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Design the Learning Activity Based on the Network Platform

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Abstract: At present, the network education on the design of the learning activities and learning environment is not enough, lack of emotional communication between teachers and students of online learning, the lack of benefit students autonomous learning, cooperative learning environment creation. So the author combines the study of literature and his own thinking, trying to network learning activities as the center, according to different learning content, combined with different information processing method for all parts of the whole learning activity design, gives a feasible method.

Keywords The network distance education; Design the learning activities

INTRODUCTION

In network education, to promote education informationization, is one of the education reform and development direction of the 21st century[1]. With technology, ideas and means of innovation, the network education to break the limit of time, space, gives the education new contents, ideas and methods, the diversity and richness of the information resources with fast speed, and ease of retrieval is incomparable traditional teaching environment. But in terms of the present status of the network course in China, the network education to the design of the learning activities and learning environment is not enough, lack of emotional communication between teachers and students of online learning, the lack of benefit students autonomous learning, cooperative learning environment creation. These problems show that engaged in network teaching of teachers' teaching design ability needs to improve. Therefore, network teaching design research is very urgent and meaningful.

This paper analyzes the current domestic and foreign research present situation and characteristics of the network course, from the perspective of the combination of theory and practice, put forward the principle of web-based learning activity design, and constructed the content of the web-based learning activity design system, based on the goal of learning activities, tasks, platform, resources, evaluation of the design.

THE RESEARCH STATUS AT HOME AND ABROAD

Domestic network curriculum development is rapid, the overall level also in increased year by year, but in the course of design and development compared with the foreign network course still has certain gap. Through analyzing a large number of documents, the author found that Chinese and foreign network curriculum design have some difference in the following aspects:

(1) The course learning plan: foreign network curriculum mostly provides learners with specific feasible study plan, can very good supervise and urge learners, improve the learning effect, and domestic curriculum schedule is more macro, sweeping, supervision effect is better than the former [1];

(2) The teaching content to present aspects: foreign network course interactivity is relatively strong, illustrated, audio, focused; Domestic teaching content part mainly in the form of static web pages to show [2]-[5];

(3) Learning path design aspects: provide a variety of paths for learners to choose abroad, through constant tip the teacher's guide to play properly. Domestic usually only provides the only path, and the course navigation design quality will directly affect the students' learning effect;

(4)Feedback system implementation: relatively flexible diversified foreign feedback system, students can have a chance to try many times. Domestic often directly give the right answer, is not conducive to stimulate students' learning motivation; Therefore,

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the design of network course to the depth and breadth on two dimensions interaction design[6]-[8].

DEMAND ANALYSIS

(1)The early stage of the analysis. Through the analysis of a large number of documents, now most of the network course are learning content as the center, in other words is centered on the teaching material, its common form is not unified, positioning and basic requirements is not clear, teaching design level is not high. This kind of network learning model lack of openness and flexibility of network learning, difficult to arouse the enthusiasm of learners, and because of the lack of effective guidance, lead to many learners easily confused, disoriented, this greatly reduces the learners' learning efficiency, a large number of learning resources are idle.

