

# How Different Cultural Background Influence Students' Learning Method

--A Comparative Study of Chinese Students and American Students

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**Abstract.** when meeting problems, different people may have different problem-solving styles. This phenomenon is easy to spot on campus. In the classroom, Chinese students often prefer to solve problems by themselves when they encounter problems, such as searching for answers on the Internet, and rarely discuss with professors or classmates. English-speaking students, on the other hand, prefer to solve problems in discussions, and they prefer to ask their own questions directly in class rather than finding answers after class. But in previous research, there has been little research on what leads to different problem-solving styles. Therefore, the following research will study the reasons why Chinese students and American students have different problem-solving styles from two aspects: historical reasons and educational systems. Chinese history has long been influenced by Confucianism, which emphasizes authoritarianism and collectivism, so Chinese students are more accustomed to receiving knowledge passively and solving problems passively. American history, on the other hand, emphasizes more free and logical thinking, so American students prefer to actively explore problems. In addition, China's unique college entrance exam education system allows Chinese students to do well in basic subjects, but the fill-in-the-blank education deprives Chinese students of the desire to actively explore knowledge. Compared to the Chinese education system, the U.S. education system was democratized after World War II, which has led to a diversity of educational resources, greater respect for students' interests, and enhanced student initiative. However, a liberal system is often more difficult to manage classes and students, and because there is no mandatory learning, American students generally perform worse in basic subjects.

**Keywords:** Problem-solving styles; historical reasons; educational systems.

## 1. Introduction

People always meet problems in their daily life, and everyone has a different problem-solving style. Especially on campus, no matter what culture people come from, they will encounter all kinds of problems related to culture because of culture conflict. For example, if a Chinese student and an American student are assigned to the same dorm, let's assume both students are female. Here is what might happen: Chinese student rarely bring her friends to the dormitory, she usually study or play quietly in the dormitory alone. She will passively participate in activities, which means she does not or rarely take the initiative to organize activities, but she will join in activities that interest her. She tends to be participant rather than organizer. Unlike Chinese student, American student may often bring her friends to the dormitory, they may study together, watch movies, or just chat. The American student will be very active in organizing activities and very active in life. This is a possible cultural conflict in the dormitory, a battle between movement and stillness. For such a conflict, two students may have different solving styles. The American Student may invite a Chinese student to join her party, but the Chinese student will likely decline such invitations.

Treffinger and his colleagues defined the problem-solving style as "consistent individual differences in the ways people prefer to plan and carry out generating and focusing activities, in order to gain clarity, produce ideas, and prepare for action" [1]. Otherwise, they also pointed out that problem-solving styles may be related to culture, age, and/or situation and they reveal fundamental aspects of the person and problem they are dealing with [1]. Based on the content, it is easy to find that, on campus, there are many differences between Chinese and American students with learning

methods similar to the problem-solving style. The main difference is that Chinese students prefer to solve questions by themselves, such as by researching questions online, but American students prefer discussing to solve problems, like talking with professors or classmates about their questions and dealing with them together. These two different phenomena correspond to two different problem-solving styles: the passive problem-solving style and the active problem-solving style. Passive problem-solving style (PPS), or independent interaction style, is a tendency for students to try to work through problems on their own, without relying on others for help [2-4]. On the contrary, the active problem-solving style (APS) shows more willingness to seek help from others. Takahashi indicated that Asian students, which include Chinese students, are used to passively "answering" questions because they do not take the initiative to explore the problem in the classrooms, just answering professors' questions passively; while Native-English-Speaking (NES) students which contain American students, tend to positively "exploring" problems because their behavior clearly shows the process of their exploration [5]. In addition, there are other differences between Chinese students and American students. For example, Chinese students usually focus on their exams, they would focus more on the content in exams, but the exclusive knowledge is ignored by them. Differently, American students would learn all the knowledge in the textbook. They study not just to pass exams but to feel the joy of learning.

Even though there have been many previous studies on the relationship between Eastern and Western cultural differences and behavioral differences, few systematic cognitions have been formed. Therefore, the following research will mainly study the factors that cause Chinese students and American students to have different problem-solving styles.

