

A Qualitative Study on Academic Performance in the Gaokao System: Examining Stress, Social Inequality, and Teacher Autonomy

Chen Yaxi

Sultan Idris Education University, Malaysia

Noor Insyiraah Binti Abu Bakar

Faculty of Human Development, Sultan Idris Education University, Malaysia

Corresponding Authors Email: insyirah@fpm.upsi.edu.my

DOI Link: <http://dx.doi.org/10.6007/IJARPED/v14-i4/26590>

Published Online: 09 October 2025

Abstract

Poor academic performance in the Gaokao system has led to a national crisis for institutions, requiring mitigation to achieve high student excellence. In China, students and teachers at the Agricultural University of Hebei and Baoding University in Baoding have experienced poor academic performance, which is attributed to academic stress, social inequality, and inadequate teacher autonomy, resulting in deprived academic outcomes. This study investigates the qualitative study on academic performance in the Gaokao System, examining stress, social inequality, and teacher autonomy. This study employed a case study design, targeting a location of the Agricultural University of Hebei and Baoding University in Baoding, Hebei Province, China. The research employed a case study design, focusing on the Agricultural University of Hebei and Baoding University in Baoding, Hebei Province, China. The researcher conducted interviews with 12 participants (six from each university) to assess the academic performance of Gaokao students. The participants included students (aged 18-30) and teachers (aged 31-60). Data was collected through interviews, observations, and document analysis, and analysed using NVivo version 12 software. The results confirmed that students and teachers face challenges related to Gaokao exam preparation, which impact their performance and productivity. Furthermore, social and economic inequalities have a profound impact on educational outcomes. Improved teaching and support for teachers have established clear goals for both students and teachers, fostering a collaborative environment focused on student success. In conclusion, reducing academic stress and addressing social inequalities have helped boost students' academic performance and lessen teachers' challenges in guiding the learning process. Enhancing teacher autonomy has led to greater flexibility and consistency in teaching methods, resulting in improved performance in the Gaokao exam in China. This study fills a gap identified in previous research, contributing to the existing knowledge and supporting the academic success of Gaokao students in China.

Keywords: Gaokao System, Academic Stress, Social Inequality, Teacher Autonomy, Academic Performance

Introduction

Academic performance refers to the extent to which a student, teacher, or institution has achieved their short- or long-term educational goals (Meng et al., 2024). It reflects a strong academic ethic and consistently demonstrates their best effort. It involves actively participating in class discussions and contributing valuable insights. Students with high levels of diligence, passion, and enthusiasm for learning tend to embrace success with a positive attitude, perform well independently, and take responsibility for their own learning (Ha et al., 2024). The Gaokao is China's nationwide university entrance exam and is regarded as one of the country's most important tests. These examinations serve as a gateway to top universities and future careers in China, as their scores determine which universities students can attend and what they can study. The tests are held in June and can significantly impact a young person's future, as scores largely decide whether and where they can attend university and what areas of study they can pursue. However, the Gaokao is similar to the SAT in the United States or the A-levels in the United Kingdom. According to Yang, Cai, and Li (2024), quality education is the tool that helps develop students' skills and potential for future growth. Education plays a pivotal role in producing qualified human capital that accelerates economic development and addresses fundamental community issues (Meng et al., 2024). Recently, students' performance on the Gaokao has declined. Several issues contribute to this, including poor feedback, inadequate learning materials, a flawed curriculum, inflexible teachers, unfair entrance examination assessments, and excessive academic workloads—all of which hinder students' ability to excel (Zhang & Wang, 2023; Meng et al., 2024). The number of students expecting to sit for the Gaokao is approximately 13.42 million across China. The stakes are high: their scores determine university placements and shape their professional futures for years to come (Zhang & Koshmanova, 2021; Li & Zhang, 2023; Liu, 2023). Academic stress is a significant issue contributing to poor performance among Gaokao candidates, as students often study under pressure, work long hours, and face inadequate learning materials to meet exam requirements (Li & Wang, 2024). Liao, Chen, Liu, and Guo (2024) state that the high academic stress increased from 21.7% to 39.2%, mainly due to a lack of explicit reading materials and a demanding syllabus to be completed in a short time, leading many students to experience depression and emotional exhaustion, especially given their previous exam performance. Social inequality has also affected the overall perception of the entrance exam, as students doubt the credibility of the Gaokao, undermining its reputation both within China and internationally (Liu & Helwig, 2022). A study by Shi, Qiu, and Ni (2023) confirms that fairness in the selection process has helped strengthen the exam's reputation, resulting in increased participation rates year after year. Several studies suggest that a lack of curriculum evaluation undermines teacher autonomy, creating ambiguity, conflicts, and mental stress (Li et al., 2022). Teachers rely on the flexibility of their role to impart knowledge and skills, hoping for positive feedback on their efforts (Wang & Chen, 2022). This process positively influences their teaching methods. Greater autonomy allows teachers to develop talent strategies, foster creativity, and promote student independence, ultimately helping students excel academically.

Poor academic performance has been a significant issue that negatively impacts student motivation, primarily due to inadequate teaching quality and an overall unfavourable

environment. Additionally, these issues create further challenges, leading to low student achievement (Lai et al., 2024). Globally, concerns about the low quality of education have grown, impacting various Asian countries and gradually decreasing student success (Jiang et al., 2022; Meng et al., 2024). In China, student academic excellence is viewed as a problem stemming from excessive academic stress, social inequality, and limited teacher autonomy, which negatively impacts the quality of academic work for both students and staff (Zhang & Wang, 2023). Data show that from 2019 to 2023, student performance in the Gaokao system declined from 37.8% to 14.13%, primarily due to poor feedback, ineffective learning materials, inadequate curriculum, teacher inflexibility, unfair entrance exam assessments, and excessive academic workload. These factors have lowered success rates, caused significant mental stress, and fostered fears among students, leading to poor academic results (Liu & Helwig, 2022; Li & Zhang, 2023; Jiang et al., 2023; Lai et al., 2024). These issues require prompt action to enhance student learning and provide quality feedback, thereby fostering a productive learning process that enhances students' ability to succeed in the Gaokao and achieve high academic performance. A heavy academic workload has a negative impact on student performance, leading to increased fear, anxiety, and a higher rate of failure (Lin et al., 2020). A study by Zhao, Shi, and Wang (2024) suggests that social inequality promotes unfairness, discrimination, and segregation between rural and urban students, which they perceive as unjust. They seek fairness in assessments and recognition. Most teachers struggle due to insufficient learning materials, an incompatible curriculum for Gaokao, and a lack of flexibility in teaching, all of which hinder students' success in exams and their academic progress. Reducing academic stress within schools, which helps students excel, is considered essential for Gaokao students, many of whom experience high failure rates due to the overwhelming academic workload (Zhao et al., 2024). This study aims to explore the relationship between academic stress and academic performance in the Gaokao system of Hebei Province, China, by addressing issues related to excessive workload, high entrance exam costs, and unstable policies within the system. It also seeks to provide appropriate recommendations to help reduce the academic workload, lower the costs and biases in the selection process, and enhance students' willingness and academic performance. Equality is a vital attribute of a high-quality education system, supporting the development and enhancement of students' academic performance (Wang, 2023). In situations of inequality, these outcomes often become unhealthy, fostering student bias and disruption (Shi et al., 2023). However, many students and teachers in China have voiced strong complaints about inequality, which has impacted the standard and reputation of the Gaokao system. They have observed the segregation of rural and urban entrance exams, highlighting how discrimination and a deficient system marginalise rural students due to poverty. Meanwhile, urban students are recognised (Yuan et al., 2021). The system exhibits discrimination in both selection and recognition, despite the exam questions being identical (Liu & Helwig, 2022). This study seeks to investigate how social inequality shapes students' academic performance in the Gaokao system, Hebei Province, China, by addressing the gap of issues related to poor social inequality due to the disparities between students from rural and urban in terms of the Gaokao entrance examination as it is perceived social inequity, thereby making challenges for the students to trust and believe in the process of the Gaokao system to provide suitable recommendations that can help to eradicate the unhealthy policies that impede students' performance, to promote the students' chance of selection and excellence in their future academic career. Next, teachers' autonomy has steadily improved their ability and credibility in imparting skills and knowledge to students, leading to better academic results (Wang &

Chen, 2022). Regarding the link between teachers' autonomy and students' performance, a significant gap exists because teachers lack sufficient freedom to provide more meaningful learning experiences due to strict curriculum policies and a lack of flexibility for extra classes to help students prepare for exams (Li et al., 2022). Many students also feel that there is a need for quality teacher feedback, which has exacerbated their existing issues with the Gaokao system, making it challenging for students to acquire substantial knowledge, skills, and sufficient learning materials to succeed in the exam (Xia et al., 2023). These inconsistencies have undermined the teacher's autonomy and creativity in shaping the specific knowledge expected on the examination (Liu et al., 2021). This study aims to explore the relationship between teacher autonomy and students' academic performance in the Gaokao system of Hebei Province, China, by addressing issues related to poor teacher autonomy stemming from inconsistent syllabi and inadequate autonomy, which affects students' performance expectations. By addressing the research gaps, the researcher aimed to provide recommendations that enhance teachers' autonomy and boost students' confidence, ensuring they know what they are studying is covered in the exam. The researcher seeks to fill the gap by offering effective suggestions to address issues like academic stress, social inequality, and teacher autonomy, and to propose a suitable framework for minimising academic stress, reducing social inequality, and improving teacher autonomy, while strengthening students' confidence in their knowledge of exam coverage. According to the researcher's knowledge, there have been limited studies and a lack of literature exploring the relationship between academic stress, social inequality, teacher autonomy, and academic performance. Therefore, the researcher aims to investigate a qualitative study on academic performance in the Gaokao System: examining stress, social inequality, and teacher autonomy.

