The Construction of Experiential Technology Courses in Colleges and Universities

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Abstract: Experiential technology is a discipline construction based on psychology and physical education to form an experiential learning circle. This is the main way of psychological counseling and communication in school education, which has a high spiritual value and sports connotation. It is necessary to locate the goal of curriculum construction according to the regional development, learn from the successful cases of colleges and universities, and base on the synchronous and coordinated development of disciplines and markets. This can accelerate the introduction and reserve of talents and speed up the systematic development of the construction of experiential technology courses in colleges and universities.

1. Introduction

School physical education insists on the spirit of the "Guideline for the Teaching of Physical Education and Health Courses in National Colleges and Universities" (hereinafter referred to as the "Outline") issued by the Ministry of Education in 2002. It insists on the teaching concept of "people-oriented" and the guiding ideology of "health first", inculcates the development concept of combining moral, intellectual, physical, aesthetics and labour education, advocates the goal of quality education and trains comprehensive talents with all-round development[1]. With the comprehensive advocacy and vigorous promotion of quality education, colleges and universities have proposed newer development concepts and reform measures for the construction of physical education courses. Since entering colleges and universities, experiential outward bound has been effectively improved in five dimensions of sports participation, physical and mental health, social adaptation, sports technology and physical exercise. However, the development period of experiential outward bound is short, and the curriculum development and design are lack of systematic research. As a result, most of the experts and scholars mainly stay at the relevant research level of university development, and less at the research level of curriculum development and design[2]. Thus, it is very necessary to integrate the experiential outward bound into the school curriculum, and make systematic, scientific and rational design. We should work out the development model and overall framework of the extension project suitable for the school's cultural context, and design the syllabus with practical significance. This is conducive to the formulation of teaching plans and teaching materials for experiential extension courses in colleges and universities, and it is very important to control and discuss the curriculum construction framework.

2. Interpretation of the Construction of Experiential Courses in Colleges and Universities

2.1 Psychological Counseling: Constructing an Experiential Course Learning Circle. Psychologists have investigated the time and intensity of human memory of external knowledge. It is concluded that 10% of our external information is stored in memory, 20% is obtained from audio-visual organs, and 80% is from our own experience[3]. After screening, at present we commonly use two kinds of educational concepts. The first is to enhance the memory actions with the idea of repetitive education and training, so that the actions and memory fragments can form in the mind. The second is to gain experience based on experience, and gradually form actions to guide the active generation of memory fragments in the mind. At present, the latter is mainly used...
as the basis of curriculum construction in the training activities of experiential technology extension.

The experiential extension training courses in colleges and universities are also based on the KOLB four-stage experiential learning circle. It effectively combines the thinking learning of "listening, seeing and doing" with action, and in this process changes and improves the role of students so as to become the active learners and participants. Besides, in the process, students get the value and opportunity of experience, and meanwhile it is a great pleasure.

2.2 Physical Reserve: Constructing the Basic Physical Fitness Activity. The construction of physical education curriculum is implemented according to the macroscopic document requirements of national government departments on students' physique. The development should be based on the characteristics of the subject itself, and the corresponding teaching tasks, objectives, organizational forms and implementation plans should be implemented according to the existing teaching conditions and teaching implementation.

The introduction of experiential extension courses in college physical education is mainly based on the characteristics and rules of the two. Relying on the unique characteristics of experiential outward bound, it integrates and intersects with many aspects such as teaching objectives, teaching principles, teaching methods, and teaching methods to achieve the smooth integration of experiential extension and physical education[4].

From the perspective of the overall development of physical education, the intensity, time, frequency and volume of physical exercise are also the important basis for the construction of the new experiential outward bound courses. Meanwhile, physical reserve is not only the capital of physical output and consumption, but also the premise and guarantee for physical exercise and outward bound training, which supports each other.

2.3 Pedagogy Accumulation: Constructing the Basic Law of Curriculum Development. In recent years, in the process of physical education, the concept of experiential teaching has been gradually introduced, and the construction of experiential disciplines has been established[5]. The content construction and goal setting of physical education curriculum in colleges and universities are the prerequisites and guarantees for the realization of teaching goals. In terms of the development law of pedagogy, the goals of the two are generally the same. In the development of the times, new sports development goals have put forward higher requirements. It proposes the education idea of "health first" as the guiding ideology, advocating the three-dimensional integration of psychology, physiology and social adaptation, and the simultaneous development of quality education, practical ability and innovative spirit.

