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ОТ МАКРО- К МИКРО-: ОЖИДАНИЯ КИТАЯ ОТ ПОВЕСТКИ ДНЯ В ОБЛАСТИ УСТОЙЧИВОГО РАЗВИТИЯ ВЫСШЕГО ОБРАЗОВАНИЯ ДО 2030 ГОДА И ЕЕ ВЛИЯНИЕ НА РЕФОРМУ АНГЛИЙСКОГО ЯЗЫКА STEM

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■ Для цитирования: Юе Яньфэн От макро- к микро-: ожидания Китая от Повестки дня в области устойчивого развития высшего образования до 2030 года и ее влияние на реформу английского языка STEM // Вестник Самарского государственного технического университета. Серия «Психолого-педагогические науки». 2023. Т. 20. № 1. С. 5-20. DOI: https://doi.org/10.17673/vsgtu-pps.2023.1.1

Аннотация. Согласно декларации ЮНЕСКО, опубликованной в 2015 году, 22 апреля 2016 года Китай выпустил «Позиционный документ Китая по реализации Повестки дня в области устойчивого развития на период до 2030 года», который с тех пор является руководящим принципом для проведения реформ по интернационализации и популяризации образования в Китае. В настоящем документе дается оценка проблем дальнейшего устойчивого развития высшего образования в стране как на макро-, так и на микроуровне. На макроуровне были проанализированы два основных вызова, с которыми сталкиваются политехнические учебные заведения в процессе достижения уровня устойчивого развития, и предложены меры по микрореформированию структуры и практики преподавания иностранных языков в политехнических учебных заведениях. С точки зрения микроуровня рамки проекта экспериментальной реформы английского языка STEM были определены и разработаны на основе педагогической практики в 2018–2022 годах. В хронологическом порядке реформы учебной программы изложены подробные теоретические исследования и практические меры. В условиях меняющихся глобальных условий ощущается острая потребность в инженерных кадрах, обладающих глобальной конкурентоспособностью. Такой внешний импульс на макроуровне требует логических и практических мер по проведению реформ на микроуровне. Реформа преобразования английского языка STEM в английский курс информационной грамотности отвечает вышеуказанным насущным потребностям эпохи после Covid-19.

Ключевые слова: глобальная конкурентоспособность; английский язык STEM; реформа учебных программ; интернационализация; массовизация; высшее образование.

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FROM MACRO- TO MICRO-: CHINA'S EXPECTATIONS FROM THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT OF HIGHER EDUCATION AND ITS INFLUENCE ON STEM ENGLISH REFORMS

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Abstract. In correspondence with the Declaration released by UNESCO in 2015, on April 22 in 2016 China issued China's Position Paper on the Implementation of the 2030 Agenda for Sustainable Development, which acts as a guidance of China's education reforms of internationalization and massification since then. The paper evaluates the challenging issues of the further sustainable development of China's higher education from both a macroscopical and a microscopical perspective. From a macroscopical perspective, the two challenging issues of achieving the sustainable development have been spotted, followed by urges for microscopical reforming measures in the designs and practice of foreign language teaching in engineering-specialized universities. From a microscopical perspective, the framework of an experimental reforming project in STEM English is designed and developed by teaching practice between 2018 and 2022. Detailed theoretical researches and practical measures are illustrated according to the time sequence of curricular reforms. In conclusion, taking into account the ever-changing global environment, there is an urge for engineering talents with global competency. Such a macro-levelled external urge demands for logical and implementable reforming measures on a micro-level. The reform of converting STEM English into English Information Literacy Curriculum meets the educational requirements in the post-Covid19 era.

Keywords: global competence; STEM English; curricular reforms; internationalization; massification; higher education.

Introduction

The United Nations Sustainable Development Summit held in September 2015 laid out common visions of the world to seek win-win cooperation and development for all. The Summit adopted the Incheon Declaration: Education 2030: Towards Inclusive and Equitable Quality Education and Lifelong Learning for All (the Incheon Declaration), which provides guidance to national development and international development cooperation in the next 15 years, marking a milestone in the global development process. This paper presents a macro-scopical perspective to review the system of higher education in China, illustrating both the goals and the trendy issues when conducting the Education 2030: Incheon Declaration and Framework for Action for the Implementation of Sustainable Development Goal 4 (SDG 4). The three issues of internationalization, massification and diversification have been put forward to be attended with urges.