Literature Review

Academic Performance

The academic excellence and performance of the Gaokao system influence the self-esteem, motivation, and perseverance of students in higher education (Lai et al., 2024). Poor academic results in the Gaokao or high failure rates can lead to unacceptable attrition, reduced graduate output, and increased higher education costs (Meng et al., 2024). Higher education institutions play a crucial role in producing skilled human capital that helps solve real community problems (Meng et al., 2024). However, acquiring knowledge, attitudes, values, and skills through education is not easy; it is a long and challenging journey in life. Students are expected to study diligently and graduate with strong academic performance. They are taught accounting concepts and principles to develop analytical abilities, language skills, business knowledge, information and communication technology competence, as well as higher education values (Bao et al., 2023; Shi & Ko, 2023). According to Wut, Ng, and Low (2024), assignments provide opportunities for self-learning and self-regulation, which help improve academic performance in the Gaokao system, enhance time management, and foster a supportive learning environment that keeps students focused. Students can effectively boost their learning skills and competencies through self-motivation during the learning process. Most research in Malaysia has mainly used students' Cumulative Grade Point Average (CGPA) as the primary indicator of academic success in the Gaokao system (Li, 2023; Yang et al., 2024). Previous studies confirm that education is vital for human capital development. Quality teaching promotes students' academic performance within a healthy learning environment in the Gaokao system (Zhang & Wang, 2023). A study by Meng, Hu, and

Jia (2024) found that the quality of teaching has a positive influence on students' performance in the Gaokao, reflecting their human capital development and ability to succeed in the global market. Several studies across different countries have examined factors influencing students' academic success in the Gaokao system at various levels (Guo et al., 2023; Yang et al., 2024). In China, Lai, Shi, and Lam (2024) found that the quality of education depends on the quality of input from teachers in transferring skills and knowledge to students. Students' performance improves when teachers receive adequate training to adopt quality teaching practices, making learning materials more accessible and creating substantial value for students' academic success.

Academic Stress

The stress faced by college students is complex and can be attributed to various factors (Zheng et al., 2020). Increasing evidence suggests that academic-related stress has a significant impact on college students (Jiang et al., 2023). For example, up to 87% of college students surveyed across the United States cited education as their primary source of stress. Students are exposed to various new academic stressors, including heavy course loads, extensive studying, struggles with time management, classroom competition, financial concerns, family pressures, and adapting to a new environment (Zhao et al., 2024). Stress can decrease motivation, impair academic performance in the Gaokao system, and raise college dropout rates (Li & Wang, 2024). Academic stress also negatively affects students' mental health (Hong, 2024). Mental and social well-being are essential components of positive mental health, encompassing aspects such as happiness, life satisfaction, stress management, and social functioning (Zhang et al., 2024). Although understudied, positive mental health is important in understanding overall mental health. Furthermore, it can predict both negative and positive mental health outcomes over time (Liao et al., 2024). Exploring the relationship between academic stress and mental well-being is crucial because poor mental health can significantly impact students' performance in the Gaokao system. Liao et al. (2023) note that academic stress can manifest as anxiety, depression, and emotional exhaustion, which can harm students' social well-being. Recent research, such as studies by Yao and Xu (2023), indicates that academic stress can have a negative impact on students' performance, motivation, and self-esteem in the Gaokao. The higher education environment is inherently stressful for students, who face not only academic challenges but also the transition from high school to university. This transition involves adapting to new lifestyles, intense competition, environmental changes, and forming new relationships in unfamiliar settings. High social expectations about the future add to the stress. As Teng et al. (2024) describe, the university environment requires students to adjust to faster-paced learning, tight deadlines, and more in-depth material—factors that can significantly influence mental health. Given these conditions, it is crucial to assess the academic stress experienced by university students and its impact on their mental well-being.

Social Inequality

Social inequality is a significant aspect of the educational experience for Chinese students, as it reflects the extent to which students feel a sense of belonging and participation within the academic community (Zheng et al., 2022). Achieving social equality can be particularly challenging for Chinese students, as they may encounter physical, social, or communication barriers that hinder their full participation in university activities (Yu et al., 2024). The academic performance of students with special educational needs in the Gaokao system's

inclusive classes is at least comparable to that of students with special needs in regular classes (Xiao et al., 2023; Sun & Zhang, 2023). However, measuring students' academic performance in the Gaokao is not the only way to understand the nature of inclusive education. As Ng and Fang (2023) point out, post-school options, effective inclusive teaching practices, and students' socio-emotional development should also be considered alongside academic performance. In particular, the evaluation framework for inclusive education should consider students' social inequality, school well-being, and academic self-concept (Wang et al., 2024). When dealing with inclusive educational settings (such as classrooms and schools), there is the question of how to measure school-level inequality outcomes. Of course, students' academic performance in the Gaokao is a result of effective teaching and learning (Yang, 2022; Wang et al., 2024). Therefore, students' performance in the Gaokao across specific curriculum-related areas can be assessed to determine whether inclusive teaching methods, such as differentiated instruction, are effective, using outcome-based evaluation (Sun et al., 2023). Research on the academic performance of students with special educational needs in the Gaokao indicates that their outcomes improve when they are placed in specialised classes or schools; however, they tend to perform better academically when included in regular classrooms (Zhang, 2022). Prior studies have found that students with vision impairments often face significant challenges, including a lack of positive social interactions with sighted peers and teachers, as well as limited participation in school activities (Müller & Klein, 2023). Additionally, placing students in inclusive classrooms can sometimes reduce their sense of belonging because they encounter different social behaviours from teachers and peers compared to their classmates (Helland & Strømme, 2024). Some Chinese universities are employing social interaction strategies to help students enhance their communication and social skills, which are particularly relevant to the Gaokao system. These interaction practices help students navigate social situations, providing supportive environments that encourage engagement. Building social connections can help reduce feelings of isolation and increase Chinese students' sense of inclusion in campus life (Zamfir, Aldea & Molea, 2024).

Teacher Autonomy

Autonomy is achieved through experiences and practices viewed as self-controlled, self-embraced, and aligned with individuals' qualities and interests (Cunningham et al., 2022). In young learners, autonomy support has been positively linked to self-regulated learning, deep data processing, persistence in setting and reaching goals, higher academic performance in the Gaokao system, well-being, and lower stress levels among students (Gu et al., 2023). As Chan and Mo (2023) state, within the academic domain, autonomy support enhances intrinsic motivation, which, in turn, improves learners' engagement, change, and performance on educational tasks, especially within the Gaokao system. Therefore, autonomy support is essential for internalising and striving toward educational goals and academic success in the Gaokao system. Wang and Wu (2023) identify three main types of autonomy support: intellectual, procedural, and institutional. Intellectual autonomy support involves strategies that enable learners to think independently, explore their ideas, and develop into autonomous students. Improving learners' ownership of their form and presentation is an example of procedural autonomy support. Institutional autonomy support involves empowering learners to take responsibility for the educational environment. However, some researchers argue that intellectual autonomy support may be the most beneficial, as it fosters learners' mental performance in the Gaokao system and promotes deep-level processing (Yuan et al., 2021; Zheng et al., 2020). Teachers who enjoy their profession are more likely to

contribute to the university's success (Qiu & Liang, 2024). Teachers with high professional commitment recognise their role in encouraging students to engage actively in learning and feel responsible for fostering their intellectual and moral growth. They work with enthusiasm, dedicate themselves to their profession, and believe in its importance (Sun & Zhang, 2023). He and Huang (2021) emphasise that work resources such as social support, autonomy, self-efficacy, and optimism are key factors that lead to work dedication. Consequently, it is believed that teachers' autonomy contributes to their commitment to the profession. Teachers with control over the teaching process, curriculum, professional development, and communication tend to be more dedicated, work more selflessly, and show greater devotion to their students. The development of students' education and training, their academic success, teachers' contributions to the school, the use of diverse teaching methods, and teachers' professional growth all fall under the functions of teacher autonomy (Li & Liu, 2023).

