Research on the Development of Academic Ability of Chinese Graduate Students in Internationalised Education

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Abstract: Graduate education is the main way to train high-level innovative talents. International graduate education is of great significance to improve students' scientific research and academic ability. With the deepening reform of graduate education in our country, there is a higher requirement for the cultivation of international graduate education. This paper focuses on the relevant theories of international education, discusses various practical forms of international education, and deeply analyzes the positive effects of international education on graduate students' academic ability, cross-cultural cognition and global vision. Finally, aiming at the challenge of international education to the academic development of graduate students, this paper puts forward the application strategy of international education in the process of graduate training.

Keywords: International Education; Graduate Students; Academic Ability; Global Competitiveness.

1. Introduction

International education is an educational concept and practice. It is an educational model that integrates international vision, promotes international exchanges and cooperation, and cultivates students' cross-cultural awareness and ability in the educational process. With the deepening of globalization, international education plays an extremely important role in graduate education in the new era and has become an important strategy for the development of universities [1]. Graduate academic ability is a comprehensive concept, covering many aspects of content, such as research ability, critical innovation ability, problem solving ability and academic communication ability. Through the training of international education, graduate students can gain broader learning opportunities and experience, become talents with global vision and cross-cultural background, and lay a solid foundation for academic achievements and future career development.

The research of Opper and other scholars found that students' international education experience can bring long-term social impact [2]. It is not only the process of learning foreign languages or studying abroad, but more importantly, it expands the international vision of graduate students and cultivates students' global awareness, cross-cultural communication ability and global problem-solving skills. In addition, institutions such as Times Higher Education, U. S. News & World Report, QS and Soft Science have included internationalization or international cooperation level in the academic and subject ranking index system of world universities, and the international competitiveness and influence of graduate education. Much depends on the degree to which education is international [3].

2. Theories of International Education

As a complex and multi-layered concept, international education needs to be explained and understood in a theoretical framework. There are many theories of international education, including global learning theory, cross-cultural education theory, academic internationalization theory and so on. Together, these theories form the basis of international education and help schools and educational institutions to better design and implement international educational curricula and activities.

2.1. Global Learning Theory

Global learning theory emphasizes that students obtain an integrated learning experience through participation in global activities and projects. The theory aims to equip students with a global perspective, intercultural awareness and social responsibility, enabling them to actively participate in the social, economic and political environment of the era of globalization.

This theoretical framework holds that through learning across disciplines and borders, students can develop a global awareness, a global perspective, and a sense of global citizenship. Global learning emphasizes practical learning, improving students' comprehensive literacy through field experience and practical problem solving. In international education, global learning theory provides graduate students with more in-depth academic and practical experience, which makes them better adapt to the complex and changing global environment.

2.2. Cross-cultural Education Theory

Cross-cultural education is an educational activity in which the recipients of a certain culture are introduced into their own culture and foreign culture as an opportunity to cultivate their intercultural adaptation and dialogue ability, including many factors such as individual cultural attitude, way of thinking, cultural identity, belief, motivation, sense of national belonging, cultural friction, interpersonal relationship, cultural adjustment, and cultural communication ability [4]. Cross-cultural education advocates the equal relationship between different cultures, respects cultural diversity, and promotes mutual understanding and enrichment among cultures. The purpose of intercultural education is to train students to have a better understanding of their own national culture, develop the ability to appreciate and judge other
national cultures on this basis, and eventually acquire the ability to appreciate world cultures and deal with cross-cultural issues [5].

Cross-cultural education theory focuses on the learning and communication of individuals in different cultural backgrounds. This theoretical framework emphasizes the impact of cultural differences on education, and the core idea is that by deeply understanding and respecting the values, beliefs and habits of different cultures, individuals are better able to adapt to a multicultural environment and improve their academic and social abilities in an international context.

2.3. Academic Internationalization Theory

The theory of academic internationalization focuses on the international cooperation and academic exchange of higher education institutions. Its core objective is to promote the international cooperation and exchange of academic circles and promote the global dissemination and development of knowledge. This theoretical framework holds that international cooperation and academic exchange can facilitate the global flow of knowledge, drive innovation in the field of research, and emphasize the importance of knowledge sharing and international cooperation.

Academic internationalization includes not only the international dissemination of academic results, but also the sharing of teaching methods, research projects and academic resources. Through academic internationalization, graduate students can access a wider range of academic resources, improve their research, and contribute to the prosperity of the international academic community.

Taken together, these three theoretical frameworks constitute the theoretical basis of international education, providing graduate students with a rich learning experience at the cross-cultural, academic and practical levels, and promoting their academic development and global competitiveness.

