

To explore the internationalisation of higher education in China: A case study of curriculum internationalisation at the H University

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Abstract: This paper explores the internationalisation of higher education in China, focusing on curriculum development at H University as a case study. The research delves into the theoretical frameworks underpinning international education, including transformational internationalisation and the concept of 'internationalisation at home.' It examines the curriculum's structure, highlighting the integration of formal, informal, and hidden curricula to foster global competencies. Furthermore, the study analyses the implementation of global citizenship education with Chinese characteristics and adapting the CDIO model to enhance practice-oriented learning. The findings reveal both the strengths and challenges of H University's internationalisation efforts, offering insights into practical strategies for curriculum reform and international talent cultivation within Chinese higher education. The paper concludes with recommendations for enhancing interdisciplinary content, student integration, and collaborative frameworks to support China's educational globalisation goals.

1. Introduction

In recent years, China's innovative industries, such as high-speed rail, bike-sharing, online shopping and mobile payment, have taken the lead in China. More outstanding Chinese enterprises, such as Alibaba, Tencent and Huawei, have become famous worldwide. Therefore, in the context of the development of the new era, the Chinese market is eager to have more talents with high knowledge, technology, quality, and ability. The Organisation for Economic Cooperation and Development (OECD) points out that higher education has been cultivating talents with advanced technology for the world, continuously promoting the progress of science and technology, and encouraging regional and international cooperation and cross-cultural communication, which will eventually boost the development of the global market economy [13].

China has proposed new requirements for developing higher education to cultivate talents that meet the global market's needs and continuously improve its comprehensive national strength and world status. In its report to the 19th National Congress of the Communist Party of China, it stated

that China ‘will move faster to build Chinese universities into world-class universities and develop world-class disciplines as we work to bring out the full potential of higher education’. Chinese universities must cultivate many international talents with a global vision, familiarity with international rules, and the ability to participate in international affairs and competitions. These demands have undoubtedly raised the standard of higher education.

The internationalisation of China’s higher education is imperative. It is the breakthrough to solve the development problem by first recognising the current situation and then formulating the internationalisation mode of education with its characteristics. First, this paper will discuss the theoretical aspects of international education, the method of internationalisation, and the internationalised curriculum. Subsequently, it will analyse the case in terms of its overall status and curriculum, global citizenship education, and the practice-orientated education model. Finally, this paper will discuss the merits and weaknesses in the internationalisation of H University and the countermeasures for the internationalisation of Chinese higher education in the future.

2. Towards international education in higher education

2.1 Concept: Transformational international education

When studying international education, globalisation and internationalisation are the two words we often encounter and use. These two phenomena themselves are concomitant. Scholars argue that globalisation generally ignores respect for differences and national boundaries and leads to homogenisation. From this point of view, internationalisation effectively complements globalisation because it respects and preserves diversities, effectively diminishing the effects of denationalisation and homogenisation of globalisation [8]. This paper adopts Altbach’s view and agrees that globalisation is ‘the broad economic, technological and scientific trends’. At the same time, internationalisation is the strategy adopted by governments, institutions, individuals, and other levels to cope with globalisation [1]. I believe international education is collected from a series of concepts and strategies for contemporary education to deal with globalisation.

By analysing the literature, Cambridge and Thompson explain international education using two ideological forms [3]. One is globalist international education and the other is internationalist international education. The main difference between the two at the practical level is that the former focuses on the mobility and effectiveness of global education quality. In contrast, the latter focuses on deepening understanding and promoting peace between nations through education. However, these two extreme ideological approaches to international education rarely exist. All forms of schooling are transformational, meaning they must transform the two forms of global education into the third.

Therefore, in this article, I will propose a different theoretical perspective of international education in the context of higher education, that transformational internationalisation of education is more practical and manageable at the institutional level. On the one hand, transformational internationalisation education in higher education will focus on providing advanced facilities, such as laboratories, libraries and sports venues, and continue to take advantage of all possible funds to offer scholarships and fellowships to students to encourage research and promote equality in education. On the other hand, it will urge the universities to recognise the diversity of students and staff, which means welcoming students and employees from all backgrounds to join the universities and making the curriculum more balanced and internationalised in their internationalisation process.