Conceptual Framework

This conceptual framework was integrated into the theoretical framework to provide quality solutions for students' academic performance in the Gaokao system in Hebei, China. In addition, it illustrates the independent variables of academic stress, social inequality, and teacher autonomy towards academic performance as follows:

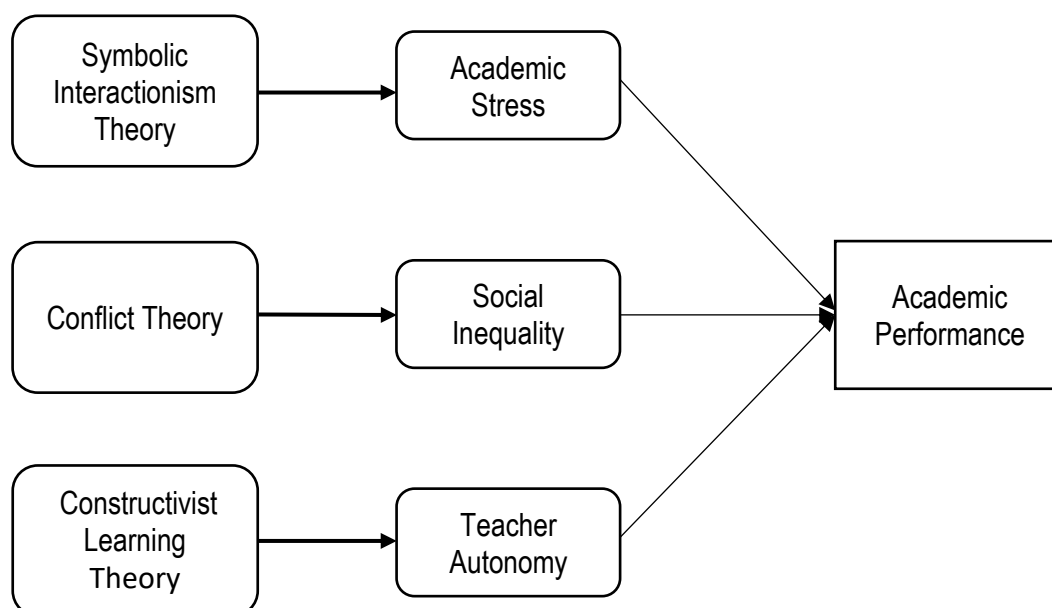


Figure 1: Conceptual Framework (developed by the researcher)

Research Methodology

In this study, collecting and analysing non-numerical data, such as text from observations, interviews, and document analysis, derived from qualitative research, is the rationale for adopting this research design. In contrast, a qualitative research design employs an interview protocol to determine the reasons and mechanisms behind the occurrence. An exploratory case study uses a qualitative methodology. It is employed to gather and analyse study participants' data to better understand how they perceive a phenomenon through observations and interviews (Creswell, 2014). In qualitative analysis, adopting a case study is a technique that involves a thorough investigation of a specific topic within its real-world environment. Accordingly, the researcher used this research design to gain a detailed

understanding of Chinese students in the Gaokao system in China's Hebei Province. The study was conducted at the Agricultural University of Hebei and Baoding University, both located in Baoding, Hebei Province, China. The researcher collected participant data through observations, interviews, and document analysis. The participants focused on students and teachers from these two universities. The students' age range was between 18 and 30 years old. The teachers, aged 31 to 60, had relevant experience or knowledge of the subject and were directly involved. The total number of participants—students and teachers—was twelve, with six from each university. This study utilised in-depth interviews, observations, and document analysis to generate interview protocols during data collection. The researcher used NVivo version 12 software to analyse the data and determine the frequency percentages of each topic and sub-theme (Ang, 2017). Bhattacharjee (2012) explains that qualitative inquiry was used to assess the validity and reliability of the study. This research employed triangulation and member checking as techniques to enhance the reliability and validity of the findings. Prior to the study, a pilot test was conducted with two participants from each university to evaluate the reliability of the interview process protocol.

Results

Introduction

The data were collected through three primary qualitative methods: semi-structured interviews, observations, and document analysis. The data were analysed using a thematic analysis approach, which allowed for the identification of key patterns, categories, and themes relevant to the research objectives. For each research objective, the findings are systematically presented and discussed, supported by excerpts from the data.

To explore how Academic Stress relates to Academic Performance in the Gaokao System, Hebei Province, China

Theme 1: Academic Pressure and Workload

The students and teachers experienced a specific workload and academic pressure during their learning and teaching practices. Students and teachers are the key figures in the universities. The study's findings revealed that students and teachers experienced academic pressure and workload, indicating that the sub-themes included time management, fear of failure in academic activities, grades, and self-doubt.

Sub-Theme 1: Time Management with Fear of Failure

The findings indicate that most students and teachers concur that effective time management has a substantial impact on academic performance, leading to lower grades, missed deadlines, and increased stress. They also confirm that time management issues stemmed from a fear of failure, which led to procrastination. In addition, students and teachers have a positive perception of fear of failure, which has affected their various performances. Below are excerpts of the interview data.

Sub-Theme 2: Difficulty with Course Content and High Expectations

The findings of this study indicate that most students and teachers face challenges due to the complexity of the course content and the high expectations from their peers, parents, the university, and the Gaokao examination board regarding their academic performance.

Teachers also emphasise these challenges in delivering effective instruction, particularly when students struggle with the course material.

During the class, teachers for students in the class (mathematics) proved that students experienced fear of pressure, and their teacher was also complaining about it, as it is a significant concern for them as well. The students were asked to identify their fear of failure, and they emphasised procrastination due to poor time management in the class.

(Observation during mathematics class, 12 March 2025)

During their conferences, the universities also allow students and teachers to have high expectations for the quality of the Gaokao. A conference was held at both universities to discuss academic performance. Both students and teachers have differing views on the course content as a factor contributing to their academic pressures and workload.

(Observation during conference, 25 February 2025)

The document illustrates the relationship between the number of student participants and their fear of failure, which in turn leads to increased academic pressures and a heavier workload. It reveals a decline in student participation due to academic pressure and fear of the faculty. The workload of students and teachers increases consistently, thereby reducing their high expectations.

(Document: Universities Participation and Performance Outcome, 2022)

Summary of Theme 1 (Academic Pressure and Workload)

The interviewer asserts that poor time management hurts the academic performance of Gaokao examinees, as perceived by both students and teachers. Students who struggle with time management may miss deadlines, struggle with assignments, and experience increased stress and anxiety, which leads to lower grades and potentially decreased future career opportunities. Similarly, teachers who struggle with time management may find it challenging to implement the curriculum effectively and provide students with adequate support. Both findings concluded that poor time management and a fear of failure have negatively shaped academic performance in the Gaokao, as perceived by students and teachers. Based on the summary of difficulty with course content and high expectations, the interviewees agreed that difficulties with enormous course content and high expectations contribute to their poor academic performance in the Gaokao examination, thereby reducing the quality of the examination, affecting teacher practices, and instilling peer pressure on students, which leads to their anxiety and fears.

To investigate how Social Inequality shapes Students' Academic Performance in the Gaokao System, Hebei Province, China

Theme 1: Socioeconomic Disparities and Educational Outcomes

The students and teachers experienced socioeconomic disparities and educational outcomes, as well as the impact of these factors on their performance in the Gaokao examination. The researcher also notes that students from low-income backgrounds frequently face challenges in accessing quality resources, which can lead to lower academic achievement and fewer opportunities for higher education. Similarly, teachers in disadvantaged schools may experience higher workloads, limited professional development opportunities, and

inadequate support, which can potentially shape their teaching quality and student outcomes.

Sub-Theme 1: Inequalities in Access to Resources

The findings reveal that the identified inequalities in access to resources are a barrier to enhancing the performance rate of the Gaokao examination for both students and teachers from universities in Hebei, China. Inequality in access to resources for students and teachers stems from various factors, including socioeconomic disparities and geographic location, leading to unequal educational opportunities and outcomes. Students experienced fewer opportunities to succeed academically and achieve higher education. Teachers are less likely to remain in schools with limited resources, resulting in a cycle of instability and low-quality education. The researcher posed several questions to the respondents, who answered regarding issues related to unequal access to resources.

.Sub-Theme 2: The Shape of Social Capital on Academic Achievement

The findings of this study indicate that the lack of social capital among students and teachers has contributed to poor academic performance in the Gaokao examination, negatively impacting both students' performance rates and teachers' reputations. For students, insufficient social connections can restrict access to information, resources, and support that enhance learning and achievement. A limited social network can hinder teachers' ability to collaborate, pursue professional development opportunities, and effectively assist students, ultimately influencing their teaching effectiveness. The researcher also conducted interviews to explore students' and teachers' perceptions of the poor social capital and its impact on the academic performance of students taking the Gaokao examination.

During the interview, students and teachers expressed concerns about a lack of access to resources. I observed this firsthand in the library, where the provision of materials to teachers and students during classes is insufficient for effective learning. The students are complaining about the limited resources and disparities in access to resources that affect students and teachers from different backgrounds and qualifications, and which hinder the desired educational outcomes.

