

Intervention Strategies of College Students With Academic Difficulties Based on Behavior Modification Technology*

Yanbin Zhang^{1,2,**}

¹ North China Electric Power University, Baoding, Hebei, China

² School of Marxism, Beijing Normal University, Beijing, China

**Corresponding author. Email: zhangyanbin@ncepu.edu.cn

ABSTRACT

In recent years, the group of college students with academic difficulties has aroused widespread concern and vigilance in colleges and universities and society. In addition to academic difficulties, such students often have a large number of problem behaviors, such as Internet addiction, habitual truancy, and extremely irregular life. This study adheres to the problem-oriented approach, takes Bandura's social learning theory as a guide from the perspective of psychology, and uses behavior modification technology to intervene in students with academic difficulties. Such students are encouraged to start from self-improvement of bad behaviors in practice, so that they can reshape good study and living habits, improve self-efficacy, and then successfully complete their studies.

Keywords: College students, Academic difficulties, Behavior modification, Social learning.

1. INTRODUCTION

According to statistics from the China Education Yearbook, the graduation rate of college students has generally declined in recent years, mainly because their studies have not met graduation requirements. In addition to being unable to complete their studies on time, college students with academic difficulties also have problem behaviors such as Internet addiction and disorder of daily work and rest to varying degrees, which have brought a series of challenges to the education and teaching activities of colleges and universities.

Colleges and universities have always attached great importance to the assistance of academic difficulties, and many scholars have also put forward a variety of academic assistance strategies and suggestions in practice. However, these

strategies and suggestions mostly focus on the analysis of the causes of academic difficulties, the design of the academic early warning system and the planning of the academic assistance system, and there are relatively few studies on the direct intervention strategies for individual students with academic difficulties. Especially, the intervention operation research under the guidance of psychology and pedagogy related theories is still relatively rare. This study argues that the core problem of academic difficulties is "the separation of action from knowledge", that is, students with academic difficulties know that they should study, but their behaviors are deviated. By analyzing the core issues, this study takes the behavior modification technology of psychology as the theoretical basis to carry out assistance practice. In practice, it is emphasized that such students should start with improving bad behaviors, reshape their behaviors externally and improve their self-efficacy internally through positive reinforcement and other techniques, so as to complete their studies and perfect their personality.

*Fund: the theoretical research results of the establishment of benchmarking departments for party building work in colleges and universities nationwide in 2022; the theoretical research results of the "Double Leaders" studio of the party branch secretary of the national college teaching and administrative staff.

CLC number: G641, Document code: A

2. CONCEPT, CHARACTERISTICS AND CAUSES OF COLLEGE STUDENTS WITH ACADEMIC DIFFICULTIES

2.1 The Concept of College Students With Academic Difficulties

College students with academic difficulties refer to those who fail many compulsory courses during school, fail to complete their studies on time, fail to complete the credits required for college graduation in four or even six years, or fail to complete a qualified graduation thesis. However, it doesn't include external reasons such as psychological trauma caused by major illnesses, accidental injuries, or the loss of relatives, parental divorce and other major events during university. At present, most college students with academic difficulties are maladjusted to university caused by weak self-control and easy addiction. The academic difficulties of college students are mainly manifested in the failure of many courses of college students and the obvious weariness of learning, often accompanied by addictive behaviors such as indulging in online games and online gambling. In terms of majors, the proportion of college students with academic difficulties in natural science disciplines of traditional science and engineering majors is significantly higher than that of social science majors. In a word, the phenomenon behind the academic difficulties of college students is by no means a simple academic problem. The underlying reasons can often be traced back to the educational philosophy and methods of secondary schools and families. For example, the proportion of college students with academic difficulties who are accompanied by their parents to study at school from elementary school to high school is significantly higher than the proportion of those who once lived on campus in secondary schools. Therefore, the assistance education of college students with academic difficulties often requires the joint efforts of schools, families and society.

