

# Impact of the New College Entrance Examination Policy on Students' Access to Higher Education in Shanghai

Wanqi Li<sup>1,\*,†</sup>, Jiahui Tong<sup>2,†</sup>

<sup>1</sup> The school of education, University of Leeds, Leeds, LS2 9JT, the United Kingdom

<sup>2</sup> The school of education, University of Manchester, M13 9PL, the United Kingdom

\*Corresponding author Email: ed212wl@leeds.ac.uk

†These authors contributed equally.

**Abstract.** Since the most recent round of college entrance examination reform was introduced in China, some researchers have discovered that the implementation of the new college entrance examination (NCEE) policy has brought about several impacts and challenges for teachers and students. However, as the reform is still being implemented, there is a lack of further explanation and knowledge of the underlying mechanisms and scope of impact. Because of this, this article investigates how Shanghai's NCEE policy has affected students' access to higher education by gathering data through semi-structured interviews and analyzing it qualitatively and inductively. The NCEE policy has increased students' autonomy in the subject selection, decreased academic pressure, and contributed to their overall and individualized development, according to interviews with three students and in-service high school teachers who took the exam. Teachers' teaching and class management patterns have also become more flexible and varied under the new class allocation system. This highlights the need for early career planning for students to lessen their concern about subject selection as well as the pressing need for adequate career development assistance and information for personal development decisions. There is still more research to be done on specific strategies that high school teachers might take to improve their administration and instruction under the new class placement paradigm.

**Keywords:** New college entrance examination, High school students, Comprehensive reform of college entrance examination, Shanghai.

## 1. Introduction

The reform of the college entrance examination has been under investigation and analysis since it was resumed in 1977. Working up a fair, just, and workable reform plan that is both humane and scientific, strict, and tolerant, and that satisfies the general goals of education while also taking individual development into account has been a hot topic in the world of education. Shanghai has taken the lead in starting the new college entrance examination reform, and its audacious adoption of several new policies and initiatives, such as abolishing the separation of arts and science subjects, implementing a class system, and implementing comprehensive quality assessment, has drawn a lot of attention across the country for a while [1]. One exam defines a lifetime, and one paper determines a career in exam-oriented education are problems that need to be further solved. The deeper objective of the reform is to emphasize students' learning choices, weaken marks, lessen pressure, and further tackle. Shanghai's new college entrance examination reform, however, has also fallen short in practice. For instance, students' freedom of subject selection is still "kidnapped" by utilitarianism, and they cannot form their own opinions and decisions [2]. Additionally, there are not enough teachers, and managing the classroom is challenging [3]. The difficulties of higher education advancement are increasing as the Shanghai Higher Education Examination reform enters its middle stage. How students' anxiety and utilitarian mindset complicate career planning; how the responsibilities of teachers in different subject areas should be divided to prevent duplication and wastage of power; and the caution that insufficient empirical career planning guidance and unreliable data support give to the reform of higher education.

This study aims to examine students' and instructors' experiences with and perceptions of the new Shanghai entrance test using empirical data. It is based on an investigation of the two key factors influencing progression to higher education, teachers, and students. The study uses semi-structured interviews with six graduating high school students and currently employed high school teachers to refine the generalized new college entrance examination reform policy by designing questions on subject choice, adjustments in examination timing and scheduling, and differences in examination mindset and stress.

## 2. Methods

### 2.1. Semi-structured Interview

Determine the technique required for the study, including data collection methods, data interpretation methods, and ethical standards to be followed, after identifying the study's aim and objectives and conducting a thorough literature review. This study decided to interview people to examine the difficulties caused by the revision of Shanghai's new college entrance examination for teachers. This research will select six instructors from one high school in Shanghai for an interview because Shanghai is the focus of this paper's research and the new college entrance examination allows candidates to select six topics. These professors represent a variety of subject areas. In addition, this study conducted semi-structured interviews with three recent high school candidates to compare how students and teachers view the new college entrance examination reform in the same and different ways. This study acquired informed consent and recorded the interview using an audio format. The semi-structured interview is mainly adopted in this process. There are some questions were created throughout the interview.

For students:

1. Which subjects you have chosen for the college entrance examinations and why?
2. Will the new Advanced Placement exams help you excel academically? Do you think the new college entrance exam will better enable you to use your academic strengths to get into better institutions?
3. The new college entrance exam policy has changed from a half-day test for three courses to a three-day test for three courses. Is this change good for students to prepare for the exam?

For teachers:

1. What are the advantages and disadvantages of the new college entrance examination system compared with the old system?
2. What is the impact of the course selection system on teachers' daily teaching management?
3. What advice would the teacher give to the candidate in terms of course selection?
4. What are the teachers' expectations and suggestions for the future reform of the Shanghai College Entrance Examination?

### 2.2. Data Collection

The six students selected for this study are.