(Observation during library visitation, 15 May 2025)

During their library and conference visitation, both universities encountered a shortage of resources, networks, and relationships that could foster mutual benefits. Students and teachers experienced disparities in educational outcomes related to the Gaokao examination due to a lack of social capital. The librarian makes it difficult for students to access the resources necessary for effective study. Some restrictions hinder teachers' understanding of how university teachers' relationships, networks, and collective trust influence the educational environment, leading to outcomes such as improved teaching practices, enhanced teacher retention, and better student outcomes. University teachers likely stem from systemic inequities.

(Observation during library visitation and conference, 12 May 2025)

The document highlights the unequal access to resources for the Gaokao examination among high institutions and its decline, underscoring the need for students and teachers to access quality resources to effectively facilitate the Gaokao syllabus and enhance preparation for

both students and teachers in achieving educational outcomes. It is also evident that there is an inequality in access to resources among different levels of participants in this Gaokao examination, which contributes to low performance and high workload.

(Document: Unequal Access to Resources for Gaokao, 2021)

Summary of Theme 1 (Socioeconomic Disparities and Educational Outcomes)

The findings showed that inequality in access to resources reduces students' chances of performing well in the Gaokao exam and limits teachers' teaching practices, making it harder to effectively teach students. Students with fewer resources often face lower test scores, poorer learning environments, and fewer opportunities for advanced courses. Meanwhile, teachers in under-resourced schools face challenges such as outdated materials, a lack of support, and higher student-to-teacher ratios, which can lead to burnout and a decline in teaching quality. Based on the summary, the researcher concluded that a lack of social capital truly affects both students and teachers, thereby jeopardising the overall success rate in the Gaokao exam.

To explore how Teacher Autonomy is related to Students' Academic Performance in the Gaokao system, Hebei Province, China

Theme 1: Instructional Leadership

The students and teacher encountered challenges related to focusing on improving teaching and learning by supporting teachers, creating clear goals for students and staff, and fostering a collaborative environment where everyone prioritises student outcomes. The students and teachers' key practices include regular classroom observations, providing feedback and coaching, developing the curriculum, promoting teacher professional development, and monitoring student progress to ensure high expectations and a supportive learning environment are maintained.

Sub-Theme 1: Trust and Support

The findings suggest that most students and teachers concur that a lack of trust and support between teachers and students, as well as among faculty members, can have a significant impact on the educational environment and student outcomes. In this study, teacher trust and support play a crucial role in both student and teacher academic performance. Strong relationships foster a positive learning environment, boosting student motivation, confidence, and academic achievement. The researcher posed a few questions during the interview to gain a deeper understanding of the scope of trust and support that can be generated from both students and teachers to alleviate the challenges of poor academic performance in the Gaokao examination.

Sub-Theme 2: Autonomy and Accountability

The findings of this study show that both student autonomy and teacher accountability are crucial for effective learning and teaching. Students need autonomy to manage their learning, while teachers require autonomy to design effective instruction and assess students, all while remaining accountable for the outcomes. Accountability ensures that both students and teachers are responsible for meeting expectations and achieving learning goals. Based on this concept, the researcher posed a few questions, which were answered by students and

teachers from both universities in Hebei, China, regarding the Gaokao examination and its performance rates.

During the class, teachers for students in the class (commerce) proved that students believe that trust and support in a teacher's autonomy helps to promote the students' and teachers' capabilities to manage and handle the challenges surrounding the Gaokao examinations, which require teachers' trust and support to enhance students' learning capabilities and improve their performance in the examination.

(Observation during commerce class, 09 April 2025)

During their mid-term academic tutorials and seminars, students and teachers emphasised the importance of enhancing autonomy and accountability to help promote students' performance and reduce their challenges regarding the Gaokao examination, thereby fostering flexibility, decision-making, and a sense of responsibility for success in the examination. The seminars were actively involved, with students participating in the Gaokao and teachers facilitating knowledge transfer to their students. The seminars were educational, providing desirable styles and methods to enhance instructional leadership for both students and teachers.

(Observation during academic tutorial and seminars, 15 April 2025)

The document outlines a framework for teacher accountability, which helps teachers refine their teaching methods, guiding students through the appropriate curriculum in line with government policies and the examination board's guidelines for Gaokao preparation, thereby enhancing the students' success rate. It also highlights the steps taken to manage exam culture, benefiting both students and teachers during lectures, thereby promoting the quality of teaching.

(Document: University and Government Regulatory Framework, 2023)

Summary of Theme 1 (Instructional Leadership)

The summary of this finding agreed that students perceive a lack of trust and support for autonomy as resulting in less support and engagement. In addition, the results concluded that promoting autonomy and accountability for students and teachers regarding the Gaokao examination is crucial, as it offers key strategies to enhance success and performance rates. Students struggled with motivation and engagement if they lacked control over their learning, and teachers may feel stifled and disengaged if they are not given the freedom to innovate and make decisions within their classrooms. While accountability is important, it must be balanced with autonomy to avoid creating a culture of fear and compliance, instead fostering one of continuous improvement. In other words, autonomy, particularly teacher autonomy, is often associated with increased job satisfaction, creativity, and effectiveness, ultimately benefiting student learning.

To identify Recommendations to solve the issues of Academic Stress, Social Inequality, and Teacher Autonomy, and propose a Suitable Framework based on this study

The fourth objective of this study further pinpointed academic pressure and workload, socio-economic disparities, educational outcomes, and instructional leadership as key factors to boost students' and teachers' success rates in the Gaokao and suggests future improvements

to continuously nurture students' and teachers' capabilities to handle the examination with ease.

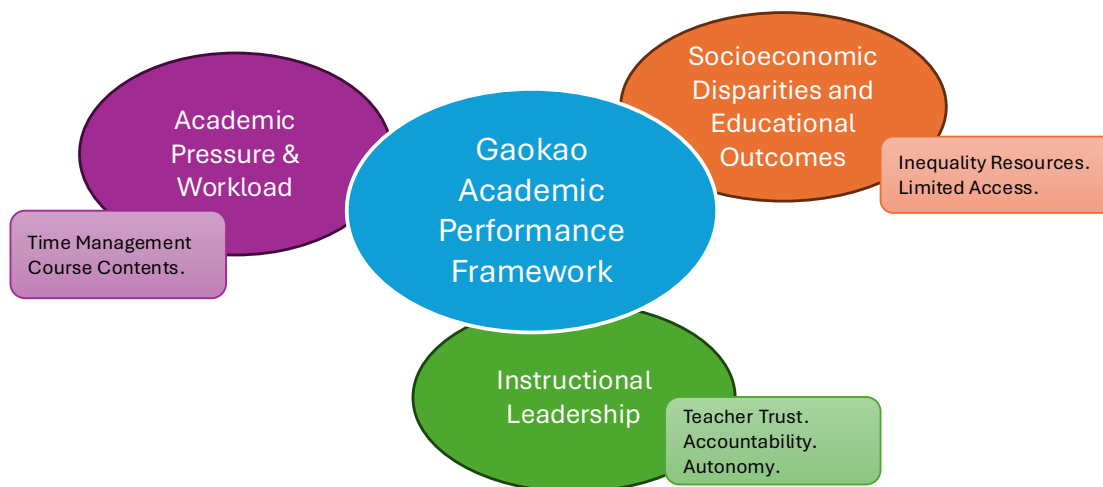


Figure 2: Gaokao Academic Performance Framework (Source: designed by the researcher).

Theme 1: Academic Pressure and Workload

The findings show that most students and teachers experienced a fear of failure related to time management for the Gaokao examination. This fear significantly hinders time management for both groups, leading to procrastination, anxiety, and potential academic underperformance. Most students avoid tasks to prevent the possibility of failing. At the same time, teachers felt hesitant to try new approaches due to concerns about evaluation, as they strive to enhance their performance in the Gaokao examination. Both teachers and students faced various challenges related to course content, including adapting to evolving educational trends, ensuring effective communication, managing diverse learning styles, and navigating the complexities of online learning environments to prepare students for the Gaokao examination.

During the class, teachers for students in the class (mathematics) proved that students experienced fear of pressure, and their teacher was also complaining about it, as it is a significant concern for them as well. The students were asked to identify their fear of failure, and they emphasised procrastination due to poor time management in the class. The researcher observed that time management issues often lead to procrastination, which affects both students and teachers. Inadequate course content reduces the chances of students' success and teachers' ability to teach effective learning strategies. The researcher also noted that both students and teachers encounter challenges related to course content.

