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Research on Multidimensional Interactive Teaching Mode of Ideological and Political Theory Course for Physical Education Majors in the University Based on Visual Communication Technology

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Abstract. In traditional teaching concepts, teachers are regarded as the owners, transmitters and authorities of knowledge. With the arrival of the information age, the channels for students of sports major to know more about information have increased, and the concept of equality based on people in modern education has opened up a new situation of equal dialogue and exchange. The biggest difference between multi-dimensional interactive teaching mode and traditional teaching mode lies in its emphasis on interactivity and participation. Through purposeful communication and benign interaction teaching methods, combined with the characteristics of sports majors. In the process of teaching ideological and political theory, the abstract and boring theoretical knowledge is combined with the limited social experience of students of sports major to give students of sports major a new feeling, new experience and new stimulation. This kind of interactive and cooperative teaching

activities has increased the appeal, persuasiveness and appeal of theoretical propaganda. Form an interactive space for multi-directional communication of teaching information, so that knowledge learning and ability development are unified. The use of visual communication technology in multi-dimensional interactive teaching fully mobilizes students of sports major' enthusiasm, fun, intuitiveness and thinking, creating a passionate classroom teaching atmosphere.

Keywords: Visual communication technology; sports major; ideological and political theory course; multi-dimensional interaction

1. Introduction

Contemporary college students of sports major' ideological concepts, ways of thinking, and life concepts have changed a lot from the past. This objectively requires that political theory courses in colleges must be reformed in terms of teaching concepts, teaching content, and teaching methods ^[1]. Due to the limitations of objective conditions, the ideological and political courses in colleges and universities generally adopt large-scale teaching, which is detrimental to the in-depth interaction, communication and communication between teachers and students of sports major ^[2]. In the large class teaching environment, the ideological and political theory course adopts a multi-dimensional interactive teaching mode, which can effectively resolve its drawbacks ^[3]. It is an interactive teaching mode with teachers as the leading, students of sports major as the main body, and classroom and extracurricular extension as the platform. The multi-dimensional interactive teaching method is characterized

by starting with activities, highlighting students of sports major' dominant position, harmonious interpersonal relationship between teachers and students of sports major, strengthening students of sports major' participation in activities, enabling students of sports major to learn in activities and develop in activities [4].

College sports majors are an important force in the development of national sports. In the process of talent cultivation, ideological and political theory courses as a public compulsory course for students of sports major is of great significance to the formation of students of sports major' correct world outlook, outlook on life and values [5]. Constructing a multi-dimensional interactive teaching mode in the ideological and political theory course of college students of sports major majoring in physical education helps to form a harmonious relationship between teachers and students of sports major. It is conducive to stimulating the enthusiasm and initiative of the students of sports major majoring in physical education, thus greatly improving the effectiveness of the teaching of ideological and political theory courses [6]. With the rapid development of technical media, visual information is everywhere in online public classes, online videos of micro-courses and various social networking sites and tools [7]. The rapid development of various visual information carriers has changed the way of obtaining information and the cognitive mechanism of understanding and processing information. The combination of these new media with traditional ideological and political theory teaching provides a good platform for teaching, making the teaching content more intuitive and understandable, and the teaching effect has a significant effect [8].

2. Theoretical Characteristics of Multidimensional Interactive Teaching Mode

2.1. Emphasis on communication and cooperation

The so-called multi-dimensional interactive teaching mode regards educational activities as a kind of life-to-life interaction and communication between teachers and students of sports major, and the teaching process as a dynamically developing interactive influence and activity process integrating teaching and learning. In this process, harmonious teaching interaction is formed by adjusting the relationship and interaction between teachers and students of sports major. In order to overcome the disadvantages of spoon-feeding teaching and achieve the purpose of improving the teaching effect. Teachers of ideological and political courses must combine abstract and boring theoretical knowledge with students of sports major' limited social experience in the teaching process. Through a purposeful communication and benign interactive teaching methods, students of sports major will be given new feelings, new experiences and new stimuli. This kind of interactive and cooperative teaching activities has

increased the appeal, persuasiveness and appeal of theoretical propaganda. It further enhances the two-way interaction between teachers and students of sports major and stimulates the enthusiasm of students of sports major to participate actively. Enable them to gain a dual sense of experience and understanding through self-inquiring learning.

