculties in Chinese colleges and universities.

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