

Unintended Consequences of China's 'Double Reduction' Policy: Systemic Challenges and Proposed Solutions

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Abstract: High-quality education is a critical determinant of national development. It shapes both individuals' socioeconomic contributions and their cognitive-emotional development. Nowadays, China still uses examination scores as one of the core aspects of evaluating others, but examination scores should not be the only one. The most important examination agreed upon by most Chinese is Gaokao, which uses scores as the only evaluating aspect before the implementation of the "Double Reduction" policy. Even though the "Double Reduction" policy does solve some parts of the issue, the problem is not fundamentally resolved. However, three persistent challenges undermine its effectiveness: (1) persistent Gaokao-centric evaluation, (2) inequitable resource allocation, and (3) stakeholder dissatisfaction. These issues hinder the "Double Reduction" policy from achieving its initial goal of education, as well as cause dissatisfaction, particularly among teachers facing unemployment and parents concerned about declining academic competitiveness among people who are involved in education. This article approaches the origin, through policy analysis and case study, of these problems, and the proposed three-pronged solution integrates assessment reform, parental support mechanisms, and teacher redeployment strategies.

1 INTRODUCTION


1.1 Current Situation

Education has always been a critical social institution nowadays. As China's population grows rapidly, competition among peers has become increasingly fierce. This sense of pressure has even extended into the age of students. As a result, the academic burden on students has become one primary concern in education. A significant portion of students' pressure can originate from the National College Entrance Examination (Gaokao). The Gaokao is an irreplaceable part of China's education system. It is a unified national selection examination that can quickly score students' knowledge and ability in learning and allocate them, different individuals, to different universities. In other words, as long as a student's Gaokao score exceeds the admission score of a university, they can be directly admitted to that university despite any other background. Therefore, the core objective of many schools and other educational institutions in China is to help students achieve higher scores in Gaokao. Consequently, most

schools in China have started preparing students for the Gaokao since the period of elementary school. Gaokao score is not the only dimension used to measure a person's knowledge and ability to learn. Educational institutions often suppress their development in other aspects to improve students' Gaokao scores. The well-developed off-school training institutions led to a great imbalance in educational resource distribution. Students from better-off families could obtain better learning resources and tutoring opportunities by participating in various after-school training programs, while students from less affluent families might fail to do so. This phenomenon exacerbated educational inequality and failed to achieve equal education. In response to these educational issues, the Chinese government put in force an intervention—the "Double Reduction" policy.

1.2 The Objectives of the "Double Reduction" Policy

China proposed the "Double Reduction" policy in 2021. It aims to alleviate students' academic pressure

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and regulate the extracurricular training burden on students in the compulsory education stage (middle and primary school students in China). Then, all students can receive school education in a relatively fair environment, avoiding unequal educational opportunities due to economic factors. At the same time, the policy emphasizes improving the quality of school education, optimizing assignment design, and providing after-school services, with the goal of offering each student more equitable and high-quality educational resources to meet their learning needs and promote their versatile development. However, the policy may still lead to other issues. This paper will study the impact of the “Double Reduction” policy on high students and society through game theory.

1.3 Analytical Framework

This study evaluates the “Double Reduction” policy through a multi-stakeholder perspective, examining its impacts on students, parents, teachers, and the education market. The analysis draws on:

Policy Implementation: Assessing gaps between policy objectives and outcomes (e.g., unintended consequences like tutoring market disruptions)

Educational Equity: Critiquing whether the policy achieves its goal of reducing inequality (e.g., persistent disparities due to private tutoring).

Behavioral Adaptation: Exploring how stakeholders (students, parents, teachers) adjust strategies under new constraints (e.g., reallocating freed time).

2 CASE DESCRIPTION

2.1 Main Details of “Double Reduction” Policy

The “Double Reduction” policy refers to reducing both the assignment burden on students in the compulsory education stage and the burden of off-campus training (Wang et al., 2022). The policy stipulates that the total amount and duration of assignments should be strictly reduced. Schools must ensure no written assignment is assigned to students in the first and second grades of primary school. Some revision exercises can be arranged within the school. For students in grades three to six, the average time spent on written assignments should not exceed 60 minutes, and for junior high school students, it should not exceed 90 minutes (Shan, 2024).

2.2 Changes after the “Double Reduction” Policy

The issue of the “Double Reduction” policy has exposed the predicament of children’s “time poverty”. With their childhood time being drawn into the accelerating time structure dominated by capital and technology. The accelerating temporal violence has deprived children of their resonance with the world, resulting in the compression of childhood (Ming et al., 2011). One typical feature of childhood compression is overwhelming stress. Sleep duration is a simple measurement of stress. After the “Double Reduction” policy, the sleep time of 60% of primary and secondary students has increased in different degrees. 9.41% have increased their sleep time by more than 2 hours; 21.66% have increased it by 1 to 2 hours; 28.88% have increased it by 0 to 1 hour. The average sleep time then becomes 7.65 hours for primary school students and 7.48 hours for middle school students, but it still does not meet the Ministry of Education’s requirement: primary school students should sleep for 10 hours; middle school students should sleep for 9 hours each day (Wu & Yu, 2025). This indicates that the “Double Reduction” policy has not completely solved the problem of students’ sleep duration; that is, it has not reduced the students’ stress efficiently.