1)Analysis of characteristics of learners. In the process of learning activity design, learner characteristics analysis phase are often ignored or even ignored, many designers do not research and development on this stage, think this stage dispensable, but its subject is to design the learning activities based on the network learners, its analysis results for the whole design has a significant role. Extremely key is, the network learning process must be combined with the learner's individual characteristics, to the benign interaction with learners, to achieve the best learning effect. The main content of the analysis of characteristics of learners:
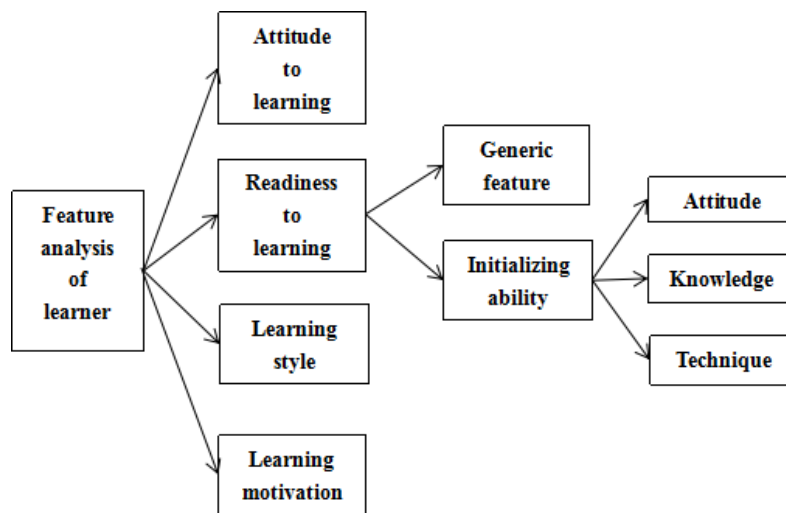

Figure 1 Learner characteristics analysis diagram

2) Learning content analysis. Based on the analysis of the characteristics of students, needs and learning style and make sure good curriculum syllabus, it need to be further determine the content of the web-based learning activities. The teaching content should be scientific, systemic and advanced nature, comply with the internal logic of this course system and the rule of the students' cognitive development. In general, the content of each teaching unit has have learning goals, teaching contents, workbooks, test, and the reference of teaching resources and learning schedule and method statement. Content of style can choose text and background information support, dubbing, key teacher animation performance and small screen in the process of teaching video broadcast, etc. Design should try to join the interaction of the course content, stimulate students' active participation in the process of learning and positive thinking.

3) The teaching goal analysis. Many current network curriculum teaching goal are divided according to the school for, some extent, there exist certain irrationality. Web-based learning is a free and open learning activities, learners can choose according to their own actual situation of flexible learning time and learning content, control their own learning process, so the author thinks that, based on the network learning activities cannot be divided according to the school teaching goal, the general teaching objectives should be divided into a series of small target, target with learners finish points to judge that whether learners to achieve the overall learning objectives, rather than in a simple class division to determine whether to complete the teaching goal.
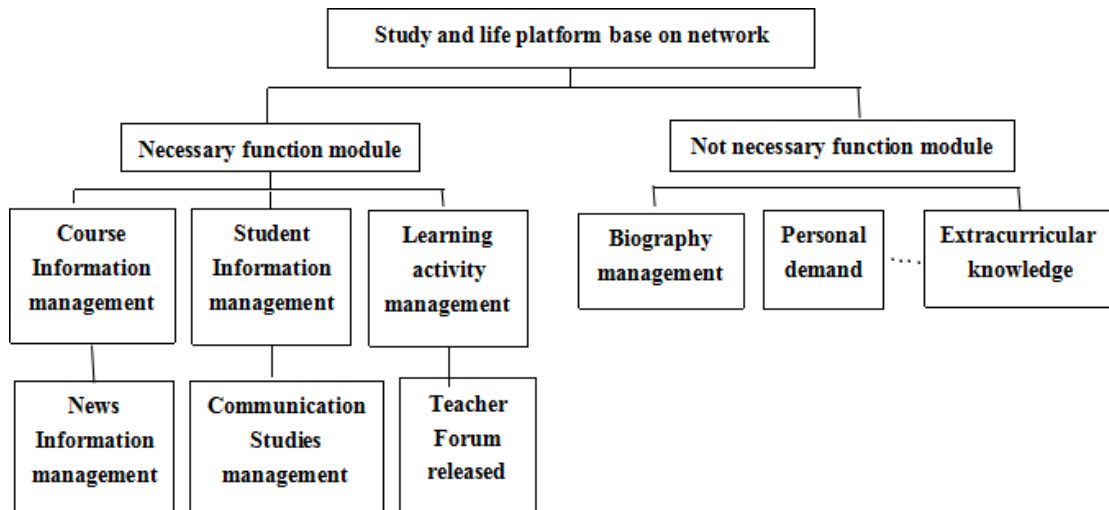
(2)The functional requirements analysis

