Comparative Analysis of Differences in Educational Systems of the Modern UK and China

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ABSTRACT
Following the former Premier Deng Xiaoping’s Reform and Opening-up policies, Chinese education underwent a spectacular shift, which contributes to both the process of pursuing education modernization in conjunction with the economy's transformation and development. Meanwhile, on the opposite side of the Eurasian Continent, the United Kingdom (UK) inherited a world-renowned, high-quality education system that was developed through time as the country underwent industrialization and democratization processes. The educational systems of the UK and China, two of the world's prominent nations, have many similarities and distinctions. At each stage of schooling, each system has advantages and disadvantages. The aim of this study is to produce findings that can increase the quality of education by addressing the existing and emerging issues in both countries’ educational systems. Specifically, this study compares educational systems in present-day UK and in China's post Reform and Opening-up period by analyzing 1) The current schooling systems of China and the UK, 2) Differences in Classroom Culture, 3) The existing and emerging problems in the educational system in the expectation of ensuring a quality education for both countries.

Keywords: Reform and Opening-up policies, educational systems, educational structure, cultivation methods, educational priorities

1. INTRODUCTION
Since 1978, China has gone through a rapid economic development enabled by innovative reform and opening-up policies [1]. In line with the development of the market-oriented economy and its increasing integration with the global market, a more pragmatic perception of education has gradually taken shape in the post-Mao era, resulting in the marketization and modernization of education in China [2]. Consequently, Chinese education has been undergoing a significant transformation. The market-oriented reforms and pursuit of rapid economic growth in an increasingly globalized economy have had prominent impacts on China's educational policies and development. China then established an educational administration system which has adapted to the stage of building a socialist market economy. As stated in the reform plan of the organs of the State Council approved by the first session of the 9th National People's Congress in 1998 and The Notification of the Establishment of Organs by the State Council, the National Education Commission was re-titled the Ministry of Education. Currently, in accordance with The Educational Law of the People's Republic of China (PRC), the Ministry of Education is responsible for 17 tasks, including drawing up strategies, policies and regulations for educational reform throughout the country, taking care of overall planning, coordinating and governing the work of primary and secondary education as well as higher education, guiding the advancement and reform of higher education, taking charge of the overall management of educational funds, organizing international educational exchanges and cooperation, formulating guidelines for the nationwide standardization of spoken and written Chinese language, coordinating between the State Department and the UNESCO and so on (Ministry of
Education of the People's Republic of China, 2015). It is worth mentioning that the Ministry of Education's responsibility is only for general guidance. The local governments and corresponding departments can have their own educational bureaus and equivalents.

Nevertheless, in the field of education in the post Reform and Opening-up era, several problems and issues have emerged. Still, there are several acute, lingering problems associated with the stagnation of education development in the countryside, the insufficient investment towards the rural education, the bureaucratic administration of principals and teachers as well as the soaring tuition fees in parallel with the rapid expansion of higher education opportunities. These issues have been extensively studied and explored by scholars in various fields, in both Chinese and international contexts.

Simultaneously, on the opposite side of the Eurasian continent, the United Kingdom (UK) inherited a world-renowned, high-quality education built upon a heritage that is now centuries old. In the meantime, the industrialization and democratization processes created a need for mass education [3]. It can be said that education has been long considered a hallmark of a civilized society, the engine of social justice and economic growth, the foundation of British culture, and indeed the best investment the UK can make in the future of its citizens. For example, the current UK government stated that education is at the heart of the state's agenda [4]. The British Department for Education shares the responsibility to educate the next generation of informed citizens, introducing young British to the best that has been thought and said, and instilling in them a love of knowledge and culture for their own sake. Education is also about the practical business of ensuring that young British people receive the preparation they need to secure a good job and a fulfilling career, while bolstering the resilience and moral character to overcome challenges and meet with success.