2.2. Emphasize democracy and equality

In the traditional teaching concept, the teacher is regarded as the owner, the impartor and the authority of knowledge. With the advent of the information age, students of sports major have more channels to understand information, and teachers no longer have the advantage of monopolizing information channels. The concept of equality based on people in modern education has opened up a new situation of equal dialogue and communication. The interactive teaching between teachers and students of sports major emphasizes equality and independence between teachers and students of sports major. Teachers should fully understand and respect students of sports major' right to knowledge and perception, so that they can have a sense of satisfaction and happiness while gaining knowledge. So as to realize real, benign and thorough equal interaction between teachers and students of sports major. Therefore, interactive teaching is a multi-dimensional interaction based on democracy and equality. The biggest difference between multi-dimensional interactive teaching mode and traditional teaching mode lies in its emphasis on interactivity and participation. For this reason, teachers of ideological and political courses should act as guides and strive to coordinate teachers, students of sports major, society and other factors so as to create an interactive space for multi-dimensional exchange of teaching information and unify knowledge learning and ability training.

3. Teaching Strategies of Multidimensional Interactive Teaching Mode

3.1. Mining Interactive Theme Based on students of sports major' Characteristics

Before the implementation of multi-dimensional interactive teaching, teachers must combine the characteristics of the course and the characteristics of students of sports major to carry out teaching design. First of all, teachers should be familiar with the teaching materials of ideological and political theory courses and find out the theme of interactive teaching on the basis of grasping the key, difficult and hot issues of the courses. Secondly, students of sports major' ideological status and cognitive level should be understood through communication with students of sports major and questionnaire investigation, so as to truly understand students of sports major' expectations for the teaching of this course and the topics that students of sports major are concerned about. Thirdly, it is necessary to design interactive

teaching links according to the characteristics of students of sports major, which will arouse students of sports major' resonance and stimulate students of sports major' enthusiasm for participating in the teaching of ideological and political theory courses. In different knowledge modules, the research team designs different interactive themes according to the students of sports major' cognitive level and professional characteristics. At the same time, through the effective integration of the contents of each module, the educational goals of each module are realized, so that the course content is formed. The order is organically linked as a whole.

3.2. Implement interactive teaching for collaborative exploration

After the teacher's preparation and start-up, the teacher has made a reasonable interactive teaching design. In this session, teachers need to flexibly adopt interactive modes such as situational experience interaction, role-playing interaction, case discussion interaction, problem inquiry interaction, and debate and debate interaction, and cultivate students of sports major' ability to analyze and solve problems through different interaction methods. students of sports major' teamwork ability, communication skills, and ability to express speculation. In this session, teachers should play their own characteristics of class and class, and create a good interactive atmosphere in the class. The forms of interaction can be divided into many types, including the interaction between teachers and students of sports major, the interaction between students of sports major and students of sports major, and the interaction between students of sports major and multimedia devices. Mutual comment is an important stage of teaching feedback, and the emphasis and difficulty of the course should be summarized through comment. Inspire and guide students of sports major' doubts and controversial issues, strengthen students of sports major' knowledge and understanding of the course content, and cultivate students of sports major' innovative spirit and scientific thinking mode.

4. The Teaching Interaction Mode and Characteristics of Multidimensional Interactive Teaching Mode

4.1. The core of problem-based interactive teaching is to inspire students of sports major to think

Teachers should be good at raising carefully designed questions from the teaching objectives and encourage students of sports major to study by themselves. I think about the problems in the book independently, and then freely raise hot issues of interest. Finally, the teachers sort out these problems and give targeted teaching solutions in future classroom teaching. Since these problems are what students of sports major are eager to know, the

internal drive of active learning is often very high, and interactive teaching is easy to achieve success. For example, in the course "Introduction", the road of "the countryside surrounding the city and seizing power by armed force" will guide students of sports major' thinking into the historical situation of China's revolutionary struggle. The facts and analysis show that the choice of this revolutionary road is in line with the law of development and is the result of summing up the experience of the Chinese revolutionary struggle. students of sports major ask interactive questions about the content of the teaching or a specific hot topic. Let students of sports major develop equal and positive interactions and dialogues on the basis of extensive speculation and discussion, and realize the feelings and experiences of communication between teachers and students of sports major or students of sports major.

