

# Study on the Influencing Factors of Xizang Engineering Students' Learning Adaptation under Ideological and Political Theories Teaching in All Cour

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## Abstract

Located in the snowy plateau, the engineering department of Xizang colleges and universities has special characteristics in terms of professional cultivation objectives and ideological and political construction, and there is insufficient research on the factors influencing the learning adaptability of Xizang engineering students under the teaching of Ideological and Political Theories teaching in All Cour. Based on this, this paper designs the measurement indexes of learning adaptability and influencing factors of students' learning under Civics and Politics teaching, and analyzes them qualitatively and quantitatively through field research and questionnaires, and the results show that the learning adaptability of engineering students in Xizang colleges and universities under the Ideological and Political Theories teaching in All Cour is at the medium level as a whole, and the scores from high to low are learning ability adaptability, learning behavior adaptability and learning attitude adaptability; the key factors affecting the learning adaptability of students teaching the curriculum include ethnicity and nationality. The key factors affecting the learning adaptability of students in the course of Civics teaching include ethnicity, political outlook, teachers' ability in Civics and Politics, the construction of practice bases, the integration of ethnic resources, teachers' and students' emotions, and the implementation of the teaching process. Based on the results of the study, countermeasures are proposed to maximize students' learning adaptability under the concept of Ideological and Political Theories teaching in All Cour.

## Keywords

Ideological and political theories teaching in all cour; Learning adaptability; Xizang universities; Engineering majors; Influencing factors.

## 1. Introduction

Ideological and Political Theories teaching in All Cour is an educational concept that integrates ideological and political elements into college and university professional courses, and achieves both explicit and implicit education. Strengthening the construction of Ideological and Political Theories teaching in All Cour plays a wide and far-reaching role in the process of cultivating high-quality applied engineering talents, and at the same time, it greatly promotes the construction of a new pattern of education and a strong educational country. With the continuous innovation of the elements of Ideological and Political Theories teaching in All Cour, students' learning adaptability under the teaching of Ideological and Political Theories teaching in All Cour has become a bottleneck restricting the development of the teaching concept of Ideological and Political Theories teaching in All Cour, so it is particularly important to explore

the factors influencing students' learning adaptability under Ideological and Political Theories teaching in All Cour.

Scholars on the analysis of influencing factors of learning adaptability have been studied from different dimensions. Based on the perspective of ecosystem theory, Ji Shangxin et al [1] analyzed the factors influencing college students' online learning adaptability from five aspects: learning ability, learning environment, learning attitude, teaching mode and learning motivation. Yu Haibo [2] found that students' learning attitudes and habits as well as teacher-student relationship and classroom environment are the most significant factors affecting higher vocational students' learning adaptability through investigation. Nan Xiaopeng et al [3] found that college students of the new college entrance examination source performed better in terms of overall learning adaptability, but had difficulties in adapting to the curriculum and teaching arrangements. Zhang Lingling [4] used qualitative and quantitative research to find that the overall learning adaptability of Xizang college students in Xizang colleges and universities was average and related to factors such as academic performance, professional interests, and future planning. Li Ya [5] combined social learning theory to determine that the factors affecting college students' English learning adaptability include motivation, intelligence, self-efficacy, teacher support and resource platform.

To summarize, scholars have conducted a lot of research on students' learning adaptability and applied the research results to specific teaching practice, which is effective in improving students' learning adaptability in different dimensions. The engineering departments of Xizang colleges and universities located in the snowy plateau have special characteristics in terms of professional cultivation objectives and ideological and political construction, and scholars' research on the factors influencing the learning adaptability of Xizang engineering students under the teaching of curriculum ideology and politics is insufficient. Based on this, this paper qualitatively and quantitatively analyzes the influencing factors of learning adaptability of Xizang engineering students under the teaching of curriculum ideology and politics by means of field research and questionnaire survey, with a view to maximizing students' learning adaptability under the concept of teaching of curriculum ideology and politics, and providing theoretical basis for the development of the frontier region and Xizang colleges and universities.