3 PROBLEMS BROUGHT BY THE “DOUBLE REDUCTION” POLICY

3.1 Pressure of the College Entrance Examination

The “Double Reduction” policy attempts to alleviate the pressure on Gaokao. The pressure of Gaokao is one core reason for students to increase their study time and reduce their sleep time. Gaokao is one of the most important exams in China. As a national unified examination, it is very difficult and unfair. It can efficiently classify tens of millions of students into general categories. Therefore, when it comes to university admission, as long as a student’s score reaches the admission line of a certain university, they can attend that university. It is generally believed that entering a high-quality university means having better life expectations, so the college entrance examination acts as a key turning point in life. A social trend has gradually spread in China: the core compulsory educational goal is only to help students

obtain higher scores in Gaokao. In summary, spending more time studying for Gaokao can improve the score, but at the same time, lead to other negative effects. The “Double Reduction” policy has not effectively solved this problem.

The major exam pressure faced by students can be roughly divided into the following categories. Social pressure: worrying about “not doing well” and not meeting social standards. Peer competition pressure: feeling bad when inferior compared to others. Family pressure: overly high subjected goals by parents. Self-pressure: hoping to improve grades through one's own efforts but repeatedly falling short of expectations (Zuo et al., 2023). A certain degree of pre-exam pressure is mostly common, even propelling students' motivation to learn. Moderate competition and pressure from peers can encourage students to study hard. Appropriate external motivation from the family enforces students' study. Suitable expectations provide a strong internal driving force for study. However, any excessive pressure will have negative effects. Peer pressure exerts a direct influence on academic stress in adolescents (Sarfika et al., 2024). Overly high objectives goals, whether set by parents or students themselves, lead to students' inability to achieve them, causing them to feel exhausted and lose confidence. Due to the significance of the college entrance examination, students tend to magnify these pressures, usually to a negative extent. Some exaggerated and unnecessary thoughts, such as “worrying about not meeting social standards” may fill up a student's mind. While failing to alleviate these systematic pressures, the policy's temporal reallocation has generated new behaviour dilemmas, where ostensibly “liberated” time becomes contested terrain between parents, students, and educators.

3.2 Few Increases in Freedom

3.2.1 Other Constraints

After the implementation of the “Double Reduction” policy, students' free time has indeed increased due to the reduction in school assignments and the decrease in after-school tutoring classes. However, there are still other factors that limit students' freedom. One typical example is family management. Some parents want to fill their children's extra free time based on their opinions, such as enrolling them in non-academic classes. For instance, a parent might want to improve their children's fitness through soccer, which the child has no interest in. The parent forces the children to join a soccer club. Faced with

the expectations of their parents, who have spent money, the child might want to perform well in a soccer club, which is difficult to do because it is contradictory to their interests. Alternatively, the child might loaf in the club only to fulfill the parents' expectations. In both cases, it is a waste of the parent's money, the child's time, and the club's resources. In comparison, accepting a large number of assignments and after-school tutoring classes before the “Double Reduction” policy could improve academic performance, even if the improvement might be subtle. In either case, the additional tasks imposed by parents to fill students' extra free time is a poorer strategy than schoolwork.

3.2.2 Perceptual Bias

People are always dissatisfied with current statuses. Students who have not experienced both education systems before and after the “Double Reduction” policy find it hard to perceive the increased freedom brought about by the policy. Therefore, most of them do not “appreciate” the extra free time brought by the policy and thus do not make efficient use of it. To draw an analogy, people who have experienced war times often long for peace, while a large number of people living in peace do not consider peace as a factor in their happiness and still think life is difficult. Similarly, students who have not experienced the high-pressure environment before the “Double Reduction” policy cannot perceive how precious the extra time is after the policy. Even worse, since most students do not enjoy studying, they think the learning pressure is still too great. No matter to what degree the government controls the time of mandatory studying, over time, students will gradually adapt to the current learning pressure and desire to reduce it further. In conclusion, although students' freedom has increased, they can hardly perceive it.

3.3 Allocating Extra Time

Before the “Double Reduction” policy, students were forced to study (finish assignments and attend after-school classes) for a considerable amount of time. For some poor self-discipline students, the additional free time provided by the “Double Reduction” policy is often wasted on playing games, having fun, etc. This time could be used at a higher level of efficiency by studying, even if the study is mandated. Moreover, most students lack a strong sense of purpose. Without clear task requirements, even if they want to make efficient use of their free time, they do not know how to do so. In comparison, before the “Double

Reduction” policy, students have more fixed goals to achieve. Although students have relatively more free time after the “Double Reduction” policy, if they don’t make efficient use of it, the effectiveness of this period is still inferior to that before the policy.