## **2. Historical Reasons Leading to Different Problem-Solving Styles**

Chinese culture is recognized as having four stages, namely traditional culture, socialist culture, corporate culture, and patriarchal culture. The four cultures developed in this order, but they were actually interrelated, interacting, and influencing each other [6]. The first is a traditional culture. In China's long history, Confucian culture is the most critical culture, and it is the cultural thought that has the most profound influence on the thinking of the Chinese people. After being institutionalized in the early 2nd century BCE, Confucianism dominated the development of Chinese higher education, establishing its essential characteristics such as mission and curriculum [7]. According to this historical reason, in recent years of schooling, traditional culture is embodied in authoritarianism and collectivism, which are in line with Confucianism [6]. Authoritarianism is reflected in the belief in academic authority by teachers and students. As long as the content of the textbook is considered correct. Blind belief in academic authority has led to fewer and fewer teachers leading students to question existing knowledge, and fewer and fewer students will question knowledge, which has resulted in students losing the ability to think and learn independently. The idea of collectivism is reflected in the fact that teachers treat students equally. This means that teachers will not make individualized study plans for students based on their different talents and interests but require students to use uniform standards. Even if some students are not good at certain subjects, teachers will still use the standard of full marks, and they do not guide students to explore areas they are familiar with and interested in.

The second stage is socialist culture. Socialist culture emphasizes the connotation of traditional culture and, at the same time, politicizes the role of the principal [6]. This means that the principal can formulate a unified plan that is more authoritarian, strengthening the position of authoritarianism and collectivism in the student body.

The third stage is corporate culture. This stage incorporates market value into the school [6]. That means schools will focus more on things that bring them economic benefits, such as progression rates. Many high schools will announce the proportion of their students in different high-level segments after the college entrance examination, and use the results to attract more promising students to apply to their schools. Especially the top-ranked high schools in the province prefer to do this kind of thing.

In this case, the school will not formulate different teaching plans according to the students' personalities. The principal will only ask teachers and students to use a unified strategy and result, which is the final grade. In other words, only good grades can prove their worth. Moreover, because the content of the college entrance examination is too simple, it is more difficult for students to actively learn the content they are interested in, and they can only be forced to study the content of the syllabus, thus becoming more and more lack of autonomy.

The fourth is patriarchal culture [6]. In Chinese traditional culture, the most important is patriarchal culture. In the theory of Confucian culture, men have a prominent voice. In a family, the father is often the head of the family and has the right to decide everything. Even in contemporary times, women are increasingly empowered, but the patriarchal culture still influences Chinese behavior. In schools, the patriarchal culture leads to the fact that the leaders of the school are mostly men and a few women. As a result, students will be exposed to an increasingly monolithic educational environment, thereby losing the ability to learn actively.

Different from Chinese history, the American way of thinking stems from the pursuit of truth and freedom from ancient Greek ancestors [8]. The pursuit of truth makes American students pursue logical thinking, and they will question the problems they encounter instead of believing in authority; yearning for freedom makes them treat everyone equally, which not only makes teachers respect students' ideas and interests but also makes teachers make decisions according to students' personalities. With different educational methods, students can freely choose the courses they like and are good at, maximize their own advantages, and realize the cultivation of talents in various fields. In addition, the history of pursuing freedom makes the composition of teachers very diverse. Students can come into contact with teachers with different cultural backgrounds and different cognitions, enrich students' knowledge structure, and give them the ability and motivation to think and explore actively.

### **3. Educational System Leading to Different Problem-Solving Styles**

China's complete education system should back to December 1977, when the Chinese government reinstated the college entrance examination system. Different from before, "the recommended systems for the entrance of higher education" [9], this system means that students who graduate from high school pass exams to enter different universities. Students who do well in the college entrance examination can enter good universities and easily find good jobs after graduating from good universities. Students with poor grades can only get into mediocre universities. Because of the emergence of this system, students find that they can change their fate and future by studying hard. This is an excellent achievement in the development of higher education in China. But with the development of the educational system, and more and more comparisons with the European and American educational systems, people gradually find the problems brought by this educational model: First, such a system determines that students must study the same subjects. As there are too many required courses, forcing all students to develop at the same pace [9], it is difficult for students to choose the suitable courses according to their hobbies and interests. Moreover, since the subjects of the exam are fixed, schools do not offer classes unrelated to the exam. Such a system seriously undermines the initiative of students and leads to negative learning behaviors of Chinese students in college. For example, almost few Chinese students choose their major in college according to their own interests, and more of them passively choose their major based on the advice of their parents and teachers. Through the simple question "why do you choose the major you are studying now", the answers are almost "my parents let me study", "almost everyone choose this major", "this major will rarely find a job" and so on, but there are few answers like "because I like it". Second, even in the early 1990s, Chinese higher education gradually introduced the credit system, which means that students could choose courses according to their interests, but they will spend a lot of time and energy cramming this knowledge for the final diploma and degree. As a result, students will only pay too much attention to the content of the final exam, which leads to a lack of understanding and mastery

of knowledge, and it is difficult to operate in practice. Finally, most subjects are still taught in the traditional way, that is, students remember what the teacher tells them. Teachers lack the guidance of students' active thinking, which leads to the phenomenon that Chinese students can only answer questions without exploring them [9].