Student #1-Male, subject selection: History, Politics, Chemistry

Student #2-Male, subject selection: Physics, Geography, Chemistry

Student #3-Female, subject selection: Chemistry, History, Geography

Student #4-Female, subject selection: Biology, History, Physics

Student #5-Male, subject selection: Biology, Chemistry, Politics

Student #6-Female, subject selection: Geography, Chemistry, Physics

The six teachers selected for this study are.

Teacher #1 - Male, history teacher, and classroom teacher

Teacher #2 - Male, physics teacher

Teacher #3 - Female, a Geography teacher

Teacher #4 - Male, chemistry teacher, and classroom teacher

Teacher #5 - Female, Political Science teacher and classroom teacher

Teacher #6- Male, Biology Teacher

But there are also some limitations in the way of interviews. “It should be noted that interviews may not be the best method to use for researching sensitive topics as people may feel more comfortable completing a questionnaire in private.”[4]Because it is a real-name interview, teachers may be more inclined to express the positive impact of some reforms because of their own and the school's reputation.

### **3. Results**

Teachers and students indicated various facets of their sentiments regarding the NCCE policy following the interviews.

#### **2.3. Students' Perspective in NCEE**

##### **3.1.1. Increased Autonomy in Subjects Selection and a Greater Focus on Professional Links with Universities**

“I think I picked subjects that I was good at, but the old college entrance examination would have been very restrictive for me”

One student suggested that she picked subjects that she was good at, but the old college entrance examination would have been very restrictive for her. She also argues that the school will organize some lectures to advise on choosing a subject, but it is up to them to analyze their strengths to choose a subject for each situation.

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“Choosing a subject means that I needed to start thinking very seriously about my ambitions and what I am interested in, even what I wanted to do in the future, and what I could choose to study at university with my current grades”

The respondents argued that the new system helps in increasing the selectivity of the curriculum and entrance examinations at the senior secondary level, learning to choose for themselves, discovering one's interests, hobbies, strengths, and potential in the choice, and planning one's future life in the choice.

##### **3.1.2. Reduced Exam Pressure and Wider Access to Academic Assessment**

“I chose Biology, History, and Politics. Biology can be taken in the second year of senior secondary school, and the pressure of coursework in the third year is relatively less. I think I have a relative advantage in Arts, so I chose History and Politics”

The English test in Shanghai has been modified to consist of two tests administered over a set length of time, with the best score being used to determine the college entrance examination score. As early as the second year of senior secondary school, students can finish some courses and complete exams including geography and biology. These initiatives have significantly lessened the pressure on students to study and get ready for the tests in their final year, but other students have complained that this has stretched the exams out over a very long time, making them a perpetual struggle for students.

##### **3.1.3. Students are Confused about Subject Selection, Major Selection in University, and Career Plan**

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#### **3.1.4. Insufficient Practical Experience with the NCEE**

“The teachers offer very little help and I feel that the information available to me is minimal”

“Compared with others, I feel fortunate that I was given a lot of guidance by my teachers and seniors when choosing my subject”

Respondents argue that the independent exam paper provides more opportunities for the best teachers in Shanghai as a municipality to participate in the selection process. However, at the cost of greater information risks associated with independent selection, students from urban high schools are closer to the selection department and its personnel to get better resources of education and information, at the same time, students from high schools in the countryside may have less access to elite universities as a result. In addition, the teachers offer very little help, and they feel that the information available is minimal.

#### **3.2.1. Grade Assignment System**

The assignment system enhances the fairness of the college entrance examination. Chu Zhaohui, a researcher at the Chinese Academy of Educational Sciences, said "the grade assignment of optional subjects is an important feature of the new college entrance examination reform, which is a new method of calculating scores, which is completely different from the accumulation of original scores on the paper, but by the ranking of candidates for score conversion" [6]. The essence of the grade assignment system is that the scores of all candidates are compulsorily assigned to the appropriate score range according to the ranking percentages. No matter how easy the subject is and how high the average of the raw scores are, the number of people on each score under the Rank Assignment System is allocated according to a defined percentage. This means that the scores of the graded subjects are a reflection of the ranking percentages (positions) [7]. The assignment system can avoid large differences in total scores due to differences in the difficulty of the exams in different subjects, and such a rule helps the truly capable students to stand out.

However, after interviews, both students and teachers expressed doubts and concerns about the grading assignment system.

"I think the direct score is a bit fairer. Because in the college entrance examination, a few points difference is also very valuable. " (Teacher 1)

“The grade assignment system is proportional to the number of points a candidate scored in the old college entrance examination. I feel that this grade assignment system is more compatible with the reformed college entrance examination system ..... To be honest, I don't understand the point of the grade assignment. The biggest role, perhaps, is to make it clear to students what level they are located in the process of assigning points.” (Teacher 3)

#### **3.2.2. The Teaching Dilemma Caused by the Course Selection System**

Teachers face new teaching management dilemmas due to the class selection system.

