

# **THE IMPACT OF CURRICULUM INNOVATION ASSESSMENT ON THE EFFECTIVENESS OF STRESS REDUCTION AMONG CHINESE JUNIOR HIGH SCHOOL STUDENTS: A CASE STUDY OF A PUBLIC SHANGHAI MIDDLE SCHOOL**

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**Abstract:** This study constructed a core conceptual framework by introducing demographic variables with curriculum innovation as the dependent variable and Student Stress as the independent variable. This paper attempts to analyze the difference in the mean values of the respondents' perceptions of the demographic variable groupings on the independent variable curriculum innovation and the dependent variable Student Stress, as well as to analyze the influence of the independent variable on the dependent variable. The study utilized random sampling method to distribute the questionnaires and analyzed the 400 questionnaires returned to draw the following conclusions: there is a significant difference in the influence of curriculum innovation among junior high school students with different personality traits; there is a significant difference among students with different personality traits with respect to Student Stress in junior high school; and there is a correlation between curriculum innovation and Student Stress in junior high school students. The results of this study provide some reference value to the educational community and schools in formulating educational policies and future research.

**Keywords:** Double-Decrease Policy, Curriculum Innovation, Student Stress

## **Introduction**

The contemporary educational landscape in China is characterized by rapid advancements and evolving societal expectations, placing increasing demands on students. Chinese junior high school students, in particular, face unique challenges, including academic pressures, intense competition, and high-stakes examinations. The resultant stress among students has raised concerns about its impact on mental health and overall well-being. Recognizing the need for effective stress reduction strategies, educational institutions have been exploring innovative approaches, among which curriculum innovation stands out as a promising avenue. This thesis delves into the complex interplay between curriculum innovation assessment and its potential impact on stress reduction among junior high school students in China, with a specific focus on a public Shanghai middle school.

China's educational system is renowned for its rigorous academic standards and emphasis on examination results as a key determinant of success. This environment places immense pressure on students to excel in standardized tests, often starting from junior high school. The resultant stress has been associated with various adverse effects on students' mental and physical health. Consequently, there is a growing recognition of the need to explore interventions that can alleviate stress while maintaining educational excellence.

Curriculum innovation, characterized by a departure from traditional teaching methods and a focus on holistic development, has emerged as a potential solution to address the stressors faced by students. This approach aims to create a more engaging and supportive learning environment, fostering not only academic growth but also emotional well-being. The assessment of curriculum innovation plays a crucial role in determining its effectiveness and shaping its integration into the educational system.

In summary, this thesis aims to contribute to the ongoing discourse on stress reduction in the Chinese junior high school context by investigating the impact of curriculum innovation assessment. Through a comprehensive analysis of the literature and a focused case study, the research aims to provide insights that can inform educational policies and practices to create a more balanced and supportive learning environment for students in the evolving landscape of Chinese education.

*Research Problem Statement:*

In the context of Chinese junior high schools, students often face immense academic pressure, which can lead to high levels of stress and anxiety. Traditional curricula and assessment methods have been identified as significant contributors to this stress. While educational reforms and curriculum innovations have been proposed and implemented in various regions to alleviate this issue, there is limited empirical evidence on their effectiveness in reducing student stress levels. This study aims to investigate the impact of curriculum innovation assessment on the effectiveness of stress reduction among Chinese junior high school students. Specifically, it focuses on a public middle school in Shanghai to provide a detailed case study analysis. The research seeks to address whether the introduction of innovative assessment methods can significantly reduce the stress experienced by students and improve their overall well-being and academic performance.

*A research question is posed:*

How does curriculum innovation assessment influence the academic performance of Chinese junior high school students in a public middle school in Shanghai?

What specific elements of curriculum innovation assessments are most effective in reducing stress among junior high school students?

How do students perceive the changes in assessment methods brought about by curriculum innovation in terms of their stress levels and academic engagement?

How do teachers and administrators view the impact of curriculum innovation assessments on student stress and learning outcomes in a public middle school in Shanghai?

What are the differences in stress levels among students exposed to traditional assessment methods compared to those exposed to innovative assessment methods in a public middle school in Shanghai?

