

# Research on Psychological Guidance for College Students Based on Le-Chatelier Principle

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**ABSTRACT:** The paper employs the principle of Le Chatelier to analyze the college students' mental state. College students are facing the integration and confliction between foreign and local culture and they are in active thinking and sensitive period, which is the key session to form the world view and life outlook. The paper presents the application of the science to establish the impact of the system, which can guide and affect actively students' mental state based on teachers' characteristics and conditions.

**KEYWORDS:** Le Chatelier principle; Dynamic equilibrium; Adaptability; Psychological state of college students; Systemic conditions

## 1 INTRODUCTION

Le Chatelier principle was put forward by the French chemist Le Chatelier, mainly used in chemical, engineering control theory of equilibrium systems. However, the study showed that the principle has more psychological significance than any other science principles. There is a strong reference value in many social attributes propositions, such as the state, emotion, educational psychology when human being is existed as part of the natural systems. Connotation of Le Chatelier principle is that any stable equilibrium system is to withstand outside influence and the system spontaneous feedback conditions will be changed whenever the condition of entirety or part changes. The feedback condition changes are opposite to the ambient condition changes. In a word, Le Chatelier principle is that the systems will feedback energy spontaneously to weaken the changes when the impact of a balanced system conditions change.

In the education process, the quality requirements for teachers are constantly improved with progress of science and changes of human society. In the 21st century, it's particularly important to understand college students' mental status fully within a specific period. At present, teachers of university should pay more attention to the college students' mental state and guide students to build a reasonable and healthy mind to adapt the social progress paces. The paper employs Le Chatelier principle to explain the psychological state guidance and elaborate the meaning and application of the Le Chatelier

principle. The research results will provide people with inspiration and theoretical basis for the guidance of the college students' mental state.

## 2 ANALYSIS OF LE CHATELIER PRINCIPLE

### 2.1 *Premise of Le Chatelier Principle*

Le Chatelier principle set the "dynamic equilibrium" as the initial state of matter and the termination state of the phase, which is in line with the basic state of human psychology. Assume that the sine wave is the fluctuating signal model of mental state and the sine curve can be differential to infinitesimal ranges to form the system curve with numerous lines (Robert, 2004). The premise of Le Chatelier principle is perfect enough and its signification is that it does not prevent the changes occurrence and development of change trends but focuses on the role of the internal self-regulation. Human physiological and psychological inertias determine certain state of "maintaining the balance" within a certain range of conditions and people's mental state and behavior state will not be changed when the external conditions do not change. The external conditions includes the direct impact and psychological effects on the human behavior and the latter on is indirect impact. Likewise, people's subjective initiatives come from the environmental stimuli and the impact of the life and learning environment. The intake of knowledge or understanding of knowledge can be a subjective reason to break the balance. The normal

course of human mental activity should be as follows. First, it's a balance. Then stimulation caused by the external changes is occurred and the mental status trend is changed. Then the system carries out the feedback regulation and at last new balance is obtained to suit the changes.

The paper argues that the time to maintain this temporary balance is very short, and the balance between adjacent transition processes should also be relatively flat (Allsop, 1984). This is mainly reflected at person's self-adjustment and the so-called feedback adjustment is actually on the mood changes, not for the understanding of the issues.

## 2.2 *Adaptability and feedback*

The results of the Le Chatelier principle in dynamic equilibrium has been described clearly and then the feedback regulation should be understood. In some of the chemical primary calculations, the feedback similar to error is discarded sometimes. However, man's mental state is not equivalent to the natural science such as chemistry and physics, which often only emphasizes outcomes and outputs. The forming process of human psychological state is in need of such psychological feedback to provide the adaptability between two balances. Adapting to a new environment needs a process, fast or slow, and this process is essential (Martin, 2002).

Human's cognition of same thing at different times will become people's feelings and different results may be thinking approval or denial, but the thought process will enrich the thinking and become an integral part of the thinking establishment. It stressed the importance of the whole thinking process. The thought process is an adaptation establishment and training. There are two expected points to establish the adaptability. The first principle is that the mind transformation process should be as possible as smooth and stable. The other one is to maintain the relative fixity of the transformation trend.

In the second point, the maintenance of trend relative fixity in the application of college students' psychology will establish an anti-stress concept. Under the premise of stable trend, the adjustment process will be improved and the adjustment time will be shorter and the process of reaction and re-establishment will be relatively smooth when unconventional conditions change. Thus, college students' mood swing will be reduced.

## 2.3 *Impact of external conditions on college students' mental health*

The impacts of external conditions on human psychology are very complex. The paper considers the impacts are absolute and the trend is sure. Adjustment of self-feedback is a method to

alleviate the contradiction between new and old balances with cultivating adaptability. The so-called impact is considered to be a very complex system, and not a simple and isolated incident.