Due to the featured state system of China, there are three peculiar characteristics in China's higher education system in a macro-scopical viewpoint:

Firstly, except for those elite HEIs directly under the administration of MOE, all colleges and universities should follow the enrollment plan announced by MOE due to the non-profitable nature of HEIs in China. Elite HEIs are allowed to provide quota from their yearly enrollment number and to recruit outstanding candidates with academic expertise and innovation potentials through specific comprehensive evaluation system (written examination, in-person interview and assessment) of an individual elite HEI, which is defined as Independent Enrollment. It is confirmed that such Independent Enrollment is an auxiliary means to the national Gaokao (the college/university entrance examination of China), which is not an alternative or substitutional quantification assessing method, but an important supplement to national system of entrance examination. In other words, scores of Gaokao are the only assessment tool for a candidate's qualification for a specific college or university.

Secondly, the higher educational policies specially guarantee the equal rights of physically disabled candidates who have financial difficulties and belong to minority ethnic groups. In addition to Article 9 of Higher Education Law, Regulations on Education for Individuals with Disabilities have been issued and conducted since May 1, 2017. The Regulations ensure physically disabled candidates the right for higher education with the facilitation by means of digital technologies (Article 36).

Thirdly, candidates from minority autonomous regions are required to take the entrance examinations to universities in Chinese Mandarin, which might cause extra difficulties for candidates. Autonomous regions of minority ethnic groups generally would be less industrialized than other parts. It is found that candidates from regions with better financial conditions had better opportunities to attend elite universities [1]. In practice, candidates from minority ethnic groups would be enrolled into a university with a lower score of Gaokao than Han (the majority national group of China) candidates.

The features of China's higher education system guarantee a relatively equal access to higher education for every and each citizen. Hence, on China's way to developing higher education, there is a lack of successful cases or development models for references. The specific higher education system should be assessed within China's political and economic framework, selectively and critically referring to other countries' experience and lessons. Though the equal rights for receiving higher education

are ensued by Higher Education Law, the unbalanced economic development in China pushes universities to explore distinctive methods to realize "On-Campus Internationalization" curricular construction, which provides equal opportunities for receiving high-qualitied massified education to students with financial problems. As for the issue of diversification of financial supporting channels to HEIs in China, the flexibility in the shareholder mechanism won't be achieved due to the state-ownership of universities.

According to the assessment of the macro-scopical features of higher education of China, there is an urge for developing a set of applicable micro-scopical measures among common HEIs which are supported by limited national or regional resources. By evaluating the macro-scopical challenging issues to the further sustainable development of China's higher education, this paper aims at deducing the microscopical measures which could be applicable to the reforms and reconstructions for the issues of internationalization and massification.

The object of this research is the features of challenges and opportunities for China's higher education system. The subject of this research is the indicators for a comparative analysis in the field of Pedagogy of Higher Education.

The first task of this paper is to present an overview on the higher education system in China, illustrating both the goals and the trendy issues when conducting the Education 2030: SDG 4. With thorough discussion, the second task is to demonstrate that On-Campus Internationalization is a practical approach to reforming common universities which are not financially preferred as elite universities in the projects of 985 and 211. The third task is to deduce solid arguments supporting English Information Literacy Curriculum as the micro-scopical method to realize the cultivation aim of STEM English against the backdrops of internationalization and massification. The fourth task is to compare the challenging situations for China and Russia. China and Russia are suggested to further the educational cooperation on both the institutional and the national levels.

Literature review

1.1 2030 Agenda of SCG 4 Concerning Global Higher Education

In UNESCO report of Ethics and Education issued in 2009, it is declared that the major tasks for educational institutions are improving access and ensuring equity [2]. Bearing a sense of urgency and aiming at a single, renewed education agenda, quality and efficiency in the education sector cannot be achieved without due attention to ethical issues. In 2015, Incheon Declaration: Education 2030: Towards Inclusive and Equitable Quality Education and Lifelong Learning for All (the Incheon Declaration) has been issued to answer the call for a holistic, ambitious and aspirational guideline, leaving no one behind. The Incheon Declaration further emphasizes the equity of accepting education [3]. In 2016, the publication of Education 2030: SDG 4 is proposed to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" [4]. It is stated as: "Our vision is to transform lives through education, recognizing the important role of education as a main driver of development and in achieving the other proposed SDGs. We commit with a sense of urgency to a single, renewed education agenda that is holistic, ambitious and aspirational, leaving no one behind."