(Observation during mathematics class, 12 March 2025)

Summary and Recommendations for Theme 1 (Academic Pressure and Workload)

Effective time management helps students' complete assignments on time, while proper content absorption ensures better understanding and retention, ultimately leading to improved academic results for the Gaokao exam. Teachers also benefit from effective time management, enabling them to prepare lessons more efficiently and engage students in ways that promote learning and yield better outcomes in the Gaokao. Future research should investigate the effectiveness of interventions designed to enhance time management and

content absorption, with a focus on specific strategies and their impact on academic performance within the Gaokao system. Studies should also examine the link between time management skills and academic stress, as well as how these skills can be effectively taught. Investigate the time management challenges and academic performance among specific student groups (e.g., students with disabilities, first-generation college students). Additionally, it is important to examine the use of digital tools and apps for time management and their influence on student learning to better prepare students for the Gaokao examination.

Theme 2: Socioeconomic Disparities and Educational Outcomes

The findings of this study emphasise that inequalities in access to resources and social capital have a significant impact on both students and teachers, particularly in terms of educational outcomes for the Gaokao examination. Students from disadvantaged backgrounds have limited access to quality education, resources, and social networks, which can hinder their academic progress. Teachers also faced challenges in accessing professional development, support, and resources that can enhance their teaching practices and positively shape student achievement in preparation for the Gaokao examination.

During the library and conference visitation, both universities encountered a shortage of resources, networks, and relationships that could foster mutual benefits. Students and teachers experienced disparities in educational outcomes related to the Gaokao examination due to inadequate social capital. The librarian makes it difficult for students to access the resources necessary for effective study. Some restrictions hinder teachers' understanding of how university teachers' relationships, networks, and collective trust influence the educational environment, leading to outcomes such as improved teaching practices, enhanced teacher retention, and better student outcomes. The researcher observed that inequalities in access to resources directly shape social capital for both teachers and students. These inequalities manifest in various ways, such as differences in access to technology, teaching materials, and professional development opportunities.

(Observation during library visitation and conference, 12 May 2025)

Summary and Recommendations for Theme 2 (Socioeconomic Disparities and Educational Outcomes)

Students from disadvantaged backgrounds often have fewer resources, which limits their opportunities and hinders their academic progress. Substantial social capital has exacerbated these inequalities, especially in environments where access to networks and resources is unevenly distributed, such as in the Chinese university entrance exam system, known as the Gaokao. For teachers, strong social capital has significantly enhanced professional development and support, whereas weak networks have led to isolation and hindered their ability to meet student needs effectively. Future research should focus on how resource access, social capital, and academic performance interact, examining how inequalities in resource availability and social networks influence student achievement, especially in diverse educational settings, to inform reforms to the Gaokao system. Studies should also investigate how targeted efforts to enhance resource access and foster social capital impact student outcomes, and identify which strategies are most effective for different student groups.

Theme 3: Instructional Leadership

The findings of this study support the notion that students and teachers believe a university environment helps foster teacher trust and support, while also providing adequate autonomy and accountability for both students and teachers, which leads to positive outcomes for all involved. This approach has helped to emphasise teacher agency in curriculum development and professional development, empowering students to take ownership of their learning and creating a more effective and engaging learning environment.

Observation data also support this. Below are the excerpts of data generated from observation during classroom learning.

During their mid-term academic tutorials and seminars, students and teachers emphasised the importance of enhancing autonomy and accountability to help promote students' performance and reduce their challenges regarding the Gaokao examination, thereby fostering flexibility, decision-making, and a sense of responsibility for success in the examination. The seminars were actively involved, with students participating in the Gaokao and teachers facilitating knowledge transfer to their students. The researcher observed how trust and support for teachers, coupled with adequate autonomy and accountability, shape both teacher and student academic performance in the Gaokao examination. The researcher also noted that teacher trust, support, autonomy, and accountability are likely to be investigated to determine how these elements shape teacher well-being, student learning outcomes, and overall classroom dynamics.

(Observation during academic tutorial and seminars, 15 April 2025)

Summary and Recommendations for Theme 3 (Instructional Leadership)

Adequate autonomy has allowed teachers to personalise instruction and adapt it to their students' individual needs. Simultaneously, accountability has ensured they are responsible for student progress in preparing for the Gaokao exam. Future research should investigate the intricate relationship between teacher autonomy, accountability, trust, and support in relation to academic performance, examining how these factors interact to influence both teacher and student outcomes. Specifically, studies should examine how different types of autonomy and accountability structures affect teachers' job satisfaction and retention, as well as their impact on student learning and engagement with the Gaokao. Future research will also investigate how various forms of support, such as mentoring, professional development, and school-wide collaboration, impact teacher well-being and performance. The researcher should examine how trust mediates the relationship between autonomy and teachers' willingness to take risks and innovate in the classroom.

Discussion

Objective 2: To explore how academic stress relates to academic performance in the Gaokao system, Hebei Province, China

Objective 1 of this study presented findings from interviews with students and teachers, focusing on academic pressure and workload. The sub-themes included time management, fear of failure in academic activities, grades, and self-doubt. Additionally, there is difficulty with course content, as well as high expectations from teachers, family, and academic standards. According to Lin et al. (2020), excessive pressure contributes to stress, anxiety, and even depression, negatively affecting focus, motivation, and overall academic

achievement. The findings suggest that students and teachers experiencing high levels of academic pressure may lose interest in their studies and feel overwhelmed, resulting in decreased motivation and effort. While some authors argue that academic stress typically has a negative relationship with academic performance, causing symptoms like anxiety, depression, poor concentration, and procrastination, which impair a student's ability to learn and focus (Jiang et al., 2024). Others believe that stress can be motivating, but excessive academic stress—characterised by high demands and poor coping skills—is generally linked to lower grades, increased absenteeism, decreased motivation, and higher dropout rates (Zhang et al., 2024). Poor time management has negatively impacted student performance and increased academic stress (Cheng & Cheng, 2023). These findings reveal that interviewees agree that poor time management harms the academic performance of Gaokao examinees, a view shared by both students and teachers. Students struggling with time management may miss deadlines, struggle with assignments, and experience increased stress and anxiety, which can lead to lower grades on the Gaokao and potentially limit career opportunities (Zheng, Jiang, & Dou, 2020). However, some researchers argue that teachers facing time management issues may struggle to implement curricula effectively and provide adequate support to students (García-Ros et al., 2023; Laman-Maharg et al., 2024). They emphasised that poor time management results in lower student grades, missed deadlines, and increased stress and anxiety, all of which negatively influence performance. The findings further indicate that interviewees believe enormous course content and high expectations contribute to poor academic performance in the Gaokao. This reduces the exam's quality, affects teaching practices, and creates peer pressure, leading to anxiety and fears. Based on classroom observations (specifically in mathematics), the researcher identified a strong link between poor time management and lower academic performance in universities. Studies repeatedly show that students with time management struggles face academic challenges, including lower grades and fewer opportunities. This aligns with Wen and Hu's (2023) findings, which report that many students from both universities complain about excessive academic assignments, tight deadlines, and numerous requirements. Ineffective workload management by teachers can decrease productivity and impact instruction quality (Liao et al., 2023; Yaghoobi et al., 2024). The researcher also observed that inefficient time allocation, procrastination, and difficulty prioritising tasks significantly affect students' academic performance and overall success.

Objective 2: To investigate how social inequality shapes students' academic performance in the Gaokao system, Hebei Province, China

Objective 2 of this study explores how social inequality affects students' academic performance within the Gaokao system. The researcher also highlights inequalities in access to resources and the role of social capital in shaping academic achievement for both students and teachers, offering solutions to improve the performance of Chinese students taking the Gaokao. Students from low-income backgrounds often face challenges in accessing quality resources, which can lead to lower academic achievement and fewer opportunities for higher education (Liu & Helwig, 2022). The study's findings align with those of Gu et al. (2023), who noted that a low-income background can limit students' opportunities. Additionally, such inequality tends to create disparities in cognitive development, access to resources, and educational opportunities, thereby widening achievement gaps by the end of compulsory schooling and affecting access to higher education. These disparities are driven by factors such as family background, parental involvement, school funding, and structural issues,

including implicit bias, with greater inequalities observed during adolescence and in higher education (Mgaiwa & Ishengoma, 2023). The study's interviewees agreed that unequal access to resources reduces students' chances of performing well in the Gaokao. It also limits teachers' ability to employ diverse teaching practices, making it harder to effectively deliver knowledge. Gu et al. (2023) also found that students with limited resources tend to have lower test scores, poorer learning environments, and fewer opportunities to take advanced courses. The current findings emphasise that a lack of social capital, which includes relationships and networks, can negatively impact both students' and teachers' academic performance. Interviewees confirmed that insufficient social capital indeed affects both groups, posing a threat to their success in the Gaokao. This deficiency has a notably negative effect on academic outcomes (Zamfir et al., 2024). Similarly, prior studies have shown that students often lack sufficient social connections, especially at home and with teachers, which can hinder learning, lower test scores, reduce graduation rates, and increase dropout rates (He & Huang, 2021; Arps et al., 2024). Furthermore, it limits access to information, resources, and support networks that aid learning, resulting in lower performance on the Gaokao. During university conference observations, the researcher noted that unequal access to educational resources—such as qualified teachers, quality materials, and supportive learning environments—significantly impacts student achievement and indirectly affects teacher performance. This supports findings that state teachers often lack the necessary resources for effective instruction, which can hinder their ability to positively influence student outcomes, perpetuating a cycle of underperformance (McDossi, 2023). Neither university has a high-quality library nor sufficient funding to update its books for students and teachers (Sun & Zhang, 2023). The researcher also observed disparities in learning opportunities and outcomes at both universities. This aligns with prior research, which shows that inequalities manifest in various forms, including unequal access to materials, teaching supplies, and technology (Qiu & Liang, 2024; Pedrazzini et al., 2024). These disparities are driven by factors such as differences in student achievement levels, socioeconomic status, and institutional policies. However, some researchers have argued that students and teachers experience limited social capital within their universities, which negatively impacts both groups' academic achievement and potentially hinders their success and development (Wood & McKoy-Lewens, 2023; Chen et al., 2024). They highlight that social capital—as relationships and networks—plays a vital role in learning, professional development, and overall academic success outcomes.

