

Research Curriculum Design of Hainan Tropical Rainforest National Park from the Perspective of Interdisciplinary Integration

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Abstract: Hainan Tropical Rainforest National Park is an important nature reserve in China, which is rich in natural resources and provides an ideal place for scientific research and ecological education. With the increasing awareness of ecological protection, more and more people pay attention to the protection and sustainable development of natural environment and ecosystem. Therefore, the research curriculum design of Hainan Rainforest National Park has gradually attracted people's attention and attention. However, there are still some problems in the research curriculum design of Hainan Tropical Rainforest National Park, such as the lack of deep integration between disciplines, the disconnection between curriculum content and actual needs, and the lack of experiential learning. These problems limit the all-round development of students and affect the realization of the design objectives of research courses. This article analyzes the current situation of research curriculum design in Hainan Tropical Rainforest National Park, and reveals the existing problems and challenges. On this basis, the corresponding improvement strategies are put forward in order to provide reference methods and ideas for future research curriculum design.

1. Introduction

With the continuous development and progress of education, research curriculum design has become an important part of modern education. The purpose of research curriculum design is to improve students' comprehensive quality and ability and promote their all-round development through research and practice [1]. Hainan Tropical Rainforest National Park is rich in unique natural resources, which provides an ideal place for scientific research and ecological education. It is of great significance to design research courses in Hainan Rainforest National Park. First of all, Hainan Tropical Rainforest National Park has rich and unique natural resources, which provides an ideal place for scientific research and ecological education [2]. The design of research courses here can help students better understand the operation of natural environment and ecosystem, and improve their scientific literacy and environmental awareness [3]. Secondly, the research curriculum design of Hainan Rainforest National Park is practical, which can help students combine theoretical knowledge with practice and deepen their understanding and mastery of knowledge [4]. In addition, through the perspective of interdisciplinary integration, students' comprehensive quality and ability can be cultivated and their innovative thinking and practical ability can be improved. This is of great significance to the future development of students.

However, there are still some problems in the research curriculum design of Hainan Tropical Rainforest National Park. First of all, the lack of deep integration between disciplines makes it difficult for students to form a comprehensive knowledge system [5]. At present, the research curriculum design of Hainan Tropical Rainforest National Park mainly focuses on single subject areas such as natural science and ecological protection, and lacks the cross-integration of multiple disciplines [6]. This makes it difficult for students to form a comprehensive knowledge structure in the learning process, and their understanding of the natural environment and ecosystem is not deep enough. Secondly, the course content is not closely connected with practice, which makes it difficult for students to understand the practical application value of knowledge. At present, the

research curriculum design of Hainan Tropical Rainforest National Park focuses on the teaching of theoretical knowledge, lacking the connection with reality and case analysis [7]. This makes it difficult for students to understand the practical application value of what they have learned, and they lack the necessary preparation for future work in related fields. Finally, the lack of experiential learning, students can not deepen their understanding and mastery of knowledge in practice [8]. Although Hainan Tropical Rainforest National Park is rich in natural resources, students lack practical opportunities and experiential learning in the learning process, and they cannot deepen their understanding and mastery of knowledge through practical activities [9]. This makes it difficult for students to combine theoretical knowledge with practice, which limits the cultivation of students' comprehensive quality and ability. This article aims to explore the methods and key points of research curriculum design in Hainan Tropical Rainforest National Park from the perspective of interdisciplinary integration, so as to provide reference for future research curriculum design.

2. The present situation and challenge of curriculum design in Hainan Tropical Rainforest National Park

2.1. The present situation of research curriculum design

Hainan Tropical Rainforest National Park is an important nature reserve in China, which is rich in natural resources and provides an ideal place for scientific research and ecological education. At present, the research curriculum design of Hainan Tropical Rainforest National Park has made some achievements, but there are still some problems.