Nowadays, in the construction of experiential outward bound training courses, based on the development concept and law of pedagogy and combined with their own professional characteristics, domestic colleges and universities actively construct the subject content that is suitable for the demands of this kind of training courses. The courses of experiential outward bound training is no longer based on the previous "goal-achievement-evaluation" model, but more inclined to the new model of "activity-experience-performance"[6]. During curriculum construction, more attention is paid to students' independent learning, exploration, and design, mainly to participate in the physical and mental challenge activity scenes, and focus on students' independent participation. In the teaching process, with the experience of teaching situation as the core, teachers and students interact with each other, and emphasize students' exploration ability and the cultivation of their independent innovative ability. As a result, it can enhance students' social cognitive ability, social ability and pressure resistance ability, so as to optimize curriculum content and construction.

3. The Overall Development Framework of Experiential Curriculum Construction in Colleges and Universities

3.1 Current Situation of Curriculum Goal Construction. Based on the interview records of experiential technical experts from universities in different regions, the following situations are described in detail. It combines the great expenditure and concern of the Party and the state on
school physical education, insists on the guiding ideology and teaching concepts of "health first". Besides, it aims at the development of the times and the needs of students' physical and mental development, combined with the affiliated resources and cooperative resources around colleges and universities. Finally, according to the overall planning idea of curriculum construction stipulated by the Ministry of Education, it summarizes the goals of experiential technology courses in colleges and universities, as shown below.

**Table 1. Goals of Experiential Technology Courses in Colleges and Universities**

<table>
<thead>
<tr>
<th>Category</th>
<th>Training Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team extension</td>
<td>Cultivate the team spirit, collective cohesion, and enhance the communication and coordination ability between people</td>
</tr>
<tr>
<td>Potential extension course</td>
<td>Overcome psychological barriers and clear psychological barriers</td>
</tr>
<tr>
<td>Psychological extension course</td>
<td>Strengthen communication and coordination, improve the ability to resist pressure and deal with complex things</td>
</tr>
<tr>
<td>Crisis extension course</td>
<td>Improve and enhance students' crisis awareness and crisis dealing ability</td>
</tr>
<tr>
<td>Physical extension course</td>
<td>Enhance students' physical fitness reserve</td>
</tr>
<tr>
<td>Leisure sports course</td>
<td>Cultivate body and mind, reserve basic skills of leisure sports</td>
</tr>
</tbody>
</table>

From Table 1, we can generally see the overall orientation and output of goals of experiential extension courses in colleges and universities. It is mainly based on physical fitness reserves, and takes the coordination and communication of the team as well as the accumulation of team awareness culture and quality as the basic points. Moreover, it also takes the exploration of students' psychological barriers and crisis resistance ability as a breakthrough, it is an integrated curriculum guidance assisted by the basic skills of leisure sports.

**3.2 Current Situation of Curriculum Project Construction.** Since the experiential extension project has entered the physical education construction of colleges and universities, an integrated system has been formed from the curriculum project and construction. With the help of the platform provided by the school physical education and based on its own characteristics, in recent years, experiential type has formed a relatively systematic curriculum project setting. Experiential extension is mainly constructed by the projects in three fields of space: sea, land and air, and mainly learns from the training concepts and forms commonly used in the world. It constructs the system according to its content, and arranges the existing curriculum resources according to project setting principle. At present, the setting of experiential extension courses in domestic colleges and universities is shown as follows.
### Table 2 Experiential Technology Courses in Colleges and Universities (Practice Link)

<table>
<thead>
<tr>
<th>Category</th>
<th>Content</th>
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<tbody>
<tr>
<td>Land project</td>
<td>Leisure travel, orientation, field survival experience, rock climbing, mountaineering, cycling, high altitude and other conventional projects</td>
</tr>
<tr>
<td>Water area project</td>
<td>Swimming, diving, rafting, surfing, dragon boat racing, canoeing, sailing</td>
</tr>
<tr>
<td>Snow project</td>
<td>Skiing and ice climbing</td>
</tr>
<tr>
<td>Indoor project</td>
<td>Trust back fall, herringbone bridge, escape wall, power grid, blind square array, air broken bridge, air grab bar, etc</td>
</tr>
</tbody>
</table>

From Table 2 above, we can see that, at present, the content of curriculum project setting for the practice part of experiential technology courses in China mainly relies on the trinity construction system of sea, land and air. According to the three-dimensional resource conditions of space, the project is set up. In terms of the curriculum project setting, its construction is conducted with the law of education to form the curriculum project setting that adapts to the development of the discipline concept in colleges and universities. At the level of theoretical construction, the opinions of experiential experts in different regions are summarized. It is concluded that it is mainly based on the concept of pedagogy to introduce the general theory of extension training and the general knowledge of experiential extension activities. Based on the safety of sports activities, we should improve the teaching development concepts of basic teaching skills and construct a more systematic theory.

