

# The Practice and the Reflection of Network-Assistance Teaching based on the Platform of Blackboard

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**Abstract**—This paper takes the graduates course “Theories and Methods of Environmental Geography” as an example, and carries out the practice on network assistant teaching based on the platform of blackboard. It objectively analyzes and summarizes the key results and innovations during practical process, discusses the existing problems and offers some relative suggestions in accordance with the current teaching situation, and expects to provide some references for other network course construction.

**Index Terms**—graduates course, network assistant teaching, Practice, the platform of blackboard.

## I. INTRODUCTION

Under the background of information age, information technology is deeply combined with education. Education informationization has become an inevitable trend. The information technology tools provide unlimited possibilities for students to self-learning. At the same time, students have access to getting and processing information, as well as communicating. How to make information technology be better applied to teaching education becomes one of the key research emphasis.

Currently, the popular network platform of Blackboard (follow referred to as BB platform) [1] owns abundant multimedia datum. It not only provides a large number of visual materials for students, but also provides the communicate conditions between teachers and students. Besides, BB platform plays an active role in improving the students’ interest of courses “the theory and method of Environmental Geography”, self-learning and practical abilities, bringing up their awareness of innovation and perfecting the knowledge.

This study mainly in support of BB platform, discusses the practice of network teaching on the graduate course “the theory and method of Environmental Geography”. The significance of carrying out network-assistance teaching based on BB platform is to improve the level of informative of the Environmental science and engineering teaching, to promote the comprehensive and highly effective development of network teaching of the major. Contemporary it can lead the research and development for other network courses, and encourage the theoretical research and technical practice of network course platform, explore new teaching ways and methods fit for Environmental science and engineering.

## II. PRACTICE OF NETWORK-ASSISTANCE TEACHING BASED ON THE PLATFORM OF BLACKBOARD

The opportunity to interact between the teacher and the student as well as the discussion among the student is few in the previous teaching. The network teaching platform based on the BB is not only to strengthen and complement the traditional teaching way, but also have its innovative that putting the “collaborative learning” as an important goal of teaching into the process of teaching and learning, the teacher could know the need of students in the process of teaching at any time, and students could discuss with the teacher and other students in the process of learning, which reflect the “student-centered” teaching philosophy, and built the co-operative learning environment to students learn and explore by themselves.

Network courses have the features of open, individuality, interaction and usability [2]. The authors introduce BB platform to the graduate teaching to build “the theory and method of Environmental Geography” network course, and to make teaching contents visualized, concrete and logical, and to make students understand and master the knowledge better, and also make teachers fulfill teaching mission better within the allotted time. Meanwhile, the authors do in-depth research to make it to be universal.

Besides using traditional teaching methods such as lecturing, discussing, students’ participation, etc, teaching of “the theory and method of Environmental Geography” course specially develops research teaching and network teaching model, to make up the insufficiency of traditional teaching method. The specific contents are as following:

### A. Construct teaching mode

Take “problem-oriented” as a starting point, by means of research teaching method, to construct teaching mode about learning. That means by defining several questions related to teaching content, let students finish teaching contents through investigating literature, self-design, self-think, to make teaching content, teaching method and teaching targets to be in a positively active state.

### B. Build network course model

with the help of the Northeast Normal University BB platform to carry on the second-development, the authors build “the theory and method of Environmental Geography” network course model, including course information, course documentation, course system, research discussion, research display, extracurricular books, external connect, to cultivate students’ independent leaning capacity under

the network environment. Teaching platform cooperates teachers with finishing network teaching, learning platform cooperates students with online learning. Moreover, network teaching platform includes BBS forum, sending and receiving messages, and so members online can timely contact with each other and solve problems in time, which is helpful to simulate students' interest, improve their reasoning ability and letter expressing ability.

*C. Explore the interactive reflects and implementation results of research teaching and network teaching by questionnaire*

This practice mainly aims at specialty courses, using BB platform to build network teaching method, to continuously develop and improve teaching model under network environment, and to transform students passively accepting learning style into active learning, to develop students' creative abilities, and to improve the quality of whole education.

Teaching effect evaluation is an important part of teaching activities. BB platform provides tools like courses statistics, test manager, scorebook to view and evaluate teaching effect online. In this practice, combined with the characteristic of "the theory and method of Environmental Geography" course, the authors provide items to test, use evaluation system with the system self-taking to statistic student's scores, so that teachers can know the degree of commanding of the class for students, in the meantime, students can know their own learning status, find out the disadvantages and actively improve it.

### III. REFLECTION OF NETWORK-ASSISTANCE TEACHING PRACTICE BASED ON THE PLATFORM OF BLACKBOARD

Using the network platform and digital resource, by way of collecting, exploring, discovering, creating, revealing resources for autonomous learning, is beneficial to promote the enthusiasm and initiatives of student's learning efficiently in full scale, and to simulate students' learning need and interest. And also it helps with students' initiative exploring, actively detect and cultivating the creative professionals. Through teaching under network environment, it effectively suffices the inadequacy of traditional teaching.

On the whole, this network course mainly has made innovations and breaking-through in the following three aspects.