2.2 Approach: Internationalisation at home

In 1999, Nilsson published his article ‘Internationalisation at Home – Theory and Praxis’ [6] and

pointed out that at that time, only a few European students could receive education overseas, and most students had to receive their education at home. By constantly improving their level of internationalisation, colleges and universities make education more equitable and enable students to gain an international perspective and international competitiveness [3]. Today, China has a similar situation: a low proportion of Chinese university students are studying abroad. In contrast, most students still need to be home to receive their quality-oriented education by international standards. It is a practical and urgent task to speed up the construction of ‘double first-class’ universities in China by creating an internationalisation route of higher education with Chinese characteristics, meeting the demand of the global market [15].

This article partially agrees with Knight’s views on studying the higher education internationalisation process [9]. He claims that the internationalisation of higher education is ‘the process of integrating an international, intercultural, or global dimension into the purpose, functions or delivery of post-secondary education’ [9]. He provides ideas for studying internationalisation at the institutional and country/sector levels. Moreover, he points out two main methods of internationalisation of higher education, ‘internationalisation at home or abroad’. He claims that the former refers to what happens mainly on domestic campuses.

In contrast, the latter refers to activities mainly occurring abroad [9]. We should not limit the internationalisation of universities to their physical locations. Therefore, in studying the internationalisation of Chinese universities, we should analyse how to break the limits and consider the ‘coherent relationship’ between these activities [15].

Beelen and Jones suggest that we can learn about international education in universities by analysing their curriculum internationalisation, which means we should investigate their internationalisation of formal or informal courses and how they use these courses to improve their education and research level to reach the standards of the international level [2]. In this article, therefore, I would like to propose ‘internationalisation at home’ as the most practical approach to internationalisation for higher education. It means that colleges and universities consider all accessible international resources, such as international scholars, students and textbooks, cross-border collaboration projects, academic courses on cross-cultural and international issues, and various communication opportunities, and eventually achieve the goal of cultivating high-level international talents.

2.3 Form: Internationalised curriculum

From the above theoretical analysis, we can see that the curriculum is crucial to international education development. In higher education, the internationalisation of the curriculum is a meaningful way to realise internationalisation at home. Regarding the internationalisation of the curriculum, I will adopt several views from Leask’s articles [10]. The curriculum classification has three forms: the formal curriculum, the informal curriculum, and the hidden curriculum. In this article, the formal curriculum refers to the activities related to teaching and learning, as well as all types of assessments and professional practical activities for students [10]. The informal curriculum refers to ‘the extra-curricular activities on campus’ [11]. The hidden curriculum refers to the students’ academic and non-academic experiences and the choices made by universities intentionally or unintentionally, such as who the lecturers of course modules are and the order of course arrangements [10][11].



Figure 1: The conceptual framework of internationalisation of the curriculum [11]

In Leask and Bridge's article, they create a conceptual framework for the internationalisation of the curriculum, as shown in Figure 1 [11]. This structure can reasonably reflect that multiple factors influence the decision to internationalise the curriculum. If we want to carry out the internationalisation of the curriculum, we must be able to adapt measures to local conditions and combine the existing conditions at different levels. This framework puts the construction of interdisciplinary knowledge at its centre. It aims to foster global competencies yet fails to cultivate students' growth via experiences, values, patriotism and international-mindedness.

