

A Study on U-learning Mode Based on Moodle

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Abstract: With the development and popularity of internet, the needs of U-learning based on internet are widely concerned. Higher vocational college is stepping into the era of U-learning. A study on Moodle –based curriculum development and U-learning mode favors the student-centered learning. It is an effective way to improve the quality of personnel training and the inevitable trend of teaching reform and development of vocational education in the era of online learning. It will have great influence on higher vocational education.

Introduction

According to the data issued on the 36th CNNIC statistical reports in 2015 of China internet development, our internet user raises to 6.68 billion and internet penetration rate is up to 48.8% by Jun. 2015. However, the investigation to access equipment shows mobile-internet netizen in China making up 88.9 which increase 3.1 percent over 2014 and keeps increasing. The tendency transferring from computer to mobile is obvious. Meanwhile the needs for moving-learning in the network environment are gradually are more than traditional network-learning. So U-learning is more and more concerned and has a great impact on the mode of traditional learning. Higher vocational colleges are moving into the era of U-learning. In technology, the needs for both mobile learning and online learning has greatly increased and exceeded the need for traditional online learning. Moodle is a new mode of online course management and is one of the most popular course management systems in the world. It has been the most favorite tool of digital learning platform for students by educators all over the world. This paper is to explore the U-learning mode based on Moodle in order to improve the level of information technology serving higher vocational education.

The problem of mode of traditional information teaching

Teaching. In the era of education information, teachers keep developing teaching resource on internet and do information teaching. But the mode of traditional information teaching cannot avoid “teaching”, the design of teaching environment and learning strategies have not made a break in teacher-oriented teaching and the teaching mode has not shown student-oriented. Learning resource gradually develops the teaching tool of teachers and most online learning in the network environment develops the network version of traditional course teaching. The author has done a questionnaire survey about online learning and retrieved 228 questionnaires. The statistics data shows: 71 students surf online spent more than 2 hours a day; 16 students learnt online; 68 students would like to learn via mobile; 73 students thought they wouldn’t learnt online without mobile learning platform. So to study U-learning mode and to build the learning platform for students and course resource are the keys to information teaching reform of teachers.

Students. According to the data issued on the 36th CNNIC statistical reports in 2015 of China internet development, middle school students account for 24.6 percent in the netizen and self-employed workers 22.3. For the self-access and self-control ability being relatively weak and allure of multifarious network application, students are easily lost and spend more time and energy. Some students have even been addicted in cyber games and have neglected their work. They are hotspots that vocational education information should pay urgent attention to and make studies on.

It is strengthening guidance and stimulating internal drive of students' learning that can change their feeling, attitude and values.

Resource. According to the statistics on the resource website of national quality curriculum, though the national quality curriculum online of high vocational level add up to 1041 now, the reality is low clicking rate, low degree of students engagement, low maintenance rate of teaching team. The online courses are almost in silent state. The key factor causing the state is unreasonable course designs based on teacher-oriented teaching, focusing on teaching rather than learning, focusing on resource rather than students. The course structures are inflexible and course contents are basically the transfer of classroom teaching, being lack of interaction, interests and the needs for individualization of learning. The courses cannot stimulate students' learning interests and motivation, causing great waste of resource.

Maintenance. Now some colleges use resource platforms, online teaching platforms such as courses sharing quality resource, and they are based on commercial version of finished software platform. Although the pre-development and after sale service are given better supports, many problems appear, such as expensive price, high cost of system updating and maintenance. As commercial version, its source codes cannot be open, can be lack of pertinence and particularity, and cannot autonomously realize the second development, which limit the further development of information teaching.

But Moodle is an open free system and offers lots of plug-in functions. It is satisfied the requirement of different users and easily implement the second development. The curriculum development and the study on U-learning modes based on Moodle will realize the student-oriented learning and will be the effective approach to solve the above problems and to improve quality of personnel training.

A Study on U-learning mode based on Moodle

Features of U-learning mode. U-learning refers to the learning whenever and wherever possible, which is a learning activity offered to anybody using information techniques via intelligent mobile terminal. U-learning aims at providing students with an instant and intelligent teaching and learning environment at any time and places. Students, in accordance with their individual demand, can access learning materials and information at all times, and can learn in various ways. Differing from the traditional learning in class, U-learning is always called informal learning. U-learning in essence shows off the educational idea of people oriented. Under U-learning, learning is a spontaneous behavior and information giving and transferring is a self-directed process based on learning requirement. The features of U-learning are:

Information interactivity: the transfer of large amount of information and strong information interactivity are the features of U-learning. In the era of information, knowledge keeps bursting so that students can perform information interaction and learning interaction in synchronous procedures based on common interests, focus, aims and skills, etc. And students can acquire knowledge and inspiration through their communication to stimulate and facilitate their learning. It is the value and significance of learning.

