

Research on the Current Situation of University Students' Self-Consciousness and Self-Learning in the Post-Epidemic Era Based on Self-Determination Theory

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Abstract: The impact of the information age and the post-pandemic era has led to many changes in students' independent learning habits and self-learning ability enhancement pathways. Self-learning ability has become more and more important. Independent learning has become an inevitable trend in the development of modern education. In terms of deepening the talent training program and training system reform, the ability of students to learn independently is one of the most fundamental and most important influencing factors. The ability of university students to learn independently in the post-pandemic era is an issue that deserves our deep consideration.

1. Introduction

In 2020, the COVID-19 had a profound impact on higher education. Different experts and scholars gave different definitions to the "Post-epidemic Era", but it is undeniable that the post-epidemic era brought many challenges to higher education and teaching. At the same time, it also brought new opportunities. The necessity and urgency of educational change once again appeared.

Independent learning has always advocated the main theme of university school style construction. How to cultivate the ability of university students to study on their own and create a good learning atmosphere is one of the main tasks of university style construction at present, and it is also one of the important guaranteed measures to improve the quality of talent training. After investigating the current situation of university students' self-awareness in the post-epidemic era, this paper analyzes and summarizes the problems and shortcomings of current university students' self-learning ability according to the characteristics of self-awareness and the actual situation of colleges and universities, and then puts forward methods and suggestions for improving University students' self-learning ability[1].

2. Research Object and Method

2.1 Research Object

The students at hubei university of automotive technology are the research subjects.

2.2 Research Method

1) Methods of Documentation. through the Library, Cnki and Wanfang Data System, We Can Consult Books, Articles, Policies, and Regulations Related to Independent Learning Ability.

2) Questionnaire. According to the Needs of the Research, an Electronic Survey Questionnaire of the Self-Determination Scale Was Distributed.

3) Mathematical Statistics. Conduct Scientifically Sound Statistical Analysis of the Data Obtained.

3. Research Content

3.1 Self-Determination Theory

Self-determination theory (SDT) is a relatively new motivation theory proposed by American psychologists Deci and Ryan. The theory places more emphasis on the active role of self-motivation

in the process. In practical work and learning research, it mainly applies to the study of the relevant theory of self-learning and is closely related to the viewpoint of self-learning. The theory places more emphasis on starting from the intrinsic needs of human beings and solves the energy problems generated by motivation well and balances the direction and goals of motivational behavior at the same time[2].

This research takes the theory of self-determination as the theoretical basis, set the independent needs of university students as the main research content and summarizes the current situation of university students' independent learning ability in the post-pandemic era, and then discovers problems and proposes corresponding improvement measures.

3.2 Information Analysis of the Survey Subjects

A total of 1036 electronic questionnaires were collected, with 1036 valid scores and an efficiency rate of 100%, taking the freshmen, sophomores, and juniors at Hubei Institute of Automotive Technology as the target respondents.

This survey is a sampling survey, which is selected according to the random principle, and each sample has an equal chance to be selected. Among them, 396 freshmen, accounting for 38.22%; 458 sophomores, accounting for 44.21%; 182 juniors, accounting for 17.57%. The sample gender and data distribution proportion presented normal distribution, which met the requirements of survey sampling. The students are selected from all majors, grades, and gender are involved. The number of surveys can be reliably guaranteed and can truly reflect the current and existing major problems of university students' independent study in the post-pandemic era [3].

3.3 Research Analysis of the Current State of Self-Awareness among University Students

In the theory of self-determination, the first problem that motivates learning tends to be internalized is the judgment of self-consciousness. Self-consciousness is a form of consciousness that refers to one's awareness of oneself. It includes the awareness of one's own body and state, state of limb activity and psychological activity such as one's thoughts, feelings, and will. Self-consciousness, self-awareness, self-evaluation, self-experience, self-monitoring and self-control are important elements [4].

Through the data collection of self-consciousness in the self-determination scale, we can analyze the overall situation of the current self-cognition of university students. The sub-scale of self-consciousness has 5 questions (see Table 1). On the 5-point scale displayed after each pair of statements, the appropriate scale is selected based on the actual situation. If B is completely true and A is false, the scale is 5. If A is completely true and B is false, then the appropriate response is 1. If A and B are equally true, it is 3.

Table 1 Self-Consciousness Subscale Scores in the Self-Determination Theory Scale

Serial No.	selection index	Contrast index
Question 1	A. My emotions are sometimes unfamiliar to me.	B. My emotions seem to always belong to me.
Question 2	A. I feel like I'm rarely myself.	B. I feel I'm completely myself.
Question 3	A. Whenever I finish something, I often feel like I didn't do it	B. Whenever I finish something, I always feel like I did it
Question 4	A. My body is sometimes strange to me.	B. My body is always felt like my own.
Question 5	A. Sometimes I look in the mirror and see a stranger.	B. Whenever I look in the mirror, I see myself.