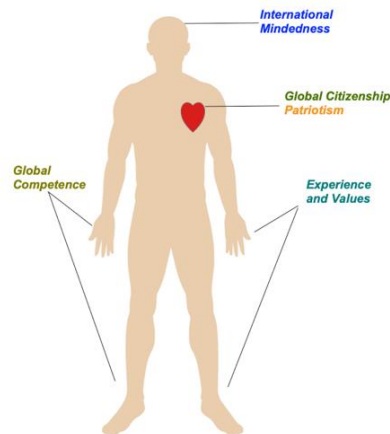


Figure 2: The ideal balanced curriculum

In this paper, based on the framework, I will propose a 'balanced curriculum' [13] that promotes the education of the whole person. The ideal balanced curriculum (Figure 2) balances Globalist international education and internationalist international education [3]. Universities can help students cultivate international mindedness and cross-cultural competence through the curriculum by listening to different viewpoints and conducting cross-cultural communication in other languages. Students will pay attention to current global problems and focus on future development. On the one hand, by continually improving their skills through study and academic training, students can finally achieve global competitiveness and make continuous efforts to solve global problems throughout their lives. On the other hand, through a series of voluntary activities involving social experiences and academic-

related experiences, students will form their outlook on life and their worldview and make lifelong efforts to realise global peace. Therefore, I would like to add one more sector to the top part of the framework, which is healthy growth through mindedness, experiences and values (Figure 3).



Figure 3: The ideal framework of the curriculum [11]

3. The case study: H University

3.1 Overview of its international development

By reviewing the literature and studying the university's website materials, this paper obtained relevant information about H University. In 1997, H University first put forward the internationalisation development strategy and started considering internationalisation as a requirement in all aspects of teaching, management and scientific research. Since then, H University has been adhering to the internationalised educational philosophy, hoping to continuously achieve the goal of 'internationalisation of disciplines, scholars, academics, students and management'. In practice, H University draws on advanced teaching, scientific research and management experience from home and abroad, directly utilises international high-quality educational resources, and actively explores the multi-form and multi-level international cooperation model[12]. It was found that H University has established academic exchanges and research cooperation with nearly 300 universities and institutions in about 30 countries and regions. For example, H University has established a Sino-American culture research centre jointly with an American university, a Sino-German law research centre a Sino-German geosciences research centre with two German universities, and a Sino-Japanese culture research centre in cooperation with a Japanese university[14].

H University has been actively carrying out Chinese-foreign cooperative education projects and trying to expand overseas education. Since 2006, it has been experimenting with a master's degree programme based on the Sino-American Culture Research Centre programme. It has received approval for overseas programmes in business administration, Chinese, history and philosophy. Through recruiting foreign experts and joint development with various schools and departments of H University, the university has introduced about 100 international courses, which have greatly improved the international academic exchange and cross-cultural communication ability of teachers and students. Of these courses, 18 have been selected as provincial excellent courses taught in English, and one has been selected as one of the national brand courses taught in English. In 2017, H University was included in the list of China's Class A world-class universities, including 15 disciplines. Moreover, with the continuous improvement in the quality and degree of internationalisation of the university, the proportion of overseas students at H University is increasing steadily, especially the

number and diversity of overseas students with high-level degrees. According to the statistics, in 2018, the total number of overseas students at H University reached 3,205, an increase of about 23% compared to 2015.

3.2 The structure of the undergraduate curriculum

H University has noticed that when world-class universities design their courses for undergraduates, the courses are always multi-level. This means that their students can only move on to higher-level courses after completing the required lower-level courses. Furthermore, they pay great attention to the teaching quality and effect of courses at each level. H University has realised the importance of such courses and has started to set up guided courses for freshmen to help students understand their major, arouse their interest in learning, and encourage them to make plans for learning and career development as early as possible.

To cultivate talents with multi-disciplinary knowledge, multi-aspect basic ability, high cultural quality and cultivation, in recent years, H University has designed three modules for undergraduates: general education, major, and open electives, with a total of 150 credits (as shown in Table 1). However, in terms of proportion, the general education courses of H University only account for about ten per cent of the whole curriculum system. The proportion of professional courses is high. The proportion of compulsory courses plus elective courses is about 60%. The proportion of cross-speciality optional courses is relatively small, and the number of interdisciplinary courses in the overall curriculum is relatively small.

