

# The Relationship Between Family Education and Students' Academic Performance

Zihan Li<sup>1, a</sup>

<sup>1</sup>Hunan First Normal University, Changsha, Hunan, 410205, China

<sup>a</sup>lizzy1192022@163.com

**Abstract:** Using the China Education Tracking Survey 2014 data (CEPS 2014) and the Logit regression model, the relationship between family education and students' academic performance was analyzed, and different parenting styles should be adopted for different students. Research has found that there is no significant relationship between parental control over students' computer usage time and their academic performance; Similarly, whether parents have strict control over students' social interactions is not significantly related to whether students' academic performance is good.

**Keywords:** Family education, Parenting styles, Academic performance, Empirical research.

## 1. Introduction

The family is the most fundamental unit of people's lives, and it can also be said to be the collective with the most profound impact on an individual. Both school education and social education require family education as a bridge to ensure consistency and continuity in children's education; Family, school, and society can form a huge educational synergy of "1+1+1>3". Children are the epitome of parents, and good family education also plays a crucial role in cultivating children's three values and personality.

At present, there are many studies on the impact of family education on students' mental health, while there is less research on the impact of family education on students' academic performance. Therefore, this article takes family education as the benchmark and uses methods such as logit model to empirically analyze the relationship between family education and students' academic performance. This study mainly focuses on parents' control over students' daily life (non academic) in family education. Therefore, the degree of parental control over students' online time and social interaction was selected as independent variables to explore the impact of family education environment on students' academic performance (dependent variable).

## 2. Review of Relevant Research

As of August 24, 2023, through the China National Knowledge Infrastructure (CNKI), a total of 74100 related papers were searched under the title of "Family Education". Among them, 27500 papers were from journals with Chinese core or higher sources. A total of 269 related papers were searched under the title of "Family Education and Academic Performance". Some scholars have specific the impact of family education on academic performance to a certain subject. For example, Yang Jinlin mentioned in the Chinese family education that family education has special value for physical education under policies such as "double reduction" and "combination of sports and education"<sup>[1]</sup>. Sun Xueqian believes that the subject of Chinese language in primary and secondary schools can achieve home school co education through the implementation of interdisciplinary "theme learning" and other task groups<sup>[2]</sup>. Scholar Cao Huaxiang

conducted a study on the differences between urban and rural families from the perspective of family education environment, and found that most families of rural children lack parental supervision and companionship compared to urban families, resulting in students in urban areas often performing better than those in rural areas<sup>[3]</sup>. Scholar Zhu Ying provided some valuable suggestions to parents and students regarding the concept and methods of primary school as a routine education<sup>[4]</sup>; Hu Xuyao, taking middle school students as an example, explored the specific factors that parents have on students from various aspects such as their education level, profession, and family material and psychological environment. In addition, there are still some domestic scholars who never forget to inherit the traditional Chinese culture<sup>[5]</sup>. Gao Shenyong and Luo Ximing analyzed the traditional Chinese education system with the Three Character Classic as a mapping, and explored the ways to popularize and normalize the essence into the daily life of modern families<sup>[6]</sup>; Some scholars are looking forward to the future on the "Internet + " New theoretical research on family education for junior high school students in the context<sup>[7]</sup>. It can be seen that research on family education is relatively complete, but only a relatively small number of scholars have conducted in-depth research on the relationship between family education and students' specific grades, and empirical analysis is rarely used. Therefore, this article uses empirical analysis as a tool and combines existing research to analyze the impact of family education on students' academic performance, which has certain theoretical and practical value.

## 3. Suggest A Hypothesis

Based on the literature review of family education and relevant research analysis of family upbringing and family environment, this article proposes the following assumptions and research questions.

With the rapid development of information networks, computers have not only become a necessity for people's lives, but also become a good helper for students to access information and society, and a medium for students to interact with external affairs. But parents always worry that students may not have good discernment ability for these influx of external information, and they cannot resist the temptation to

accidentally go astray. There are also many examples in society that support parents' idea, such as a student who gradually performs poorly in class due to being addicted to electronic games and becomes mentally drained, until they end up on a path of no return. In addition, many reports have proven that excessive use of electronic products can indeed affect health. Therefore, when many parents consider students' academic performance and physical and mental health, they will strictly manage the use of computers.

It is worth noting that many scholars are studying the positive impact of computers on students' learning and life, and some have even delved into specific subject areas and teaching processes. For example, Gui Liya mainly studies the impact of computers on middle school Chinese language learning<sup>[8]</sup>. In her research, she proposed that tablet teaching has advantages in mobilizing students' participation and enthusiasm. Huang Chuanxu proposed a teaching model for middle school students to use tablets for deep learning, focusing on pre-class guidance, in class research, and post class practice<sup>[9]</sup>. He advocated for the use of technological means to support classroom teaching, stimulate students' learning interest through technological advantages, and promote the vitality of teaching subject classroom participation.

Overall, there has always been a significant controversy regarding students' use of computers. Therefore, should parents strictly control students' computer time in family education? Based on this issue, this study proposes the following assumptions.

*Assumption 1: The more strict parents control students' computer usage time, the better their academic performance.*

The social interaction of students, like the use of electronic media, is an issue that many parents need to pay special attention to. There is an ancient Chinese saying that goes, "Birds of a feather flock together, birds of a feather flock together." Scholar Yu Tao stated in his study of friendship in the Analects of Confucius from the perspective of the human order that making friends is a common phenomenon in human life<sup>[10]</sup>. There are conditions and principles for how people become friends, how people choose friends, and how to maintain friendship, especially for underage students who are in rapid physical and mental development, how to choose friends is particularly important. And China is another country with a deep cultural tradition in friendship, so for many Chinese parents, they also have strict requirements for their children's friends. They hope to participate in or even control their students' dating partners and processes to a certain extent. Based on this, this study proposes a second hypothesis.