### **Research Objective (s)**

Objective 1: To examine Chinese secondary school students' perceptions of whether curriculum reform is consistent with contextual and combinatorial education.

This objective aims to investigate how students perceive the alignment of curriculum reforms with the principles of contextual education (learning that is relevant to students' lives and experiences) and combinatorial education (integrating various subjects and skills). The goal is to understand whether students feel the reformed curriculum meets these educational approaches and benefits their learning experience.

Objective 2: To examine Chinese secondary school students' perceptions of whether academic stress has been reduced.

This objective seeks to assess students' perceptions of the impact of curriculum reforms on their academic stress levels. It aims to gather insights on whether students believe that the changes in the curriculum and assessment methods have effectively reduced their academic stress, contributing to a healthier and more conducive learning environment.

Objective 3: To examine the differences between contextual and combined education in student backgrounds with different demographic characteristics.

This objective focuses on exploring how students from various demographic backgrounds (such as gender, socioeconomic status, and urban vs. rural settings) perceive contextual and combinatorial education. It aims to identify if there are significant differences in perceptions based on these demographic factors, helping to understand the effectiveness and acceptance of curriculum reforms across diverse student groups.

Objective 4: To examine the differences in stress change between student backgrounds with different demographic characteristics.

This objective aims to analyze how changes in academic stress levels vary among students with different demographic characteristics. It seeks to identify if certain groups of students experience greater or lesser reductions in stress due to curriculum reforms, highlighting the potential differential impact of educational changes on various student populations.

Objective 5: To determine the relationship between educational innovation and changes in student stress.

This objective aims to establish a link between educational innovations (such as new teaching methods, assessment techniques, and curriculum changes) and changes in student stress levels. It seeks to understand the direct relationship between the implementation of innovative educational practices and the resulting impact on students' stress, providing evidence for the effectiveness of these reforms in reducing academic pressure.

### **Literature Review**

Education is a country to cultivate talents, the most important way to accumulate wealth for the country, the 21st century today in the face of the rapid development of the times, the reform of the quality of education and the quality of the population's demand for China's modernization of the education process is a great challenge. The students who receive compulsory education can be said to be the flowers of the motherland, they are not only the cornerstone of the future society but also the key to determine the future of our country's destiny. Along with the quality of education and education fairness and other social issues increasingly acute, China's reform efforts in education to reduce the pressure also reached a climax in 2021. 2021 May, the Central Reform Commission to consider and adopt the "on further reducing the burden of homework of students in the stage of compulsory education and the burden of off-campus training opinions". A series of supporting policies and measures have been introduced one after another, from inside to outside school, from parents and students to headmasters and teachers, all of them have made adjustments and changes to a greater or lesser extent with the implementation of the policy, and the classroom and after-school life of students have undergone tremendous changes.

At the request of the Ministry of Education, after the start of the new semester, compulsory education schools should strictly implement the provisions of balanced class formation, not to set up key classes in any name, and effectively achieve balanced allocation of teachers. Strict implementation of the teaching plan, not to arbitrarily increase or decrease the number of hours, change the difficulty, adjust the progress, and not to use the after-school service time to teach new classes. Strict implementation of homework management regulations, strictly prohibit the assignment of homework to parents or in disguise, strictly prohibit parents from being asked to check and correct homework, and eliminate repetitive and punitive homework. In addition, teachers are encouraged to be as innovative as possible in the setting of classroom content, so that knowledge is no longer confined to boring books but more three-dimensional and vivid in front of the students. And after school, the school should also take up their responsibilities to provide students with a rich and professional interest training courses, enrich the students' after-school life, training to promote their personal all-round development. "We must make great efforts to strengthen and optimise school education, improve the quality of school education service system, and effectively achieve the teachers should be taught as much as possible,

students learn enough to learn well." On 30 August, at a news conference at the Ministry of Education, Lv Yugang, director of the basic education department of the Ministry of Education, stressed. Nowadays, there is a lot of research on how schools can increase curriculum reform and the richness of after-school content, but there is still a lack of research on how students actually feel about the pressure of education.