Compared with the Chinese education system, the American education system has experienced marked democratization of development. The democratization of higher education has been one of America's greatest achievements since World War II [9]. And the most important characteristic of the democratization of the education system is that it has a diversity of views. First, compared to 1900, when only 4 percent of high school graduates went to college, today, 75 percent of Americans do [9]. Because in addition to opening their admissions to white, middle - and working-class men, colleges are increasingly opening their entrances to white women and minority students. This means that more teachers with different experiences, different cultural backgrounds, and different cognition are put into the educational market so that students can be exposed to more and fresher life experiences and ideas. Second, different universities, different subjects, and even different teachers are allowed to teach different things and are allowed to have other teaching methods [9]. This kind of education system can better serve students, prepare them for the diversified world in the future, and enrich students' knowledge, so that students have a more comprehensive range of knowledge. At the same time, the system encourages students to think more actively rather than simply answer questions. This results in students being able to control the knowledge they have learned and effectively improve their practical ability. This system has developed students' initiative to a large extent, allowing them to explore the world and research problems independently.

#### **4. Suggestion**

As shown above, both the Chinese and American problem-solving styles have their own advantages and disadvantages. Under the influence of authoritarianism and collectivism, teachers can develop teaching tasks and lesson plans more simply and uniformly. In addition, teachers can treat students fairly because the knowledge taught to each student is the same. And the authority of the principal allows the school to better manage students and teachers. The influence of corporate culture on education also has its advantages, because the school values the final results of the students, even though the process is very strict, the final result is good for both the school and the students, because the students can get good results in the final exams, so they can continue their studies in top universities and find good jobs after the university; the school can therefore recruit more students and bring in more revenue. The unique college entrance examination system in China gives every student a fair chance to change their future and reap good results through their own efforts, even though there is a lot of pressure in the process, but this pressure can train students to face difficulties without fear or retreat. But Chinese education also has obvious drawbacks. Because it is governed by uniform standards, it is difficult for students to develop their own interests and explore their own fields of interest before college. And the fill-in-the-blank education in China also leads to students not actively exploring the answers to questions, but passively accepting what teachers tell them, answering rather than exploring. Compared with Chinese education, American education is more liberal and respects students' own will. They can choose their own favorite courses and concentrate on exploring what they are good at. And their culture includes not only freedom, but also logic. So, when they encounter a problem, American students do not just listen to their teachers or believe in the results of the original research, they explore the answer to the problem themselves. In such an academic environment, American students are more active in the classroom, asking and answering questions and offering different ideas from the professor. But this approach to education also has its drawbacks. Basic education in the U.S. tends to be much worse than basic education in China, most visibly in that Chinese students tend to do better in the basic subject-math, and a study on U.S. education found that 90 percent of high school graduates in the U.S. are not scientifically and

technologically literate [10]. Also, because of the liberal management model, teachers often do not have easy access to manage the students in their classes.

But in recent years, China is improving the shortcomings of its education system. In recent years, China has phased out the mandatory separation of arts and science subjects. Before that, every student in his or her second year of high school was given a choice between arts and science, with the exception of the three common subjects of Chinese, mathematics and English, and only politics, geography, and history for arts, and physics, biology and chemistry for science. But now in some of China's more developed cities, the state is trying to eliminate this mandatory system. Students can mix and match their courses, for example, geography in arts with biology and chemistry in science, although Chinese, math, and English are still required. This change has renewed respect for students' strengths and their interests.

## 5. Conclusion

In summary, there are two main reasons why Chinese students and American students have very different approaches to problem-solving styles: historical reasons and educational system. Under the influence of Confucianism, the four stages of Chinese culture: traditional culture, socialist culture, corporate culture and patriarchal culture, have laid the foundation for the educational environment in contemporary China, which in turn has influenced the problem-solving styles of Chinese students. Chinese students' Passive problem-solving style leads to a lack of desire to explore problems and not to think proactively. But it is this submission to authority that makes Chinese students easy to manage, and it is the Chinese approach to learning that allows them to achieve significant success in basic subjects. The active problem-solving style of American students helps stimulate creativity and imagination and respects the interests of diverse students, but this approach to education makes American students unmanageable and less successful in basic subjects. However, China is working to improve its current deficiencies by changing its education system.

Although the study gains a better understanding of the reasons for the differences in problem-solving styles between Chinese and American students, it still has some limitations. First, this study only compares the differences between Chinese and American students' problem-solving style, and does not compare the differences in problem-solving style between Chinese students and students from other countries. Second, even in the same country, students in the same educational system may have different problem-solving style, but this study does not examine what causes this to be the case. This will be a direction for subsequent research.

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