2.2 Typical Characteristics of College Students With Academic Difficulties

Through observation and interviews, this paper believes that the group of students with academic difficulties has no defects in intelligence, but there are obvious deviations in their daily behaviors, and there are certain deficiencies of them in self-control, self-confidence and emotional experience. Those

students mainly present the following three typical characteristics:

First, students with academic difficulties often show anomie in their daily behaviors and lack basic self-control. This includes frequent truancies, all-night entertainment and even day and night reversal, and extremely irregular daily work and rest and diet.

Second, students with academic difficulties are more likely to exhibit one or more addictive behaviors. This includes, for example, indulging in online games, indulging in online gambling, indulging in novels and even post bar.

Third, students with academic difficulties generally cope poorly with stress. Once they are under pressure, they are prone to escape and choose to do nothing, lose their initiative, and show low self-esteem, low self-efficacy, low help-seeking and even aversion to social interaction, resulting in their social support system being significantly lower than the average level of college students.

2.3 Analysis of the Causes of College Students' Academic Difficulties

There are many reasons why college students have academic difficulties. However, through interviews, this study believes that the reasons are mainly two dimensions.

The first dimension is that they simply don't want to study specialized courses. This includes such students' unclear learning goals, no interest in the content of professional courses, and fear of difficulties in some courses that they are not good at, and so on. A typical characteristic of this dimension is that such students have no interest in the learning content that must be completed. This can often be solved by changing majors in a timely manner, especially most students who switch from natural science majors to social science majors can improve their academic difficulties in time. A female college student from the western region, Xiao A, began college as a student of engineering major. In her freshman year, she failed many subjects, and the college counselor learned from a conversation with Xiao A that she was not interested in her present major: "I'm suffering from pain inside, and attending class is a torment for me". Therefore, after the school counselor fully communicated with Xiao A herself and her parents, the college counselor suggested that Xiao A should switch to the law major that she was interested in. After the major switch, Xiao A had no new failed subjects and successfully graduated and obtained

employment. If the major is not adjusted in time and there is no other reasonable intervention and assistance, such college students with academic difficulties are also prone to escape, abandonment, game addiction, and even psychological problems.

The second dimension is the addiction to entertainment caused by poor self-control. The most typical manifestation of this dimension is addiction to online games. This addiction often leads such students to stop paying attention to anything other than gaming. Xiao B, a college student who was seriously addicted to online games, said: "My longest staying in the Internet cafe was more than a month. Every day I just played games and watched movies. When I was really sleepy, I found some chairs to put them side by side and slept on top. When I woke up, I just continued playing. Basically, I didn't eat on time. When I was hungry, I ordered takeout or made instant noodles. Even when I was eating, I still stared at the computer screen and grabbed a bit. Aside from sleeping and going to the toilet, every day when I was awake, I was playing all the time". This kind of addictive behavior will inevitably lead to Xiao B's absence from school, refusing to learn at all or basically refusing to learn. More importantly, once such students' previous courses are not completed, it will be more difficult for them to learn even if they want to learn later, so they are much wearier of studying.

Although the above two dimensions are obviously different, they are often intertwined and mutually causal. For the former, due to the lack of learning goals and other reasons, students have no interest in course study, but often because they don't know what to do, they spend the time through entertainment such as the Internet. The concrete manifestation is that although such students also play games and browse post bar, they are mainly to kill time. Once the learning content they are interested in appears, they can quickly re-engage in learning. As for the latter, students' Internet addiction is often manifested that they are addicted to entertainment and cannot extricate themselves. They do not necessarily dislike their majors, but online games are just more attractive. In addition, other long-term academic difficulties caused by special events such as family and emotions are relatively rare.

To sum up, the causes of academic difficulties can be mainly attributed to two factors: lack of interest in majors or addiction to entertainment. The deep-seated reason behind them is that after

entering the university, college students lose their external constraints and fail to establish their autonomy in a timely manner, so they cannot carry out effective self-judgment, self-management and self-correction.