Furthermore, the British Curriculum was established in 1988 with the intention of aligning with the current education system. This system of education highlights students' creativity, critical thinking, independent problem solving, and flexibility. As a result, these remarkable features led to the British Curriculum being one of the most extensively taught educational systems in the world. As a curriculum which aims to develop well-rounded individuals who not only understand the core principles of their subjects, but also how to use this knowledge in real-world situations, the British Curriculum also places a high priority on extracurricular activities such as team sports and performing arts, which help young British students develop skills in leadership and teamwork, and to understand the intricacies of competition and camaraderie.

Despite the fact that the British education system is an internationally-recognised system which serves as a source of attraction for international students of all ages. Still, given the increasing segregation and polarisation between working class and middle class, inequality in the intensifying distribution of educational resources undermines the quality and equality of British education.

In this paper, the author applied a comparative analysis method to analyse the differences between the educational systems of present-day UK and China (in the post Reform and Opening-up era) by looking at the contemporary school system, educational methods and educational priorities in each country. This study assumes that both China and the UK would take advantage of the strengths and overcome weaknesses in their current educational systems. As such, the teaching philosophy, pedagogical content knowledge and professional knowledge in both countries can be further adapted to the requirements and developments of the unprecedented challenges and opportunities of the information age.

2. THE DIFFERENCES IN THE CONTEMPORARY SCHOOL SYSTEMS OF CHINA AND THE UK

In the late 1970s, the political radicalism of the Mao era decreased, and the national development trajectory began to re-prioritize expertise over socialism and radicalism [5]. The post-Mao Chinese leaders considered education to be an essential tool for economic modernization. Against this backdrop, "education serves the economy" emerged as a new principle of educational policy [6]. Subsequently, a new school system was formulated in line with the guiding principles of China's new educational policy. Over the past four decades a competitive and meritocratic schooling system has generally served the market-oriented economic reforms, the educational demands of the people and education modernization. In the meantime, the conservative governments of the late 20th century introduced a number of market-oriented mechanisms into the UK education system, including parent representation on the governing body and a nationally prescribed curriculum in an attempt to raise the British education quality as well as pupil achievement. They did, however, raise concerns about increased inequalities in schools and the stratification of the British society.

The administrative system is a fundamental representation of a country's leadership in education. It is also a crucial part of a nation's administrative management, which guides, organizes, and administers the educational goals of the government. After 40 years of reform and progression, based on the Constitution of the People's Republic of China (PRC) and a series of regulations issued by the Communist Party of China (CPC) and the State Council, the central government and local governments have set up an educational administration system for all stages of education in China. This includes the secondary or lower stage education
administration system, vocational education administration system and the tertiary education administration system. The Constitution stipulates that the State Council guides and governs educational activities. Local governments at or above the county level, within their legal limits, are in charge of the educational system in their respective administrative areas.

The overall educational system adopted in China is a school education system including pre-primary education, primary education, secondary education, and higher education. In 1985, the first central policy document on educational reform was announced. The 1985 decision officially marked the educational reform in China [7]. By adopting a decentralization policy and applying market principles in the educational arena, ever increasing social forces have been encouraged to provide educational services. Meanwhile, the levels of initiative and enthusiasm of local governments and educational institutions have been enhanced. As a result, educational opportunities have multiplied, and mass education has been expanding rapidly. In accordance with the Compulsory Education Law of the PRC [8], a nine-year-long free and compulsory education was implemented by the state for all school-age children and adolescents. Pre-primary education is usually for children from three to six years old. Children who are six or seven years old are enrolled in school for compulsory education, which includes a six-year-long primary education and a three-year-long junior secondary education. After completing their compulsory education, youths can enroll in a three-year-long senior secondary education, which comprises general and vocational tracks. Following secondary education is higher education, which includes short-cycle tertiary education, bachelor's, master's and doctoral level education. The country has also implemented adult education, continuing education, open and distance education, literacy programs and special needs education.