Figure 2   The functional requirements analysis

THE DESIGN PHASE

(1) Basic flow chart: under normal circumstances, a complete web-based learning activities should include start, preparation, operation and evaluation phase, namely:

1) Start-up stage, the main start-up phase of the activity is told that the task of learning activities and planning, laying learning situations;

2) Preparation stage mainly includes several aspects: (1) suggested learning process: in order to do that to protect the students' autonomous learning enthusiasm, and cultivate their ability of autonomous learning, teachers tend to be more inclined to "advice" learning process, on the one hand to the strategies and methods to solve the problem in this way the migration to the students, on the other hand will be more cumulative to the process of the students. (2) the tutorial before knowledge: the teacher wants to offer certain about the present situation of students'

knowledge and ability of diagnosis, and select those who truly deserves to impart knowledge, in order to make learners to focus on the important knowledge areas, and with independent exploration space for students. (3) for learning resources, in order to promote the meaning construction of students, teachers need to provide learning resources for students, it not only includes to provide learning materials to learners, also means for students research, practice, experience and opportunity.

3) Operation phases: (1) determine the learning activity of sub activity sequences of operations; (2) a clear division of each child activities of teachers and learners; (3) arrange the organization form of each activity. Organizational forms including autonomous learning and cooperative learning group activities, take into account the division of Labour cooperation study situation; (4) each activity schedule, request and the deadline to complete the task; Each activity results form (5) regulations.
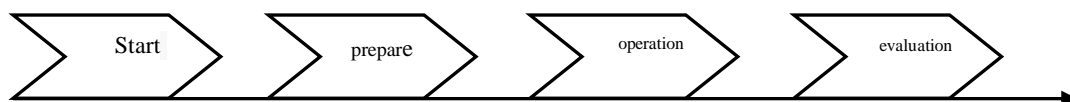

Figure 3   Learning activity diagram

4) Evaluation phase: learning evaluation is a very important part of the network learning activity design, through the learning evaluation can effectively monitor the network course of study; Can improve teaching, to adjust the learner's behavior, make learners to sustainable development; To assess the learner, comprehensively summarizes the teaching and learning.

(2)Based on the network learning resource design. The most distinguishing feature of the Internet is a wide range of resources sharing, but due to the separation of time and space between teachers and

students makes teaching resources students directly and the main means of learning, therefore in the process of the design of learning activity, attention should be paid to provide rich information resources for learners, emphasizes using various learning resources to support teaching. Learning resources from the situation on the learning resources can be divided into the school situation and social situation of learning resources, and each situation of learning resources can be divided into four types of personnel, materials, tools, environment form：

Table 1 Based on the network learning resources design table

situation / form	The situation of learning resources	Social contexts of learning resources
personnel	Teachers, staff members, administrators...	Parents, academics, consultants and experts...
data	Textbooks and reference books, multimedia teaching resources...	Exhibition, business CARDS, network resources...
tool	The blackboard, teaching AIDS, computer, experimental instrument...	Camera, camera...
environment	Library, internship sites, the playground, the classroom...	Museum, site, scenery...

In the process of design network learning resources according to the following basic principles: Teaching resources should be closely related to the course content, to avoid some has nothing to do with the objective of resource distract students' attention and participation; Curriculum resources requires a good organizational structure, so that students can quickly positioning to the required curriculum resources; Content of curriculum resources should diversity and independence, in order to meet the demand of learners with different levels of cognition; Message volume and form of teaching resources should be rich, so that it can stimulate learners' interest[4]-[6].