Objective 3: To explore how teacher autonomy is related to students' academic performance in the Gaokao system, Hebei Province, China

Objective 3 of this study examines the relationship between teacher autonomy and students' academic performance in the Gaokao system, as perceived by both students and teachers. A lack of teacher autonomy, particularly in areas such as curriculum design and professional development, can negatively impact the academic performance of both students and teachers in preparing for the Gaokao examination (Li et al., 2022; Oduro, Parker, & Mensah, 2024). The results of this study support those of Tian et al. (2023), suggesting that limited autonomy can lead to lower student motivation and achievement, as well as decreased teacher job satisfaction and retention. High-stakes accountability often causes teachers to focus primarily on test preparation, which can narrow the curriculum and reduce opportunities for in-depth learning and exploration, ultimately compromising the quality of teaching aimed at Gaokao readiness (Mouni, 2024). This finding is also consistent with

previous research, which suggests that teachers may be compelled to adopt specific teaching methods that do not align with their pedagogical beliefs or meet their students' needs, ultimately resulting in a less effective learning environment (Wang & Chen, 2022). A reduction in autonomy can stifle creativity, limit professional development opportunities, hinder adaptation to individual student needs, and negatively impact performance on the Gaokao (Unruh, 2024). These findings are consistent with earlier studies, which have shown that a lack of trust and support among teachers, students, and staff can significantly impact the educational climate and student outcomes (Liu et al., 2021). The study emphasises that trust is vital for creating a positive learning environment; its absence can reduce student motivation, engagement, and academic achievement. Another researcher argued that a supportive environment can boost teacher job satisfaction and well-being (Ludwig & Tassinari, 2023). In this study, teacher trust and support are viewed as essential for enhancing both student and teacher academic performance. Strong relationships foster a positive learning climate, increasing motivation, confidence, and achievement among students. Additionally, teacher support enhances a sense of belonging, reduces stress, and improves overall student well-being. Observations during classroom activities and seminars support the idea that trust and support have a positive influence on student engagement, motivation, and ultimately, success on the Gaokao. These relationships are also crucial for fostering a positive learning environment and enhancing teacher efficacy. As Liu et al. (2021) demonstrate, trust and support are key to fostering effective learning environments in universities. By fostering positive relationships between teachers and students, universities can create environments where students excel academically and feel a sense of belonging that supports their success in the Gaokao. Similarly, this study supports previous findings that a lack of autonomy and accountability in universities can have a negative impact on both teachers and students. This may result in rigid curricula, limited teaching freedom for instructors, and a lack of student agency in shaping their learning experiences (Melara-Gutiérrez & González-López, 2021; Phan, 2024). The researcher concludes that the consensus underscores the importance of increasing teacher autonomy, characterised by decision-making freedom and innovative teaching, in creating a positive learning atmosphere that ultimately benefits students' academic performance outcomes.

Objective 4: To identify recommendations to solve the issues of academic stress, social inequality, and teacher autonomy, and propose a suitable framework based on this study

In this study, the researcher focuses on Objective 4, which emphasises conducting interviews and observations to identify recommendations for addressing issues related to academic stress, social inequality, and teacher autonomy. A suitable framework is proposed based on the findings of this study. It further identifies academic pressure and workload, socio-economic disparities, educational outcomes, and instructional leadership as key factors for improving students' and teachers' success rates in the Gaokao. It suggests future strategies to continuously develop students' and teachers' abilities to handle the exam with confidence. The findings of this study confirm that students and teachers experience a fear of failure tied to managing time for the Gaokao. This fear significantly hampers time management for both groups, leading to procrastination, anxiety, and potential academic underperformance. Students may avoid tasks to prevent failure (Liu, 2023). Meanwhile, teachers might hesitate to try new approaches due to concerns about evaluation, as they aim to improve their performance in the Gaokao (Li & Zhang, 2023). This finding aligns with Li and Wang's (2024) results, which showed that both teachers and students face various challenges related to

course content, including adapting to changing educational trends, ensuring effective communication, managing diverse learning styles, and navigating the complexities of online learning environments to prepare students for the Gaokao. However, a few researchers have suggested that future research should examine the effectiveness of interventions aimed at improving time management and course content comprehension, focusing on specific strategies and their effects on academic performance in the Gaokao system (Cheng & Cheng, 2023; Hong, 2024). Researchers should also explore the relationship between time management skills and academic stress, as well as effective methods for teaching these skills. Additionally, it is important to investigate the time management challenges and academic performance of specific student groups (e.g., students with disabilities, first-generation college students).

The present findings support the notion that inequalities in access to resources and social capital have a significant impact on both students and teachers, particularly in terms of educational outcomes related to the Gaokao exam. Contrary to the study's findings, students from disadvantaged backgrounds often have limited access to quality education, resources, and social networks, which can hinder their academic progress (Salsabila & Enggar, 2024). Teachers also face difficulties in accessing professional development, support, and resources that could improve their teaching practices and positively influence student achievement in preparation for the Gaokao (Li et al., 2024). Additionally, these inequalities can reinforce social and economic disparities within the Gaokao education system. The study indicates that respondents see inequalities in access to resources and social capital as significantly affecting the academic performance of both students and teachers in the Gaokao. This clarifies that students from disadvantaged backgrounds often have fewer resources, limiting their opportunities and hindering their academic progress (Wang et al., 2023). This aligns with Li et al. (2022), who found that high levels of social capital can worsen these inequalities, especially where access to networks and resources is unevenly distributed, as seen in the Chinese university entrance exam system, known as the Gaokao. Through classroom observations, seminars, and library visits, the researcher saw that most students tend to delay tasks, particularly those that seem difficult or could result in failure, to avoid negative emotions linked to poor performance. They might avoid activities altogether, especially those requiring significant effort or where the risk of failure is high. Li and Zhang (2023) confirm that a fear of failure can cause increased stress, anxiety, and feelings of guilt or regret related to incomplete tasks or poor grades for the Gaokao. Teachers may hesitate to try new teaching strategies or different approaches if they fear not achieving desired results, which could hinder their readiness for the Gaokao (Zhang & Koshmanova, 2021). This matches Ji's (2023) findings, which show that teachers may struggle with time management, leading to burnout and feeling overwhelmed, especially in challenging situations or when expectations are high. The researcher also observed that both students and teachers face challenges with course content. Students may find it hard to meet cognitive demands, adapt to new learning styles, and manage workloads. Based on observations, the researcher concludes that inequalities in access to resources have a direct influence on social capital for both teachers and students. These inequalities manifest in various ways, including differences in access to technology, teaching materials, and professional development opportunities.

Conclusion

Based on empirical findings, academic stress, social inequality, and teacher autonomy are found to influence the academic performance of Chinese students in the Gaokao system of Hebei Province. The study found a significant relationship between these factors and student performance. It concluded that academic stress negatively affects students' performance during the Gaokao exam, with higher stress levels linked to lower achievement. Research consistently shows that stress impairs students' ability to learn, retain information, and perform academically, often resulting in increased anxiety, depression, and reduced motivation. The findings revealed that stress significantly decreases academic performance, resulting in lower grades, higher dropout rates, and difficulties completing coursework. The study also confirmed that social inequality has an adverse impact on students' results in the Gaokao, with students from disadvantaged backgrounds generally achieving lower scores. Factors such as socioeconomic status, access to resources, and social environment influence educational outcomes, affecting not only academic success but also mental health and future opportunities. These inequalities can also diminish students' motivation, confidence, and sense of agency in their education. Furthermore, the study concluded that teacher autonomy has a positive effect on students' academic performance in the Gaokao context, consistently improving their results. Teacher autonomy is strongly associated with better student outcomes and benefits teachers' well-being and professional engagement. When teachers are empowered to support student ownership of learning, intrinsic motivation, engagement, and positive learning outcomes are promoted. Additionally, greater teacher autonomy enhances job satisfaction, professional commitment, and overall engagement. Ultimately, the study highlights that reducing academic stress and social inequality can lead to improved academic performance. At the same time, teacher autonomy plays a crucial role in supporting students' success in the Gaokao exam in China. This research is significant in addressing gaps identified in previous studies and contributes to the body of knowledge aimed at improving academic performance in the Gaokao system in China.