2.4 The Key to Solving Academic Difficulties

The direct causes of academic difficulties have been analyzed above, which are two-dimensional, mutually causal, and affect each other, but ultimately they all point to the deep-seated causes, namely, the collapse of self-management ability in the absence of external constraints. Therefore, this study proposes that the core problem of academic difficulties is "the separation of action from knowledge". On one hand, in terms of "knowledge", the vast majority of college students with academic difficulties have no problem with their intelligence level. They pass the rigorous college entrance examination to enter the university, which is enough to prove that they have no obvious defects in intelligence and ability to study for exams. Moreover, the vast majority of college students with academic difficulties often feel guilty and self-blame for this, which also shows that their value judgment is not a problem. On the other hand, in the aspect of "action", there are obvious deviations. Even in the interview, a college student Xiao C who had academic difficulties and was addicted to games said: "What you've said is true, Teacher. I should cherish time and study hard when I'm in college. I truly feel sorry for my parents and teachers for playing games like this, but I just can't control myself". These perceptions are fine. The obvious deviation in the daily behavior of college students is the personal experience of many college counselors, teachers in charge of a class and course teachers. During the conversation, Xiao C burst into tears and said that he wanted to thoroughly rectify his mistakes, but he went to play again not long after the conversation ended. Facts show that in the face of students with serious academic difficulties, traditional ideological and political education is often ineffective. Because there is no problem with the basic cognition of such students, it is just difficult for them to control their own behaviors.

3. THEORETICAL MODEL OF BEHAVIOR MODIFICATION TECHNOLOGY INTERVENING IN ACADEMIC DIFFICULTIES

Behavior modification refers to a systematic behavioral intervention technique that corrects and deals with some problem behaviors based on behavioral learning theory, so as to correct problem behaviors and restore normal behaviors. [1] Since its establishment, behavior modification technology has been mainly used to reshape the behavioral habits of adolescents. Since the 1960s, Bandura has broken through the theoretical constraints of traditional behaviorism and creatively put forward the modern social learning theory. Modern social learning theory emphasizes that behavior, human factors and environmental factors are interconnected and interact continuously in the process of behavior modification. The specific content is to apply the conditioned reflex principle of behavioral psychology and the observational learning theory of social learning theory, and use the psychological laws of extinction, reinforcement, demonstration, etc., to promote abnormal behaviors into normal behavior habits and enhance self-efficacy through the realization of internal expectations in the process, so as to achieve the common perfection of personality and behavior.

Through the above analysis, college students with academic difficulties all have bad behaviors at the university stage, which are further externalized as academic difficulties. It can be said that most of these bad behaviors are learned or reinforced under some special subjective and objective conditions. External pressures and strict supervision in middle school stage force them to follow specific instructions from their parents and teachers to complete tasks. Once the direct external constraints disappear (The direct external constraints disappear after they enter the university. Many course teachers no longer call the roll, there is no teacher to supervise students' self-study, and there is often no mid-term test, etc.), many college students find that their truancies and playing games all night will not be quickly reprimanded by teachers and parents, and it seems that there are no direct bad results. Since they can choose not to study without any "direct consequences", they quickly learn to play and overindulge. When the final exams come, only failing multiple exams can come as a blow to these students. In the final analysis, since the core problem of students with academic difficulties can be focused on the learned bad behavior, to solve the

problem, it is a necessity to first start with changing the bad behavior. According to the principle of behavior modification technology, since a person's bad behavior can be learned, special measures can also be set externally to help him relearn and convert bad behavior into normal behavior. If students with academic difficulties can improve the bad behavior of alienation, such as quitting Internet addiction, returning to the classroom, and regular work and rest, then the academic difficulties will be solved there and then with a high probability.

In the specific operation, behavior modification technology believes that each complex behavior is formed by the accumulation of countless continuous and small behavior changes. A saying goes that Rome is not build in one day. Using calculus can help understand the behavior modification technology itself. As shown in "Figure 1", the process from behavior A (bad behavior) to behavior B (normal behavior) is a complex process, which cannot be accomplished overnight, and is often a process of repeated and wave-like rising. If the modification process is broken down, the finer the breakdown, the easier it is to achieve each time. And the finer the breakdown, the easier it is to give immediate feedback on the results of the action. Behavior modification emphasizes the measurement of behavior change as well as the measurement of target behavior before and after the intervention, while recording the behavior change caused by the implementation of the behavior modification program. [2]