Under the context of reforming, H University is also trying to set up seminars. Its School of Astronomy has two introductory-level seminars under the guidance of the same lecturers who regularly deliver classes to the students. However, this setting at H University may differ from such courses offered by the world's leading universities. Taking the University of Bath as an example, such seminar courses are usually open to students from different grades and different majors. The seminars at the University of Bath are often delivered by different professors or lecturers in different semesters, even different units, the topics always change from semester to semester, and the latest research findings are constantly added to the seminars. At present, H University is unable to achieve this in terms of curriculum and faculty allocation.

Table 1: H University's undergraduate curriculum structure (translated)

Total courses	150 points
General education (49-59 points)	Basic public courses Ideological and Political Education, Mathematics, Foreign Languages, Computer Science, Physical Education General education courses Chinese History and National Culture, World History and World Culture, Values and Thinking Methods, Scientific and Technological Progress and Life Exploration, Economic Development and Social Pulse, Literature and Art, Cross-cultural Communication and Interpersonal Communication
Major (41-62 points)	Core courses for the major
Open elective courses (31-52 points)	Elective courses for the major, cross-specialty elective courses, entrepreneurship and employment courses, public elective courses

3.3 Global citizenship Education with Chinese Characteristics

Some scholars claim that China has set global citizenship against its own civic education, arguing that China's higher education does not promote global citizenship [4]. I believe this is not the whole

picture of how Chinese higher education treats global citizenship. I tend to agree with Gacel-Ávila's view regarding the influence of global citizenship education [8]. People's understanding of state-to-state relations is often limited to the political level. Promoting global citizenship education will help people gain a piece of new knowledge from the perspective of cultural and educational exchanges and ultimately contribute to improving state-to-state relations and realising world peace. In fact, in China's basic public education of higher education, the concept of global citizenship education is often mentioned when the topics are related to civic education. Chinese scholars frequently argue that Chinese universities should produce 'modern citizens who are both national and cosmopolitan' [7]. Moreover, Ying argues that China's higher education should include global citizenship education to broaden students' international vision and improve their judgment by explaining 'the global survival environment, the global survival mode, the global survival value and the global survival method' [18]. This type of global citizenship is often described as global citizenship education with Chinese characteristics. All students should love all mankind, peace, their motherland, and the whole world to maintain their national literacy and love for their mother culture.

The global citizenship education course at H University has the features mentioned above. H University not only uses the national unified formal course materials but also extensively uses informal courses and hidden activities in the courses, such as student activities, volunteer service activities, and the publishing of articles on the network platform. The series of voluntary service activities at H University is an obvious manifestation of the cultivation of global citizenship. By improving the voluntary service mechanism, H University actively collaborates with students to contact local communities and social organisations, encourages students to participate in various public welfare activities, and strives to provide corresponding training. Through various forms of voluntary activities, the students at H University continuously improve their moral character, thus establishing the idea of global citizenship.

3.4 Learning from practice: The CDIO model

According to the website of the CDIO Initiative [5], the CDIO model of engineering education is an educational concept developed in 2004 under the cooperation of four universities, including the Massachusetts Institute of Technology and the Royal Swedish Institute of Technology. CDIO is the abbreviation of the four words Conceiving, Designing, Implementing and Operating [5]. It advocates that students should learn to engineer actively and practically in a curricular and organic way [5]. The CDIO programme divides the abilities of engineering graduates into four dimensions: essential knowledge, personal ability, interpersonal team ability, and engineering system ability.

There are still some problems in China's engineering education, such as unclear training objectives, a backward curriculum system, outdated teaching methods, and inadequate practice. Through research and analysis, many Chinese colleges and universities have turned their attention to the CDIO model for their education reform. In 2005, Shantou University was the first university in China to introduce this model, leading to reforming its institutional education system. The experience of Shantou University's reform has brought some new thinking to Chinese universities and scholars. With the deepening of the practice of the CDIO model, relevant research emerges constantly. From the perspective of the transformation of the teaching mode, the setting of courses, and the construction of disciplines and specialties, scholars have extensively discussed how to build a CDIO model that is more in line with the national conditions of China's higher education.