First of all, the research curriculum design of Hainan Tropical Rainforest National Park covers a narrow range, mainly focusing on natural science, ecological protection and other disciplines, lacking the cross-integration of multiple disciplines. This makes it difficult for students to form a comprehensive knowledge structure in the learning process, and their understanding of the natural environment and ecosystem is not deep enough.

Secondly, the main content of the research curriculum design of Hainan Tropical Rainforest National Park focuses on the teaching of theoretical knowledge, lacking the connection with reality and case analysis. This makes it difficult for students to understand the practical application value of what they have learned, and they lack the necessary preparation for future work in related fields.

Finally, there is a lack of experiential learning in the research curriculum design of Hainan Tropical Rainforest National Park, so students can't deepen their understanding and mastery of knowledge through practical activities. This has certain restrictions on cultivating students' practical ability and comprehensive quality.

2.2. The challenge of research curriculum design

The research curriculum design of Hainan Tropical Rainforest National Park is facing a series of challenges. First of all, how to strengthen interdisciplinary integration is an important issue. This requires breaking the original discipline barriers, promoting exchanges and cooperation between different disciplines, and thus guiding students to form a comprehensive knowledge system. Secondly, how to strengthen the connection between course content and practice is a key issue. This requires the introduction of practical cases and activities to help students understand the practical application value of knowledge and improve their comprehensive quality. Finally, how to add experiential learning is an urgent problem. This requires organizing field visits, experimental analysis and other activities to help students combine theoretical knowledge with practice and improve their practical ability and comprehensive quality.

3. The problem analysis of curriculum design

(1) Lack of deep integration between disciplines

In the current research curriculum design of Hainan Tropical Rainforest National Park, there are still some shortcomings in the integration of disciplines:

Disciplinary barriers are serious. At present, the research courses in Hainan Tropical Rainforest

National Park are mainly concentrated in single subject areas such as natural science and ecological protection, and lack of interdisciplinary integration. Although these subject areas are an important part of ecological education in national parks, relying too much on a single subject will limit students' vision and thinking and hinder interdisciplinary innovation.

Lack of interdisciplinary teaching resources. Due to the interdisciplinary nature of research curriculum design in Hainan Tropical Rainforest National Park, it is needed to integrate teaching resources in different disciplines. However, at present, the teaching resources between disciplines have not been effectively utilized and shared, which makes interdisciplinary teaching difficult to implement.

(2) The course content is out of touch with the actual demand.

There is a certain disconnect between the course content and the actual demand of the research course design in Hainan Tropical Rainforest National Park;

The content of the textbook is single. At present, the teaching materials of research courses in Hainan Tropical Rainforest National Park mainly focus on nature protection, ecological restoration and other aspects, but involve less problems in practical application, which can not meet the actual needs of students. In addition, the lack of examples and cases in the teaching materials makes it difficult for students to understand the practical application value of knowledge.

Lack of actual case analysis. In the teaching process, the lack of practical case analysis makes it difficult for students to understand the practical application value of knowledge. This makes it difficult for students to combine theoretical knowledge with practice, which limits the cultivation of students' comprehensive quality and ability.

(3) The lack of experiential learning

The lack of experiential learning in the research curriculum design of Hainan Tropical Rainforest National Park is also one of the main problems at present:

Lack of practical opportunities. Students have no chance to participate in practical activities in person, and can't deepen their understanding and mastery of knowledge through practical activities. In addition, the lack of practical opportunities also makes it difficult for students to combine theoretical knowledge with practice, which limits the cultivation of students' practical ability and comprehensive quality.

Lack of practical guidance. In practice, the lack of professional teachers' guidance makes students unable to give full play to their abilities and potentials in practice. This not only affects the practical effect, but also may reduce students' interest and participation in practical activities.

To sum up, the main problems existing in the research curriculum design of Hainan Rainforest National Park are the lack of deep integration between disciplines, the disconnection between curriculum content and actual needs, and the lack of experiential learning. These problems limit the all-round development of students and affect the realization of the design objectives of research courses. Therefore, in view of these problems, it is needed to put forward corresponding improvement strategies in order to better improve the design of research courses and improve students' comprehensive quality and ability.