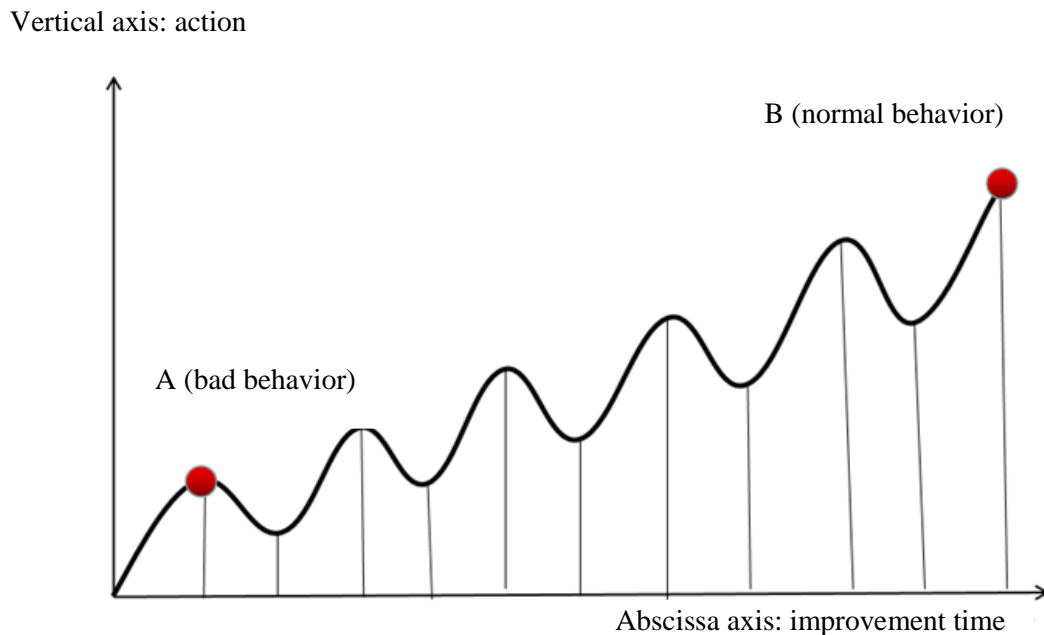


Figure 1 Behavioral intervention changes over time.

In the practice of helping students with academic difficulties, decomposing the bad behaviors of students with academic difficulties and determining multi-stage behavior modification goals will not only be easy to measure and record, but also make the transformation of bad behaviors easier. For example, for a student who is addicted to online games, it is more difficult to give up the Internet addiction completely at once. However, the modification behavior can be broken down into many small goals, and it is relatively easy to achieve by gradually reducing the number and time of Internet access for such students. Once the small goal is achieved, it will strengthen such students' self-confidence. Through multiple decompositions and successive modifications, from multiple small goals to one big goal, Internet addiction will be completely relieved. And the accumulation of small quantitative changes will eventually lead to qualitative changes.

4. THE SPECIFIC APPLICATION OF BEHAVIOR MODIFICATION TECHNOLOGY IN THE PRACTICE OF HELPING STUDENTS WITH ACADEMIC DIFFICULTIES

In practice, first of all, according to the characteristics of students with academic

difficulties, the problem behaviors that need to be corrected are divided into three categories: various types of addictive behaviors, disordered work and rest behaviors, and school-wear behaviors (truancy, abandoning exams, etc.).

4.1 Various Types of Addictive Behaviors, Mainly Manifested as Internet Addiction and So on

For students with typical Internet addiction behaviors, such as Internet game addiction, severe mobile phone freak, etc. Although Internet Gaming Disorder(IGD) has only been officially regarded as a mental disorder by ICD-11 in 2018, relevant psychological treatments has been studied for around 20 years.[3] the first step is to analyze and develop a timetable to improve symptoms of addicted behaviors. Usually, a combination of voluntary and supervised methods can be used to remind such students to stay away from the source of the addiction. The focus is to measurably and gradually reduce the time spent on computer and mobile phones and reinforce incentives in time. The difficulty is to reduce the time spent online as much as possible under controllable circumstances. If this method is too difficult for such students, other non-addictive recreational activities can be recommended as appropriate substitutes, such as participating in some board games, ball games, etc., in order to reduce the discomfort that students may