*Assumption 2: The more strict parents manage students' social interactions, the better their grades will be.*

This article adopts the empirical analysis method of Logit model to explore the relationship between family education and students' academic performance. And provide guidance based on its impact.

## 4. Regression Analysis of The Impact of Family Education on Students' Academic Performance

### 4.1. Introduction to Variables

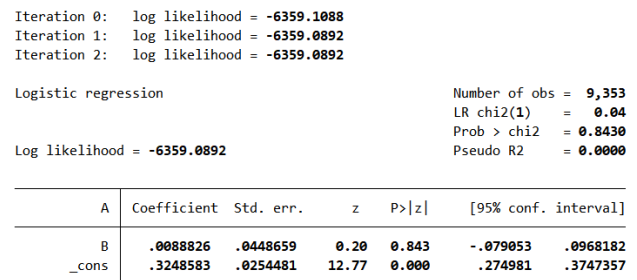
This article uses stataMP17 as an analytical tool and uses survey data from the China Education Tracking Survey conducted by the China Survey and Data Center of Renmin

University of China (CEPS) in 2014 to empirically analyze the relationship between family education and student academic performance. The China Education Tracking Survey (CEPS) used the 2013-2014 academic year as the baseline, with two contemporaneous groups of junior high school grade 1 (7th grade) and junior high school grade 3 (9th grade) as the survey starting points. Using the average education level of the population and the proportion of floating population as stratified variables, 28 county-level units (counties, districts, and cities) were randomly selected from the country as the survey points. The baseline survey surveyed a total of about 20000 students. According to the research needs, this article mainly selects two aspects: personal factor variables of some students and family education. The main variables are introduced in the table 1 below.

**Table 1.** Description of variants in statistical analysis

Type of variant	Changed product name	Explanation
Student performance	Total results	The number of students' original scores in the 2013 midterm examination plus the total
Family education parental control	Internet time	1. Regardless of 2. Management, but not strict 3. It's very strict.
	Make friends with	1. Regardless of 2. Management, but not strict 3. It's very strict.

### 4.2. The Logit Model of the Impact of relationship between parental and students' on Student Academic Performance



**Figure 1.**

According to observations, the P-value of this model is 0.843>0.05, indicating that there is no significant relationship between whether parents strictly control students' computer usage time and their academic performance.

According to the analysis of relevant knowledge in education, there may be two main reasons.

The computer is a product of the progress of the times, and its existence and development meet the needs of modern people. Nowadays, technology and its cultural landscape have become the cultural environment and historical background for students' learning and living<sup>[11]</sup>. In the classroom, teachers use multimedia tools for teaching and students use the internet to assist in completing homework better after class. This series of actions extends from traditional paper based teaching and homework to efficient learning, understanding, and

communication using information and communication tools.

Students who are in their prime are prone to have a resistance or even a rebellious mentality towards bound affairs. Negative and rebellious psychology has a significant impact on teenagers, and there are many objective factors that affect rebellious psychology, such as family, school, social factors, etc. The most fundamental factor is the self factors of adolescents themselves<sup>[12]</sup>. The most typical manifestation of this psychology is the tendency to disagree with parents, as the more restrictive things parents have, the more attractive they are to them. So in some cases, strict parental control has had some counterproductive effects that go against expectations.

### 4.3. The Logit Model of the Impact of parents control on Student Academic Performance

The figure Below shows the logit model of whether parents strictly control students' social interactions and whether students' academic performance is excellent.

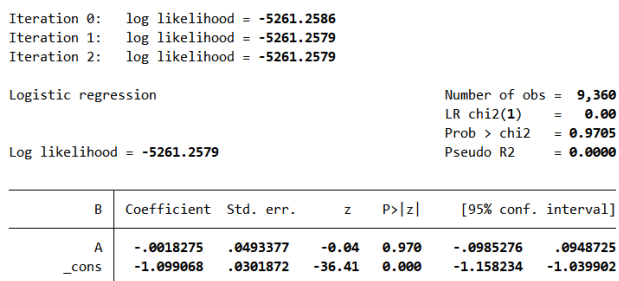


Figure 2.

We can find that whether parents strictly control students' social interactions is not significantly related to their academic performance. In my opinion, this is actually not a surprising result. Based on discussion and research, I believe there are two main reasons.

The first point is that although students are still young and lack social experience, most of their friends are classmates who spend time with them in school. They have more contact with each other than with friends and parents, which is why parents cannot replace thinking. Therefore, parents' judgments may be more subjective, or they may have some preconceived impressions, thus lacking some accuracy. Secondly, research has shown that peer relationships play a completely mediating role between self-awareness and rebellious psychology. I hope this can also attract the attention of parents, and friends may become a bridge between parents and children in a rebellious period.

In summary, in family education, parents' control of students' online time and social interaction has no significant relationship with their academic performance.

## 5. Related Suggestions

The student stage is a critical period during which individuals undergo significant changes in their physical and mental well-being. In the process of educating students, if they do not understand their characteristics and cannot view

and handle problems from their perspective, and provide timely guidance to them, it is easy to trigger students' rebellious psychology<sup>[13]</sup>. So when parents educate their students, it is recommended to convert strict control into mild dissuasion. At the same time, the attitude of communicating with students should also be serious, kind, and dignified.

Students and guys grew up in different eras and come into contact with very different things. Therefore, many students feel that there is a generation gap between themselves and their parents. In fact, parents need to innovate their outdated concepts and actively embrace new things.

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