According to Incheon Declaration, on April 22, 2016, China issued China's Position Paper on the Implementation of the 2030 Agenda for Sustainable Development, which acts as a guidance of China's education reforms since then. Two promises are related to the field of education [5]. One is that China promises to improve social security and social services, recognizing the importance of improving public service system, including employment, education and health care, and ensure equal access to basic public services [5]. The other is that "the Academy of South-South Cooperation and Development will be officially established and start global enrollment in 2016. The academy will provide developing countries with opportunities for doctor's degree and master's degree education and short-term training, will serve as a platform for exchanging and sharing development experience." [5]

Higher Education Law of the People's Republic of China has been issued and adopted at the Fourth Session of the Standing Committee of the Ninth National People's Congress (NPC) on August 29, 1998, promulgated by Order No.7 of the President of the People's Republic of China on August 29, 1998 and effective as of January 1, 1999. On December 27, 2015, the Law has been revised for the first time according to The Decision on Amending the Higher Education Law of the People's Republic of China issued on the 18th session of Standing Committee of the National People's Congress. December 29, 2018, the Law has been revised to the second amendment according to The Decision on Amending the Electricity Law of the People's Republic of China and other Three Laws issued on the 7th session of Standing Committee of the National People's Congress.

It is clear that China's legislation on higher education is fractionally behind the issue of SDG 4. Moreover, the changes have been made to practically conduct the China's Position Paper on the Implementation of the 2030 Agenda for Sustainable Development, which presents China's determination of taking full responsibility as a densely-populated developing country and of contributing to the sustainable development in the field of equality to receive quality higher education [5].

In Incheon Declaration, the important statements concerning the development goal of higher education is quoted as follows: We commit to promoting quality lifelong learning opportunities for all, in all settings and at all levels of education. This includes equitable and increased access to quality technical and vocational education and training and higher education and research, with due attention to quality assurance (SGD4, Preamble, Article 10, Page 8). By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries. (SGD4, The Sustainable Development Goal 4 Targets, 4b, Page 21).

In the contents of Strategic Approaches of SGD 4 (2016) there are core strategies for an individual nation's higher education system to adopt. Firstly, in Article 23, to promote lifelong learning, higher education institutes (HEIs) are advised to offer learners of all age groups an equitable and increased access to higher education and research opportunities. Hereby, the issue of massification of higher education is presented.

Secondly, in Article 45 of the Indicative Strategies, all countries are suggested to strengthen international cooperation in the aspects of collaboratively developing

tertiary education, university education, and cooperative research programmes. Such international cooperation is recommended to be achieved within the framework of global and regional conventions on the recognition of higher education qualifications, offering all learners increased access, better quality assurance, and capacity development. Furthermore, specific attention should be paid to relevant quality assurance strategies. Hence, the issue of internationalization is posed to researchers in the system of higher education.

Thirdly, in the sub-content of Article 107, matching the demands of scaling up, HEIs are suggested to strengthen the existing multi-stakeholder partnerships. In other words, the diversification of financing sources and operating parties should be closely examined. A diversity of alternative patterns and modes should be innovated. However, due to China's unique political system, financial diversification could not be realized in state-owned HEIs without a thorough commercialization procedure, which is a matter of principle. Hence, the only issues of massification and internationalization are discussed in this paper.

1.2 Challenging Issues for China on the Implementation of the 2030 Agenda

The number of academic literature published between 2018 to 2022 with key words "higher education" and "China" mounts 2043 on Scopus. With an employment of WOS viewer, bibliometric mapping analysis is present as follows:

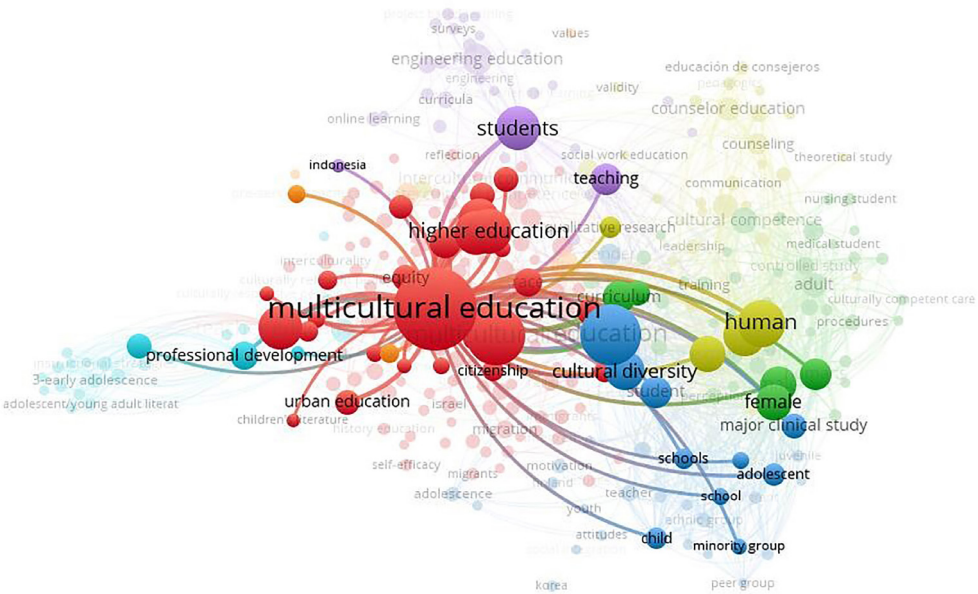

Figure 1. Bibliometric Mapping - Higher Education

Figure 1 shows that the key words bonded with higher education is multicultural education. In the past five years related researches concentrated on the cross-disciplinary education and learners' professional development [6], [7]. As to the internationalization of higher education in China, authors focus on the modernization of higher education system [8], [9].

The pedagogical researches in China praise highly on Trow's theory of Learning Society [10]. Learning Society evokes the educational reforms in China's higher

education system, matching the demand for massive quantities of high-qualification labour force after China's entrance into WTO. The previous researches on this topic have directed related studies onto four directions. Firstly, it is emphasized that the forms of higher education should be diversified. Secondly, the adaptability of teaching management system has been explored. Thirdly, related policies should respond to Lifelong Learning. Fourthly, Lifelong Learning has been promoted by the concept of "university serving society". However, such understanding on Trow's Learning Society is constrained to pure massification of higher education. The candidates' capability of accomplishing courses and their levels of professional competencies are not strictly examined and evaluated [11].

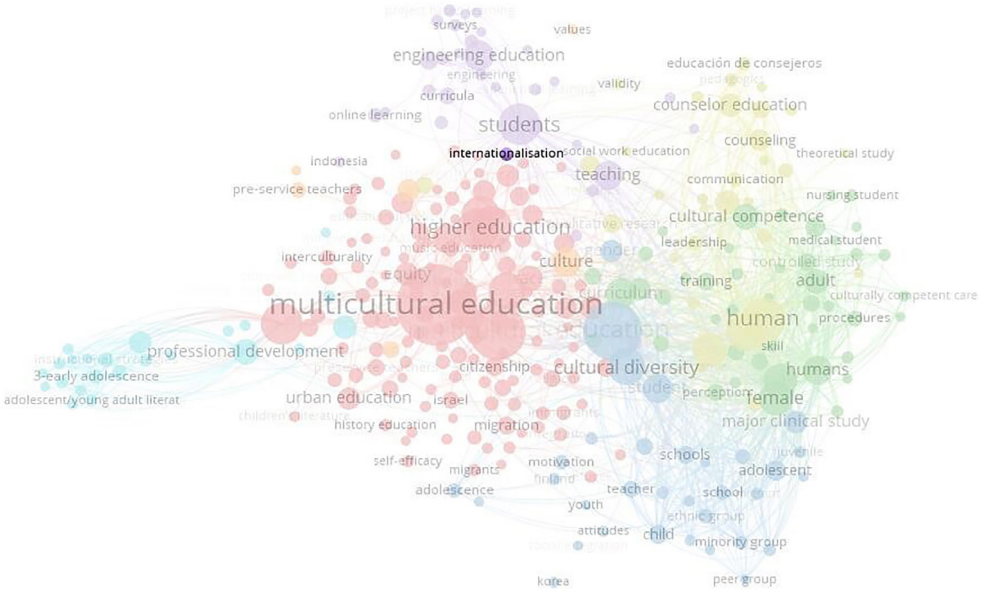

Figure 2. Bibliometric Mapping - Internationalization of Higher Education

Figure 2 illustrates the limitation of previous studies on the development mode of China's higher education system, and it is quite clear that internationalization is researched as a solitary field. Concerning the issue of diversification, the low frequency of indicator screens this key word from the mapping.

Materials and methods

The research methods of Synthesis, Deduction, and Comparison are employed to achieve the results. Synthesis in this research is Qualitive Metasynthesis. Questionnaire surveys are adopted to analyze learners' study needs, learning effects, and self-evaluations. Deduction is conducted via bibliometric mapping, by which skills in teaching innovation and designing blended learning have been traced in accordance with the constructivist, constructionist, and connectivist learning theories. Last but not lease, the comparison of developmental issues of higher education in China and Russia is the key to deducing the recommendations to further collaborations between the two countries.