experience in the process of quitting Internet addiction. Unless students with academic difficulties insist on their own, it is generally not recommended to use the extreme practice of "disconnecting the network and shutting down" (switch off the power of the computer and deactivate the mobile phone). Regardless of whether the practice is suspected of violating individual rights, it is also not suitable for behavior modification technology. Because such an extreme approach is similar to shock therapy, while behavior modification technology tend to use general working principles such as positive reinforcement and systematic desensitization. Practical experience has also proved that even if the students themselves insist on "disconnecting the network and shutting down", the proportion of them re-indulging after the event is rather high.

4.2 Disordered Work and Rest Behaviors, Especially Day and Night Reversal

Zeng Guofan, the first famous official in the late Qing Dynasty, believed that "the first way to learn kung fu is to get up early". [4] To correct the habit of irregular work and rest of students with academic difficulties, the first thing is to urge them to get up on time. Teachers and teams can be used to supervise each other to remind students to get up, exercise, and read early. Generally, there is a gradual transition from the initial two days per week to seven days per week. Getting up early can be difficult at first, but it will pay off if one sticks to it gradually for a month. When students get up at 6 am, they have 4 hours more time than when they get up at 10 am. Many students with academic difficulties have changed the bad habit of not eating breakfast after going to college, and have enough time to study in the morning, avoiding the phenomenon of truancy caused by sleeping late. Using behavior modification technology to promote students with academic difficulties to get up early is a key step to guide students to get on the right track of life and study.

4.3 School-weary Behaviors, Mainly Habitual Truancies, Abandoning Exams, Etc.

This is the final step in bad behavior modification. To solve academic difficulties, teachers must start from the first classroom. Professional teachers not only need to make targeted changes in teaching content, methods, and carriers, but also pay more attention to the

performance of students with academic difficulties in classrooms and homework. The high-frequency supervision of college counselors, teachers in charge of a class and course teachers is the fundamental method to change the bad learning behaviors of students with academic difficulties such as truancies at will, failure to complete homework, and even absence from exams. In addition, there are also a group of seniors who regularly check the class notes of students with academic difficulties and provide guidance, and a special study room for students with academic difficulties is also set up, etc., to create a measured and recorded learning environment and atmosphere for them and help them build their confidence in learning. As soon as it is found that they have made progress, they will be given feedback and reinforced in a variety of ways. These measures can effectively help students with academic difficulties "get out of difficulties" and return to a good learning state.

After the problem behavior of students with academic difficulties has been effectively improved, there are some strategies that can be used as an extension of behavior modification technology, such as recommending inspirational and self-management books to students according to their individual conditions, helping them to think deeply and helping them complete the qualitative change. They can also be encouraged to learn from the SMART principles (specific, measurable, attainable, relevant, and time-bound) [5], to set goals for themselves in the future and formulate detailed implementation plans such as weekly and monthly plans with regular summaries. The significance of these extensions is that, in addition to being applied to improve bad behavior, behavior modification technology also focuses on internal changes in students. Because in addition to promoting them to improve their studies, measures should also be taken to improve their ability to cope with difficulties and setbacks, enhance their self-efficacy, and finally achieve "a high degree of unity of knowledge and action".

5. SEVERAL ASPECTS THAT SHOULD BE PAID ATTENTION TO IN THE PRACTICE OF BEHAVIOR MODIFICATION TECHNOLOGY IN HELPING STUDENTS WITH ACADEMIC DIFFICULTIES

5.1 Focusing on Positive Incentives, Being Supplemented by Negative Feedback

The typical characteristic of "the separation of action from knowledge" of students with academic difficulties shows that most of them can recognize that there are deviations in their behaviors, and there are psychological conflicts such as anxiety, guilt, and inferiority in their hearts. Therefore, teachers should criticize them less so as not to reinforce their self-blame and guilt again. In particular, most of them have undoubtedly been criticized a lot by their parents. If teachers criticize them many times, it is easy for them to deepen their sense of frustration and self-denial in an all-round way, which is not conducive to helping them. Therefore, teachers should positively encourage their every small progress as much as possible, and continuously enhance their self-confidence and self-identity.