4.2. Practical interactive teaching allows students of sports major to both brain and hands

The well-known educator Mr. Tao Xingzhi once pointed out in the article "Life is Education": "The education without life center is death education. The school without life center is a dead school. The book without life center is a dead book." The ideological and political course is a discipline that combines science, practice and practicality. Daily teaching should go out of the classroom and combine living campus practice, social practice with abstract theoretical knowledge in books. Whether it is to organize colorful speech competitions, football matches, campus red songs, entrepreneurship design and other campus practical activities, or to organize students of sports major to visit patriotism education practice bases, participate in voluntary services, conduct social surveys and other social practical activities, teachers should scientifically design practical links according to the content and characteristics of the curriculum, and skillfully link the theme of practical activities with one or more important theories in the curriculum. In the sharing part, students of sports major can share their insights and gains from the practice process in the form of scene reappearance, micro-movies, crosstalk sketches, etc.

4.3. Network interaction provides a new platform for communication between teachers, students of sports major and students of sports major.

In addition to classroom teaching, university public teachers usually lack opportunities to communicate with students of sports major. The emergence of network interaction, such as QQ group, posts, forums, microblogs, WeChat, Internet phones, SMS, campus BBS, teaching websites and other platforms and means, has expanded the channels and space of ideological and political education, and has become an important way for teachers and students of sports major, students of sports major and students of sports major to obtain knowledge and various information in the interaction. From the practical effect, this new education platform

constructed by applying network technology has played and strengthened the interactive function of modern education technology. It extends and supplements the classroom teaching, and can track and grasp the students of sports major' ideological situation in time and educate and guide them in time. In the network interaction, students of sports major often use anonymous methods to ask embarrassed or dared questions in classroom teaching, and can make multi-dimensional, immediate, extensive and bold criticism and suggestions on teachers' teaching contents and methods, thus helping to improve the actual teaching effect and the interest, authenticity and effectiveness of teaching.

5. Implementation Effect of Multidimensional Interactive Teaching Mode of Ideological and Political Theory Course for Physical Education Major in Colleges and Universities

5.1. students of sports major' Sense of Identity to Ideological and Political Theory Course Enhances

Before the implementation of the teaching reform, the members of the research group investigated the attitude of the students of sports major majoring in physical education in Zhejiang Physical Education College towards offering ideological and political theory courses and their love for ideological and political theory courses. The survey results show that 41.5% of the students of sports major think it is very necessary or a little necessary to offer ideological and political theory courses in physical education, while 58.5% think it is completely unnecessary to offer ideological and political theory courses in physical education (see table 1). It can be seen from this that more than half of the students of sports major majoring in physical education think that the ideological and political theory course is an optional course, and many students of sports major take the ideological and political theory course only for the purpose of getting credit for the examination. After the implementation of the teaching reform, the teacher has adopted a new multimedia teaching method such as micro-curriculum and MOOC, which is close to the actual teaching design of the physical education profession. The students of sports major have made a new change in their understanding of the ideological and political theory course. As shown in Table 2, students of sports major' interest in ideological and political theory courses has been greatly improved. It can be seen that the implementation of the teaching reform has achieved certain results.