China now utilizes a three-level curriculum model consisting of curricula developed at the national level, regional level and school level. This model involves the central government, local authorities and schools in developing the most suitable curriculum for each local context. At the national level, the Ministry of Education produces the curriculum plan, develops guidelines on curriculum management and determines the national-level curriculum. In addition, the Ministry of Education is responsible for setting the national curriculum standards. It also conducts pilot studies based on the curriculum evaluation system. At the provincial level, relevant authorities develop an implementation plan for the national curriculum. In doing so, provincial authorities attempt to interpret the intentions and objectives of the national curriculum and to translate them into a local curriculum that fits the local context. The plan is then sent to the Ministry of Education to be approved for implementation. At the school level, teachers can develop their own courses and carry out educational research according to the provincial plan. During curriculum implementation and course development, the local Education Bureau is expected to guide and supervise the schools' work (Chinese National Commission for UNESCO, 2004).

The National Institution of Education Sciences, under the direct governance and conduct of the Ministry of Education, is an important institution that leads educational research on various topics. It also serves as an important support to educational policy-making. In the past decades, non-governmental research activities have also taken place. Research societies on various topics, such as tertiary education and educators, have been gradually established, and some are affiliated with the Ministry of Education.

In the UK, education is compulsory from ages five to 18, and is largely provided through the state educational system. Most schools are fully public in the sense that they are directly or indirectly financed by the state, through local education authorities, academies or through direct funding. However, other schools are administered by churches and religious organisations, through the system of faith schools. The UK education system is divided into four main parts: primary education, secondary education, further education and tertiary education. In the UK, children are legally obliged to attend primary and secondary education from around the age of five until the student is 16. The educational system in the UK is also split into Key Stages that are divided as shown in table 1 below.

Table 1. Key Stages in the UK's Educational System

<table>
<thead>
<tr>
<th>Key Stage</th>
<th>Age Range</th>
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<tbody>
<tr>
<td>1</td>
<td>5 to 7 years old</td>
</tr>
<tr>
<td>2</td>
<td>7 to 11 years old</td>
</tr>
<tr>
<td>3</td>
<td>11 to 14 years old</td>
</tr>
<tr>
<td>4</td>
<td>14 to 16 years old</td>
</tr>
</tbody>
</table>

Generally, Key Stages 1 and 2 take place in primary schools and, at age 11, pupils progress to secondary school to complete Key Stages 3 and 4. Students are assessed at the end of each stage. The most important assessment is the GCSE (General Certificate of Secondary Education) or GCSE exam when the student is 16 years old. Once pupils have completed their GCSEs, they can choose to continue their education by enrolling in a higher education program or to enter the job market once they have completed their mandatory studies. In the UK, primary education begins at the age of five and continues until the age of 11, encompassing Key Stages 1 and 2. From age of 11 to 16, students move on to secondary studies comprising Key Stages 3 and 4 and begin taking GCSEs. In the UK, primary and secondary education is compulsory; after the age of 16, education is optional. Once students have completed secondary
education, they can choose to further their education by
taking A-Levels, GNVQs (General National Vocational
Qualifications), BTECs (Business and Technology
Education Council) or other such qualifications. UK
students planning to enter college or university must
complete further education.

The existence of grammar school adds some
complexity to the structure of the British educational
system. Grammar schools are government-funded
secondary schools. They are the only state schools in the
UK that are allowed to select all their pupils based on
academic ability. Until the 1970s, pupils in the UK were
required to take what was known as the 11-plus exam, to
determine which secondary school they would attend – a
grammar school (for the higher-achieving students) or a
secondary modern school (for students with lower
grades). This system was eventually replaced by a system
of comprehensive schools, which admitted pupils of all
abilities. Most grammar schools were phased out, and
they either became comprehensive schools or were
converted into private schools. Nevertheless, many were
allowed to maintain their status and still exist today.
Grammar schools remain extremely popular, thanks
largely to their indisputable academic success [9].
Although each school has its own admissions criteria,
nearly all placement offers are based on the results of a
selection test set by the school or the local authority. This
is referred to by various names, including the transfer test,
the grammar-access test, the Kent test and, occasionally,
the 11-plus. The test is typically taken early in September
of Year 6, but it is worth noting that an increasing number
of schools and counties are requiring families to register
for the assessment during the summer term of Year 5.
Many parents work hard to prepare their children for the
test, sometimes starting preparation two years in advance,
where pupils study past exam papers and work with tutors
to ensure that they have the best chance of academic
success. However, a high test score does not always
guarantee a place at a grammar school, especially if the
school is oversubscribed.