Process interesting: U-learning gives to students the shortcut of more knowledge acquiring and high-level learning. U-learning uses students' dependence on intelligent mobile and incorporate learning into students' life, using intelligent mobile as auxiliary tool for learning, improve interests.

Channel diversity: In the era of network, education information optimizes the way of information access and the development of learning channels. It incorporates modern education technology and various learning methods and supplements various learning methods. Under the wireless campus network, intelligent mobile as carrier broaden students' self-education channel.

Educational flexibility: U-learning is a kind of learning state, and description of a new learning mode offered in modern society. U-learning can provide learners better and easier learning condition and make teaching and learning not limited by area, time and self-condition of learners so that education flexibility can be realized via information technology. Under U-learning mode,

learners can freely choose learning content on purpose in accordance with their individual needs and acquire required learning information and support. Thus they can make a learning choice and arrangement more actively so as to implement learning tasks in the relax mood and improve learning effect.

Resource sharing: With the concept of multi-agent, cooperative and shared resource construction, U-learning mode realizes reconstruction of learning resource in the network environment.

U-learning platform based on Moodle. Moodle is Open course management system (CMS) and a new mode of network course management. It has been one of the most popular course management in the world.

Concept of course design based on Moodle. Moodle has powerful website management and network teaching function. It mixes modern information technology and course teaching together and builds a new and colorful teaching environment which students can get in, easily acquire learning resource, learn and communicate using various tools. Moodle is designed at education training. The module of independent learning and cooperative learning is consciously set up in the concept of course design so it easily realize learning online and teacher-student interaction, realize the independent and cooperative learning.

Organization structure of U-learning platform based on Moodle. According to the teaching features in higher vocational colleges, the author developed U-learning platform based on Moodle, the organization structure of which includes:

Themes of design teaching: Such as teacher profiles, course brief introduction, course standard, teaching plans, lesson plans, exercise, teaching resource, teaching practice, etc. Class Learning Themes includes wiki、assignment submission、discussion、teaching resource browsing, etc.

Registration of teachers and students: Real-name system is use when registering, reviewed by administrator. It is easily administrated and examined.

Release of course resource: Each course sets up an independent space for storing resource where teachers can easily upload teaching resource.

Wiki: To release valued information to groups or to discuss the interested topics with classmates. Teachers can release teaching and instructing information on his/her Wiki platform.

Assignment submitted: Students submit their assignment to the server. Teachers can correct in time and know if students revise their reviewed assignment.

Discussion: Teachers can answer questions to online courses and students can put their idea.

Analysis of keeping track of learning records: Teachers can look up students' learning reports and participation in certain module, adjust teaching strategy and improve teaching efficiency and quality.

Practical significance and spreading value of U-learning mode based on Moodle. The popularization of network and mobile devices provides students good carriers for U-learning, enables high vocational education go into intelligent teaching environment. Learning being spontaneous behavior merges into students' life and leads students' learning ways in high vocational colleges to change and has practical significance and spreading value.

Favoring to give full play to students' subjective initiative and realizing cultivation of creative talents. U-learning is an independency learning mode based on questions and focusing on learning tasks, setting up good environment for cultivating students' exploration spirit and innovative ability. And it can build students' confidence and a sense of achievement.

The construction of U-learning platform based on Moodle improving teaching effects. The functions and features of online platform based on Moodle break the bounds of traditional classroom teaching, bring students education environment learning whenever and wherever possible, and meet students' needs for learning and ability development.

Implementing dynamic change of resource easily, realizing group building and sharing. In the information age, the speed of knowledge updating gets faster and faster. Learning resource and vocational courses rapidly update with the era development and job requirements of industry enterprise, otherwise it cannot adapt to the practical and instant learning demands of students.

U-learning mode enables teachers, students, technicians and social personnel engagement in resource updating and constructing.

Summary

Overall, the theory of U-learning has been transferred the concept of mobile digital learning with the use of wireless campus network and the development of Intelligent mobile application. The U-learning platform based on Moodle is the inevitable trend of teaching reform and development of vocational education in the era of internet learning and it will have a great influence on higher vocational education.

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