## **2. Research Program Design**

### **2.1. Research Methodology**

The object of the research is students enrolled in engineering majors in Xizang colleges and universities. The scope of the research covers engineering majors such as electrical engineering and automation, agricultural electrification, water conservancy and hydropower engineering, electric power system and automation, transportation, urban and rural planning, architecture, civil engineering, resource exploration engineering and other engineering majors. The research method adopted interview method and questionnaire survey method, with the questionnaire survey as the main one, covering students of different grades, different nationalities, different genders and different political profiles. The research was conducted in Xizang University and Xizang Agriculture and Animal Husbandry College, a total of 578 questionnaires were distributed, 535 questionnaires were recovered, with a recovery rate of 92.6%. After screening the questionnaires, 41 invalid questionnaires were excluded, and 494 questionnaires remained, with a validity rate of 92.3%.

### **2.2. Content of the Research**

On the basis of the existing literature on the construction of Ideological and Political Theories teaching in All Cour and learning adaptability, based on the views of scholars[6]-[7] on the teaching of Ideological and Political Theories teaching in All Cour and students' learning

adaptability, the questionnaire of influencing factors of learning adaptability of Xizang engineering students under the teaching of Ideological and Political Theories teaching in All Cour is formulated by taking into account of the regionality of Xizang universities and the practicability of engineering majors. In order to ensure the rationality and scientificity of the questionnaire, opinions and suggestions are sought from experts related to Civic Education in Xizang and teachers of engineering majors in colleges and universities through the pre-survey, and the relevant indexes of the questionnaire are finally determined. The questionnaire includes three dimensions: students' personal characteristics, learning adaptability of students teaching Ideological and Political Theories teaching in All Cour, and factors influencing learning adaptability. Students' personal characteristics include grade, ethnicity, gender, specialty, political outlook, position, etc.; the survey on learning adaptability of students teaching Civics and Politics includes three aspects of learning ability adaptation, learning attitude adaptation, and learning behavior adaptation; the influencing factors of learning adaptability are divided into six parts: teachers' Civics and Politics ability, construction of practice bases, integration of teaching resources, integration of nationalities' resources, teachers' and students' emotions, and implementation of the teaching process. Part. The measurement of the dimensions of students' learning adaptability and factors influencing learning adaptability in Civics and Politics teaching is expressed on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

### 3. Analysis of Research Results

#### 3.1. Reliability Test

In the study of factors influencing the learning adaptability of Xizang engineering students under the Ideological and Political Theories teaching in All Cour, the scale obtains data test is an important prerequisite to meet the subsequent analysis. In this study, the internal consistency of each dimension of the scale was analyzed by conducting a reliability test based on the coefficient of Cronbach  $\alpha$ . The coefficient of Cronbach  $\alpha$  of the scale as a whole is 0.961; the coefficients of Cronbach  $\alpha$  of the learning adaptability of the students of course civics teaching and the three dimensions are 0.906, 0.819, 0.841, 0.812; the coefficients of Cronbach  $\alpha$  of the influencing factors of the learning adaptability and the six parts are 0.920, 0.816, 0.736, 0.789, 0.747, 0.704, 0.732, respectively. their Cronbach  $\alpha$  coefficients are all greater than 0.700, indicating that each scale has good internal consistency, indicating that the results of the reliability test of the survey research scale meet the requirements.

#### 3.2. Validity Analysis

Validity analysis can measure the accuracy and reliability of the results measured by the Learning Adaptability Scale and the Learning Adaptability Influencing Factors Scale for Students Teaching Ideological and Political Theories teaching in All Cour [8]. In this study, the method of factor analysis was used to establish the validity analysis by KMO value and Bartlett's spherical test. The KMO values of learning adaptability and three aspects of students' learning adaptability in course civics teaching were 0.915, 0.816, 0.850, 0.788, respectively, and the significance probability of Bartlett's spherical test was  $P = 0.000 < 0.05$ , indicating that the structural validity of the scale of learning adaptability of students' learning adaptability in course civics teaching was good; the KMO values of the factors influencing learning adaptability and the six parts were 0.927, 0.666, 0.678, 0.693, 0.679, 0.669, 0.672, and the significance probability of Bartlett's spherical test is  $P = 0.000 < 0.05$ . Based on this, the KMO values of the questionnaire data are all greater than 0.600, which indicates that the structural validity of the scale of influencing factors of learning adaptability is good.