Table 1 Statistics of students of sports major' attitudes towards the course of ideological and political theory

Do you think it is necessary to open an ideological and political theory class among college students of sports major majoring in physical education?	Very necessary	A little necessary	Not necessary at all
Before the reform	8.9%	32.6%	58.5%
After the reform	41.2%	39.3%	19.5%

Table 2 Statistics of students of sports major' preference for ideological and political theory courses

How much do you like the ideological and political theory class?	Very interested	Generally interested	Dislike
Before the reform	8.5%	38.3%	53.2%
After the reform	33.6%	58.3%	8.1%

5.2. students of sports major' enthusiasm for participating in ideological and political theory courses

Before the implementation of the teaching reform, the participation of physical education students of sports major in the ideological and political theory class has been very low. The phenomenon that students of sports major are late, absent from class, and early leave is more common. students of sports major who chat, sleep, or play mobile phones during class also have a large area. The students of sports major are not concerned about the teacher's lectures, and they are not concerned with the questions or assignments in the teacher's class. Based on the investigation of the statements made by the students of sports major majoring in physical education in the ideological and political theory class and the communication with the teachers after class, the research group found that up to 87.5% of the students of sports major did not answer questions or make statements in the ideological and political theory class. Up to 91.2% of the students of sports major did not communicate with the teachers after class. After the implementation of the teaching reform, the students of sports major' enthusiasm to answer questions or speak in the ideological and political theory class has been greatly

improved by adopting various teaching methods such as thematic discussion teaching, debate teaching and situational simulation teaching. Specific data are shown in Tables 3 and 4.

Table 3 Statistics of students of sports major' Statements in Ideological and Political Theory Class

How many times do you answer questions or speak in the ideological and political theory class?	No	1-2 times	3-4 times	More than 5 times
Before the reform	87.5%	7.6%	2.5%	2.4%
After the reform	40.5%	42.8%	6.2%	10.5%

Table 4 Statistics of students of sports major' Communication with Teachers after Ideological and Political Theory Class

How many times do you communicate with teachers of ideological and political theory after class?	No	1-2 times	3-4 times	More than 5 times
Before the reform	91.2%	6.9%	1.3%	0.6%
After the reform	65%	22.8%	8.7%	3.5%

In order to improve the teaching quality of ideological and political theory courses, the teaching methods should be scientific and diversified. The application of visual communication technology in teaching has fully mobilized students of sports major' enthusiasm, interest, intuition and thinking. To improve students of sports major' cooperation and communication ability and create a passionate classroom teaching atmosphere. Teachers can broadcast relevant political and historical documentaries, news, social hot spots, etc. through multimedia, and can also search some static or dynamic pictures related to teaching through the network. Static pictures can be made into posters, and dynamic pictures can be placed in notebook computers, which is convenient to operate. Students of sports major can use their eyes to observe the process of establishing various political ideologies to mobilize students of sports major' observational ability. Teachers can also expand some relevant historical cultures, not only to improve students of sports major' historical knowledge, but also to encourage students of sports major to partici

pate actively, and students of sports major are willing to ponder and learn. The ultimate realization makes students of sports major change from passive to active in teaching, from uninteresting to interest, from negative to positive.

6. Conclusion

The multi-dimensional interactive teaching mode breaks the traditional model of teachers and students of sports major in practice and space. Student-centered, through the organization, guidance, help and promotion of teachers in the “Recent Development Zone”, using environmental elements such as situation, collaboration, and conversation to enable students of sports major to acquire knowledge in “interaction”. In addition, the rapid development of Internet technology has broadened the space and channels of ideological and political education, creating a new interactive communication mechanism between teachers and students of sports major. Teachers of ideological and political theory courses for college students of sports major in physical education should keep up with the pace of the times and make full use of Internet functions. Through visual communication technology, optimize and integrate the existing ideological and political education resources to achieve a lasting, benign and orderly interaction between teachers and students of sports major. In the "interaction" to stimulate the desire for knowledge, and ultimately achieve the ideological and political theory course system construction. The multi-dimensional interactive teaching mode is conducive to the establishment of a harmonious learning atmosphere, the formation of mutual understanding of ideological resonance, and the realization of the teaching expectation of sharing knowledge through the communication between teachers, students of sports major and the environment.

Competing Contributions

P.S. and B.J. led the study. All authors conceived and designed the study. P.S. acquired the data. P.S. conducted the statistical analysis. P.S. and B.J. drafted the article. All authors made critical revisions to the manuscript for important intellectual content and gave final approval of the manuscript.

Competing interests

The authors declare no competing interests.

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