

# **Analysis of the Influencing Factors and Improvement Measures of Morning Study Quality in High School**

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**Abstract:** Morning study is an important component of high school learning, and how to promote the quality of morning study remains a focal point in high school teaching. Previous studies mostly focused on subjects such as Chinese and English, but few studies on History and Biology. There is no deeper exploration of the commonality of the problems, which is difficult to reveal the influencing factors of the quality of morning study accurately. This paper takes the morning study of the second grade of Dangyang No. 1 High School in Yichang City as an example, analyzing the differences between groups by calculating the 50-day quality score of morning study (target number of students/total number of students), taking the quality score of morning study as the dependent variable, and using the t-test to calculate the significance, so as to deeply explore the potential factors affecting the quality of morning study in high school. Our results found significant differences in the quality of morning study sessions across different disciplines, with Chinese morning study sessions having the highest quality and English morning study sessions having the lowest quality, these may be related to positive relationship between students and parents.

**Keywords:** High School; Morning Study; Influencing Factors; Improvement Measures

## **1. Introduction**

With the deepening of the high school curriculum reform in Hubei, the cultivation of subjective initiative is emphasized in different subjects, which puts forward higher requirements for the quality of morning study. As the beginning of daily learning, morning

study is an important structural node. Good quality of morning study is not only conducive to improving the quality of students' learning, but also conducive to teachers improving the quality of teaching. However, due to internal and external school factors, many students cannot reasonably arrange tasks in morning study time, and do not give full play to the subjective initiative of morning study, resulting in a waste of time and energy, hindering the efficiency of early morning study, and affecting the quality. Therefore, the improvement of the quality of morning study is of great significance for the improvement of the quality of the whole study.

## **2. Analysis of Influencing Factors**

### **2.1. Internal Reason**

#### **2.1.1. Differences in students' personality traits due to family factors**

Studies have shown that good family factors, such as a healthy and happy family atmosphere of parents, are conducive to the formation of self-confidence, friendship and lively personality traits<sup>[1,2]</sup>, so that students are good at expressing their own opinions, while poor family factors, such as divorce of parents, violence in the family, and lack of attention to study, can easily lead to the formation of low self-esteem, withdrawal, sensitivity and suspicion<sup>[1,2]</sup>, resulting in reticence, easy distraction, and poor quality of morning study. Taking the second grade of Dangyang No. 1 High School as an example, the quality scores of students with better family factors were concentrated in 0.55-0.7, and the quality scores of students with poor family factors were concentrated in 0.23-0.38, indicating that the quality of morning studies with better family factors was much higher than that of students with poor family factors ( $p < 0.001$ ).

#### **2.1.2 Differences in sleep quality**

After a day of learning, students will accumulate negative emotions due to communication barriers between teachers and students, as well as academic difficulties and other factors. According to the survey, at present, high school students need to complete homework at home after class, which compresses the time for students to relax physically and mentally, adjust themselves and communicate with their parents and relatives. Therefore, the accumulation of negative emotions and the lack of time for relieving emotions will superimpose and lead to sleep disorders, such as difficulty in falling asleep and easy to wake up, which makes students have no good mental state after getting up early, showing a lethargic and easy to doze off in the morning self-study. In the process of morning self-study, the scores of students with good sleep quality are concentrated in 0.53-0.62, and the scores of students with poor sleep quality are concentrated in 0.4-0.5, which indicates that sleep quality can significantly affect the quality of morning self-study ( $p < 0.001$ ).

## **2.2 External Reason**

### **2.2.1. Difference in class size and ratio of male to female students**

The number of students in a class in high school is about 40-60, and the number of male and female students will vary with the choice of subjects. The number and proportion of male students in a class mainly focused on physics are higher than those in a class mainly focused on history. Usually, the class with a large number of students and a large proportion of male students will be better than the class with a small number of students. From the analysis of the proportion of male and female students, it is shown that the male students have a more developed left brain in physiological structure, are good at processing abstract information such as language, text and data, and build a mind map in the brain to memorize knowledge, so they are more active in reading; the female students have a more developed right brain in physiological structure, their thinking mode is more emotionally oriented, their thinking is delicate, their reading ability is strong, so they are more stable in reading<sup>[3, 4]</sup>. The 15 classes in grade two of high school are divided into >50 groups and <50 groups according to the number of

students. It is found that the score of early self-study quality in the class with a number of students >50 is significantly higher than that in the class with a number of students <50. This indicates that the number of students in the class can significantly affect the quality of early self-study ( $p < 0.001$ ).