From the perspective of student management, while teaching classes are a more flexible form of class organization, class management has gradually weakened and become more difficult due to the temporary assembly of students from different classes or even different grades, which requires class management to be diversified and complicated. [5]However, in the process of "class walking", most schools are not yet complete in the integrated class management mode of class teachers, class teachers, class leaders, and tutors, and some secondary school students are weak in self-restraint, which may lead to students' laziness, absence from class and early leaving.

"Students don't know what they're good at. they are good at, and their choices are often somewhat blind. Also, some students choose not the subject but the teacher, and if the teacher in the class is better, they don't mind choosing a subject they would have chosen. If the teacher in the class is good,

they don't mind choosing a subject they don't want to take. If the teacher of the class is good, they don't mind choosing a subject that they don't want to take. Of course, this problem is a minority, not the majority of students, but it exists. Of course, this problem is a minority, not a majority of students, but it exists. "(Teacher 2)

## 4. Discussion

The new college entrance examination reform is a double-edged sword for both candidates and teachers. How to quickly adapt to the reformed policy is a major problem for students and teachers.

### 2.4. A Double-edged Sword: Opportunities and Challenges of NCEE Reform

#### 4.1.1. Increased Complexity of Academic Planning for High School Students

On the other hand, the subject selection is also associated with other influences, including the teacher's advice, the number of applicants for the course, and the career path of the students. Shanghai University involves the teacher in advising students on the kinds of subjects they can undertake [9]. Due to the tangled time, some students fail to identify the most appropriate subjects for their future career growth.

According to the interviewees, one of the benefits associated with new college entrance exams is that they allow students to select subjects that cannot challenge them [10]. In other words, because students fear failing in the entrance examination, they tend to select subjects that they understand better.

The resulting outcome of subject selection can be an imbalance between students' interests and specialization and the requirements of universities. Because university requirements subject students to particular scores to undertake the course; on the other hand, students consider their interests in particular courses. Therefore, there can be great confusion resulting in the poor selection of the course, which is against the student's interest but aligns with school requirements [11]. When students select subjects considering the university requirement rather than future careers or interests, they may face greater challenges when pursuing the course.

On the other hand, involving parents, teachers, and students in course selection may lead to a utilitarian mentality in the subject selection that tends to avoid harm. Students do not want subjects that challenge them, particularly when considering their scores [10]. Therefore, students select the subjects based on their utilitarian perspective. In addition, students want subjects that will allow them to maximize their scores considering University requirements.

One of the reasons why the system was introduced was to increase the selectivity of the subjects. In other words, the new system allows the students to select the subjects based on their interests. Like everyone is always ambitious, some students tend to be more ambitious for a particular profession but do not understand the journey to the top of the ladder. As a result, when students are given the opportunity, they tend to consider their interests which have a strong connection with their goals.

In other words, some students are always anxious to undertake some subjects or courses; thus, they may select the course without adequate knowledge. Furthermore, most students do not understand the characteristics and directions of each major of some course. As a result, the university always involves the teacher in advising the students on the course selection, but the students have the final say about what they want to do.

On the other involving students during course selection is also important, particularly for the students, because it helps the students to start career planning earlier. As students do a course, they tend to do extensive research about the course. Thus, they get to have deep insight into the course they are doing [12]. Career planning will help the students to remain focused because they know about their future career expectations and growth. In addition, it also allows students to get professional career planning advice because it involves teachers with experience. The teachers will guide the students on what their career path looks like and what is expected of them, the challenges, and a broader overview of the course.

#### **4.1.2. Promoting the Overall Quality and Personalized Development of Students**

The system offers several benefits for the students because it involves students in the most critical decision in their lives, unlike the traditional college entrance examination system, which was restrict students on subject selection, limiting the decision of students about the subjects or the course they could pursue in senior high school. The new system allows students to make critical decision that meets their interests, strength, and career future [13]. As a result, it promotes the overall quality and personalized development of the students.

Because the traditional system was restrictive in the subject selection, it primarily relied on what the students had scored rather than ranking the students' scores. As a result, students only did the course which met their scores, limiting the student's choices for their favorite course [14]. The new system depends on the ranking order of the students and the cultivation of students because students can acquire adequate information about the course they are going to pursue and how they will apply for the course in the future.

#### **4.1.3. Insufficient Practical Experience with the NCEE**

The primary goals of NCEE are to improve the quality of education and maintain the viable balance of manpower stock in the country. Therefore, NCEE requires that all students pass the NCEE to be admitted to a degree program in any university. However, the role of NCEE in improving selectivity is sometimes limited because, after the independent examination, the best teachers from Shanghai are allowed to help in university selection [15]. This can result in biases and inequality because students from urban have greater opportunities to join the best universities, unlike students from rural areas.