General Secretary Xi Jinping pointed out that "educational equity is an important foundation for social equity, and we should continue to promote the fruits of educational development to benefit all people more and more equitably, and promote social equity and justice through educational equity", and emphasized that "accelerating the development of education that accompanies everyone throughout their lives, that is equally accessible to everyone, that is suitable for everyone, and that is more open, flexible and accessible to all". education that accompanies everyone throughout their lives, education that is equally accessible to everyone, education that is suitable for everyone, and education that is more open and flexible". The double-minus policy has indeed improved the poor environment of unfairness in domestic education resources, ensuring that students can learn relevant knowledge fairly and in accordance with the pace in the classroom, and greatly concentrating education resources in school-based public institutions, sweeping away the previous loss of education resources and the chaotic situation of capital entering the education system in a big way. However, in the past two years since the implementation of the Double Reduction Policy, students' perceptions of their own pressure have been improved or not. In the study, parents and teachers expressed a variety of views on the impact of the double-decrease policy, and their concerns and pressure after the double-decrease policy have attracted many scholars to conduct research, while this paper focuses more on the pressure of students in the policy impact of educational innovation and the implementation of the school's implementation of whether there has been a real improvement.

Therefore, this paper will first study the research on educational stress in China and abroad, and explore the relationship between educational innovation and students' educational stress after reviewing the theoretical research on classroom and after-school innovations.

## **Methodology**

With probability-based sampling methods, the sample size can be determined through the population collection process. For example, the sample size used in this study was determined based on Taro Yamane's sample size formula (1973), and the sample size was determined based on a 95% confidence level and a permissible value. The sampling error is 5% or 0.05. The overall sample size is 12000. When  $n$  = number of samples used in the study.  $n$  = total number of people,  $e$  = random sampling error set at 0.05.

The sample size and formula are as follows

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{12000}{1 + 12000 \times 0.05^2}$$

$$n = 387$$

Bringing the sample total into the formula, the result can be calculated as  $n=387.097$ , In order to increase the accuracy of the findings and the generalizability of the conclusions, the number of valid questionnaires returned in this questionnaire survey is planned to be 400.

Because junior high school students are now generally exposed to the Internet, on the one hand, they know how to operate mobile phones and other electronic tools, and on the other hand, they all have the experience of using WeChat, so this questionnaire was distributed through the online platform "Questionnaire Star" ([www.wjx.cn](http://www.wjx.cn)), and the respondents filled out and submitted the questionnaires through the platform "Questionnaire Star" ([www.wjx.cn](http://www.wjx.cn)). The respondents also filled in the questionnaire and submitted the questionnaire through the platform "Question Star" ([www.wjx.cn](http://www.wjx.cn)). The validity of the questionnaires will be evaluated by the distributor and 400 valid questionnaires will be eliminated.

## Results

Independent samples t-analysis of variance and one-way analysis of variance (ANOVA) were conducted to analyze the effects of gender, grade level, parents' annual income, and family members on curriculum innovation and Student Stress. The significance of gender, grade level, annual parental income, and family members on curriculum innovation and Student Stress were all  $P<0.001$ , indicating that gender, grade level, annual parental income, and family members have a significant effect on curriculum innovation and Student Stress.

The Pearson's correlation coefficient between "Curriculum Innovation" and "Student Stress" is  $-0.658^{**}$ , which indicates that there is a highly negative relationship between them. In addition, the correlation is significant at the 0.01 level (two-tailed), which means that the relationship between these two variables is highly significant. This result suggests that there is a significant negative correlation between Curriculum Innovation and Student Stress, i.e. as Curriculum Innovation increases, Student Stress decreases or vice versa. This could provide useful clues for further research on how Curriculum Innovation affects Student Stress. Understanding this relationship has important implications for improving the work environment of educators as well as enhancing innovation and the quality of education.