There are four research tasks evolved from the theoretical study that results in the project. The first one is an evaluation on the results from the higher educational

reforms to achieve China's goals corresponding to the 2030 Agenda for Sustainable Development. With the identification of the challenging issues for the sustainable development of China's higher education system, the second task is to explore a set of achievable and accessible measures to answer the spotted challenges. And the third task is to employ a theoretical and practical framework of English Information Literacy Curriculum (EILC) serving the cultivation aim of an engineering industry expert with global competence. Last but not least, recommendations for further cooperation between China and Russia to achieve sustainable development in the field of higher education systems when faced the challenges of massification and internationalization.

Research results

Lifelong learning is not a new issue but present in almost all counties' ways to modernization of higher education. The promotion of lifelong learning is an inevitable request for the high-quality labour force by the social economic development of one specific country. This is proved by the education development history of the United States, the country with the highest level of development in the past 70 years, and of Japan, the first Asian country entering the era of modernization [12], [13]. In the process of popularization, the structure and system of China's higher education are undergoing profound changes. To promote lifelong learning in China, the age limits to the applicant of university candidates are removed. On April 3, 2001, Ministry of Education of People's Republic of China announced the removal of the limit on candidates of Entrance Examination to Universities "being unmarried and under 25". This reform has cast a profound impact on the equal access to lifelong learning opportunities for every citizen. Lifelong education also requires the expansion of enrollment in China's HEIs [14]. In brief, this is China's turn to submit its answers to the issue of massification in the higher education development procedure.

China has witnessed the mounting popularity of transnational higher education programmes offered by developed countries and regions since 1990s. After the Hong Kong's returning to China in 1997 and Macao's in 1999, from 1998 to 2018, Hong Kong and Macao Special Administrative regions ranked No.8 and No.10 on the list of destinations of Chinese students studying higher education abroad [10]. The other Top 10 countries on the list are United States of America, Japan, Australia, United Kingdom of Great Britain and Northern Ireland, Canada, Public of Korea, France, and New Zealand [10]. When joining WTO in 2001, China announced to open the transnational higher education (TNHE) market to foreign educational institutions. By 2010, the publication of National Plan for Medium and Long Term Education Reform and Development (Education Blueprint 2020) has marked the U.S.A., the U.K., and Australia the leading TNHE partners of China [15].

However, the internationalization of China's higher education system is interrupted by the world pandemic since December in 2019. Except for New Zealand, all the seven countries have defamed China as the origin of Covid-19 virus without solid scientific evidence, with the U.S.A. and Australia targeting overseas Chinese students as the objects of political attacks. For instance, in September 2020, the U.S.A government canceled 1,000 China students' visas, claiming their suspicious ties to military. In April 2022, Australia claimed the deportations of two Chinese students because of

their military training experiences. However, the military training mentioned in the above two cases is compulsory for every Freshmen to enter universities in China. It is not pure military training but some kind of a compulsory preparation to help freshmen to adjust themselves to living on campus.

Hence, the relevance of this project is illustrated by the following Research Logic Mapping:

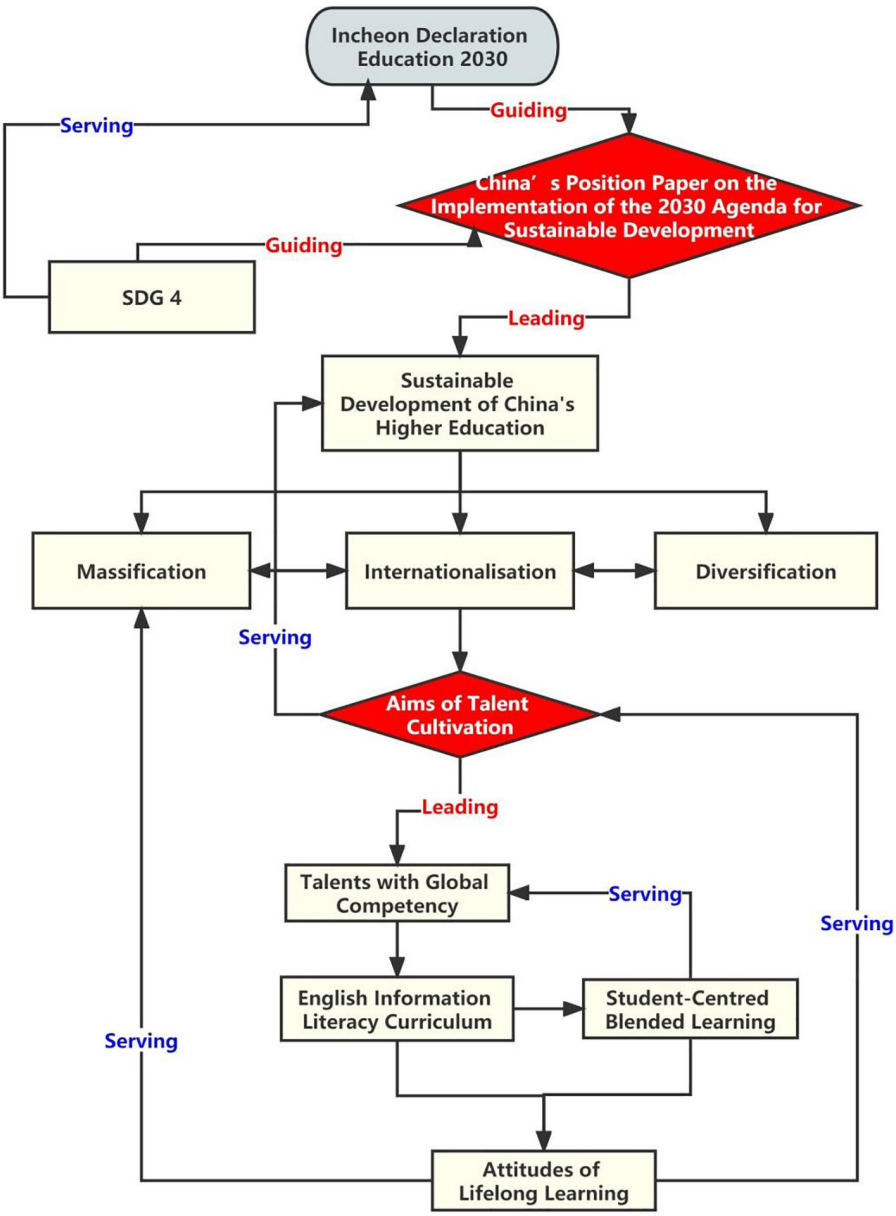

Figure 3. The influence of SDG 4 on STEM English Reforms

As it is shown in Figure 3, to answer for the demands of the sustainable development of China's higher education, the cultivating aims of universities should be reformed. And innovative measures of new talents education must be developed and applied to practice. The conventional General English courses in universities in China cannot

meet the study needs of students, this fact being proved by the researches conducted in Liaoning University of Science and Technology in the recent 5 years. The urge for student-centered English courses generates the core research question of this study, that is, to innovatively reallocate and refine a series of English-delivered courses aiming at cultivating students' information literacy capacities. The information literacy capacities are the core quality contributing to engineering talents' global competency. Moreover, English Information Literacy Curriculum facilitates students' attitudes of lifelong learning which leads to the realization of Learning Society.

The hypotheses of this project are categorized into a macroscopic hypothesis and a microscopic one. In a macroscopic view, the project is correlated to the studies on the challenging issues of the sustainable development of higher education in China. The urges for massification, internationalization, and diversification in the higher education system lead to the changes of cultivation aims of university profession education. Undergraduates of non-English language majors, especially the future engineering talents with global competence are required to take professional responsibilities of "Industry Experts" in a multi-cultural environment. English information literacy capacity, taking the place of Listening, Speaking, Reading, Writing skills, becomes the core qualification contributing to one's global competency. In this project, English information literacy capacity is defined as the competence of accomplishing cross-cultural academic exchanges, composing multi-lingual literature reviews, delivering international technological promotions, and publishing one's research results in a foreign language. Accordingly, in a microscopic view, the influences cast by these challenges on the reforms of teaching English as a foreign language in universities should be closely examined, corresponding practical measures being developed.

MOE published The 2020 National Statistical Communiqué of the Educational Development on August 27, 2021.