Self-awareness is a complex multidimensional and multi-level psychological system or structure. According to the standards of different schools of psychology, we can understand them from the three perspectives of self-awareness, self-experience, and self-regulation. Through the content of the self-awareness subscale, we can objectively reflect the problems and deficiencies of current university students in self-awareness, self-experience, and self-regulation. Through the scoring method and the corresponding analysis of results, we can draw the following conclusions:

1) University students have less control over their emotions. With an average score of 3.47, their regulation and management of emotions is weak. University students should face more pressure during their life studies, such as academic pressure, communication difficulties, emotional confusion,

and economic difficulties. It is difficult for them to maintain a good balance in handling various problems, which leads to many problem students. In actual student management, it is often found that students have difficulty managing the psychological problems caused by their emotions.

2)University students' program scores in self-awareness ranging from self-awareness and self-experience to self-regulation are on the rise. University students are in a golden period of self-awareness development, and many new characteristics of self-awareness development have emerged. As we can know from the attitudinal perception of self, modern university students see more of their own strengths and advantages. In a sense, it shows the confidence and positive psychological attitude of the contemporary university students. But over-valuing strengths and ignoring weaknesses can also lead to the other extreme. That is the mind of blindly arrogant and uncaring, which is extremely detrimental to the development of students.

3)University students develop unevenly due to self-evaluation and self-experience. When overestimating self-expression, there is blind resistance to life and learning events, and there may be abnormal ways of handling problems, such as extremism and arbitrariness, which leads to psychological abnormalities; when underestimating oneself, the sense of inferiority will increase if faced with life and learning stress. Then anxiety and nervousness will emerge. The students may trend to feel self-denial. It shows that university students need to pay more attention to the three self-structural factors in self-control from imbalance to equilibrium.

3.4 Analysis of the Study on the Current State of Self-Perception of University Students

Perceptual selectivity in self-consciousness is a type of perceptual property. It is mainly reflected in the individual's selection and processing of the stimulus information acting on the sensory organs, intentionally or unintentionally, and influenced by the physical characteristics of the stimulus, the perception subject's attitude, interest, expectation, knowledge and experience and other factors (Table 2).

Contemporary university students' lives and studies on university campuses differ greatly in response to different information stimuli. Through the data analysis of the Perception Selection subscale in the Self-Determination Theory Scale, it can be derived that the current university students have

Table 2 Self-Consciousness Subscale Scores in the Self-Determination Theory Scale

Serial No.	selection index	contrast index
Question 1	A. I sometimes feel like I didn't do what I chose to do.	B. I always felt like I had chosen what I wanted to do.
Question 2	A. I do what I have to do, but I don't think it's really my choice.	B.I chose to do what I had to do.
Question 3	A. I do what I do because I have to.	B. I do what I do because I'm interested.
Question 4	A. What I do is often not what I choose to do.	B.I do what I decide to do.
Question 5	A.I often do things I don't have a choice over.	B. I am free to do whatever I choose to do.

The respondents made a selection on the 5-point scale shown after each pair of statements, indicating the degree to which statement A feels true versus statement B feels true. If B is completely true, A is false, and the reaction is 5; if A is completely true, and B is completely untrue, then the appropriate reaction is 1. If A and B are equally true, it is 3. From the survey analysis, the following data were obtained :

1)Compared with the average level of self-consciousness, the perception selection is lower, the average score is less than 3.75, but the proportional beat is large, and the proportional distribution of the line chart is uneven, reflecting to a certain extent that contemporary university students are affected by more subjective and objective factors in handling various learning and life affairs.

2)University students show more passive acceptance of things.

3)They possess slightly higher initiative for things they must do, like study.

4)They lack the planning of life and learning objectives during school hours but excessively engage in cumbersome and meaningless activities such as online gaming.

5)In the perceived choice subscale mean score line graph, question 2 has the highest mean score between 3.7 and 3.75, indicating that college students still have strong perceived choice in what they

must do; question 3 and question 5 have relatively low mean scores between 3.5 and 3.55, indicating that university students behave with a defined purpose in what they must do, or what they are interested in.

3.5 Self-Learning Situation Analysis

One of the main indicators of autonomous learning ability is whether there is a good learning plan and can be better implemented. In the survey, it was found that only 20% of university students had more detailed independent study plans, 73% of them were formulated occasionally, and the fewest number of people had never formulated a plan, accounting for 7%. The overall shows that University students in the post-pandemic era lacked the initiative to learn independently.