3. DIFFERENCES IN CLASSROOM
CULTURE

3.1. The Relationship Between Teachers and
Students

In China, the relationship between students and
teachers has traditionally been one where teachers are
highly respected and where students are accustomed to
obeying their teachers. In terms of the learning methods,
it is argued that Chinese students’ learning relies heavily
on repetitive rote-learning and memorisation [10]. It is
worth mentioning that Chinese teachers like to give
answers directly. Because of this, independent thinking,
problem-solving skills and self-motivation have been
undermined among Chinese students.

In contrast, teachers in the UK tend to have a
friendlier relationship with their students. This
relationship is described as being "a pattern of social
constructive learning environment, where a teacher acts
as a guide and facilitator considering the students as their
equals rather than being a guru-like role of absolute
authority and knowledge. The British education system is
based on student's well-developed need for independence
and the quality to an extent determined by the excellence
of students. As a result, UK teachers believe that a good
student should not only have good grades but also have
independent thinking ability and know how to face
challenges. Teachers also respect students' individual
personalities and other unique characteristics.

3.2. Class Management Modes

In China, teachers expect students to be absolutely
quiet and focus their attention on the subject matter being
taught in class. Students are expected to be obedient.
Accordingly, students take a lot of notes in class. In
contrast, teachers in the UK give relatively more freedom
to their students. They believe that students should have
a comfortable study environment. As such, students in the
UK are encouraged to express their own thoughts in class.
Behaviors such as sitting in class with their legs on chairs
or chewing gum, are not necessarily considered a sign of
disrespect by British teachers but rather an indication
of a kind of rapport between students and teachers. For
Chinese teachers, however, these behaviors are
considered very disrespectful and are definitely not
allowed in the classroom [11].

3.3. Characteristics of Learning Styles

Historically, Chinese education has been profoundly
influenced by Confucianism [12]. People with a
Confucian cultural background tend to regard teachers as
all-knowing and with great authority. As a result, Chinese
students emphasize the significance of order and
discipline, and value pragmatic acquisition of knowledge.
To keep order and discipline in the classroom, students
are usually not permitted to speak up until being called
upon and they seldom question the knowledge imparted
by their teachers. Whereas in the UK, students are
considered to be acquiring knowledge through
participating in activities and sharing their independent
thinking. Hence, the British learning contexts are
associated with egalitarianism, individual development,
independent problem solving skills, critical evaluation
thinking, and cooperation among fellow students.

3.4. The Positioning of Textbooks

The traditional Chinese conception is that books
contain knowledge, wisdom and truth. The knowledge in
books should be tapped and stored in the minds of
students. In contrast, British educators hold the opinion
that what is contained in textbooks are attitudes and opinions. As an outcome, students are free to interpret these facts, discuss these opinions and refute these attitudes. Books are a tool for learning, not an object of learning, and therefore have no sanctity.

4. THE DIFFERENCES IN EDUCATION FOCUS

In China, teachers have a preference for teaching students in a straightforward manner. They prioritise the results over the learning process. Because of this, they prefer to give students the standard answer directly, even in science class that usually involves a large number of experiments. This approach does not help cultivate students' independent thinking skills. On the contrary, students are taught to blindly accept the correct answer from the teacher. Compared with their Chinese counterparts, teachers in the UK place more emphasis on students' independent thinking abilities. They believe students should be able to study at their own pace. Teachers and parents know that they cannot do everything for children, so they take on a facilitator role. In class, teachers usually ask many questions to encourage students to think and to solve problems by themselves. During scientific experiments, they do not tell students how to execute every step. Instead, they encourage students to find the answers by themselves and to reflect on their failures. Furthermore, UK teachers also encourage students to develop their individual personalities.