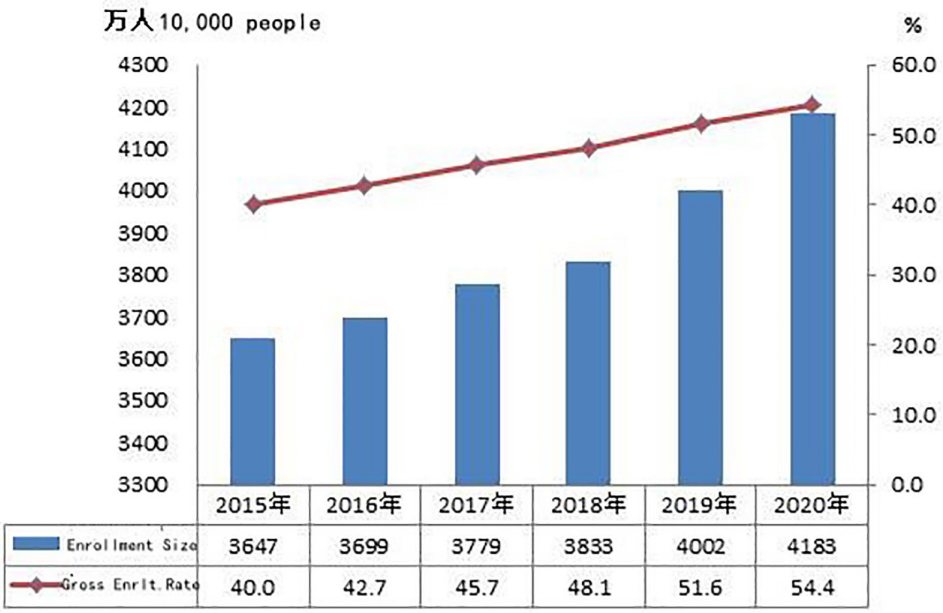

Figure 4. The total enrollment size and gross enrollment ratios of higher education during 13th five year plan

According to the 2020 Statistical Communiqué, by the end of 2020 there are 2,738 regular colleges and universities nationwide with the increase of 50 over the previous year. Among them, there are 1270 undergraduate colleges (including 21 undergraduate vocational schools), which is 5 more than in the previous year; 1468 higher vocational colleges (junior colleges) colleges, that is 45 more than in the previous year; 265 adult institutions of higher learning, which is 3 less than in the previous year; 827 graduate training institutions, including 594 regular higher education institutions and 233 scientific research institutions. The total number of HEIs' enrollment reaches 41.83 million with the increase of 1.81 million over the previous year. The Gross Enrollment Ratio (GER) of higher education was 54.4%, that is 2.8% more than last year. The average number of ordinary institutions of higher education is 11,982 enrollments, accounting for 15,749 in undergraduate colleges and 8,723 in higher vocational (junior college) colleges [16].

According to The 2021 National Statistical Communiqué of the Educational Development released on September 14, 2022, the key indicators continue growing. There are totally 3,012 HEIs in China, among which there are 1,238 general undergraduate schools (including 164 independent colleges), that is 11 less than in the previous year; 32 undergraduate-levelled vocational schools, accounting for 11 more than last year; 1486 higher vocational (junior college) schools, that is 18 more than in the previous year; 256 adult universities, which is 9 less than in the previous year. Other 233 scientific research institutions have offered programmes to graduate students [17].

The total number of HEIs' enrollment reaches 44.30 million with the increase of 2.47 million over the previous year. The GER of higher education was 57.8%, showing the increase of 3.4% over the previous year. The average number of ordinary institutions of higher learning is 16,366 enrollments, including 18,403 in undergraduate colleges and 9,470 in higher vocational (junior college) colleges [17].

Martin Trow's theory of Universal Higher Education significantly influences the national policy-making in the field of higher education. In 1999, The State Council of China approved and transferred the Action Plan for the Revitalisation of Education in the 21st Century issued by the MOE, with a proposal that the Gross Enrollment Ratio of China's HEIs in 2010 should reach 15% of school-age youth. Such plan means China's higher education will enter the stage of Mass Higher Education at the consensus of most countries in the world in the early 21st century, which is derived from Martin Trow's theory of Mass Higher Education. Trow claims three important indicator ratios of western higher education development theory, by which the developmental phases of higher education have been divided into the phase of Elite Higher Education (with a GER lower than 15%), the phase of Mass Higher Education (with a GER between 15% and 50%), and the phase of Universal Access (with a GER beyond 50%) [18].

When referring to the data of 2020 and 2021, the GERs are 54.4% and 57.8% respectively, meaning China's higher education system enters the phase of Universal Access. Such a growth rate and growth mode reflect an extraordinary development way, which is so unique in the process of the universalization of the higher education systems in other countries that requires a thorough and cautious examination [19].

The macroscopical review of the internationalization and massification issues in China's higher education system leads to the reexamination to the changed

cultivation aim of talents in this post-covid19 era. Talents, especially talents of STEM specialties, are required to be globally competent to communicate with at least one world language, for instance, English. Therefore, two aspects of micro-measures should be taken by the educators in common STEM major specified universities in China, for example, the author's working affiliation, Liaoning University of Science and Technology, which is not among the elite universities of 985 / 211 projects.