4. The improvement strategy of Hainan Tropical Rainforest National Park research course design

(1) Strengthen interdisciplinary integration

In order to solve the problem of lack of deep integration between disciplines in the research curriculum design of Hainan Tropical Rainforest National Park, the following measures can be taken:

Introduce diversified academic perspectives. To foster collaboration, it is important to encourage exchanges and cooperation between experts and teachers in different disciplines. Together, they can jointly design and develop research courses. By introducing diversified academic perspectives, students can form a comprehensive knowledge system and improve their comprehensive thinking ability.

Establish an interdisciplinary team. It established an interdisciplinary team composed of teachers

from various disciplines who will jointly assume responsibility for the design and implementation of research courses. This can promote the communication and integration between different disciplines, break down discipline barriers and improve teaching quality.

Encourage inter-disciplinary cooperation and exchanges. It institutionalized the organization of regular academic seminars and workshops to provide opportunities for teachers and students in different disciplines to communicate and cooperate. By sharing experiences and viewpoints, we can stimulate interdisciplinary thinking and innovation, and promote the sharing and popularization of academic achievements.

(2) Strengthen the connection between course content and practice.

In order to solve the problem that the course content is out of line with the actual demand in the research course design of Hainan Tropical Rainforest National Park, the following measures can be taken:

Update the course content. According to the actual demand and the development of the times, the content of the research course is updated and optimized. We can introduce the latest research results and practical experience, pay attention to case analysis and solve practical problems, so as to enhance the practical application value of the course.

Introduce practical cases. Incorporate practical cases into the course content to help students understand the practical application value of knowledge. Representative cases can be selected for analysis and discussion, so as to guide students to use what they have learned to solve practical problems and improve their practical ability and comprehensive quality.

Carry out practical activities. Instructors should organize practical activities and facilitate truthful investigations and experiments, allowing students the opportunity to participate actively. Through practical activities, students can deepen their understanding and mastery of knowledge and promote the combination of theory and practice. See Figure 1 for the teaching design model of research courses.

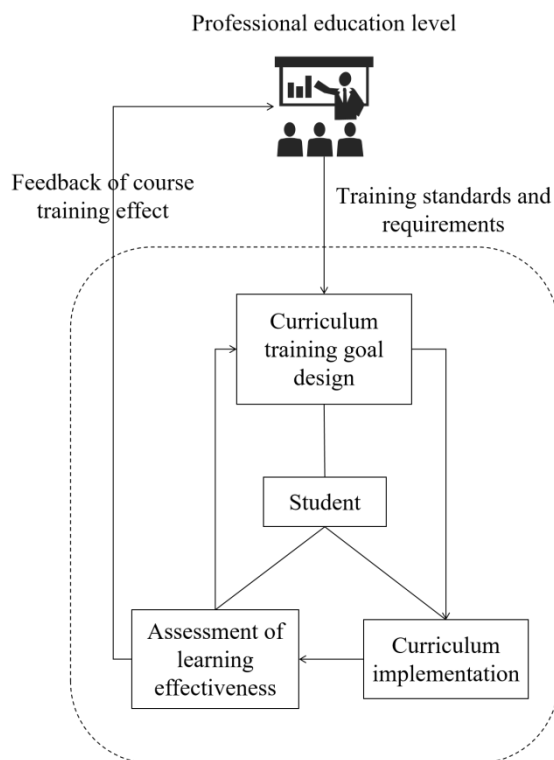


Figure 1 Teaching design model of research courses

(3) Increase experiential learning

In order to solve the lack of experiential learning in the research curriculum design of Hainan Tropical Rainforest National Park, the following measures can be taken:

Organize field trips. We should arrange students to go to Hainan Rainforest National Park for a field trip, allowing them to learn more about the natural environment and ecosystem while

experiencing the charm of nature for themselves. This can enhance students' perceptual knowledge and improve students' interest and participation in learning.