On the other hand, some schools use teachers to advise students during the subject selection process, but teachers offer minimal effort resulting in selection mistakes among some students.

#### **4.1.4. Lacking Empirical Guidance for Students in Major and University Selecting**

The new system allows students to choose the subjects which they pursue in senior secondary; as a result, reducing the stress among the students. When selecting the subject, students consider subjects which subjects will not give them stress in senior secondary. On the other hand, the new system promotes equity in the Chinese education system for various reasons [16]. First, it gives students an equal opportunity to pursue the subjects based on their interests without any bias. Second, it allows students to undertake similar examinations with standard marking and ranking order, providing the students with the actual grades.

On the other hand, the new ranking system considers the other aspects, including particular students' special talents and capabilities. These students with special capabilities and talents are given extra points or credits. These extra points aim to enhance equality in education because performing students must be all-around academic and curriculum activities [17]. Furthermore, students with special talents or capabilities also spend significant time in the field and sports while students without special talents spend o books.

### **2.5. A Long Way to go: Challenges of NCEE Reform from the Perspective of Teachers**

It is also difficult for subject teachers to get students to perceive and understand the knowledge and characteristics of the subjects they teach as quickly as possible so that they can recognize the priority of their subject choices among many subjects.

#### **4.2.1. Unbalanced Supply and Demand for Teaching Resources**

To adapt to the new subject combinations, the new norm of class selection and tiered teaching at the high school level came into being, changing the original administrative class teaching model. The class selection system places higher demands on teachers' teaching and management skills. The so-called "class selection system" refers to the breakup of the fixed class teaching format [18]. Students are reorganized by the content and level of the curriculum. This is a form of a teaching organization. Students can choose courses based on their interests and knowledge base. Under the "six subjects

choose three" examination model, students' choice of subjects will inevitably lead to the emergence of "popular courses" and "unpopular courses" in the subject. The shortage of teachers for the "popular courses" and the surplus of teachers for the "unpopular courses" make it more difficult for schools to plan the size of their faculty, given their limited staffing.

#### 4.2.2. Teaching Pressure Increases or Reduced?

Science teachers were forced to disrupt their teaching schedules under the new college entrance examination, and most of them complained that "they work longer hours than before, especially classroom teachers, who have less time for their families. As for the implementation of the new college entrance examination, high school science teachers are positive about the educational philosophy it embodies, saying that it gives students more autonomy to choose. However, the actual results were not as expected, especially the freedom to choose subjects for examinations did not lead to the real development of students, and even hurt students' academic performance. In addition, teachers face multiple career development pressures during the promotion of the new college entrance examination. Among them, unemployment transfer and the promotion system are the two more obvious career development pressures.

The main reason for the increased professional stress of science teachers in the context of the new college entrance examination is the implementation of the new college entrance examination program, which has created pressure on their teaching effectiveness at the level of organizational factors, leadership pressure, and pressure on their professional development at the level of personal factors. To a certain extent, this professional pressure was caused by the fact that the interests of science teachers were touched during the reform process [19]. The interests of science teachers include not only economic interests closely related to their material and cultural lives, such as salaries, allowances, and welfare benefits, but also spiritual and cultural interests gained from their teaching activities, including the satisfaction of self-efficacy and social respect.

## 5. Conclusion

This study analyzes the impact of the new college entrance examination reform on students and teachers in terms of the challenges and advantages brought about by the reform through the use of semi-structured interviews based on recent college entrance examination students and in-service high school teachers in Shanghai. The main findings are summarized below.

Through measures such as "choosing three out of seven", "two chances" and "grade assignment system", students' choice of subjects in the college entrance examination is increased, students' exam pressure is dispersed, and students' independent and personalized development is promoted. The system also promotes students' independent and personalized development. Respondents in this study were largely in favor of the subject reforms in the new program. Students can avoid their weak subjects and choose the subjects they are interested in and have advantages, which will greatly increase their initiative and motivation as well as their sense of self-efficacy. Two chances to take the exam reduces the influence of chance factors, reduces the psychological burden of candidates to a certain extent, and is more conducive to students' normal level of performance, so students and teachers generally agree with this. The original purpose of the grade assignment system in the college entrance examination reform is to weaken the role of scores and pay more attention to student's ability to perform in their subjects. The original purpose of the grade assignment system is to weaken the role of scores and focus more on students' understanding and mastery of subject knowledge. However, the survey found that both students and teachers have expressed doubts and concerns about the grading system. It is worth considering whether the "grade assignment system" is "fair".

This study also has some limitations, as it was not possible to further validate the influence mechanism of teachers' workload due to data limitations, which needs to be further discussed in depth in the future. In addition, due to the different forms of examination papers used in each province and city of China, future research needs to extend the study to the whole country.

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