References

- Ang, S. H. (2017). *Research Design for Business & Management*. SAGE Publications Ltd.
- Arps, S., Noviski, K. M. C., Tucker, L., & Tutwiler, A. (2024). Medical students' motivations for participating in an elective focused on social inequalities and health disparities. *Advances in Health Sciences Education*, 29(4), 1353–1378. <https://doi.org/10.1007/s10459-024-10313-7>
- Bao, C., Li, Y., & Zhao, X. (2023). The Influence of Social Capital and Intergenerational Mobility on University Students' Sustainable Development in China. *Sustainability (Switzerland)*, 15(7). <https://doi.org/10.3390/su15076118>
- Bhattacharjee, A. (2012). *Social Science Research: principles, methods, and practices*. Book 3. (pp. 1–147). Florida: University of South Florida.
- Chan, T. M. S., & Mo, Y. H. K. (2023). The Socio-cultural Interpretation of Parental Stress of Chinese Parents of Children with Dyslexia: Implications for Social Work Practice. *Child and Adolescent Social Work Journal*, 40(1), 131–141. <https://doi.org/10.1007/s10560-021-00753-0>
- Chen, P., Zhang, Y., Hu, X., & Mai, X. (2024). Age differences of responders' decision-making in disadvantageous and advantageous inequality contexts in the ultimatum game: The role of social value orientation. *Personality and Individual Differences*, 220. <https://doi.org/10.1016/j.paid.2023.112521>
- Cheng, S., & Cheng, S. (2023). Psychological Stress and Perceived School Success During COVID-19 Among Parents of Children Who Are Deaf or Hard of Hearing. *Communication Disorders Quarterly*, 44(2), 89–97. <https://doi.org/10.1177/15257401221078788>
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Thousand Oaks, CA: Sage.
- Cunningham, C., Hill, S., & Zhang, W. (2022). Gender equality and educational leadership in Chinese schools. *Power and Education*, 14(1), 66–81. <https://doi.org/10.1177/17577438211058965>
- García-Ros, R., Pérez-González, F., Tomás, J. M., & Sancho, P. (2023). Effects of self-regulated learning and procrastination on academic stress, subjective well-being, and academic achievement in secondary education. *Current Psychology*, 42(30), 26602–26616. <https://doi.org/10.1007/s12144-022-03759-8>
- Gu, L., Yang, L., & Li, H. (2023). Does social capital aid in leveling the income gradient in child mental health? A structural analysis of the left-behind and not-left-behind Chinese children. *BMC Public Health*, 23(1). <https://doi.org/10.1186/s12889-023-16264-9>
- Guo, Y., Luo, S., & Tan, Y. (2023). Purpose in life and academic performance: Grit mediation among Chinese college students. *Journal of Psychology in Africa*, 33(1), 69–74. <https://doi.org/10.1080/14330237.2023.2175970>
- Ha, W., Ma, L., Cao, Y., Feng, Q., & Bu, S. (2024). The effects of class attendance on academic performance: Evidence from synchronous courses during COVID-19 at a Chinese research university. *International Journal of Educational Development*, 104. <https://doi.org/10.1016/j.ijedudev.2023.102952>
- He, G., & Huang, Q. (2021). Geospatial Analysis and Research on Social and Spatial Inequality of Compulsory Education: A Case Study of Hangzhou, China. *Complexity*, 2021. <https://doi.org/10.1155/2021/6265751>
- Helland, H., & Strømme, T. B. (2024). Social inequality in completion rates in higher education: Heterogeneity in educational fields. *British Journal of Sociology*, 75(2), 201–218. <https://doi.org/10.1111/1468-4446.13075>

- Hong, M. (2024). Status, influencing factors and paths on the professional identity of special education teachers: Taking Guangdong Province, China as an example. *International Journal of Inclusive Education*. <https://doi.org/10.1080/13603116.2024.2318614>
- Ji, Y. (2023). Why is the Chinese Gaokao System Flawed? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4611670>
- Jiang, Q., Horta, H., & Yuen, M. (2022). Factors related to university teaching that influence the academic success of international medical students in China. *F1000Research*, 11, 894. <https://doi.org/10.12688/f1000research.123281.2>
- Jiang, X. S., Wang, Y., & Singer, J. A. (2023). Self-defining memories and past academic stress in Chinese and American college students: a replication and extension of Wang and Singer (2021). *Memory*, 31(3), 346–356. <https://doi.org/10.1080/09658211.2022.2154941>
- Lai, M., Shi, L., & Lam, I. (2024). How academics interpret and deal with performance measures: a case study of two universities in Mainland China. *Higher Education Research and Development*, 43(1), 134–148. <https://doi.org/10.1080/07294360.2023.2228229>
- Laman-Maharg, B., Valentiner, D. P., Szöllös, S., & Mounts, N. S. (2024). Experiential Avoidance, Post-Traumatic Stress Symptoms, and Academic Impairment. *Psychological Reports*. <https://doi.org/10.1177/00332941241226682>
- Li, M. (2023). Self-Directed Learning Aptitude and Engagement of Students in A Selected University in China Towards Improved Academic Performance. *International Journal of Education and Humanities*, 11(2), 32–36. <https://doi.org/10.54097/ijeh.v11i2.13526>
- Li, S., & Liu, A. (2023). Does cram school participation bring about negative emotions? Causal inference based on Chinese Education Panel Survey (CEPS) data. *Chinese Journal of Sociology*, 9(2), 219–249. <https://doi.org/10.1177/2057150X231165145>
- Li, S., & Wang, Y. (2024). The effect of job stress on secondary school physical education teachers' work engagement: The mediating role of self-efficacy. *Psychology in the Schools*, 61(1), 364–379. <https://doi.org/10.1002/pits.23056>
- Li, X., & Zhang, L. (2023). Educational opportunity and children's migration: Evidence from China's Gaokao reform for children of migrant families. *Journal of Comparative Economics*, 51(4), 1162–1185. <https://doi.org/10.1016/j.jce.2023.05.004>
- Li, Y., Chen, H., Zheng, Y. L., Wu, L. L., & Fan, C. Y. (2022). Development and Validation of an Autonomy Interview protocol for Chinese Adolescents From the Perspective of Network Culture. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.810140>
- Liao, J., Chen, S., Liu, Y., & Guo, C. (2024). The Effects of Family and School Interpersonal Relationships on Depression in Chinese Elementary School Children: The Mediating Role of Academic Stress and the Moderating Role of Self-Esteem. *Children*, 11(3). <https://doi.org/10.3390/children11030327>
- Liao, J., Wang, X. Q., & Wang, X. (2023). The Effect of Work Stress on the Well-Being of Primary and Secondary School Teachers in China. *International Journal of Environmental Research and Public Health*, 20(2). <https://doi.org/10.3390/ijerph20021154>
- Lin, X. J., Zhang, C. Y., Yang, S., Hsu, M. L., Cheng, H., Chen, J., & Yu, H. (2020). Stress and its association with academic performance among dental chinese students in Fujian, China: A cross-sectional online interview protocol survey. *BMC Medical Education*, 20(1). <https://doi.org/10.1186/s12909-020-02095-4>