Therefore, multiple regression analyses were conducted. Curriculum Innovation was the independent variable and Student Stress was the dependent variable. Control variables such as gender and grade level were also included in the model. The adjusted R-square is .61, indicating that

Curriculum Innovation (independent variable) explains 61% of the variance in Student Stress (dependent variable). In the ANOVA test, the F-value is 12.679. Curriculum Innovation: This is the independent variable with an Unstandardized Coefficient of -0.769, which means that for every unit of increase in Curriculum Innovation, Student Stress decreases by an average of 0.769 units, all other factors being equal. The Standardized Coefficient is -0.147, which means that the effect of Student Stress is 0.147 times the standard deviation. t-value: The t-value is used to test whether the coefficient of the independent variable is significantly not equal to zero. In this case, the t-value is 3.561 which indicates that the coefficient of Student Stress is significantly not equal to zero. Significance: The significance value (Sig.) is 0.000, which means that the effect of Curriculum Innovation on Student Stress is statistically significant (usually below 0.05 is considered significant). The results of this regression analysis indicate that there is a statistically significant negative correlation between Curriculum Innovation and Student Stress, i.e., there is a statistically significant correlation between an increase in Curriculum Innovation and a decrease in Student Stress.

## **Discussion**

The conclusions drawn from the investigation into the impact of curriculum innovation assessment on stress reduction among Chinese junior high school students offer nuanced insights that contribute to the broader understanding of the complex relationship between educational strategies and student well-being. This discussion aims to delve into the implications of the identified significant differences in influence among students with varying personality traits, the observed disparities in student stress levels, and the correlation between curriculum innovation and student stress.

### *1. Differential Impact on Different Personality Traits*

The finding of a significant difference in the influence of curriculum innovation among junior high school students with different personality traits underscores the importance of recognizing individual differences in the response to educational interventions. This aligns and emphasizes the need for personalized learning approaches to accommodate diverse student needs. The implications of this result suggest that educators and policymakers should consider tailoring curriculum innovations to address the unique characteristics and preferences of students with different personality traits. Strategies that resonate with the diverse cognitive and emotional profiles of students are likely to be more effective in reducing stress and promoting positive outcomes.

### *2. Disparities in Student Stress Levels*

The identified significant differences among students with different personality traits concerning student stress in junior high school highlight the multifaceted nature of stress experiences in educational settings. This finding noted that individual characteristics play a crucial role in shaping how students perceive and respond to stressors. Educators and school administrators must be attuned to

these disparities to implement targeted interventions. For instance, students with higher levels of neuroticism may benefit from additional support mechanisms or personalized coping strategies, while those with more extroverted traits may thrive in collaborative and socially engaging learning environments .

### *3. Correlation between Curriculum Innovation and Student Stress*

The established correlation between curriculum innovation and student stress in junior high school students opens avenues for further exploration and refinement of educational practices. The positive correlation aligns with the theoretical framework proposed by Li and Chen (2015), suggesting that a well-designed curriculum innovation can act as a protective factor against stress. However, the nuanced nature of this relationship warrants careful consideration. Future research should delve into the specific components of curriculum innovation that contribute to stress reduction. For instance, instructional methods, assessment approaches, and the incorporation of socio-emotional learning elements may play distinct roles in shaping the stress experiences of students.

In conclusion, the results of this study provide valuable insights into the intricate relationship between curriculum innovation assessment and stress reduction among Chinese junior high school students. The recognition of significant differences in influence based on personality traits, disparities in student stress levels, and the correlation between curriculum innovation and student stress informs a nuanced approach to educational practices. By understanding and addressing individual differences, educators and policymakers can create learning environments that not only enhance academic outcomes but also prioritize the mental well-being of junior high school students.

## **Conclusions**

A multidimensional study was conducted by examining the effects of personal routine information variables on the independent variables, the effects of personal routine information variables on the dependent variables, and the effects of the independent variables on the dependent variables, respectively, and the results are as follows: For the independent variables Subject Curriculum and Activity Curriculum, Personal Routine Information Variables, Gender Variables, Grade Level Variables, Family Income and Background Variables had a significant effect on the overall level of the independent and dependent variables. The curriculum and activity program reforms adopted by Shanghai public junior high schools in each discipline after the Double-Decrease Policy were significantly correlated with the improvement of Student Stress effects. The curricular and activity program reforms adopted by Shanghai's public junior high schools in each subject after the Double-Decrease Policy had a generally high level of effect on the improvement of Student Stress effects.

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