WEB-BASED LEARNING ACTIVITY DESIGN OF EVALUATION

Evaluation is a critical step in any learning activities, need to achieve the goal of learning activities through the evaluation, evaluation is an important feedback learners to participate in learning activities. Here refers to the activity evaluation of learners perform the learning activity of evaluation, rather than design quality evaluation for learning activities. Learning evaluation is a very important part of the network learning activity design, through the learning evaluation can effectively monitor the network course of study; Can improve teaching, to adjust the learner's behavior, make learners to sustainable development; To assess the learner, comprehensively summarizes the teaching and learning. Evaluation in different position in the traditional teaching and information technology teaching.

In the process of learning, sometimes do not need teachers to assess for organization, students most of the time can be done using the assessment tools provided by the teachers' self assessment, can even design evaluation tool. Evaluation of design of web-based learning activity should follow the principle:

(1)Before the activity in the standard of evaluation. Learning process design emphasizes the learners as the center, students with higher initiative and independence. No evaluation process to participate in the learning process will make students face a higher risk of lost. A good evaluation scheme can play a role of navigation in the whole learning process. Therefore, in the design of learning activity, the teacher should have the identity of the evaluator to thinking how can I know the student has reached the expected results and standards.

(2)As much as you can give students self-evaluation and mutual opportunities. Already has an indelible value evaluation, it can help students achieve learning experience, let the students the knowledge, skills, improved. To develop the students' ability of evaluation, students need to have a evaluation standard, make it through the evaluation of the self, the schoolmate and teacher's evaluation to deepen understanding of themselves, strengthen the consciousness of learning. Therefore, as long as there is an opportunity, we should try to encourage students to self-evaluation and mutual, and make them responsible for the process and quality evaluation.

(3)Pay attention to through the selection of evaluation and the collection resources.

In the process of learning, learning content is open, dynamic, in the process requires filtered inappropriate resource. These resources include the original learning content, students created by learning resources, students found by learning resources. In the process of the whole learning activity design, through the reasonable evaluation scheme to help the teachers and students should be paid attention to for aspects of resources, to ensure the virtuous cycle of learning content.

CONCLUSION

Web-based learning activity design is a combination of computer technology and teaching, is the development of the Internet and appear a new learning model. Origin and development of web-based learning activities will completely change the traditional learning mode, content, means and methods, will eventually lead to the whole education thought, education theory, even the fundamental change of education system. In particular, web-based learning activities can stimulate students' interest in learning, promote students' subjective initiative;

Knowledge acquisition and maintain; Can realize the teaching information is the most effective organization and management. Therefore, comprehensive research web-based learning activity design, and form a complete set of system methodology, for rational and orderly conduct network education is very necessary.

REFERENCE

[1] Li Xin. Web-based learning activity design and case studies [J]. East China normal university graduate master's degree thesis.2005.

[2] Zhou Jianmei, Liu Chengxin. Network course of interaction design and control strategy[J]. China audio-visual education, 2003 (10).

[3] Zheng Zhu.Based on the teaching platform of the learning activity design [J]. Information security and technology.2011(04): 87-90.

[4] Liu Wei. The theory of network course of communication strategy[J]. Shandong electric power college journals,2005

[5] Liu Yan. The theory of network course of communication strategy[J]. China audio-visual education,2002

[6] Gao Wenzhu. Situated cognition in the role of incentive and evaluation, Modern education technology research institute of Beijing normal university,2011.

[7] Run Hanbing. The informationization teaching evaluation gauge utility, Education science press, Published in September 2003

[8] Wei Zhicheng. The theory of Chinese teaching situation, Guangxi education press,1996.

[9] Zhang Hua. The curriculum and teaching theory, Shanghai education press,2000.

[10] Xie Pan. For digital learning environment to build web service composition method research [D]. Northeast normal university to realize ten papers,2009.

[11] Zhao Houfu, Zhu Zhiting ,Wu Ronghe. The trend of the development of the digital learning technology standards framework and the suggestion [J]. China's remote education,2010(l),75.

[12] He Kehang. Our country present situation and countermeasures of construction of digital learning resources [J]. Electrochemical education research,2009