In addition, UK educational institutions generally encourage students to develop their creative abilities. Students who do not innovate in the courses they study receive lower grades. In UK universities, almost every course requires students to carry out independent analytical research to complete a project. For instance, the teacher usually gives an assignment without giving students a specific method, which students then have to complete by themselves or in groups. This method of education enables each student to exchange ideas among each other and in the classroom. It also develops their initiative in acquiring knowledge and helps them develop a variety of thinking skills such as self-learning, analysis, judgement and reasoning. The teacher, however, is merely an organiser of the teaching activities, providing the necessary guidance and assistance to the students. British education focuses on "humanistic" and "creative" development, while Chinese education focuses on "normative" and "institutional" development." This also reflects the difference in educational philosophy between China and Britain.

In China, the educational institutions and teachers provide the same standards for final examinations and home requirements in judging students' academic performance. While the UK is a country that also places great importance on examinations, which are just as rigorous as in China, exam questions in the UK are relatively flexible. They consist of open-ended, subjective questions, with fewer guidance on what students should or should not do. Moreover, the UK educational system does not use examinations as the only criterion for assessing students' academic performance, and the final examination accounts for 50 percent of the students' level of research, practical performance and final examination results. In addition, there is considerable flexibility in how students can answer the exam questions and there are no "points to be scored" like in Chinese examinations. Teachers rarely give conclusions about what should or should not be done, but rather focus on the scientific, flexible and innovative characteristics of the answers. As long as a student's answer is sensible, innovative and has research value, it will be recognised and graded positively.

In a general sense, Chinese education aims to give students a strong educational foundation, while education in the UK aims to cultivate students' creativity and independent thinking. In general, Chinese students are able to obtain high marks on standardized examinations, while in the UK, the educational system also seeks to cultivate social skills and creativity.

5. EXISTING AND EMERGING PROBLEMS IN THE EDUCATIONAL SYSTEM

Through years of development and refinement of the educational system in China, the central government has gained administrative power and gradually established a state-wide plan for compulsory education. Nevertheless, in the course of educational development, old problems needed to be addressed urgently while new problems emerged. While in the United Kingdom, education in the UK is viewed as a success story, the Department for Education has long undertook one of the greatest and most far-reaching experiments in the education sector. Moreover, the British Conservative governments of the 1980s and 1990s introduced multiple market mechanisms into the British education system in the aim of improving pupils' academic achievements, including parent representation on the governing school bodies, the connection between school funding and student enrolment numbers. Alongside this publicly available test score information was made available with which parents could compare the performance of one school with another. Still, new issues and challenges have arisen in the midst of modernization and development of education in the UK.

5.1. The Education Inequalities

Even though guidelines implemented by the Chinese Ministry of Education were established to guarantee compulsory education in rural areas, the widening gap
between various regions and the gap between urban and rural areas has not been eliminated thus far. In the current Chinese educational system, the localities are in charge of the development of basic education, but the quality of this basic education is highly dependent on the economic situation within localities. As a large country, China faces tremendous pressure from its huge population across vast regions with diverse natural resources and economic conditions. As a result, the difference in economic conditions across localities leads to uneven allocation of educational resources. More importantly, rural education has long suffered from insufficient investment. To date, many rural students are studying in dilapidated classrooms, and many rural teachers are suffering from pay arrears. It is estimated that over 60% of the rural population has an education level lower than six years of primary education [13]. Most of the rural population is concentrated in the impoverished west area of China, the restricted and scarce education resources limited the current nationwide nine-year compulsory education policy. Many poor families in deeply impoverished areas could not afford education costs, leading to many students dropping out.