3. Practice Form of International Education

International education offers graduate students a variety of forms of practice, covering different fields and levels. These forms of practice are designed to promote a global perspective, cross-cultural exchange and academic development of graduate students. The following are some common forms of international graduate education practice, including study abroad experience, international cooperation projects and exchange activities, field trips and internships.

3.1. Study Abroad Experience

Postgraduate study abroad is one of the classic forms of international education. By studying abroad for a degree or conducting short to medium-term exchanges, graduate students can gain insight into the academic atmosphere of different countries and cultures and access to leading global research resources. This form of practice not only helps to improve the academic level, but also cultivates the language ability and cross-cultural learning ability of postgraduates through the communication with foreign tutors and classmates, and expands their vision and way of thinking.

Xiamen University has always been committed to promoting international graduate education, cultivating interdisciplinary and innovative high-level international talents, and attaching equal importance to "going out" and "bringing in" to create a good international environment for graduate education. Xiamen University has enrolled 127 state-sponsored graduate students in 2020, an increase of 65 over 2010. The number of international students who came to the university to study for master's and doctoral degrees throughout the year was 371 in 2010 and 776 in 2019, an increase of 405. Xiamen University is committed to cultivating interdisciplinary, innovative and high-quality international talents with a global vision and understanding of international rules, and contributing to the building of a community with a shared future for mankind.

3.2. International Cooperation Projects and Exchange Activities

Cooperative projects and academic exchange activities are the most common and active basic ways of international graduate education, and also an important way to promote the internationalization of graduate students. These projects usually include research collaborations, joint training projects, international academic seminars, etc., providing opportunities for graduate students to participate in international academic cooperation. By working with researchers from different countries and cultural backgrounds, graduate students are able to deepen their understanding of the field of international studies and establish a broad range of international academic pathways. Tsinghua University vigorously promotes the international training of graduate students, attaches equal importance to "local internationalization" and "cross-border education", gathers global high-quality education resources, constantly explores and innovates international training modes, and carries out the exploration and practice of international training of graduate students with "one supporting platform, multi-level and multi-mode training system" [6]. The school actively expands international training resources, and has signed inter-university agreements with more than 280 universities in more than 50 countries and regions, establishing long-term and stable cooperative relations. Relying on various advantages such as comprehensive disciplines, international resources and management guarantees, the university has carried out academic exchanges and scientific research cooperation, and encouraged students to participate in international conferences and academic activities to improve their international communication ability.

3.3. Field Trips and Internships

Field trips and internships are also very important components of the practical form of international education, which provide students with the opportunity to interact with the international community and practical work experience. Study abroad or internship, so that graduate students away from the familiar environment and interpersonal circle, have the opportunity to experience the education, culture and social environment of different countries. This form of practice is helpful to improve the cross-cultural communication ability of graduate students and expand their international vision. It also helps to improve the practical ability and academic research level of graduate students, and plays a key role in cultivating innovative thinking ability and international competitiveness of graduate students.

There are many practical forms of international education for graduate students. With these diversified forms of practice, graduate students can not only improve their academic level, but also cultivate the comprehensive ability of cross-cultural communication, teamwork and solving practical problems,
and lay a solid foundation for their future academic and career development.

4. International Education is Conducive to the Improvement of Graduate Academic Ability

Among the abilities that graduate students should possess, academic ability is the core, and the development and cultivation of academic ability is a major issue concerning the overall situation [7]. The improvement of postgraduate academic ability is a comprehensive and in-depth process, including in-depth mastery of subject knowledge, independent research ability, innovation ability, expression ability and so on. From the school's point of view, graduate education is academic inheritance and innovation, representing the school's overall academic competitiveness; For students, academic ability is to enhance the ability to explore the unknown world, which is a very important life experience. There is a close relationship between international education and graduate academic research, which promote each other and jointly promote the academic development of graduate students in the context of globalization.

4.1. Broaden and Deepen the Subject Knowledge

International education provides a wider range of academic resources for graduate students. Through international cooperation projects, study abroad experience and academic exchange activities, graduate students can have access to rich academic resources in different countries and regions, including advanced research equipment, library resources, academic journals. All these provide more research tools and materials for graduate students, help to expand their disciplinary vision, and provide strong support for their academic research.

Secondly, international education gives graduate students the opportunity to have access to advanced research methods and technologies and understand the latest international research progress. This includes advanced experimental techniques, data analysis methods, simulation and modeling tools, which help to improve the technical level of graduate students in scientific research.

4.2. Promote the Deepening and Rapid Development of the Discipline

In an international perspective, different cultures have unique requirements for professional disciplines in various fields. As a bridge, international education can break down traditional knowledge barriers and prompt people to examine the development direction of disciplines and professions from a broader and more open perspective.