### 3.3. Survey Results

The overall score of engineering students' learning adaptability in Xizang colleges and universities under the teaching of Ideological and Political Theories teaching in All Cour is medium, with a mean value of 3.140, and the scores of learning ability adaptability, learning attitude adaptability and learning behavior adaptability are 3.334, 3.042 and 3.043 respectively. Learning ability adaptability refers to the students' ability to learn theoretical and practical knowledge, and students' good learning experience is made possible by the diversified teaching concepts of Ideological and Political Theories teaching in All Cour and the Civics atmosphere of the school. The diversified teaching concepts of the course Civics and the school's Civics and Politics atmosphere make students have a good learning experience, but some students reflect that the engineering courses have more theoretical and practical tasks and they feel overburdened, and the content of the engineering courses is more theoretical and logical, which leads to insufficient mastery of professional knowledge, resulting in a poor adaptability of the learning ability. Adaptation of learning attitude refers to the students' psychological identity and attempts to integrate the Civics teaching. The Civics teaching prompts students to establish a correct outlook on life and values, but some students think that the content of the Civics course has less relevance to their professional skills, which leads to boredom in the classroom, and at the same time, they think that there is no big difference between the Civics teaching and the traditional teaching mode, so the students' sense of identity towards the Civics teaching is low. Low. Adaptation of learning behavior refers to the fact that students need to complete specific links of participation activities according to the classroom objectives of the course Civics teaching, which is conducive to the enhancement of interaction with teachers and the growth of professional knowledge in the process of activity participation, but the research found that some of the students' participation in the process of the course Civics teaching takes up more of the students' summarization of the knowledge points in the classroom and accumulation, which is different from the traditional lecturing process and causes the students to be unsuitable for their learning behaviors. Adaptation.

## 4. Exploration of Factors Influencing Student Adjustment

Taking the learning adaptability of students teaching Ideological and Political Theories teaching in All Cour as the dependent variable, and demographic characteristics such as gender, major, grade, and teachers' Civics competence as the independent variables, multiple linear step-by-step regression analysis was used to explore the influencing factors of learning adaptability. Based on the Cook's distance in the residual statistics to determine whether there are strong influence points in the data, the Cook's distance in this study is less than 1, which meets the requirements of multiple stepwise regression analysis. When the significance of  $P < 0.05$  variables to meet the requirements of the model and then operate, when  $P < 0.05$  when the variables are removed from the model, to find the key factors affecting the learning adaptability of the course Civics teaching students. The regression results show that: teachers' ability in ideology and politics, the construction of practice base, the integration of ethnic resources, teachers' and students' emotions, the implementation of the teaching process, ethnicity, and political outlook are the key factors affecting the learning adaptability of the students in the course of teaching ideology and politics, and the results of the model analysis are shown in Table 1.

Teachers of professional courses need to adopt flexible and varied teaching methods to maximize the motivation of students to learn, on this basis, to clarify and optimize the integration of the elements of Civics and Politics in the teaching process of engineering professional courses. Teachers can combine national resources with practical courses to stimulate students' sense of immersion in the national context, and at the same time, society

and colleges and universities should strengthen the construction of practical teaching bases to meet the requirements of engineering students to strengthen their theoretical knowledge in practice. Communication and emotional care between teachers and students also play an important role in the growth and cultivation of students. Students of different nationalities should learn from each other's views and understanding of specialized knowledge under different cultures, and Communist Party members should play a pioneering role to help comrades around them to improve their own adaptability to teaching and expanding the position of teaching and learning of course ideology and politics.

**Table 1.** Multiple linear stepwise regression analysis

Model number	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard estimation error
1	0.855 <sup>a</sup>	0.731	0.730	0.260
2	0.945 <sup>b</sup>	0.892	0.892	0.164
3	0.972 <sup>c</sup>	0.944	0.943	0.119
4	0.992 <sup>d</sup>	0.985	0.985	0.062
5	0.995 <sup>e</sup>	0.989	0.989	0.052
6	0.995 <sup>f</sup>	0.991	0.991	0.048
7	0.995 <sup>g</sup>	0.991	0.991	0.048

## 5. Suggestions for Improving Countermeasures

### 5.1. Emphasize Top-level Design

To build a new teaching model in Xizang's colleges and universities, not only professional teachers or research groups need to explore the corresponding disciplines, but also school leaders need to set up special research groups to strengthen the corresponding training activities and improve the teaching ability of school teachers. Improve teaching implementation methods and management systems, stimulate teachers' initiative through school leadership inspections or irregular professional lectures, organize teaching competitions, and form a comprehensive system of teaching objectives, implementation, evaluation, rewards and punishments. At the same time, the practical teaching base is an important carrier for engineering students to carry out practical work. Xizang colleges and universities should use banners, electronic screens, bulletin boards, radio and other material carriers to expand students' integration of Ideological and Political Theories teaching in All Cour elements in the process of practical teaching through the corporate culture and spirit related to the practice teaching base. For example, students majoring in transportation can introduce the spirit of Qinghai Xizang railway and the spirit of two routes in practical teaching, so that students can improve their learning adaptability in practical teaching.