Historically, the British educational system has educated people from different social classes to prepare them for different functions in society. With students attending school in the same building, the working classes still receive less education than the middle classes. The academy and free school movement has worsened conditions for working class children by increasing segregation and polarisation, and by increasing inequality in the distribution of educational resources. Although free schools and academies receive more funding per head than state comprehensive schools, they typically educate fewer children, offer free school meals and have more favorable admission rates than comprehensive schools. The UK educational system does not seem to encourage all students to reach their full potential. In fact, students receiving free school meals and pupil premiums are less likely to achieve five or more A-C grades at GCSE, including English and math. According to a report by the Organisation for Economic Co-operation and Development (Education At A Glance,2019), four out of five children from working class ethnic minority families are educated in schools with high concentrations of other migrant or disadvantaged pupils, representing the highest proportion in the developed world. Inequality in the educational system is also apparent when comparing private and state education systems. The private sector attracts wealthier families who can afford to send their children to schools with more qualified teachers, and where students are provided with textbooks and library access. If the students do not understand a topic, wealthier families can also hire tutors to help with their schoolwork.

In the UK, comprehensive schools are predominantly divided into middle class comprehensive schools and working class, racially mixed comprehensive schools. In spite of pupil premiums, working class comprehensive schools receive less money per pupil. Likewise, they hire fewer qualified teachers than their middle class counterparts, and they experience higher teacher turnover. Even if working and middle class students are in the same school, working class students enjoy fewer privileges and they experience a greater supply of teachers. Working class students also have restricted educational opportunities, as most attend schools that do not perform well in the league. In these schools, teachers and headmasters are pressured to improve their school’s ranking, which means they focus more on reading, writing and arithmetic than schools serving more affluent pupils.

5.2. The Higher Education

In China, because educational resources are scarce, the limited resources from the central government are mainly invested in a few key universities, especially those under the direct jurisdiction of the Ministry of Education. Though the scale of tertiary education has been extended, many local governments have not increased their investment in the higher education sector. Consequently, the local universities have transferred the financial burden to parents, through large-scale recruitment and high tuition fees. This phenomenon resulted in soaring tuition fees in parallel with the rapid expansion of higher education opportunities.

Traditionally, higher education has been the preserve of higher socio-economic groups in the UK and, although higher education participation has risen substantially in recent decades, the relative position of lower socio-economic groups in terms of higher education participation is still poor. The policy response has been to expand higher education further, in an attempt to widen access to previously under-represented groups. Nevertheless, to finance this expansion tuition fees for tertiary education have been introduced. One way of implementing the widening access to higher education was to increase the percentage of entrants by improving the educational qualities of the average school leaver. Still, an easier way is the relaxation of the admission requirements and then peg the universities income to the number of students accepted while reducing the funding per head. It is worth mentioning that contrary to what many believed before the expansion of higher education, the gap in higher education participation between richer and poorer students has in fact widened in recent years [14]. This means that although poorer students are more likely to go on to higher education than they were in the past, the likelihood of them doing so relative to their richer peers is in fact lower than was the case in earlier decades.
6. CONCLUSION

In summary, this article identifies and analyses the educational differences between the modern day Britain and China (post-reform and open era). Simultaneously, the aim of this study is to produce findings that can increase the quality of education by addressing the existing and emerging issues in both countries' educational systems. To begin with, due to the different social backgrounds, the education policies of two countries were made differently. In addition, this article interprets the differences of the classroom culture from four aspects respectively. Then, this study indicates that Chinese education focuses on "norms and standardization", while Britain focuses more on "humanities and creations". At the end of this paper, the existing and emerging educational problems of two countries were then explored and analyzed. This analysis found that both types of educational systems have pros and cons. In both countries, the educational system is organized and managed by the state. Responsibilities at all levels of government must be well defined, and the effort to separate government administration from school operations could be improved. This would result in a well-planned and coordinated educational system. In this manner, both countries can ensure a quality education for all, guarantee human rights, enhance human capital, improve people's living standards, and boost economic and social development.

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