In the survey, it was found that only 20% of university students had more detailed independent study plans, 73% of them were formulated occasionally, and the fewest number of people had never formulated a plan, accounting for 7%. The overall shows that University students in the post-pandemic era lacked the initiative to learn independently. The survey found that 84.14% of university students rely on their own websites and materials to solve problems, followed by 64.02% who seek the help of classmates and teachers. From the above data, it can be seen that online learning caused by the impact of the epidemic has prompted University students to turn to the Internet for more help and become the preferred way for university students to independently study and solve problems.

The arrangement of independent study time can also reflect the degree of control of students' independent study ability. The survey found that about half of the students have a certain amount of study time per day, and the vast majority of university students often have large conflicts between their studies and work, and their enthusiasm for self-learning is low. One-third of university students study casually, basically based on the school's teaching plan without a reasonable study plan.

The cultivation of independent learning habits of university students is influenced to some extent by classmates and roommates. It is not entirely personal autonomous behavior. Students with strong autonomy learn more with others than students with poor autonomy and tend to have too much communication. In the survey, it was found that 41% of university students prefer to study alone, and the remaining 59% of students study with roommates, seniors, and friends. In the data distribution of learning partners, the proportion of studying with roommates accounted for 29%; The second is with classmates, accounting for 18%; Studying with friends accounts for 12%.

4. Conclusions and Recommendations

4.1 Conclusions

1) The self-perception of university students in the post-pandemic era is mainly positive evaluation, and University students see more of their own strengths and advantages; University students tend to overestimate or underestimate themselves due to the imbalance between self-assessment and self-experience development.

2) University students have greater sensitivity to their own experiences and receive greater influence from events in their studies and lives. As a young person, you can compete for strength and victory in learning and activities, and feelings of guilt and repression arise when setbacks and failures occur. Both success and failure provoke a strong emotional response from university students.

3) The things University students face in university, such as lack of initiative in learning, but have a strong purpose for what must be done.

4) In terms of independent learning ability, there is a lack of necessary learning plan, less learning time arrangement, independent learning initiative needs to be strengthened.

4.2 Recommendations

4.2.1 Building a Learning Community

The online learning brought about by the pandemic has prompted contemporary University students to adapt to the universal learning. The place of learning has suddenly changed from

traditional classroom teaching to pure online learning. The teacher has changed from the “giver” “companion” in face-to-face and handles to the “guide” “motivator” in the online teaching environment.

In the process of self-learning, how to let self-study, partner learning, teacher-student-supervised learning and parent-child learning play a more efficient role is one of the main factors to determine the effect of self-learning. In the creation of the learning atmosphere, it is necessary to build a suitable “learning community” with different roles to help university students develop the habit of self-learning, play the aggregation and optimization of educational resources between different subjects, and form a post-epidemic learning “community” in different environments of self-learning.

4.2.2 Upgrading Information Technology Capabilities

In the post-epidemic era, teachers need the participation of new information technology to complete online teaching, improve the teaching effect of online classes, and enhance teacher-student interaction. In addition, teachers should master diverse information technology means with the times to deeply integrate information technology with online and offline teaching. University teachers need to constantly improve their ability of information technology, according to different classroom environments proficiently use different technical means to ensure good classroom teaching results.

4.2.3 Formation of a Shared Repository of Reciprocal Resources

Firstly, universities should prioritize the integration of online educational resources. By utilizing libraries, network centers, and other similar facilities, they can share learning materials on digital platforms, thus promoting student collaboration and knowledge sharing.

Secondly, it's essential to explore more user-friendly search pathways. Within the framework of safety and security, universities should provide access to various convenient platforms such as computer terminals and mobile applications. These platforms will allow students to quickly and efficiently retrieve valuable information.

Lastly, there's a need to strengthen the cross-disciplinary integration of online educational resources. By fusing teaching and learning resources across different subjects and faculties, universities can broaden the scope and enhance the quality of internet-based education resources.

4.2.4 Multiple Stimuli to Mobilize Intra-Learning Drivers for Students

In the post-epidemic era, blended learning has become the norm. How to maintain college students' interest in learning is for teachers to exert their subjective initiative, make full use of diversified teaching methods and approaches, attract students to participate in online teaching, and at the same time, fully mobilize students' learning enthusiasm, change from “I want to learn” to “I want to learn”, and change the passive acceptance of learning into active learning.

We can use the currently popular Micro Teaching Assistant, Rain Classroom, Super Star and other learning software and learning platform to interact with students immediately to attract students. At the same time, we should fully do a good job of professional interpretation and introduction, improve the professional identity, and sense of belonging, and then transform it into the driving force of student's learning.

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