- Liu, C. (2023). Analysis of New Gaokao Reform Under the Context of “Suzhi” Education for High School Students. *Journal of Education, Humanities and Social Sciences*, 23, 227–232. <https://doi.org/10.54097/ehss.v23i.12883>
- Liu, G. X. Y., & Helwig, C. C. (2022). Autonomy, Social Inequality, and Support in Chinese Urban and Rural Adolescents’ Reasoning About the Chinese College Entrance Examination (Gaokao). *Journal of Adolescent Research*, 37(5), 639–671. <https://doi.org/10.1177/0743558420914082>
- Liu, H., Yao, M., Li, J., & Li, R. (2021). Multiple mediators in the relationship between perceived teacher autonomy support and student engagement in math and literacy learning. *Educational Psychology*, 41(2), 116–136. <https://doi.org/10.1080/01443410.2020.1837346>
- Liu, S., Keeley, J. W., Sui, Y., & Sang, L. (2021). Impact of distributed leadership on teacher job satisfaction in China: The mediating roles of teacher autonomy and teacher collaboration. *Studies in Educational Evaluation*, 71. <https://doi.org/10.1016/j.stueduc.2021.101099>
- Ludwig, C., & Tassinari, M. G. (2023). Foreign language learner autonomy in online learning environments: the teachers’ perspectives. *Innovation in Language Learning and Teaching*, 17(2), 217–234. <https://doi.org/10.1080/17501229.2021.2012476>
- Mcdossi, O. (2023). Inequality reproduction, higher education, and the double major choice in college. *Higher Education*, 85(1), 157–186. <https://doi.org/10.1007/s10734-022-00827-7>
- Melara-Gutiérrez, F. J., & González-López, I. (2021). Teacher training for effective teaching. *Education in the Knowledge Society*, 22. <https://doi.org/10.14201/eks.25290>
- Meng, X., Hu, Z., & Jia, D. (2024). Digital growth mindset and academic performance of business students in China: the role of gender. *International Journal of Educational Management*. <https://doi.org/10.1108/IJEM-03-2023-0138>
- Mouni, R. B. (2024). Practices and Perceptions of Teacher Educators on Learner Autonomy. *Journal of Tikapur Multiple Campus*, 7(1–2), 157–181. <https://doi.org/10.3126/jotmc.v7i1-2.63190>
- Müller, L., & Klein, D. (2023). Social Inequality in Dropout from Higher Education in Germany. Towards Combining the Student Integration Model and Rational Choice Theory. *Research in Higher Education*, 64(2), 300–330. <https://doi.org/10.1007/s11162-022-09703-w>
- Oduro, F., Parker, D., & Mensah, E. T. (2024). The Role of Teacher Autonomy, School Climate, and “Perceptions of Value & Policy Influence” in Predicting Lower Secondary School Teachers’ Job Satisfaction in South Africa. *Leadership and Policy in Schools*. <https://doi.org/10.1080/15700763.2024.2313005>
- Pedrazzini, A., Zinkgräf, C., Bugallo, L., D’Adamo, P., & Lozada, M. (2024). Humour, empathic concern and perspective-taking in children. Cartooning about social inequality. *Children and Society*, 38(2), 636–657. <https://doi.org/10.1111/chso.12744>
- Phan, T. T. H. (2024). Promoting Learner Autonomy in Competence-Based General Education Curriculum in Vietnam: High School Teachers’ Beliefs. *International Journal of Learning, Teaching and Educational Research*, 23(1), 258–276. <https://doi.org/10.26803/ijlter.23.1.13>
- Qiu, H., & Liang, X. (2024). Segmented assimilation of migrant children in urban public schools of China: Impact of family resources and school segregation on their educational

- aspirations. *Children and Youth Services Review*, 156. <https://doi.org/10.1016/j.childyouth.2023.107300>
- Salsabila Candra Muhtar, N., & Enggar Wijaya, H. (2024). Understanding the Dynamics of Social Support, Self-efficacy, and Academic Stress in the Context of Online Learning: Evidence from Undergraduate Students. *KnE Social Sciences*. <https://doi.org/10.18502/kss.v9i5.15202>
- Shi, J., Qiu, H., & Ni, A. (2023). The Moderating Role of School Resources on the Relationship Between Student Socioeconomic Status and Social-Emotional Skills: Empirical Evidence from China. *Applied Research in Quality of Life*, 18(5), 2349–2370. <https://doi.org/10.1007/s11482-023-10188-7>
- Sun, G., & Zhang, T. H. (2023). Peer Influence on Youth Delinquency: How Does School-Level Teacher Quality Matter? *Crime and Delinquency*. <https://doi.org/10.1177/00111287231207385>
- Teng, J., Yang, Z., Yu, M., Crowley, C. B., & Jing, X. (2024). Chinese primary school teachers' working time allocation after the enactment of the "Double Reduction" policy: A mixed-methods study. *Teaching and Teacher Education*, 137. <https://doi.org/10.1016/j.tate.2023.104385>
- Tian, X., Liu, X., Xiao, Z., & Lin, Q. (2023). Chinese's Negative Emotion and Academic Procrastination During COVID-19: Life Autonomy as a Mediator and Sense of School Belonging as a Moderator. *Psychology Research and Behavior Management*, 16, 3151–3169. <https://doi.org/10.2147/PRBM.S413738>
- Unruh, E. (2024). Too much of a good thing? Teacher performance during the COVID-19 pandemic and the ambiguous role of high teacher autonomy. *International Journal of Educational Research Open*, 7. <https://doi.org/10.1016/j.ijedro.2024.100353>
- Wang, D. (2023). Translanguaging as a social justice strategy: the case of teaching Chinese to ethnic minority students in Hong Kong. *Asia Pacific Education Review*, 24(3), 473–486. <https://doi.org/10.1007/s12564-022-09795-0>
- Wang, J., & Wu, Y. (2023). Private supplementary education and Chinese adolescents' development: The moderating effects of family socioeconomic status. *Journal of Community Psychology*, 51(2), 745–767. <https://doi.org/10.1002/jcop.22774>
- Wang, L., & Chen, R. (2022). Psychological needs satisfaction, self-determined motivation, and physical activity of students in physical education: Comparison across gender and school levels. *European Journal of Sport Science*, 22(10), 1577–1585. <https://doi.org/10.1080/17461391.2021.1978558>
- Wen, H., & Hu, S. (2023). Potential Moderators of Academic Stress-Related Internalizing Problems Among Chinese High Schoolers: A Systematic Review from the Biopsychosocial Perspective. *Journal of Evidence-Based Social Work (United States)*, 20(1), 31–54. <https://doi.org/10.1080/26408066.2022.2115865>
- Wood, C., & Mckoy-Lewens, J. (2023). An art therapy education response: linking inequality and intersectional identity. *International Journal of Art Therapy: Inscape*, 28(1–2), 28–37. <https://doi.org/10.1080/17454832.2023.2175000>
- Wut, T. M., Ng, P. M. Ian, & Low, M. P. (2024). Engaging university students in online learning: a regional comparative study from the perspective of social presence theory. *Journal of Computers in Education*, 11(3), 763–789. <https://doi.org/10.1007/s40692-023-00278-8>
- Xia, J., Wang, M., & Zhang, S. (2023). School culture and teacher job satisfaction in early childhood education in China: the mediating role of teaching autonomy. *Asia Pacific Education Review*, 24(1), 101–111. <https://doi.org/10.1007/s12564-021-09734-5>

- Yaghoobi, A., Karimi, K., Asoudeh, M., & Mohammadi, S. (2024). Associations Between Academic Motivation, Academic Stress, and Mobile Phone Addiction: Mediating Roles of Wisdom. *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-024-01269-1>
- Yang, X., Cai, X. L., & Li, T. S. (2024). Does the tenure track influence academic research? An empirical study of faculty members in China. *Studies in Higher Education*, 49(3), 476–492. <https://doi.org/10.1080/03075079.2023.2238767>
- Yao, Y., & Xu, J. (2023). Occupational stress of elementary school teachers after eased COVID-19 restrictions: a qualitative study from China. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1183100>
- Yu, Y., Du, M., Wang, D. B., Wu, A. M. S., Chen, J. H., Li, S., ... Lau, J. T. F. (2024). School climate and school identification as determinants of smoking conventional cigarettes or vaping among adolescents in China: Stress-coping mediation mechanisms. *Tobacco Induced Diseases*, 22. <https://doi.org/10.18332/tid/177171>
- Yuan, X., Yu, L., & Wu, H. (2021). Awareness of sustainable development goals among students from a Chinese senior high school. *Education Sciences*, 11(9). <https://doi.org/10.3390/educsci11090458>
- Zamfir, A. M., Aldea, A. B., & Molea, R. M. (2024). Stratification and Inequality in the Secondary Education System in Romania. *Systems*, 12(1). <https://doi.org/10.3390/systems12010015>
- Zhao, N., Shi, C., & Wang, C. (2024). Effects of the “double reduction” policy on the commercial tutoring sector in China. *International Journal of Educational Development*, 105. <https://doi.org/10.1016/j.ijedudev.2024.102989>
- Zhang, M. (2022). “No! I Can’t!”: Noise and silence as everyday resistance at a Chinese suburban middle school. *Ethnography*, 23(1), 104–129. <https://doi.org/10.1177/1466138120910169>
- Zhang, Q., Li, W., Gao, J., Sun, B., & Lin, S. (2024). Teachers’ professional identity and job burnout: The mediating roles of work engagement and psychological capital. *Psychology in the Schools*, 61(1), 123–136. <https://doi.org/10.1002/pits.23039>
- Zhang, W., & Koshmanova, T. (2021). From Personal Experiences of Transformative Learning on Educational Challenges and Reforms in Secondary School in China. *International Journal of Education (IJE)*, 9(3), 33–40. <https://doi.org/10.5121/ije2021.9304>
- Zhang, Y., & Wang, H. (2023). Effect of English Learning Motivation on Academic Performance Among English Majors in China: The Moderating Role of Certain Personality Traits. *Psychology Research and Behaviour Management*, 16, 2187–2199. <https://doi.org/10.2147/PRBM.S407486>
- Zheng, J., Jiang, N., & Dou, J. (2020). Autonomy Support and Academic Stress: A Relationship Mediated by Self-regulated Learning and Mastery Goal Orientation. *New Waves Educational Research & Development* (Vol. 43, pp. 43–63).