5.2 Avoiding Making Decisions on Behalf of Students With Academic Difficulties

When helping students with academic difficulties, teachers cannot make decisions on students' behalf. Every decision should be made by student himself. It's like when an egg hatches, it's hard for a chick to survive when it's helped to peel the eggshell off. Only chicks that break from their eggshells by themselves can survive. The same is true for helping students with academic difficulties. Teachers can provide suggestions and supervise, but the final decision must be made by the students with academic difficulties themselves. Otherwise, even if they completes their studies this semester, it is easy for them to fail next semester, and even deepen their sense of dependence on the outside world.

5.3 Behavior Modification Requires a Longer Process

The recovery of students' learning ability is a complex process that requires sufficient time. If teachers are too focused on passing and failing,

sometimes they ignore the efforts made by students. For example, for students, it may be the most difficult process to get from 20 points to 50 points in a course. At this time, if the teacher only sees the result of failing and criticizes the students, it can take a heavy toll on the fragile self-confidence of an academically challenged student, who may feel that he has given 100 percent of his effort. In fact, if the teacher can be a little more patient and encouraging, the student will be able to pass the test if he persists, because it is obviously much easier to get a grade from 50 to 60 than from 20 to 50.

5.4 Both Positive and Negative Changes Are Key to Implementing Behavior Modification

The process of intervention practice will not be a straight line, but a complex process that is generally upward and repeated at any time. If teachers can subtly pay attention to the repetition of students' behavior, they can make timely and correct responses. If the recent assistance effect is very good, then the teacher can examine which part works and continue to strengthen this effective part. If the newly cultivated good behavior is retrograde, teachers need to improve the work strategy, or consider whether other negative factors have influenced the behavior change, and if so, they need to identify and try to eliminate this negative factor. In a word, the intervention process is a dynamic balance process. Teachers need to pay keen attention to the changes of students with academic difficulties and constantly adjust and improve the strategies and frequency of correction work.

6. CONCLUSION

Finally, it should be noted that although the interventions for students with academic difficulties discussed in this paper are based on behavior changes, they are by no means only focused on behavior changes. As Bandura said in Social Learning Theory: Enthusiasm for the local process promotes in-depth and detailed study of subsidiary functions, but if these subsidiary functions are explored in isolation, a comprehensive understanding of human behavior cannot be obtained. [6] The behavior modification technology used in this paper is actually based on Bandura's social learning theory, and the specific operation practice doesn't underestimate the important role of cognitive activities in the transformation of academic difficulties. On the contrary, it is the interaction of human behavior, the innermost being,

and the environment as interactive factors that make it possible to fundamentally change the nature of college students' learning — from passive learning under supervision in middle schools to active learning driven by internal motivation in colleges and universities. The ultimate value of the intervention of academic difficulties is to sublimate the nature of learning to stimulate the all-round growth of college students.

AUTHORS' CONTRIBUTIONS

This paper is independently completed by Yanbin Zhang.

REFERENCES

- [1] Wu Xinchun, Hu Peicheng. Behavior Modification [M]. Higher Education Press, 2005
- [2] Raymond G. Miltenberger. Shi Lin et al, trans. Behavior Modification: Principles and Procedures [M]. China Light Industry Press, 2015
- [3] HE Jin-bo, QIU Yu-ting, ZHENG Yang. The Psychotherapies for Internet Gaming Disorder and Its Principles: a Review [J]. Chinese Journal of Clinical Psychology. Vol.27 No.4. 2019
- [4] Zeng Guofan. Zeng Guofan's Family Letters, Chuanzhong Bookstore block-printed edition [M]. Elephant Press, 2011
- [5] Peter F. Drucker. Qi Ruolan, trans. The Practice of Management [M]. China Machine Press, 2009
- [6] Albert Bandura. Chen Xinyin, Li Boshu, trans. Social Learning Theory [M]. China Renmin University Press, 2015