*A. Large teaching resources amounts*

Teaching resources mainly include multimedia material, multimedia courseware, network course, teaching cases, test questions, VOD, etc. Also include a series of resource such as BBS forum, online reference, and course resource library. Among those, some are teaching materials published by teachers, and some are e-works or thesis by students. In presentation, teaching resources can be expressed by purely letter form, also can be expressed by multimedia form, which is combined science with interest.

*B. Improve the teaching efficiency and teaching quality*

"the theory and method of Environmental Geography" course under network environment can offer service between teachers and students, human-machine stereo interaction teaching service, can offer comprehensive sensory activation in picture, word, sound and image forms. Also, it can organize and manage subject knowledge and vari-

ous teaching information with the mode of hypertext and hyperlink, and provide large-scale environmental science and natural geography knowledge base and databases accords with the students' thinking habit and memory characters. Through building course website, it can finish the tasks that cannot accomplish in classroom teaching, improve the teaching efficiency and teaching quality.

*C. Mobilize students to learn actively*

The combination of classroom teaching and network teaching can fully mobilize students to learn actively. For example, learning the content of strategic environmental assessment (SEA) and cleaner production, students are asked to search literature material at home and abroad, the research progress and implementation at home and abroad, and to make it into teaching courseware, to explain in classroom teaching, and then place the videos on the platform to share, which helps students understand and grasp the teaching content, and increase students' learning interest.

### IV. PROBLEMS AND PROPOSES

The problems and recommendations on the practice of taking "the Theory and Method on the Environmental Geography" based on the BB platform into the network-assisted teaching are as follows.

*A. It has a high demand on the students' initiative to study*

As the statistics show, the students with high initiative could login the platform up to hundreds of times in a term, however, some students nearly never login it. It is an important improvement direction that how to motivate students to study by themselves to BB online course.

*B. It's hard to reflect the characteristics of the course*

While take use of the BB platform to build the online courses on "the Theory and Method on the Environmental Geography", it could upload all kinds of animations and pictures, but it couldn't reflect the characteristics of the subjects enough, the pertinence is not strong and the degree of freedom on the platform's building is restricted because of fixed framework.

*C. It takes teachers' much time to build the platform*

It will take teachers' much spare time to build the platform because the steps to build the environmental geography curriculum based on BB network teaching platform are relatively complicated. It also suggests that the university employ network assistant to assist teachers in the teaching activities across the implementation process although our library build and use the teachers' platform actively.

*D. It gives full play to the teachers' leading role*

The students who are in poor self-control are influenced by the adverse factors easily and appear the "Information Trek" problem easily when they are using the network platform [3]. Therefore, the teachers should play full the leading role, make the reasonable teaching strategies, detail the learning tasks, strengthen the teaching monitoring, direct the students timely when they are faced with difficulties and problems in the learning process, and guide students to learn how to accept differences and cooperation to ensure students' learning affect [4].

### E. There are some functional defects on BB platform.

The major problems in the actual process of building the course are as follows [5].

①The text editing features and compatibility of the BB platform are relatively poor.

The BB platform provides too few text editing options to satisfy students' demand. If you take the documentation that has been edited well by word processing software directly to copy and paste into BB platform, the format will change, even lead to messy codes.

②Sometimes, the system is unstable.

BB system is not very stable, for example, the course content that has upload to the system can't display all the time, what is displayed on the platform may be saw in different time even the content is all displayed. In addition, sometimes, BB system can't login normal. Therefore, it's necessary to improve and expand the capabilities of BB network platform further, utilize text, graphics, audio, video and other forms of media comprehensive, enhance the communication features of the platform, focus on interactivity of the platform and add some interactive presentations [6].

### F. It provides a wide range of learning resources for the users

The teacher should organize information resources combined teaching experience and working practices based on course features, as well as encourage students to join in the forum building based on what have they learned in the process of their learning and group discussions, and this will not only to enrich the community resources but also increase interactivity courses [7].

## V. CONCLUSION

It is of great significance to promote the reform of teaching mode and the construction of curriculum, improve the quality of classroom teaching, cultivate the students' innovation spirit and practice ability, and cultivate high-level innovative talents as well as improve the teaching level and teaching efficiency by developing the network teaching practice on "the Theory and Method on the Environmental Geography" of the postgraduate based on the BB platform. On one hand, it enriches the knowledge acquisition methods and approaches to the students'; on the other hand, it also supplies with and expands the classroom teaching content beneficially.

The teaching content of the course on environmental geography is in a large range and in abundant of content. Therefore, it is not only need to master the content which the teacher teaches in the classroom, but also students mark the knowledge they don't understand well to make up for the inadequacy of brief classroom knowledge after class. The powerful BB network teaching platform is a combination of the resource sharing platform and curriculum management system by the internet, its essence is a

virtual learning environment, it is an extension of the traditional classroom in time and space which can make teachers to practice the new teaching idea better.

It integrate the existing teaching resources, and guide students to use the network, to learn effectively and reasonably from their learning demands, set up teaching activities scientifically, teach students to learn by themselves by the constructing and practicing to the network courses on "the Theory and Method on the Environmental Geography". which not only build an interactive, open, positive, scientific and efficient teaching mechanism to satisfy the needs of teaching to the last degree, but also promote the teaching reform and improve the teaching effect. However, it should improve and perfect some modules of the network course further due to the conditions of the time and technology to play its role full and be the good example to other courses.

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