Generally, the CDIO model advocates general education and highlights the relevance between courses in professional courses so that students can master the connection between knowledge of various classes and solve comprehensive problems. Completing this work can strengthen the connection between teachers, teachers and students and interdisciplinary courses and put forward

more detailed criteria for assessing students. This model is consistent with the curriculum design and teaching objectives of H University. H University actively borrows from the CDIO engineering education model, introduces original foreign textbooks, teaches some courses in English, improves its student assessment system by using this model, and actively encourages students to learn through practice.

To date, H University has made specific educational achievements. In engineering and applied sciences, H University has introduced five practical teaching modules: experimental teaching, engineering practice, course design, graduation design, and scientific research and innovation practice. Students have different practice teaching links each semester, providing engineering practice training for four years without interruption to give students consistent, systematic practice and innovation training opportunities. In the graduation project process, H University encourages students to collaborate closely with internship enterprises and complete a systematic engineering project practice through the internship project or the scientific research project under the guidance of teachers to develop students' comprehensive knowledge application ability and team cooperation in practice. This model has helped the university establish a practice base with enterprises in its province and a coordinated and cooperative relationship with many well-known Chinese enterprises. This enables the scientific research achievements of H University to be translated into practice promptly and continuously promotes the quantity and quality of scientific research at H University. The combination of theory and practice and the accumulated experiences from reforming engineering primary settings have continually influenced the internationalisation reform of other disciplines and majors at H University.

4. Conclusion

It is difficult to define the concept of international education clearly. If international education is to be described as a metaphor, it is a fast-moving train. Universities are the carriages, international courses are the tracks, the teachers are the trains, and the students who receive university education are the passengers. Every passenger who can afford a ticket is expected to arrive at the destination at a particular time (college term) according to the address information on the ticket (talent training objective). The President of the university and the teachers are all on board the speeding train. Like a chauffeur, the President directs the university's development regarding when to go fast and when to go slow and determines the track of the train at critical moments. Teachers, the train conductors, provide a wide variety of products and assistance.

If we want this train of higher education to travel around the world, bring more experiences to students, and take students into the future, first, we need to know where the train is headed. Transformational international education is the direction of higher education that integrates the requirements of globalist international education and internationalist international education. We need roads and bridges as well as train tracks. Internationalisation at home is a practical approach to help us promote the internationalisation of Chinese universities. From the theoretical perspective, the concept of internationalisation at home advocates that colleges and universities should break through the one-way internationalisation of traditional cross-border education, expand and deepen the extension and connotation of the internationalisation of college and university education, and provide ideas and operable approaches for internationalisation. The internationalised curriculum is the train tracks. The ideal framework of internationalisation of the curriculum I proposed in the paper is designed for interdisciplinary knowledge exchange. This framework provides students with general knowledge and professional talent through systematic learning, such as general education and professional education, and diversified practical experience, as well as the shaping of values and concepts. On the one hand, students focus on academic and professional practice. On the other hand,

they can also devote themselves to voluntary services and other activities, build a healthy character, and make efforts to realise world peace and development.

H University introduced the current relatively mature CDIO model, taking the development of engineering education as a pilot, and then gradually promoted the curriculum reform of the whole university. Through continuous exploration and practice, the construction of the international curriculum at H University has achieved some obvious results. It has attracted more and more international students to participate in exchanges or pursue degrees. Although H University is becoming more and more international, we can also see that its course content is still new and old, and it has relatively little interdisciplinary professional content and relatively few interdisciplinary professional courses, which cannot achieve the ideal framework setting in this paper. In addition, to cultivate international competitiveness, cultivate global awareness and improve the quality of education, H University needs to continuously improve the degree of integration of students and provide a more flexible and reasonable evaluation mechanism. Unfortunately, the discussion of H University in this paper is still limited to the institutional level. The development of the internationalisation of education in the context of higher education needs to closely link the cooperation among universities, governments and cross-governmental institutions to develop a collaborative model. In this way, China's higher education will finally be able to realise the international development of education in academic level and reputation, teaching quality and standards, faculty allocation, international campus environment construction, education policy, and other aspects.

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