In real life, we may encounter that the same thing will get different effects when it encounters in different people. For example, different effects will get when teacher's strict criticism at different students. Some students will conflict it, some will change and some will be indifferent. It's not that the event is no meaning, but that the actuation system with the combining of the condition of "teacher's strict criticism" with students' family background, living environment, learning environment, growth process, knowledge structure and other factors is more meaningful for students. Therefore, the process is simple and the condition is more complex in the Le Chatelier principle system (Barbara, 2002).

## 3 APPLICATION OF LE CHATELIER PRINCIPLE IN THE EDUCATIONAL PSYCHOLOGY

### 3.1 *Characteristics of college students' psychology*

The psychological state of college students from 20 years old to 25 years old is more active compared with other stages of life and they are facing with the changes of lifestyle and learning environment. They may be confused by the life outlook and value outlook and they are very sensitive for the stimulus from the environment. Fluctuations in the mood, either frequency or magnitude, increase and speed up correspondingly. In this regard, we believe that the guidance from teachers should be based on students' mentality understanding and not over-emphasize the purposes and results. The rebellious psychology should be regarded as the normal reaction of the adolescent psychology and should not be overly demonized.

Le Chatelier principle pays more attention to a variety of subtle understanding of psychological state and the subtle psychological states tend to characterize human behavior. Are the subtle psychological states a condition for promotion psychological orientation or a factor for forming the conditions? This depends mainly on the contradiction and integration between the psychological adjustment of feedback and other conditions for constructing system, which is not absolute and it should be considered from the global perspective. But in human's subjective sense, those intense emotional expressions, are enlarged unlimitedly, which is definitive.

From the perspective of behavioral psychology, the understanding of the wrong psychological state often leads to the psychological conflicts and the abnormal trend of the psychological development. Take United States as example, in the latter part of

the last century, the young American were seen as "beatnik" around the world. At that era, people were very disappointed with American young people and the culture orientation of the whole society had a considerable blindness. The young American encountered the preconceived judgment in the process of employment selection and self-realization. Nowadays, let us reflect on this issue and we will find out the "beatnik" generation has already become the core of the community and do not prevent the development of the United States. They only be regarded as "fallen" by public opinion.

### 3.2 *The role of teachers in the psychological guidance*

According to our existing undergraduate education model, the external environment of college students studying in the university is mainly from objective environment created by university and living environment formed between students. The role of building the guidance mainly is played by teachers. The guidance of the students' behavior is a formative process and the impact of teachers on students is built-up by words and deeds, while the simple preaching usually cannot form the students' actuation. Students will be affected by teachers in the process of contacting teachers anywhere and anytime, such as teachers' attitudes toward discipline, teachers' cognitive of the world view and teachers' moral evaluation, which will make a very deep impression on students. This is because the field of establishing the actuation conditions for students is unknown.

During the course of teaching psychological research, Le Chatelier principle prompts teachers to cultivate students' mind differently. They should learn a variety of information of students, establish the conditions system for students and use different methods for different students. Secondly, teachers should grasp students' mental changes, take into account the irreversibility after formation of college students' world view and life outlook and establish the ideological guidance of correct trends for students. Finally, teachers should pay more attention to the cultivation of adaptability of environment and mentality for students to avoid adolescent mind conflicts.

### 3.3 *Scene reproduction example*

Here we create a "scene reproduction" mode. When student A's understanding for a certain phenomenon

within the field of moral is vague, teacher B's treatment for this issue is perceived by student A perceived. As student A cannot truly understand the scene, this effect is just an impression based on the student's psychological level. However, if student B encounters the situation same with or similar with teacher A, student B will unconsciously move closer to the experience in accordance with the principles of behavioral psychology consideration and this is the successful establishment of impact. Furthermore, student can understand teachers' behavior correctly through the reflection of right and wrong, and then the real psychological actuation will be formed and it's favorable to form correct world view of the world. There are many ways to form the teachers' guidance and there are also many formation patterns throughout mental processes. But there are just only two basic conditions for its completion as follows. The first condition is that the impact itself must be emotional. And the other condition is that impact of establishment should be positive in the basic moral dimension.

## 4 CONCLUSION

Le Chatelier principle discussed in the paper is applied in the teaching to make teachers understand correctly students' psychological states in different stages. Thus the strategy can be adjusted and the behavior can be established, which can guide college students' normal psychological development. Teachers should understand clearly the theoretical results of the Le Chatelier principle. That is the impact is certain and the feedback regulation is normal. In the context of trends and principles, it's important to grasp the direction, ease conflicts and guide students reasonably and correctly for college students with universal psychological anxiety and impatience.

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