Conduct experimental analysis. Set up experimental analysis link, so that students can deepen their understanding and mastery of knowledge through experimental analysis. Students can be organized to collect samples, conduct data analysis and other practical activities to cultivate their practical ability and comprehensive quality.

Strengthen practical guidance. In practice, we need the guidance of professional teachers to help students operate correctly and think deeply. Experts or practitioners in related fields can be invited as practical instructors to provide professional guidance and suggestions to ensure the effectiveness and safety of practical activities. See Figure 2 for the relationship between research assessment systems.

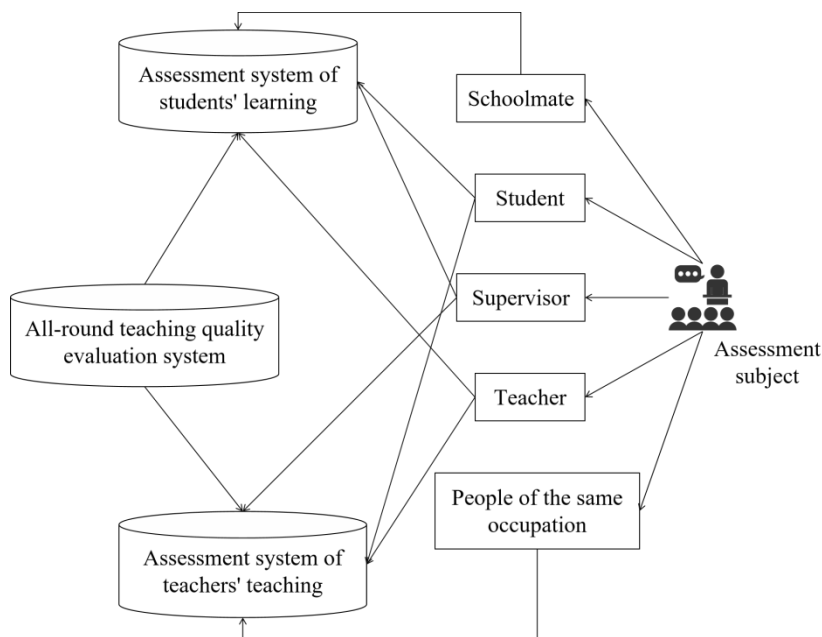


Figure 2 Relationship between research assessment systems

To sum up, in view of the problems existing in the research curriculum design of Hainan Rainforest National Park, this article puts forward some improvement strategies, such as strengthening interdisciplinary integration, strengthening the connection between curriculum content and practice, and increasing experiential learning links. The implementation of these strategies needs the support and cooperation of relevant departments and personnel to ensure the effectiveness and feasibility of the research curriculum design. Through the implementation of the improvement strategy, we can better improve the design of research courses, improve students' comprehensive quality and ability, and provide useful reference for future research course design.

5. Conclusions

Hainan Tropical Rainforest National Park has unique natural resources and ecological environment, which provides rich teaching materials and practical opportunities for the design of research courses. However, there are still some problems in the current research curriculum design, such as the lack of deep integration between disciplines, the disconnection between curriculum content and actual needs, and the lack of experiential learning, which need further improvement and perfection. In view of these problems, this article puts forward corresponding improvement strategies, including strengthening interdisciplinary integration, strengthening the connection between curriculum content and practice, and increasing experiential learning links. The implementation of these strategies needs the support and cooperation of relevant departments and personnel to ensure the effectiveness and feasibility of the research curriculum design. By implementing these improvement strategies, we can better improve the design of research courses and improve students' comprehensive quality and ability. Moreover, it also helps to promote the

exchange and integration between different disciplines and promote the development and innovation in related fields. For the future research curriculum design, it is needed to explore and practice constantly, and combine the educational concept with the actual situation in order to cultivate more high-quality talents with innovative consciousness and practical ability.

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