### 5.2. Optimize the Teaching Process

Engineering teachers need to clarify the objectives of course chapters and specific professional knowledge points, ensure that each course content is effectively integrated with the socialist ideology with Chinese characteristics, socialist core values, traditional Chinese and ethnic culture, etc., and promote students to fully understand professional knowledge; Students can also be guided to pay attention to social development and livelihood issues from the hot spots of current events. For example, through the environmental and regional particularities of cities on the Xizang Plateau, students can talk about the knowledge points of urban and rural planning courses, and explain the professional knowledge of water conservancy and hydropower projects according to the construction process of Datang Zhala Hydropower Station. In the teaching process, teachers should distinguish between traditional teaching methods, reduce students' previous preaching feelings during class, increase communication between students

and teachers in the classroom, and continuously pay attention to students' performance in the classroom. At the same time, appropriate methods such as situational simulation, case discussion, and blended online and offline teaching can be introduced to optimize the teaching implementation process and promote the improvement of student learning adaptability.

### 5.3. Stimulating Student Subjective Consciousness

Stimulating the self-awareness of students as the main body is of indispensable importance for learning adaptability. In daily life, we should take advantage of the situation to guide the formation and development of students' life values, give full play to students' dominant position, strengthen students' self-management ability and awareness of independent learning, and guide engineering students in Xizang universities to carry out knowledge contests and other activities to meet students' growth needs by giving play to the role of student associations, student union organizations and class activities; At the same time, promoting students from different ethnic groups to discuss the characteristics of their hometowns through grouping, promoting communication, interaction, and integration among students from different ethnic groups, enhancing a good campus learning atmosphere, and enhancing students' adaptability to the curriculum.

## 6. Conclusion

Ideological and Political Theories teaching in All Cour is of great significance for training Xizang engineering talents who strive to shoulder the important task of national rejuvenation and have professional skills and knowledge of modern engineering. On the basis of the questionnaire on learning adaptability of engineering students in Xizang, which is formulated according to the regional characteristics of Xizang's universities and the practicality of engineering majors, and combined with the survey results of engineering students in Xizang's universities, this study uses multiple linear stepwise regression analysis to find that teachers' Ideological and Political Theories teaching in All Cour abilities, practice base construction, ethnic resource integration, teachers' and students' emotions, teaching process implementation, ethnic groups Political outlook is a key factor affecting students' learning adaptability. Then it puts forward improvement countermeasures and suggestions from three aspects: attaching importance to top-level design, optimizing the teaching process, and stimulating students' subjective consciousness, in order to maximize the adaptability of Xizang engineering students.

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## References

- [1] Ikegami Xin,Kang Shihan,Zeng Wenxi et al. Research on the Adaptation of Online Learning and Its Influencing Factors of College Students in the Digital Era--Based on the Perspective of Ecosystem Theory[J]. China Youth Social Science,2023,42(06):73-87.
- [2] Yu Haibo. Analysis of Influencing Factors of Higher Vocational Students' Learning Adaptability and Improvement Strategies[J]. Education and Career,2023,(14):108-112.

- [3] NAN Xiaopeng,WANG Xinfeng. Study on Study Adaptation of College Students of New College Entrance Examination Source and Its Influencing Factors[J]. China Higher Education Research,2022, (02):21-28.
- [4] Zhang Lingling. Study on learning adaptability of Xizang college students in Xizang colleges and universities[D]. Xizang University,2022.
- [5] Li Ya. Research on the influencing factors of college students' English learning adaptability under the support of artificial intelligence[D]. Guizhou Normal University,2021.
- [6] ZHOU Limin,QI Zhanyong. Research on the Development of Evaluation Scale for Civic and Political Teaching in University Foreign Language Courses[J]. Foreign language community,2023,(03):71-77.
- [7] Wu Jiali. Research on the influencing factors of college students' learning adaptability under virtual experiment environment[D]. Nanjing University of Posts and Telecommunications, 2023.
- [8] Lin Zhenyan. Operation and application of multivariate analysis SPSS[M]. Peking University Press, 2007.