For the international development of the common HEIs of STEM specialties, the prime difficulty lies in the uneven allocation of developmental resources [20]. Liaoning University of Science and Technology has made progress in this aspect by developing full-English general curriculum for selected elite Engineering specialties with the facilitation of international education programmes [21]. In other words, common universities could realize internationalization of higher education with administrative and curricular support to "On-Campus Internationalization", which offers engineering talents the access to full-English general courses delivered by teachers graduates from elite oversea universities without travelling to a foreign country. To cultivate the global competency of STEM undergraduates, conventional English courses have been experimentally converted into EILC, which has been proven by teaching practice to be effective and efficient to solve the problems of over-population and disciplinary limitation caused by massification.

The second aspect of challenge is the supervision of the education quality on the stages of massification, and even of universalization statistically. EILC broke through the barriers of over-population and disciplinary limitation with systematic interdisciplinary curricular constructions and blended learning designs with MOOCs and SPOCs [22].

Discussion

In conclusion, China's higher education system has achieved considerable goals in the aspect of developing a Learning Society and realizing Universal Access to higher education. However, the standards of defining elite, mass and universal educational phases hold no solid statistic basis, which is also admitted by the theorist himself [23]. In the interview by Wu Daguang, a famous researcher of Pedagogy of Higher Education in Xiamen University, Martin Trow expressed his concerns about China's policy makers of higher education have adopted those indicator figures so austerely that they might have ignored the uniqueness of influential factors in China [24]. Further examinations should be designed to evaluate whether China has authentically entered the phase of Universal Access or not.

In case of the internalization and diversification development of higher education, China needs to set up cooperative bonds with friendly neighbors with abundant experience in higher education, for instance, Russian Federation. By 2022 the total number of Sino-Russian university alliance projects has reached 12. Among them, the Astu Alliance (АТУРК) is the most active one, gathering talents in professional fields, integrating technological and industrial resources, and promoting structural transformation and upgrading. Meanwhile, Shenzhen MSU-BIT University (Университет МГУ-ППИ в Шэньчжэне) is a successful model of Sino-Russian joint-founded university. On the basis of such fruitful Sino-Russian joint programmes of higher education, China should deepen and widen the cooperative development projects with Russia.

In the past three years, the world has experienced the impossibility of achieving sustainable development without international cooperation. Taking into account the differences in advantages and disadvantages of China's and Russian higher education systems, it is suggested that the two countries will cooperate further in the following three aspects:

Firstly, the adjustments and reforms of the original basic framework of higher education systems in both countries would be improved in accordance with respective development needs or experiences for mutual reference. Both China and Russia are experiencing sanctions initiated by some specific countries or international organizations. Nevertheless, in the long run, the retreat of western HEIs from markets of China and Russia enlarges the developmental space for domestic and cooperative programmes. The considerable achievements and precious experience of Russian higher education system would guide the two countries to transform the theory of the development of higher education into profitable practice.

Secondly, both the higher education circles of China and of Russia have been longing for relatively independent measuring indicators for the evaluation of academic achievements. It is a brilliant opportunity for China and Russia, along with other progressive countries, to diversify a set of innovative indicators for assessment academic achievements of HEIs, which should not be dominated merely by western standards.

Thirdly, high-levelled programmes (e.g. postgraduate programmes) should be prioritized in future cooperative projects. In 2015, 34.0% of the Chinese students in Russia enrolled in undergraduate programmes, 25.0% - advanced courses, 16.1% - preparatory courses, 16.7% - master courses, and only 3.8% followed the doctor's degree. As to the Russian students in China, most of them take language training courses and advanced courses, with only 21.1% undergraduate programmes, 10.7% - postgraduate courses, and about 1.2% of doctoral programmes. By 2020 about 70% of the Russian students in China had chosen Chinese as their major, about 70% of the Russian students preferred short-term communication rather than full-time degree programmes [24]. To further the cooperation between higher education system of China and of Russia, promotional priorities should be granted to degree programmes, especially postgraduate programmes.

Except for improvements concerning the aspect of massification, it is obvious that in the previous arguments, there is a lack of emphasis on the data on internationalization and diversification. Due to the Covid-19 pandemic, from 2020 to 2022, the Sino-US, Sino-UK, and Sino-Australia cooperative programmes have been suffering from political obstacles caused by the western countries against China's students in HEIs overseas. The restoration of such a loss in mutual trust will take years, even decades if history is mirrored. China should enhance the cooperative partnership with Russia, a powerful country with superb experience and achievements in higher education.

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