#### 3.3 Current Situation of Site Construction

Nowadays, the implementation of experiential outward bound in colleges and universities in China is mainly to complete the task of psychological guidance of students in public physical education and the construction of professional courses in physical education departments. The site construction mainly relies on the independent construction of training institutions or schools. There are two main forms of site construction. One is the basic task and teaching quality assessment of schools to independently construct the daily psychological counseling and physical fitness reserve for students; The other is to build a cooperative relationship based on enterprises and clubs around schools to meet the normal teaching and training for students. Nowadays, the training system of the latter is mainly based on enterprises or clubs. In the operation, there will be a series of problems, such as traffic safety, interest relationship, equipment safety, etc., which involves many problems in the development. Most of the domestic colleges and universities are gradually transferring from the school-enterprise cooperation to the situation of building their own sites. The experts of experiential extension in domestic schools have put forward the suggestion of building scientific research center and site facilities independently, and advocated that these organizations should set up specialized management centers and R&D institutions. This can lay the foundation for the smooth development of the experiential extension projects, so as to ensure the orderly development and expansion of the experiential outward bound.

#### 3.4 Current Situation of Faculty Construction

Nowadays, most of the teachers of experiential outward bound in China are mainly transformed into experiential teaching through short-term training. Their professional levels are relatively weak and training skills are relatively poor. As a result, there is a blind area in the teaching work, which leads to various disadvantages in the teaching process. Through sorting out the opinions of domestic experts on the construction of faculty for experiential outward bound in colleges and universities, it can be seen that the Pearl River Delta of Guangdong has put forward a multi-dimensional cooperative relationship. This relationship is based on the market and taught by external experiential training teachers. It actively
promotes the development of these training courses in schools, with external recruitment as the starting point, and actively promote the strategic measures of the transformation and development of teachers, so as to accelerate the improvement of faculty levels in schools.

4. Measures and Suggestions for Curriculum Construction

4.1 Positioning Curriculum Construction Goal Based on Regional Development. The experiential technology outward bound course is a new course, and its construction is in the initial stage. The traditional way of “preaching” cannot keep pace with the development of the times. The positioning of the new discipline should be based on its development characteristics, built with the help of the environment of the subordinate discipline system, and constructed with the unique resources of surrounding regions. Regional development has the limitation of the development of the times, so the development goals of the discipline positioning should keep close to the theme of the times and its own positioning. Based on satisfying the development of its own discipline, experiential outward bound courses should build experiential extension courses in the big environment with the help of other external platforms. We should take regional positioning as the basic point, regional education, economy, and other social value benefits as the starting point, and actively construct an experiential outward bound system in the regional ecological environment.

4.2 Learning from the Experience of Domestic Colleges and Universities and Constructing Curriculum Projects Based on Schools’ Development. We should learn from domestic colleges and universities and social system associations, such as Peking University, Zhejiang University, Hong Kong Outreach Association, etc. We should actively absorb the construction content of curriculum projects in the following dimensions: discipline development law, discipline positioning goal, certain measurement body fitness reserve basis, and relatively strong psychological training. It is necessary to enrich its contents in combination with the actual situation of the affiliated schools and the characteristics of students' physical and mental development.

4.3 Developing Synchronously with the Market Based on the Discipline Positioning. The construction of experiential outward bound courses gradually enter the college league committee system with the method of psychological counseling room. The development of the discipline itself should be based on the daily teaching of its own department and the psychological guidance function of the public physical education. On this basis, according to the market development, the relevant platforms are built, and the site construction and related equipment purchase are actively conducted, so as to promote the simultaneous progress of the supporting facilities and hardware facilities of the discipline system.

4.4 Accelerate the Talents Introduction and Making a Good Talents Reserve. Based on the discipline development of physical education and psychology, experiential outward bound in colleges and universities determines the systematization of discipline development and makes faculty occupy an important core position. In the development of experiential disciplines in colleges and universities, we should actively send teachers to study outside, select and introduce teachers of related disciplines like psychology and management for assistance, strengthen the integration and penetration of multiple disciplines, and enhance the professionalism and authority of professional development.

5. Conclusion

Concerning the views of domestic scholars and experts on the construction of experiential technology courses in colleges and universities, this paper mainly illustrates on the construction principle of experiential disciplines and explores the characteristics, foundation and concept of these disciplines. Through the analysis of the development of experiential outward bound since its introduction into colleges and universities, it concludes the information of the trend of curriculum construction goals, project modules, site construction direction, faculty system, etc. To promote the construction of experiential technology courses in domestic colleges and universities more
systematically and comprehensively, we should also base on the regional development positioning, learn from the successful cases of domestic schools, base on its own development, and accelerate talents introduction. Only in this way can we rapidly promote the construction of experiential technology courses and pave the way for the realization of the social, educational and economic values of experiential technology training courses.

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**References**