### **2.2.2. Differences in the morning subjects**

Morning study subjects typically include Chinese, foreign language, biology, history, politics. In Chinese early self-study sessions, the focus is primarily on comprehending and reciting ancient poetry, famous phrases, and composition-related content<sup>[5,6]</sup>. Similarly, history and political subjects involve memory recitation of relevant materials<sup>[7,8]</sup>. Biology mainly emphasizes understanding and memorizing key points within chapters<sup>[9]</sup>. As for foreign languages (such as English or Japanese), morning self-study content predominantly revolves around word structure spelling exercises, syntax and logic practice sessions, listening training activities along with proficient sentence recitation practices<sup>[10,11]</sup>.

Under normal circumstance, students tend to have a higher inclination towards memorizing written content rather than comprehending it fully; hence the reading and reciting effect during morning self-study sessions for Chinese language-related subjects tends to be better compared to other disciplines. However, due to some students' apprehension towards language learning coupled with their relatively lower learning stage during junior middle school years; the quality of morning self-study for foreign languages often falls short of expectations.

In terms of quality assessment scores ranging from 0.68-0.8 (highest being best), early self-study in politics exhibits superior performance followed by Chinese language studies alongside history and biology respectively while foreign languages (specifically English) demonstrate comparatively lower quality levels scoring between 0.3-0.4.

It is worth noting that the quality of early self-study in English significantly lags behind that of other four subjects ( $p < 0.001$ ). This finding aligns with survey results indicating that students display greater sensitivity towards linguistic content as opposed to logical subject matter comprehension.

### **3. Improvement Measures**

#### **3.1 Gain Insight into Students' Family Background to Mitigate the Influence of Familial Factors on Students' Character Development**

By conducting correlation analysis between various factors, such as early self-study quality scores and family factors among second-grade students at Danyang No.1 High School, it was discovered that family factors exerted the most significant impact on early self-study quality. This is evident from the fact that compared to other factors, the lowest score (0.115) and highest score (0.849) for early self-study quality were observed within the realm of family factors. Therefore, comprehending students' family backgrounds is crucial in effectively addressing their educational needs.

It is imperative to excel in engaging with students' families to foster positive changes in their early self-study habits while minimizing negative emotions and enhancing their personal attributes. Through effective communication, parents should recognize that cultivating a harmonious home environment, employing an equitable and objective mode of interaction with their children, as well as implementing appropriate rewards and consequences are key elements for fostering independent growth in students.

Particularly when mistakes occur, extreme emotions should be avoided by refraining from using harsh words or biased criticism or punishment; this will prevent misjudgment resulting from preconceived notions about a student's behavior or abilities. Even if misjudgment does transpire, admitting one's mistake promptly can help deescalate emotional intensity for the child.

Simultaneously, active communication with students is essential to minimize adverse familial influences while reinforcing positive ones; this will guide personalized education approaches and teaching methods aimed at maximizing each student's transformation into a confident individual who embraces learning joyfully during morning self-study sessions – ultimately improving reading comprehension.

#### **3.2 Ensure the Quality of Sleep and Enhance the Spirit of Morning Study**

Our results show that students with higher sleep quality have better states during morning study, indicating that the quality of sleep directly affects the quality of morning study. Studies have shown that low sleep quality can lead to insufficient blood supply to the brain, reduce the excitability of the body's nervous system, and thus feel insensitive to external changes and have decreased cognitive function<sup>[7]</sup>. High school students have heavy learning tasks, and should improve and improve their sleep quality from the following three aspects: First, students must establish a sense of sufficient sleep, and let students realize that good sleep quality is a necessary condition for improving learning efficiency the next day. Second, encourage students, reduce their anxiety, and reduce their sensitivity to emotional sources, such as excessive comparison with others' academic performance, so that students realize the existence of objective differences between individuals, downplay the concept of comparison, and strive to exert their own subjective initiative to improve their ability to independently carry out morning study<sup>[6]</sup>. Third, when students have emotional problems and mistakes, choose appropriate criticism methods, try to avoid a serious atmosphere and questioning tone, to reduce the probability of negative emotions, and thus improve students' sleep quality.

### **4. Conclusion**

In conclusion, the quality of morning study is determined by various factors, including internal reasons from students and external reasons from school and family. Among internal factors, students' personal character plays a more pivotal role. Among the external factors, the design of curriculum and implementation of reward and punishment strategies hold greater significance. The results showed that good morning study mainly depends on guiding students to establish a good learning concept and positive attitude.

This study still had some limitations. Firstly, the research method employed was singular and fails to consider potential cross-effects among various factors. Secondly, the number of research variables were insufficient. In light of these aforementioned deficiencies, future studies will not only incorporate more influential factors but also account for cascading effects between different influential

factors, thereby enhancing the reliability of conclusions and proposing effective recommendations for improving morning study quality. Through the above analysis and suggestions, we hope to promote the improvement of students' language and thinking abilities, and provide support for students to further improve their learning quality.

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