3.4 Disruption of Market Balance

3.4.1 Tutoring Difficulties

Excessive tutoring is not recommended; appropriate tutoring can help students improve their grades. After the “Double Reduction” policy, the state has explicitly banned mini-class tutoring in institutions, leaving students who need such tutoring unable or struggling to receive external assistance. One common tutoring option that has been allowed since the “Double Reduction” policy is one-to-one teaching. However, the cost of one-to-one teaching is much higher than that of group classes, making the class less cost-efficient. Even so, to improve their children’s grades, families often have to bear the high costs. For these families, the “Double Reduction” policy has brought many educational and economic difficulties.

3.4.2 Teacher Unemployment

A large number of teachers who worked in tutorial centers are now facing unemployment. In society, large-scale unemployment can undermine the market benefit. Before finding suitable jobs, these teachers cannot contribute to society as much as they did before. In most cases, the market can achieve its new market equilibrium over time, but in this case, it is hardly possible. The key issue is that many teachers do not seek other jobs; they stick to their tutoring out-of-school. Due to the high demand for tutoring, teachers will find ways to find students to teach. This is often the case when these teachers provide private tutoring, as mentioned in 3.4.1. In brief, the “Double Reduction” policy leads to unemployment and failures in controlling the tutoring market. Moreover, the policy not only increases the pressure on both students and teachers but also creates difficulty for government management.

4 POLICY RECOMMENDATIONS TO ALLEVIATE GAOKAO PRESSURE

4.1 Diversifying Assessment Criteria Beyond Gaokao Scores

Examinations are tools, and their effectiveness depends on how they are used, not on the tools

themselves (Yu, 2019). The college entrance examination is one of the most fair selection systems. While standardized test scores provide a quantifiable measure of academic ability, relying solely on them may lead to an incomplete assessment of a student’s potential. A student with a higher examination score does not necessarily mean that this student is more capable than those with lower scores. By reducing the weight of Gaokao scores in evaluating a student’s absolute strength, students’ anxiety about Gaokao can be alleviated. Therefore, students can be encouraged to develop in other aspects, such as personal talents. Currently, many universities in China offer scholarships to outstanding athletes, such as those who have won awards in the Olympics. However, there are still other requirements for these athletes to be admitted to universities. In addition to meeting the standards for sports performance, they must also meet some level of education; that is, they need to have graduated from high school or have equivalent educational qualifications (Wang, 2023). This indicates that no matter how strong a student’s talents are, the college entrance examination score remains an indispensable criterion for administration. Therefore, students may give up their special talents to prepare for the college entrance examination. For most students, achieving such a high level of accomplishment in special talents is difficult. If they only remain at the level of hobbies, universities generally will not take it into account when admitting students. To promote students’ comprehensive development and talent development, talent development should also be regarded as an aspect of assessment. The government can strictly set corresponding difficulty levels for different subjects and corresponding grades. This can ensure that students efficiently utilize their time for their hobbies and interests, reduce the mono centrality of the college entrance examination in evaluating a person’s ability, and thereby alleviate the pressure of the college entrance examination.

4.2 Reducing Parents’ Work Stress

Excessive overtime work is a widespread issue in China’s corporate culture. For some top companies, employees can work up to 120 hours per month over time (Yang et al., 2025). During overtime work, energy is exhausted, causing parents to be overwhelmed when they get home. They either cut off all the time spent with their children and directly go to sleep, or they have to deal with their families with tired bodies. Research shows that the time spent with children can make the family atmosphere warmer.

The difference in warm parenting between mothers and sons is closely related to children's aggressive behavior and disciplinary violations (Zheng et al., 2025). Higher warmth parenting can reduce children's aggressive behaviors and disciplinary violations, and vice versa. Thus, reducing parents' work stress directly contributes to healthier child development by enabling more quality family time. Under high-pressure work conditions, parents find it difficult to provide effective time with their children. Reducing parents' work stress can increase the time spent with children, thereby promoting the parent-child relationship and benefiting both sides.

Children can reduce loneliness by doing family activities, while parents can better understand their children. At the same time, parents no longer need to sign their children up for classes or clubs that children are not interested in to fill their children's free time. Conversely, parents can accompany their children themselves.

4.3 Expanding After-School Programs for Holistic Development

Offering after-school learning classes not only facilitates students' pursuit of their interests and hobbies but also helps address the issue of a significant number of unemployed teachers.