Through international education, graduate students are able to better understand the needs of different fields in different parts of the world, thus providing more diversified ideas and methods for the innovation and development of the discipline. This global approach to education not only promotes cross-cultural exchanges and cooperation, but also inspires the enthusiasm of graduate students to explore a broader field of knowledge, so as to meet the worldwide demand for high-quality talents in all walks of life, and promote the entire discipline field to be more open, diversified and innovative.

4.3. Promote Scientific and Technological Innovation

International education is conducive to promoting interdisciplinary and stimulating the vitality of scientific and technological innovation. Researchers from different countries and cultural backgrounds have unique insights and methods, and through cross-cooperation and exchange, the collision and integration of different disciplines can give birth to unprecedented innovative thinking and solutions. It will integrate various advantageous cultures to create novel thinking patterns and working methods, thus opening a broader space for innovation for graduate students.

This kind of cross-cultural cooperation and communication is not just a simple addition, but transcends the traditional thinking framework in the collision of different cultures. This mode of cooperation will not only help accelerate the pace of scientific and technological innovation, but also provide more forward-looking and effective solutions to complex challenges facing the world, and promote the entire scientific and technological field to be more open, inclusive and innovative.

5. The Challenge and Strategy of International Education to the Academic Development of Graduate Students

International education provides rich academic opportunities for graduate students. However, at the same time, it is accompanied by a series of challenges, facing different educational systems and different language environments, which may affect the academic development of graduate students. But in the face of challenges, international education also provides a wealth of opportunities for graduate students.

5.1. The Challenge of International Education to the Academic Development of Chinese Graduate Students

First of all, international education means that graduate students have to face different language and cultural environment, which may lead to language communication barriers and different understanding of academic culture and academic norms. In international education, it is often necessary to use English or other international languages for academic communication and research, and students who are not native speakers may face obstacles in reading, writing and speaking. This can lead to difficulties in reading complex academic literature, writing papers or participating in academic discussions. In different international academic and cultural environments, graduate students need to learn common languages, learn to respect and understand different cultures, and flexibly adapt to different cultural backgrounds to avoid contradictions and problems caused by cultural differences. Although there are challenges, by adapting to and understanding different cultures, graduate students can gain a more comprehensive academic background and enhance their overall qualities.

Secondly, the academic system and curriculum of different countries and regions may be different, and cross-cultural communication may also lead to conflicts and misunderstandings between different cultures. Graduate students entering the international academic environment
may need to adapt to the new disciplinary system, including the curriculum, research direction and academic requirements. Adapting to such cross-cultural cooperation may require higher communication skills, cultural sensitivity and coordination, especially with tutors and classmates from different cultural backgrounds. This is a crucial challenge for establishing a good international academic network and improving the comprehensive quality of graduate students.

Finally, there is the problem of unbalanced academic resources in international education, and the distribution of resources varies greatly among different countries and institutions [8]. Some graduate students may face limitations in research equipment and laboratory conditions due to the relative lack of resources in their schools, while some graduate students may find it difficult to participate in international exchange programs due to political, economic factors, visa issues and other reasons.

5.2. Strategies to Improve the Academic Development of Graduate Students

1) National level
The national education department plays a key role in promoting the international training of graduate talents. To achieve this effectively, a comprehensive institutional and policy framework is needed to ensure the quality and sustainability of internationalized education. The education sector can formulate comprehensive and specific policies based on the latest theoretical research results of international education. These policies should cover many aspects, including the enrollment ratio of international students, international exchange programs, foreign language education, etc., to ensure the coordination and consistency of the overall promotion. The clarity and stability of the policy will contribute to the formation of a systematic international training system.

In terms of funding international academic exchange programs, the education department can set up special funds to support graduate students to participate in international academic exchange programs. These projects can include participation in international academic conferences, joint research, internships abroad, etc. Through these programs, graduate students can deeply cooperate with outstanding scholars and research teams in the world, expand their academic vision, and improve their academic level and research ability. In addition, the establishment of international graduate scholarships and other incentives are also very necessary. This can motivate more talented students to apply for high-level graduate programs abroad and promote the international flow of talent. At the same time, a scholarship review mechanism can be established to evaluate students according to their academic performance, scientific research ability, social practice and other aspects to ensure the fair distribution and effective use of scholarships.