The core objective of the "Double Reduction" policy is to alleviate students' excessive worry and effort in striving for a better Gaokao score. This is almost unrelated to offering after-school learning classes other than Gaokao subjects. For instance, students who want to participate in off-school mathematics competitions usually do so out of interest rather than to improve their Gaokao scores in mathematics. Prohibiting students from attending the classes they are willing to spend time on will be unfavorable to utilizing their time. A more balanced approach would be to allow non-Gaokao-related courses while maintaining restrictions on excessive exam-focused tutoring. Therefore, restricting learning classes related to mathematics competitions will not reduce students' pressure from Gaokao; instead, it limits the learning channels for these competition-oriented students. Instead, subjects that are not directly related to Gaokao should be allowed to be taught.

The issue of large teacher unemployment is mainly because almost all tutorial teachers lost their jobs simultaneously due to the "Double Reduction" policy and were unable to find new jobs in a short period of time. Allowing some establishment of after-school learning classes would enable these teachers to

transition from in-school-subjected tutorial teachers to off-school-subjected tutoring, thereby significantly reducing the unemployment rate.

5 CONCLUSION

5.1 Key Findings

This paper examines persistent and emerging issues in China's education system under the 'Double Reduction' policy and proposes targeted solutions. These core problems are: (1) Persistent Gaokao pressure and limited student autonomy; (2) Inefficient free time allocation; (3) Imbalance in the teacher labor market. To address these issues, the following solutions are proposed: (1) Improving the Gaokao policy to make it not the sole criterion for evaluating students. (2) Reducing parents' work burden to increase the quality time between parents and children to promote family relationships. (3) Establishing non-tutoring extracurricular classes to enable students to conveniently learn knowledge outside the school curriculum while reducing the unemployment rate of teachers.

5.2 Research Significance

China's rapid development in the past decade has transformed its education system, yet structural flaws remain unresolved. Approaches to forming an efficient and precise evaluation method of student ability have become a troublesome problem. Although the current "double reduction" policy has indeed improved China's education system, it still leaves behind and generates many problems. This article focuses on some core issues and proposes three effective solutions. These recommendations align with the global trend of holistic education reform (e.g., Finland's competency-based assessment), while adapting to China's unique institutional context.

5.3 Limitations

The limitations of this article lie in the fact that all the issues discussed are at the theoretical stage and have not been taken into action yet. Unintended consequences are unable to be predicted and can not be taken into account in this article. Moreover, all the data used in this article are secondary and lack real-time tracking of the actual situation of education in China. Additionally, this article fails to distinguish the differences in education among students from different regions and social classes. Future research

should incorporate longitudinal data and region-specific case studies to validate these proposals.

REFERENCES

- Ming, X., Koransky, R., Kang, V., Buchman, S., Sarris, C. E., & Wagner, G. C., 2011. Sleep insufficiency, sleep health problems and performance in high school students. *Clinical Medicine Insights: Circulatory, Respiratory and Pulmonary Medicine*, 5, CCRPM-S7955.
- Sarfika, R., Saifudin, I., Malini, H., Effendi, N., & Wenny, B. P., 2024. Peer pressure and academic stress among junior high school students: a cross-sectional study†. *Frontiers of Nursing*, 11(2).
- Shan, Y. U., 2024. The General Office of the Central Committee of the Communist Party of China and the General Office of the State Council Issued the “Opinions on Further Reducing the Burden of Homework and Off-Campus Training for Students in Compulsory Education”.
- Wang, F., 2023. Olympic champion gets admission to Tsinghua University: Breaking the “only based on scores” rule in top-tier university admissions. *21st Century Business Herald*, 006.
- Wang, Q., Luo, X., & Yang, J., 2022. Understanding China’s Double Reduction Policy on Educational Economy. *Global Economic Observer*, 10 (1).
- Wu, Z. B. & Yu, W., 2025. Compressed Childhood in an Accelerated Society: Also on the Temporal Roots of the “Double Reduction” Problem. *Journal of Education*, 21(01), 48-63.
- Yang, J., Fan, D., & Li, C., 2025. Employee Overtime and Innovation Dilemma. *Journal of Business Ethics*, 1-25.
- Yu, Z., 2019. The Fifth Great Invention of China-Recommendation for Reading of Deng Siyu’s “History of Chinese Examination System”. *Chinese Language Learning*, (04), 81-85.
- Zheng, T. P, Zhou, X. R., Liang, L. C., Yuan, K. & Bian, Y. F., 2025. The Relationship between Parental Warmth Parenting Perception Differences between Parents and Children and Children’s Depression and Aggressive Behaviors. *Psychological Development and Education*, (06), 869-880.
- Zuo, Y. J., Yan, Z. Y., Li, X. Y., Tian, L. & Chen, H. J. (2023). A Qualitative Study on Examination Stressors and Psychological Stress-Relief Techniques. *Modern Business Trade Industry*, 44(05), 236-238.