2) School level
Schools play a key role in international education. The university should actively promote international cooperation projects, establish cooperative relations with well-known universities around the world, organize academic seminars and international courses, and provide a broader academic platform for graduate students [9]. In addition, the university can also organize international academic seminars and lectures to provide opportunities for postgraduate students to participate in international academic exchanges. These activities can not only expand students' academic vision, but also cultivate their cross-cultural communication skills and cooperation spirit, so that they can better adapt to the international academic environment.

Language is not only the carrier of international educational communication, but also an important content. Schools should strengthen language training for postgraduates and actively promote students' language learning. In addition to providing traditional language courses, language training courses tailored to academic communication and research needs can be offered to help students master academic English, technical terminology and academic writing skills. Schools can also encourage students to take language tests, such as TOEFL, IELTS, to improve their international communication skills and competitiveness.

In terms of curriculum, schools can implement bilingual teaching mode, and set some courses as Chinese and English or other foreign languages, so that students can have access to more international academic resources and information in the course learning process, and improve their cross-cultural communication ability. To create an international graduate education environment to enhance students' academic communication ability and better integrate into the international academic community.

3) Teacher level
Teachers play an important role in international education. They not only bear the responsibility of imparting knowledge and skills, but more importantly, become the guide and example of students' international learning and growth. The establishment of the faculty team should be diversified, introducing tutors from different national backgrounds to provide diverse academic views and research methods [10]. These faculty members from diverse cultural and academic backgrounds are able to provide students with a wide variety of academic perspectives and research methods. Their arrival can not only enrich the faculty of the school, but also promote the international development of the school, providing students with a broader academic vision and exchange platform.

Schools should encourage teachers to participate in international collaborative research projects. By participating in international collaborative research projects, faculty members are able to collaborate deeply with outstanding international scholars and research teams to solve research problems together and contribute to the development and progress of the subject field. At the same time, teachers can also use these cooperative projects to provide more international academic exchange opportunities for graduate students, help students to expand their academic vision and improve their research ability.

Schools can also hire foreign tutors to regularly run postgraduate courses in China. This is not only conducive to discipline construction and development, but also can provide personalized academic guidance and tutoring for graduate students. Overseas tutors usually have rich international academic experience and advanced teaching concepts, and they can stimulate students' learning interest and improve their academic level and innovation ability through colorful teaching methods and case analysis. At the same time, the arrival of overseas tutors will also enrich the cross-cultural experience of graduate students, help them better adapt to the international academic environment, and cultivate high-quality talents with international competitiveness.

4) Student level
The active participation of individual students in
international education is crucial. As graduate students, they should not only be limited to classroom learning, but also actively integrate into the international academic exchange family, and actively expand their international vision and academic ability.

Graduate students should take the initiative to participate in international academic exchanges and visits. By participating in international academic conferences, academic lectures, exchange visits and other activities, graduate students can personally experience the academic atmosphere and research atmosphere of different countries and regions, have in-depth exchanges and discussions with outstanding international scholars and peers, expand their academic vision and improve their academic ability.

In addition, as an international language, English plays an important role in international academic exchanges. Students should take the initiative to learn international languages and improve their language communication level. Through attending English training courses, independent learning, participating in language exchange activities and other ways, they can improve their English level and better participate in international project cooperation and academic exchanges. In addition to English, students can also learn other international languages, such as French, Spanish, etc., in order to expand their language communication skills, enhance their competitiveness and adaptability in the international environment.

In international education, all parties need to form a cooperative mechanism. The national level can provide policy support and resource guarantee for schools and individuals by formulating clear international education policies, strengthening international cooperation projects and funding plans; The school level should establish a diverse team of teachers, promote international cooperation projects and carry out international academic activities, and create an international learning environment. Teachers should actively participate in international cooperative research projects, improve the level of international exchange and teaching, and provide students with a broader academic vision; At the individual level, students should actively participate in international academic exchanges and visits, actively participate in international academic conferences, and improve their language communication skills, so as to continuously expand their international vision and lay a solid foundation for future development.

6. Conclusion

With the acceleration of economic globalization, international education has a profound impact on the academic development of graduate students. It is not only a necessary condition for the academic development of graduate students, but also an effective way to train professionals with global vision and international competitiveness. The internationalization training of graduate students has become an inevitable trend, and the graduate education in our country should also keep pace with The Times and develop to internationalization. In the perspective of internationalization, focusing on the fundamental task of talent training, we promote the renewal of international training concepts and system construction, constantly open up a variety of international resources, and promote the establishment of a multi-dimensional guarantee mechanism to carry out different models of international graduate student training exploration and practice for different groups of graduate students. By adopting feasible international education strategies, graduate students can better adapt to the challenges of globalization and continuously enhance their academic competitiveness and international influence. International education provides a richer academic experience for graduate students, enabling them to thrive in a globalized academic environment.

References